


Rapport

 J
Bedrijfsloods Parlevliet Agro, Frederikaweg 2, Rilland



supervisie
paraaf:



Projectnr. : 
Berekening : 1 d.d. : 14-12-2023

Project : bedrijfsloods Parlevliet Agro
Frederikaweg 2
Rilland


Onderdeel : Constructieberekening

Berekening in opdracht van :
Hanse BV



Behandelend constructeur en supervisor:



Betreft: Bedrijfsloods Parlevliet Agro, Frederikaweg 2, Rilland
Projectnr.: 
Datum: 14-12-2023

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Berekeningen

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Algemeen

Voorschriften : EUROCODES, EN 1990 t/m EN 1999
Windgebied : II ; Onbebouwd
Gebouwhoogte : 13,50 m; Stuwdruk $P_w = 0,94 \text{ kN/m}^2$
Gebouwtype : Industrieel gebouw 1 of 2 bouwlagen
Ontwerplevensduur klasse : 2 NEN-EN 1990 NB tabel 2.1
Ontwerplevensduur : 15 NEN-EN 1990 NB tabel 2.1
Gevolgklasse : CC1 NEN-EN 1990 NB tabel B1 ($K_{fi} = 0,9$)
Betrouwbaarheidsklasse : RC1 NEN-EN 1990 tabel B2
Montagevoorschrift : geen NEN 1092-2, art. 9.3.1
Supervisioniveau : DSL1 NEN-EN 1990 tabel B4
Inspectieniveau : IL1 NEN-EN 1990 tabel B5
Uitvoeringsklasse : EXC1 NEN-EN 1993 tabel C1
EXC2, bij toepassing van staalkwaliteit S355 of hoger.

Materiaalkwaliteiten (indien in berekening niet anders vermeld.)

| | | | | | |
|-------|----------|------------|---------|--------|-------|
| Staal | : S235 | Bouten | : 8,8 | Ankers | : 4,6 |
| Beton | : C20/25 | Betonstaal | : B500B | | |
| Hout | : C18 | | | | |

Opmerkingen

- De maatvoering in deze berekening is niet bestemd voor uitvoering
- De staalconstructie is **niet** op brandwerendheid gecontroleerd.
- Voor staalkwaliteit S355 geldt de uitvoeringsklasse EXC2 volgens de EN 1998-1.

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 Datum : 14-12-2023

Belasting combinaties NEN-EN 1990

NB tabel NB.3-A1.2(A)-Rekenwaarden voor de belastingen (EQU)(groep A)

Uiterste grenstoestanden voor de stabiliteit

| Blijvende belastingen | | Overheersende Ver.belasting | Veranderlijke belastingen gelijktijdig met de overheersende | | |
|-----------------------|--------------------|--------------------------------|--|--------------------------------|--------|
| Ongunstig | Gunstig | | Belangrijkste | Andere | |
| 1,00 $G_{k,i,sup}$ | 1,00 $G_{k,i,inf}$ | 1,00 $Q_{k,1}$ | | 1,00 $\Psi_{0,i} Q_{k,i(i>1)}$ | (6.10) |

NB tabel NB.4 en NB.5-A1.2(B)-Rekenwaarden voor de belastingen (STR/GEO)(groep B)

Uiterste grenstoestanden voor de sterkte (zonder geotechnische belastingen of grondweerstand)

| Blijvende belastingen | | Overheersende Ver.belasting | Veranderlijke belastingen gelijktijdig met de overheersende | | |
|-----------------------|--------------------|--------------------------------|--|--------------------------------|---------|
| Ongunstig | Gunstig | | Belangrijkste | Andere | |
| 1,22 $G_{k,i,sup}$ | 0,90 $G_{k,i,inf}$ | | 1,35 $\Psi_{0,1} Q_{k,1}$ | 1,35 $\Psi_{0,i} Q_{k,i(i>1)}$ | (6.10a) |
| 1,08 $G_{k,i,sup}$ | 0,90 $G_{k,i,inf}$ | 1,35 $Q_{k,1}$ | | 1,35 $\Psi_{0,i} Q_{k,i(i>1)}$ | (6.10b) |

NB tabel NB.6-A1.2(C)-Rekenwaarden voor de belastingen (STR/GEO)(groep C)

Uiterste grenstoestanden voor de sterkte (met geotechnische belastingen of grondweerstand)

| Blijvende belastingen | | Overheersende Ver.belasting | Veranderlijke belastingen gelijktijdig met de overheersende | | |
|-----------------------|--------------------|--------------------------------|--|--------------------------------|--------|
| Ongunstig | Gunstig | | Belangrijkste | Andere | |
| 1,00 $G_{k,i,sup}$ | 1,00 $G_{k,i,inf}$ | 1,30 $Q_{k,1}$ | | 1,30 $\Psi_{0,i} Q_{k,i(i>1)}$ | (6.10) |

Tabel A1.4-Rekenwaarden voor de belastingen (BGT)

Bruikbaarheidsgrenstoestanden

| Blijvende belastingen | | Overheersende Ver.belasting | Veranderlijke belastingen gelijktijdig met de overheersende | | |
|-----------------------|--------------------|--------------------------------|--|--------------------------------|--|
| Ongunstig | Gunstig | | Belangrijkste | Andere | |
| 1,00 $G_{k,i,sup}$ | 1,00 $G_{k,i,inf}$ | 1,00 $Q_{k,1}$ | | 1,00 $\Psi_{0,i} Q_{k,i(i>1)}$ | karakteristiek frequent quasi blijvend |
| 1,00 $G_{k,i,sup}$ | 1,00 $G_{k,i,inf}$ | 1,00 $\Psi_{1,1} Q_{k,1}$ | | 1,00 $\Psi_{2,i} Q_{k,i(i>1)}$ | |
| 1,00 $G_{k,i,sup}$ | 1,00 $G_{k,i,inf}$ | 1,00 $\Psi_{2,1} Q_{k,1}$ | | 1,00 $\Psi_{2,i} Q_{k,i(i>1)}$ | |

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Bladzijde: 4

Belastingen daken en vloeren e.d. [kN/m²]

Blijvende belastingen (G)

| Omschrijvingen | Blijvende Belasting | Rustende Belasting | Totaal G _{rep,tot} |
|-------------------------|------------------------|--------------------------|--------------------------------|
| Zonnepanelen | | + 0,15 | = 0,15 |
| Sandwichpaneel dakplaat | 0,25 | + | = 0,25 |
| Hellend dak 15 graden | | G_{tot,1} | = 0,40 |

| Omschrijvingen | Blijvende Belasting | Rustende Belasting | Totaal G _{rep,tot} |
|-------------------------------|------------------------|--------------------------|--------------------------------|
| Betonvloer 200mm | 5,00 | + | = 5,00 |
| Begane grondvloer losse stort | | G_{tot,2} | = 5,00 |

| Omschrijvingen | Blijvende Belasting | Rustende Belasting | Totaal G _{rep,tot} |
|----------------------------------|------------------------|--------------------------|--------------------------------|
| Betonvloer 200 mm | 5,00 | + | = 5,00 |
| Begane grondvloer kistenbewaring | | G_{tot,3} | = 5,00 |

Veranderlijke belastingen (Q)

| | | | | | |
|-----------------|------|----------|------|-----------|---------------------------------|
| Sneeuwbelasting | | | | | |
| Sneeuwbelasting | | | | | |
| Ψ_0 | 0,00 | Ψ_1 | 0,20 | Ψ_2 | 0,00 |
| $Q_{k,1}$ | = | 0,00 kN | | $q_{k,1}$ | = 0,56 |
| | | | | | q_{tot,1} = 0,56 |

| | | | | | |
|------------------------------|------|----------|------|-----------|----------------------------------|
| Categorie E : opslagfuncties | | | | | |
| E1 opslag losse stort | | | | | |
| Ψ_0 | 1,00 | Ψ_1 | 0,90 | Ψ_2 | 0,80 |
| $Q_{k,2}$ | = | 10,00 kN | | $q_{k,2}$ | = 35,00 |
| | | | | | q_{tot,2} = 35,00 |

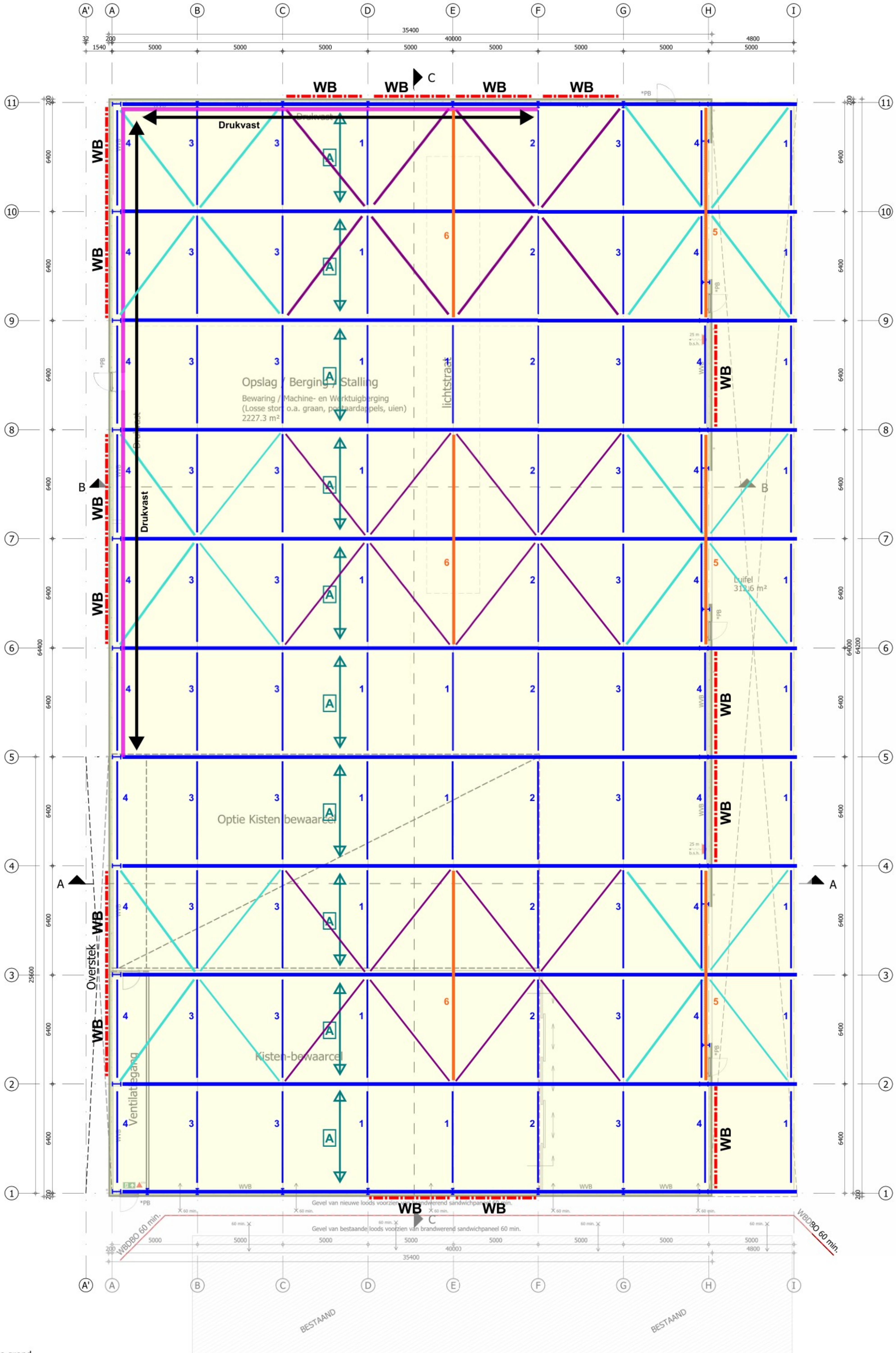
| | | | | | |
|------------------------------|------|----------|------|-----------|----------------------------------|
| Categorie E : opslagfuncties | | | | | |
| E1 opslag kisten | | | | | |
| Ψ_0 | 1,00 | Ψ_1 | 0,90 | Ψ_2 | 0,80 |
| $Q_{k,3}$ | = | 10,00 kN | | $q_{k,3}$ | = 45,00 |
| | | | | | q_{tot,3} = 45,00 |

Belastingen wanden e.d.

Blijvende belastingen (G)

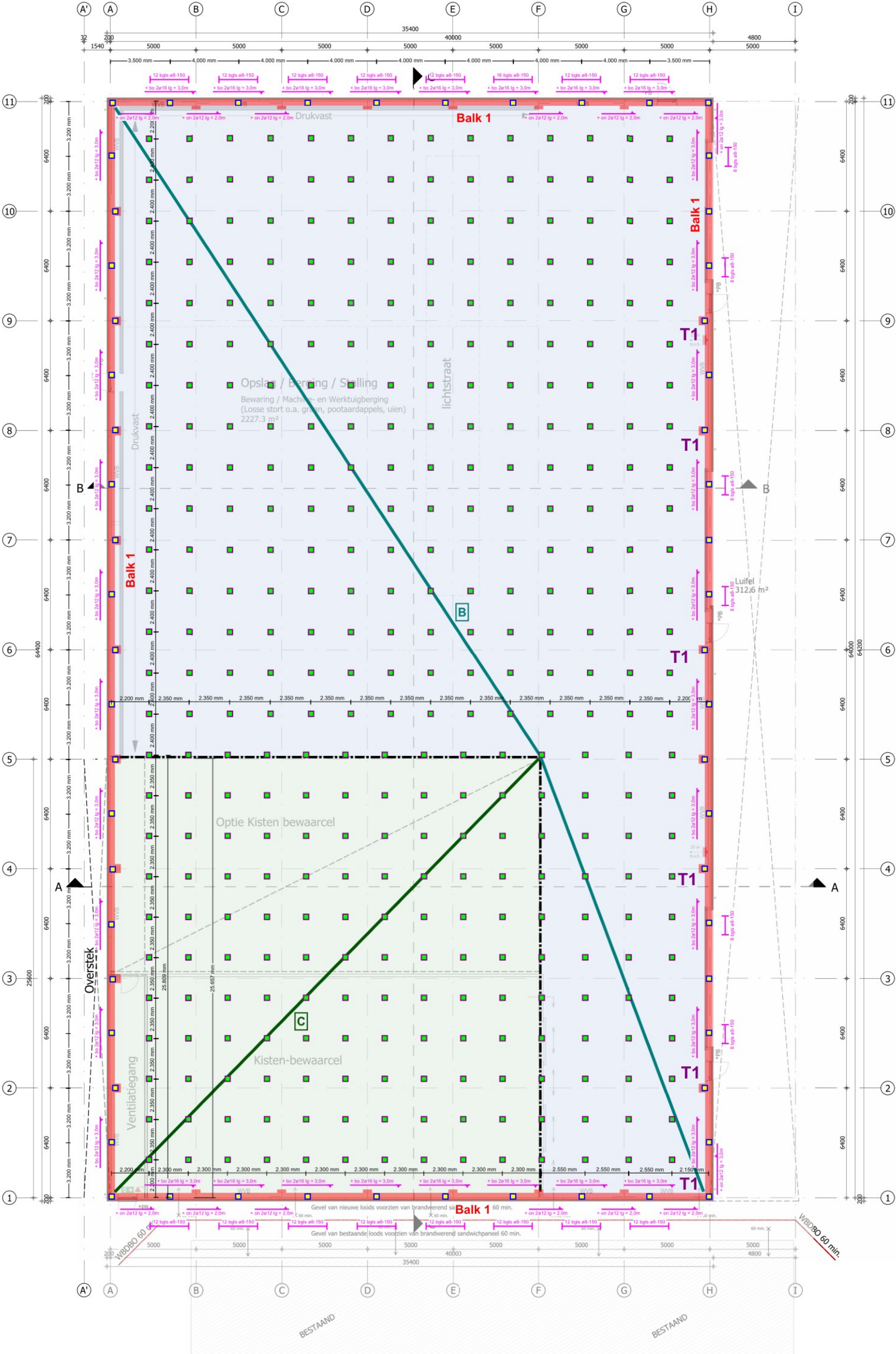
| | | | |
|-------------------|---------------------------|---|------------------------|
| Prefab betonplint | G_{tot,11} | = | 3,75 kN/m ² |
| Gevelafwerking | G_{tot,12} | = | 0,25 kN/m ² |

Staal is niet op gecontroleerd op brand



Dakoverzicht

- = Stalen sigma gordingen volgens leverancier; Rekening houden met **15 kg/m²** t.b.v. zonnepanelen
- * Gordingen berekenen als kipsteun
- 1** = Koppelbuizen ø88,9x3,2mm
- 2** = Koppelbuizen ø88,9x4,05mm
- 3** = Koppelbuizen ø101,6x4,0mm
- 4** = Koppelbuizen ø101,6x3,0mm
- 5** = Onderslagligger HE220A S355 + zeeg 15mm; doorlopend over kolommen langs overhaddeur
- 6** = Onderslagligger IPE600 S355 + zeeg 20mm
- WB** = Windbokken volgens staalaanzichten
- = Dakverbanden strips 60x6mm + 2M16; Fd,trek = 65 kN
- = Dakverbanden strips 80x8mm + 2M16; Fd,trek = 85 kN



Begane grondvloer/ Fundering

- B

= i.h.w.g. betonvloer op palen; h= 220mm
C30/37; XC2/XC4; boven d= 30mm; onder d=30mm
wapening bo #ø8-100
 on #ø9-150
v.b.= 35 kN/m² (losse stort)
- C

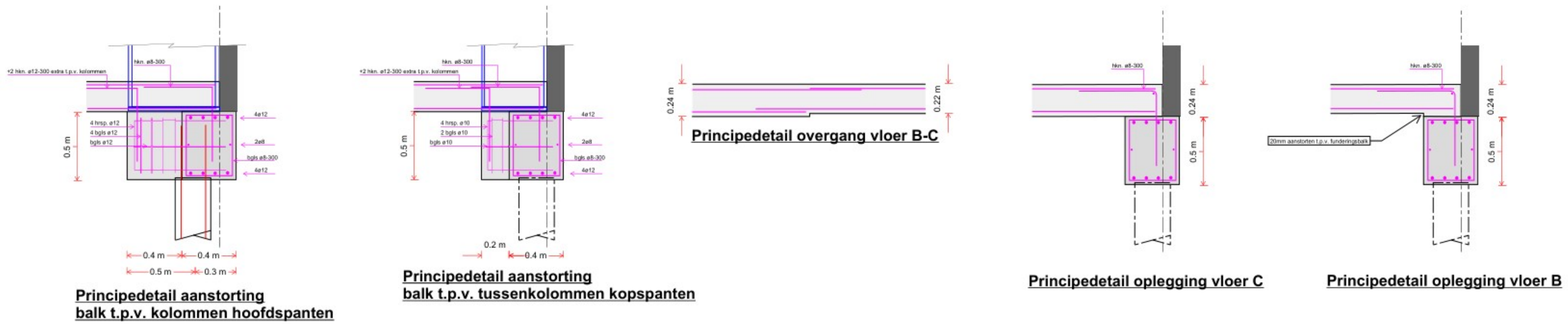
= i.h.w.g. betonvloer op palen; h= 240mm
C30/37; XC2/XC4; boven d=30mm; onder d=30mm
wapening bo #ø9-100
 on #ø10-150
v.b. = 45 kN/m² (kistenbewaring)
- Balk 1

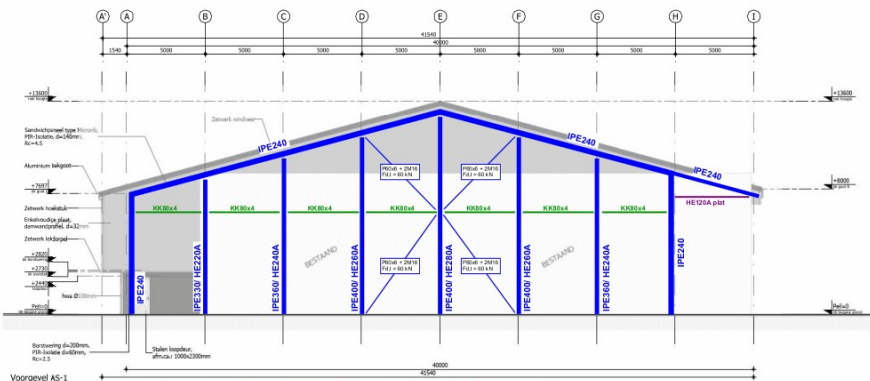
= Funderingsbalk 400x500 mm; C20/25; XC2; d= 35mm
wapening bo+on 4ø12; flank 2ø8; beugels ø8-300
+ bijlegwapening volgens plattegrond
- = Prefab betonnen balkpalen 250x250mm; p.p.n. ca. 8,5m - NAP (=ca. 10m - mv); F_{ED} = 450 kN
- T1

= Trekpaal; kopwapening min. 4ø12; F_{d,trek} = 75 kN
- = Prefab betonnen vloerpalen 250x250mm; p.p.n. ca. 8,5m - NAP (=ca. 10m - mv); F_{ED} = 365 kN
- *

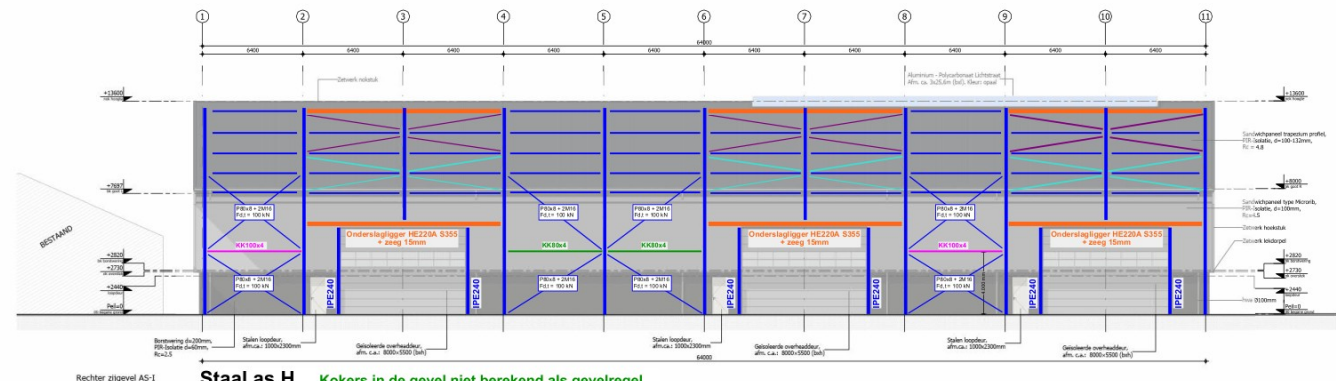
= boven rand- en hoekpalen bovenin de vloer #ø8-300 lg = 1,3x1,3m bijleggen

Definitief paalpuntniveau n.t.b. a.d.h.v. nieuwe sonderingen.

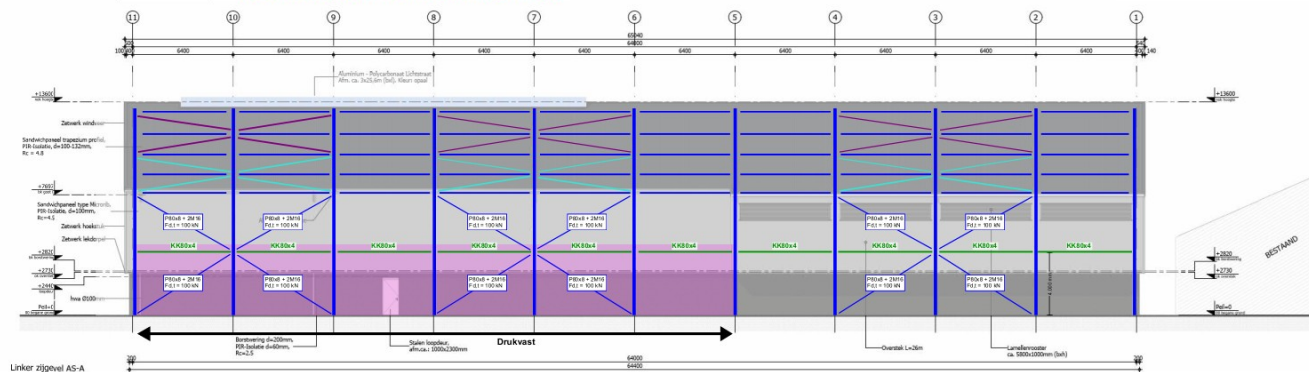




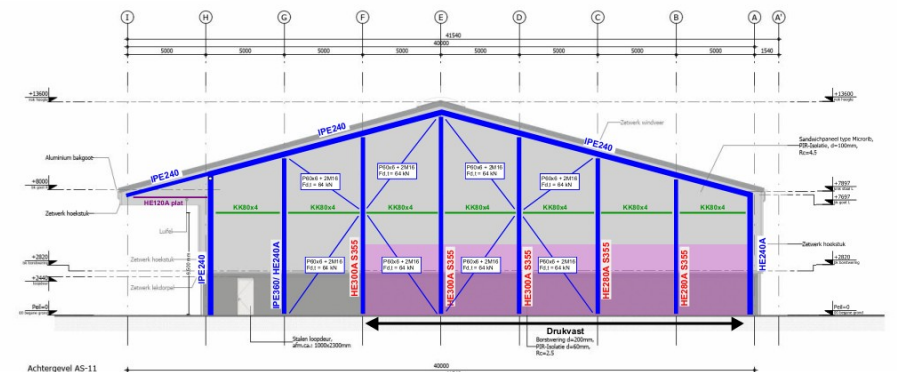
Staal as 1 Kokers in de gevel niet berekend als gevelregel



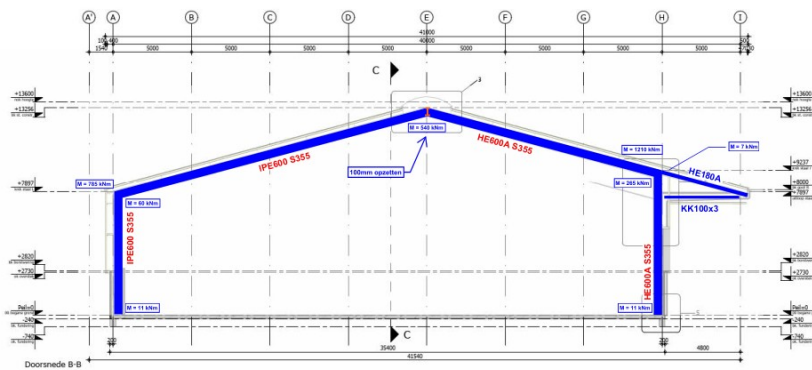
Staal as H Kokers in de gevel niet berekend als gevelregel



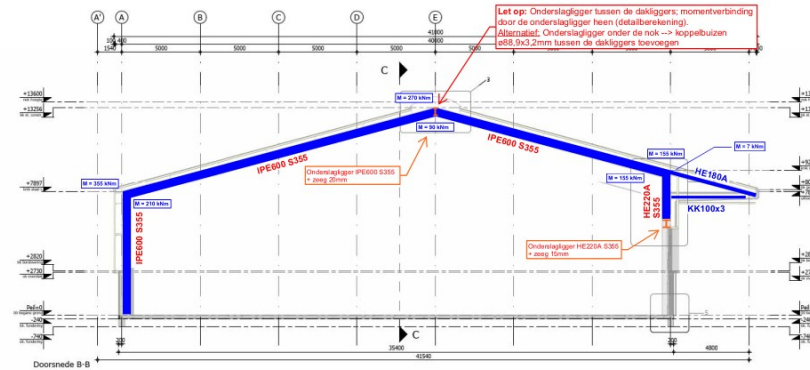
Staal as A Kokers in de gevel niet berekend als gevelregel



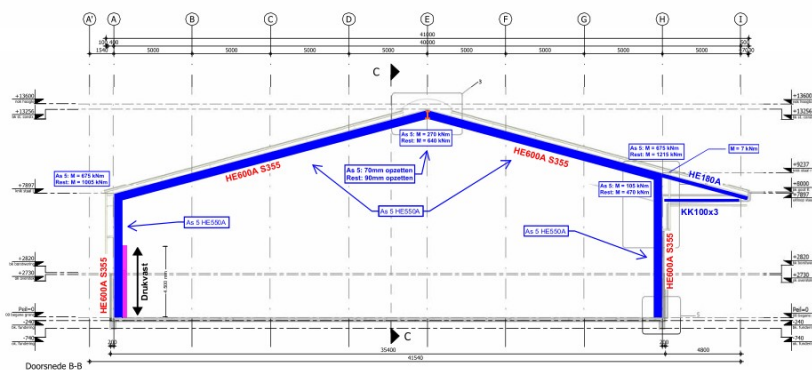
Staal as 11 Kokers in de gevel niet berekend als gevelregel



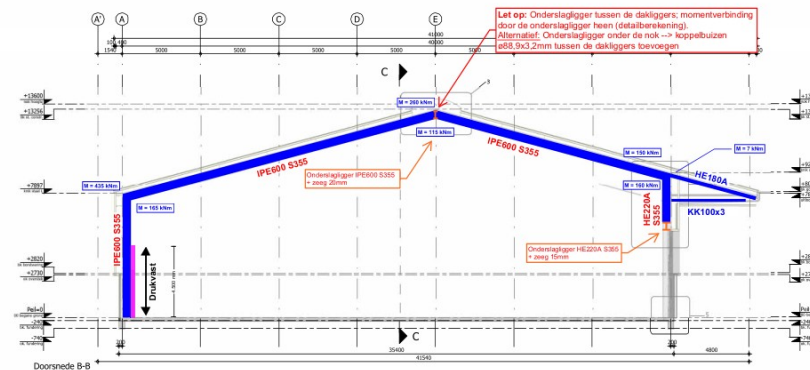
Staal as 2 en 4



Staal as 3



Staal as 5, 6, 8 en 9



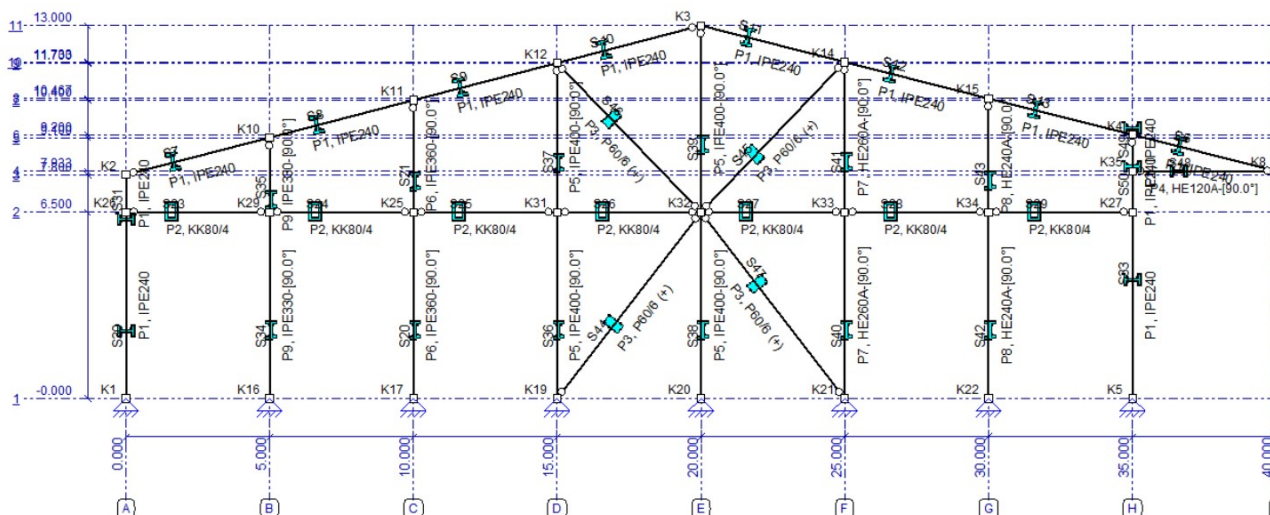
Staal as 7 en 10

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving J
 Bestand J

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knoten | Staven | Opleggingsen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|--------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 26 | 37 | 8 | 9 | 35 | 100 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|-----------------|
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.93 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S7 | K2 | K10 | 0.00 | 5.00 | -7.80 | -9.10 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S8 | K10 | K11 | 5.00 | 10.00 | -9.10 | -10.40 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S9 | K11 | K12 | 10.00 | 15.00 | -10.40 | -11.70 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S10 | K12 | K3 | 15.00 | 20.00 | -11.70 | -13.00 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S11 | K3 | K14 | 20.00 | 25.00 | -13.00 | -11.73 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S12 | K14 | K15 | 25.00 | 30.00 | -11.73 | -10.47 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S13 | K15 | K4 | 30.00 | 35.00 | -10.47 | -9.20 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S20 | K17 | K25 | 10.00 | 10.00 | 0.00 | -6.50 | 6.50 | P6 | 0.00 - 6.50 (L) |
| S21 | K25 | K11 | 10.00 | 10.00 | -6.50 | -10.40 | 3.90 | P6 | 0.00 - 3.90 (L) |
| S23 | K26 | K29 | 0.00 | 5.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S24 | K29 | K25 | 5.00 | 10.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S25 | K25 | K31 | 10.00 | 15.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S26 | K31 | K32 | 15.00 | 20.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S27 | K32 | K33 | 20.00 | 25.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S28 | K33 | K34 | 25.00 | 30.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S29 | K34 | K27 | 30.00 | 35.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S30 | K1 | K26 | 0.00 | 0.00 | 0.00 | -6.50 | 6.50 | P1 | 0.00 - 6.50 (L) |
| S31 | K26 | K2 | 0.00 | 0.00 | -6.50 | -7.80 | 1.30 | P1 | 0.00 - 1.30 (L) |
| S33 | K27 | K5 | 35.00 | 35.00 | -6.50 | 0.00 | 6.50 | P1 | 0.00 - 6.50 (L) |
| S34 | K16 | K29 | 5.00 | 5.00 | 0.00 | -6.50 | 6.50 | P9 | 0.00 - 6.50 (L) |
| S35 | K29 | K10 | 5.00 | 5.00 | -6.50 | -9.10 | 2.60 | P9 | 0.00 - 2.60 (L) |
| S36 | K19 | K31 | 15.00 | 15.00 | 0.00 | -6.50 | 6.50 | P5 | 0.00 - 6.50 (L) |
| S37 | K31 | K12 | 15.00 | 15.00 | -6.50 | -11.70 | 5.20 | P5 | 0.00 - 5.20 (L) |
| S38 | K20 | K32 | 20.00 | 20.00 | 0.00 | -6.50 | 6.50 | P5 | 0.00 - 6.50 (L) |
| S39 | K32 | K3 | 20.00 | 20.00 | -6.50 | -13.00 | 6.50 | P5 | 0.00 - 6.50 (L) |
| S40 | K21 | K33 | 25.00 | 25.00 | 0.00 | -6.50 | 6.50 | P7 | 0.00 - 6.50 (L) |
| S41 | K33 | K14 | 25.00 | 25.00 | -6.50 | -11.73 | 5.23 | P7 | 0.00 - 5.23 (L) |
| S42 | K22 | K34 | 30.00 | 30.00 | 0.00 | -6.50 | 6.50 | P8 | 0.00 - 6.50 (L) |
| S43 | K34 | K15 | 30.00 | 30.00 | -6.50 | -10.47 | 3.97 | P8 | 0.00 - 3.97 (L) |
| S44 | K19 | K32 | 15.00 | 20.00 | 0.00 | -6.50 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S45 | K32 | K14 | 20.00 | 25.00 | -6.50 | -11.73 | 7.24 | P3 | 0.00 - 7.24 (L) |
| S46 | K12 | K32 | 15.00 | 20.00 | -11.70 | -6.50 | 7.21 | P3 | 0.00 - 7.21 (L) |
| | | | m | m | m | m | m | | m |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staal | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|-------|-------|--------|---------|-----------------|
| S47 | K32 | K21 | 20.00 | 25.00 | -6.50 | 0.00 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S48 | K35 | K8 | 35.00 | 40.00 | -7.93 | -7.93 | 5.00 | P4 | 0.00 - 5.00 (L) |
| S49 | K4 | K35 | 35.00 | 35.00 | -9.20 | -7.93 | 1.27 | P1 | 0.00 - 1.27 (L) |
| S50 | K35 | K27 | 35.00 | 35.00 | -7.93 | -6.50 | 1.43 | P1 | 0.00 - 1.43 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | ly | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | IPE240 | 3912 | 3.8916e+07 | S235 | 0 |
| P2 | KK80/4 | 1175 | 1.1104e+06 | S235H(EN10219-1) | 0 |
| P3 | P60/6 | 360 | 1.0800e+05 | S235 | 0 |
| P4 | HE120A | 2534 | 2.3090e+06 | S235 | 90 |
| P5 | IPE400 | 8446 | 1.3178e+07 | S235 | 90 |
| P6 | IPE360 | 7273 | 1.0435e+07 | S235 | 90 |
| P7 | HE260A | 8682 | 3.6676e+07 | S235 | 90 |
| P8 | HE240A | 7684 | 2.7688e+07 | S235 | 90 |
| P9 | IPE330 | 6261 | 7.8814e+06 | S235 | 90 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoeff |
|------------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °m |

PROFIELEN (GEAVANCEERD)

| Profiel | Ivv | Avz | Trek | Druk | Kabelement | Voorspanning |
|---------|----------------|----------------|------|------|------------|--------------|
| P3 | 1.0800e-09 | 3.0000e-04 | Ja | Nee | Nee | Nee |
| | m ⁴ | m ⁴ | | | | |

SCHARNIEREN

| Staal | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S6 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S8 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S10 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.17 (L) | A2 | Vast | Vast | Vrij |
| S11 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S12 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S13 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S20 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S21 | 0.00 | A1 | Vast | Vast | Vast |
| | 3.90 (L) | A2 | Vast | Vast | Vrij |
| S23 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S24 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S25 | 0.00 | A2 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

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| Staaft | Positie | Scharnier | X | Z | Yr |
|--------|----------|-----------|------|------|---------|
| S26 | 5.00 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S27 | 5.00 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S28 | 5.00 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S29 | 5.00 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S30 | 5.00 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A1 | Vast | Vast | Vast |
| S31 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S33 | 1.30 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S34 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S35 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S36 | 2.60 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A1 | Vast | Vast | Vast |
| S37 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S38 | 5.20 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A1 | Vast | Vast | Vast |
| S39 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S40 | 6.50 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A1 | Vast | Vast | Vast |
| S41 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S42 | 5.23 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A1 | Vast | Vast | Vast |
| S43 | 6.50 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| S44 | 3.97 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S45 | 8.20 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S46 | 7.24 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S47 | 7.21 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S48 | 8.20 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S49 | 5.00 (L) | A2 | Vast | Vast | Vrij |
| | 0.00 | A2 | Vast | Vast | Vrij |
| S50 | 1.27 (L) | A1 | Vast | Vast | Vast |
| | 0.00 | A1 | Vast | Vast | Vast |
| | 1.42 | A1 | Vast | Vast | Vast |
| m | | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|---------|------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O2 | K5 | K5 | Vast | Vast | Vrij | 0 | |
| O3 | K16 | K16 | Vast | Vast | Vrij | 0 | |
| O4 | K17 | K17 | Vast | Vast | Vrij | 0 | |
| O5 | K19 | K19 | Vast | Vast | Vrij | 0 | |
| O6 | K20 | K20 | Vast | Vast | Vrij | 0 | |
| O7 | K21 | K21 | Vast | Vast | Vrij | 0 | |
| m | | | kN/m | kN/m | kNm/rad | | ° |

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| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O8 | K22 | K22 | Vast | Vast | Vrij | | 0 |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|---|---|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 3.20 | 3.20 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 40.00 | 40.00 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S7,S11,S6,S8,S9,S10,S12,S13) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.40 | 0.40 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1.28 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=3.20)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S7-S10 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m²] |
| q2 | Opgelegde belastingen (q) (Lsys=3.20) | qk1 * Min(5.0, Lsys1) | 3.20 | [kN/m] |
| | S6,S11-S13 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m²] |
| q3 | Opgelegde belastingen (q) (Lsys=3.20) | qk2 * Min(5.0, Lsys1) | 3.20 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A1 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Ov er=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |

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|---|---|--|--------|----------|
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57) | -0.93 | |
| q4 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp1*Cpe2*CsCd1) * Lsys1 | -2.79 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.60 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp1*Cpe3*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.24 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.70 | [kN/m] |
| Cpe6 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q9 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp1*Cpe6*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp1*Cpe7*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR5 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A2 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Ov=er=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe9 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Eerst=False) | 0.19 | |
| q11 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp2*Cpe9*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0.60 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp2*Cpe10*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp2*Cpe11*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe13 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q16 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp2*Cpe13*CsCd1) * Lsys1 | 2.38 | [kN/m] |

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|---|---|--|--------|----------|
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q17 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp2*Cpe14*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR6 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A3 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,O ver=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe16 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57) | -0.93 | |
| q18 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp3*Cpe16*CsCd1) * Lsys1 | -2.79 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -0.89 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp3*Cpe17*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp3*Cpe18*CsCd1) * Lsys1 | -1.24 | [kN/m] |
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp3*Cpe19*CsCd1) * Lsys1 | -2.70 | [kN/m] |
| Cpe20 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q23 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp3*Cpe20*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp3*Cpe21*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR7 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A4 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,O ver=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe23 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Eerst=False) | 0.19 | |
| q25 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp4*Cpe23*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -0.89 | [kN/m] |

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| Cpe24 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp4*Cpe24*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q28 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp4*Cpe25*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe26 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp4*Cpe26*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe27 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q30 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp4*Cpe27*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp4*Cpe28*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR8 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A5 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,O ver=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe30 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q32 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp5*Cpe30*CsCd1) * Lsys1 | -1.22 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 0.60 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp5*Cpe31*CsCd1) * Lsys1 | -2.83 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp5*Cpe32*CsCd1) * Lsys1 | -0.96 | [kN/m] |
| Cpe33 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q36 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp5*Cpe33*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp5*Cpe34*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR9 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A6 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,O ver=True) | 0.20 | |

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|--|---|---|--------|----------------------|
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K 20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1- 4#4(Z=Z7, Terrein=Cat1, Regio=Region1, C0=Co1) | 0.93 | [kN/m ²] |
| Cpe36 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1- 4#7.2(Dak=Zadeldak, Zone=I, Hoek=14.5 7, Eerst=False) | 0.00 | |
| q38 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp6*Cpe36*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 0.60 | [kN/m] |
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1- 4#7.2(Dak=Zadeldak, Zone=J, Hoek=14.5 7, Eerst=False) | 0.01 | |
| q40 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp6*Cpe37*CsCd1) * Lsys1 | 0.03 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1- 4#7.2(Dak=Zadeldak, Zone=H, Hoek=14.2 2, Eerst=False) | 0.18 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp6*Cpe38*CsCd1) * Lsys1 | 0.55 | [kN/m] |
| Cpe39 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1- 4#7.2(Dak=Wand, Zone=E, hd=0.33, Eerst =False) | -0.50 | |
| q42 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp6*Cpe39*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1- 4#7.2(Dak=Wand, Zone=D, hd=0.33, Eerst =False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp6*Cpe40*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR10 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A7 | Belast oppervlak (A) | 41.60 | 41.60 | [m ²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1- 4#7.2(Dak=Wand, Zone=E, hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1- 4#7.2.9(Cpe=Cpe41, Openingen=0.00, O ver=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K 20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1- 4#4(Z=Z8, Terrein=Cat1, Regio=Region1, C0=Co1) | 0.93 | [kN/m ²] |
| Cpe42 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1- 4#7.2(Dak=Zadeldak, Zone=I, Hoek=14.5 7) | -0.41 | |
| q44 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp7*Cpe42*CsCd1) * Lsys1 | -1.22 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -0.89 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1- 4#7.2(Dak=Zadeldak, Zone=J, Hoek=14.5 7) | -0.95 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp7*Cpe43*CsCd1) * Lsys1 | -2.83 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1- 4#7.2(Dak=Zadeldak, Zone=H, Hoek=14.2 2) | -0.32 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp7*Cpe44*CsCd1) * Lsys1 | -0.96 | [kN/m] |
| Cpe45 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1- 4#7.2(Dak=Wand, Zone=E, hd=0.33) | -0.50 | |
| q48 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp7*Cpe45*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1- 4#7.2(Dak=Wand, Zone=D, hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp7*Cpe46*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR11 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |

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|--|--|--|--------|----------|
| Width10 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A8 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,O ver=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe48 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q50 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp8*Cpe48*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp8) * Lsys1 | -0.89 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp8*Cpe49*CsCd1) * Lsys1 | 0.03 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp8*Cpe50*CsCd1) * Lsys1 | 0.55 | [kN/m] |
| Cpe51 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q54 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp8*Cpe51*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp8*Cpe52*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR12 (Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33) | | | | |
| Windbelasting van Voren + Overdruk | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,O ver=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Zadeldak; Druk coefficient (Cpe): S7,S8 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Richting=90) | -1.31 | |
| q56 | Zadeldak; Verdeelde element belasting (q): S7,S8 | (Qp9*Cpe54*CsCd1) * Lsys1 | -3.91 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | (Cpi9*Qp9) * Lsys1 | 0.60 | [kN/m] |
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Richting=90) | -1.30 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S8,S9,S10 | (Qp9*Cpe55*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.22,Richting=90) | -1.30 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp9*Cpe56*CsCd1) * Lsys1 | -3.88 | [kN/m] |

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|--|--|--|--------|----------|
| Cpe57 | Zadeldak; Druk coefficient (Cpe): S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.2, Richting=90) | -1.32 | |
| q60 | Zadeldak; Verdeelde element belasting (q): S13 | (Qp9*Cpe57*CsCd1) * Lsys1 | -3.95 | [kN/m] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S30,S31,S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| q61 | Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33 | (Qp9*Cpe58*CsCd1) * Lsys1 | -3.58 | [kN/m] |
| LR13 (Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33) | | | | |
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe59 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe59,Openingen=0.00,O ver=False) | -0.30 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11, Terrein=Cat1, Regio=Region 1, C0=Co1) | 0.93 | [kN/m²] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S7,S8 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.5, Richting=90) | -1.31 | |
| q62 | Zadeldak; Verdeelde element belasting (q): S7,S8 | (Qp10*Cpe60*CsCd1) * Lsys1 | -3.91 | [kN/m] |
| q63 | Interne druk; Verdeelde element belasting (q) | (Cpi10*Qp10) * Lsys1 | -0.89 | [kN/m] |
| Cpe61 | Zadeldak; Druk coefficient (Cpe): S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.5, Richting=90) | -1.30 | |
| q64 | Zadeldak; Verdeelde element belasting (q): S8,S9,S10 | (Qp10*Cpe61*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe62 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.2, Richting=90) | -1.30 | |
| q65 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp10*Cpe62*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe63 | Zadeldak; Druk coefficient (Cpe): S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.2, Richting=90) | -1.32 | |
| q66 | Zadeldak; Verdeelde element belasting (q): S13 | (Qp10*Cpe63*CsCd1) * Lsys1 | -3.95 | [kN/m] |
| Cpe64 | Vertikale wand; Druk coefficient (Cpe): S30,S31,S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| q67 | Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33 | (Qp10*Cpe64*CsCd1) * Lsys1 | -3.58 | [kN/m] |
| LR14 (Geconcentreerde element belasting (F)) | | | | |
| | Windbelasting (enkele luifel) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12, Terrein=Cat1, Regio=Region 1, C0=Co1) | 0.93 | [kN/m²] |
| | Eenzijdige overkappingen S6 | | | |
| Cpnet1 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen, Zone=CF, Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | (Qp11*Cpnet1*CsCd1) * Lsys1*5.16 | 10.29 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen, Zone=CF, Hoek=14.22, Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | (Qp11*Cpnet2*CsCd1) * Lsys1*5.16 | -21.54 | [kN] |

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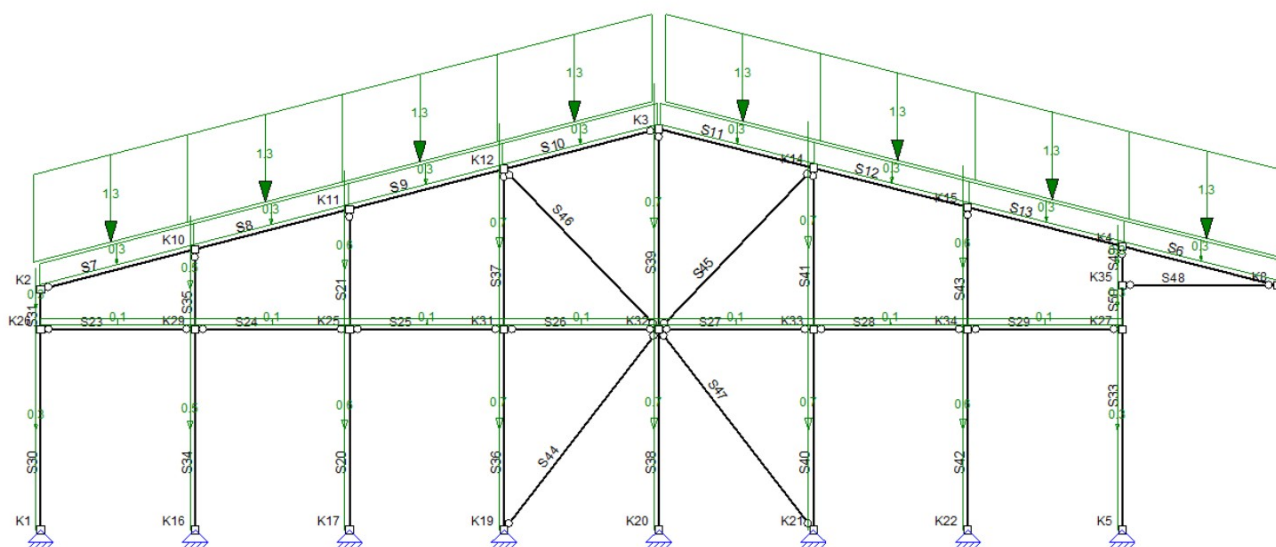
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| LR15 (Verdeelde element belasting (q)) | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0.70 | [kN/m ²] |
| Ce1 | De milieucoefficient (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: 14.22; S6,S11,S12,S13 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=M1,Sk=Sk1) | 0.80 | |
| q68 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu1) * Lsys1 | 1.79 | [kN/m] |
| q69 | Verdeelde element belasting (q) | q68*0.50 | 0.90 | [kN/m] |
| | Zadeldak, Mu1 Hoek: 14.57; S7,S8,S9,S10 | | | |
| Mu2 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=M1,Sk=Sk1) | 0.80 | |
| q70 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu2) * Lsys1 | 1.79 | [kN/m] |
| q71 | Verdeelde element belasting (q) | q70*0.50 | 0.90 | [kN/m] |

B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S6-S13,S20-S21, S23-S31,S33-S43,S49-S50 | |
| q | 1.3 (q1) | 1.3 (q1) | 0.00 | L | Z" | S6-S13 | |
| | | | m | m | | | |

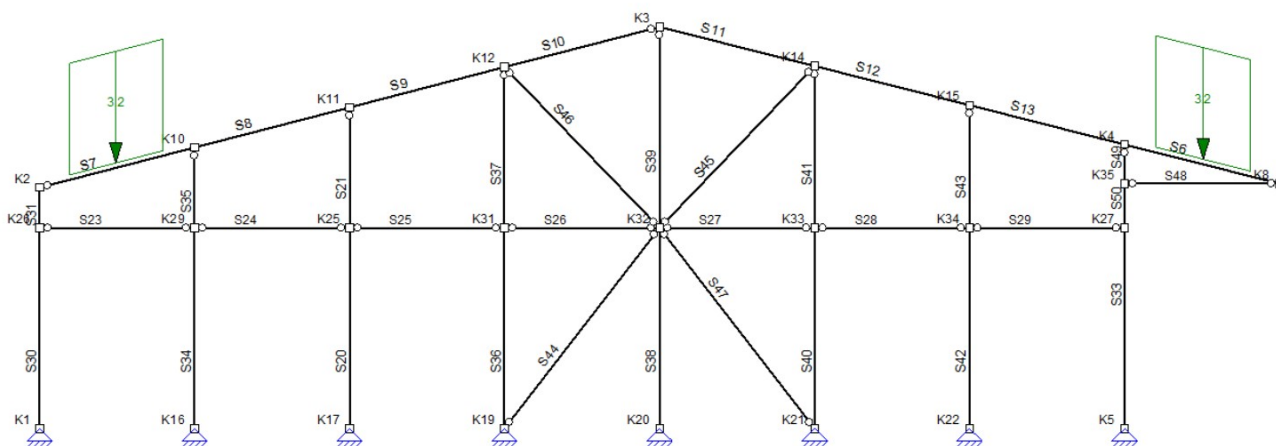
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



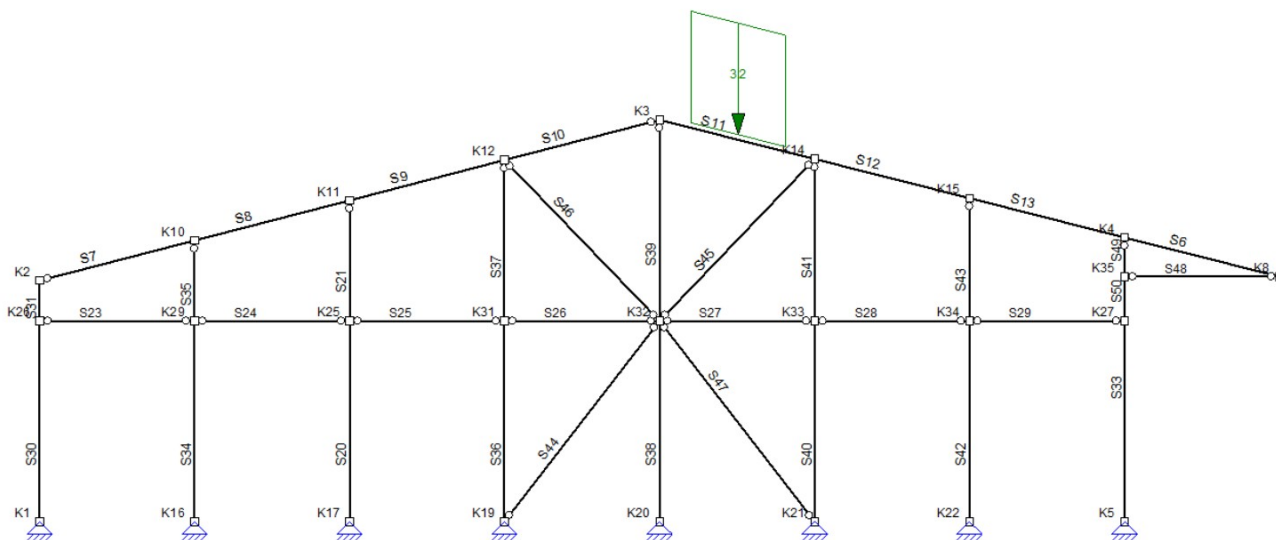
B.G.2: Opgelegde belastingen. Vloer 1, Veld 1



B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q2) | 3.2 (q2) | 1.02 | 4.15 | Z" | S7 | |
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S6 | |
| | | | m | m | | | |

B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S11 | |
| | | | m | m | | | |

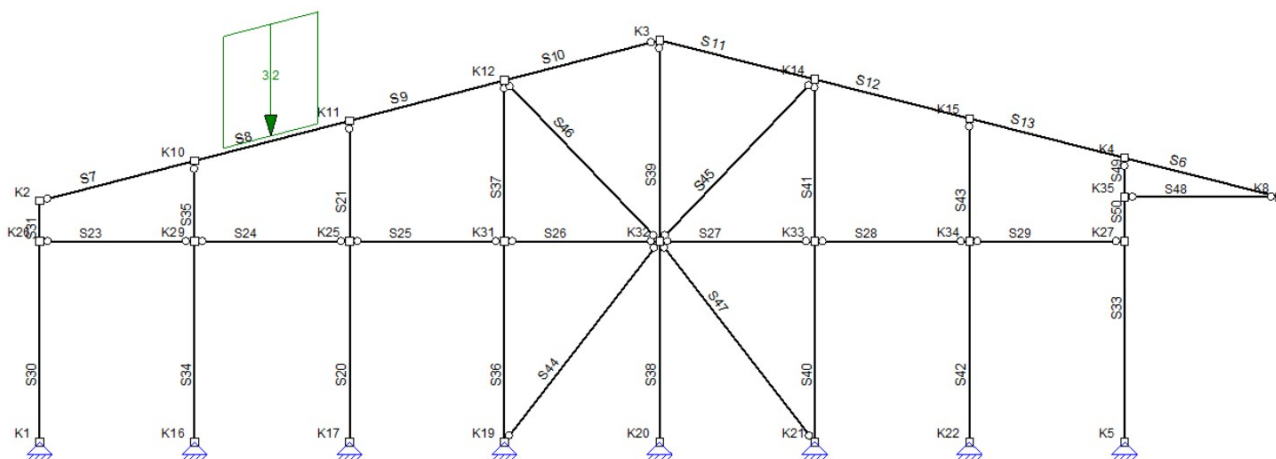
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



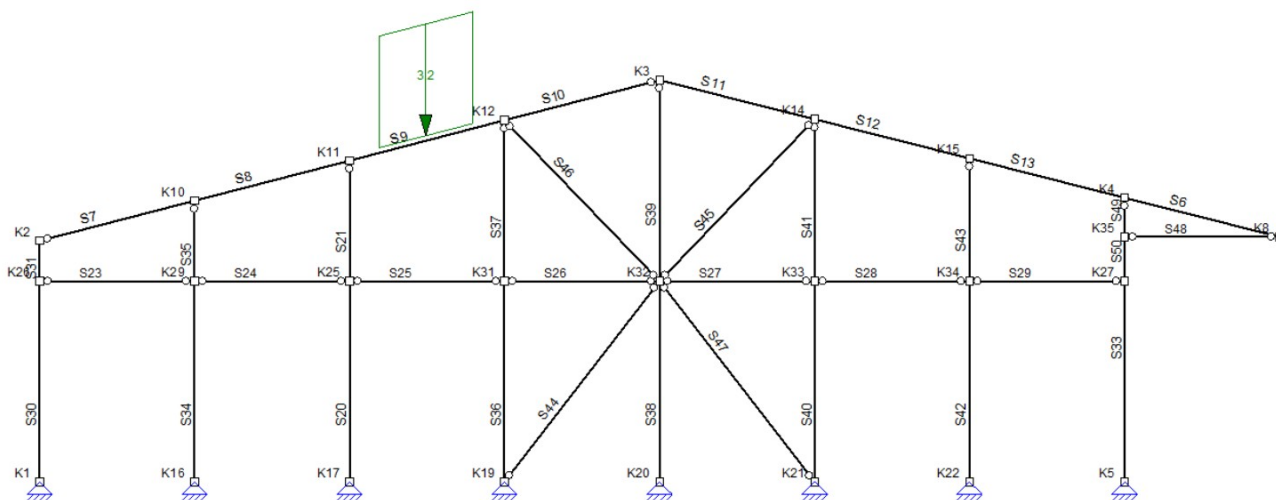
B.G.4: Opgelegde belastingen. Vloer 3, Veld 2



B.G.4: OPGELEGDE BELASTINGEN. VLOER 3, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q2) | 3.2 (q2) | 1.02 | 4.15 | Z" | S8 | |
| | | | m | m | | | |

B.G.5: Opgelegde belastingen. Vloer 4, Veld 3



B.G.5: OPGELEGDE BELASTINGEN. VLOER 4, VELD 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q2) | 3.2 (q2) | 1.02 | 4.15 | Z" | S9 | |
| | | | m | m | | | |

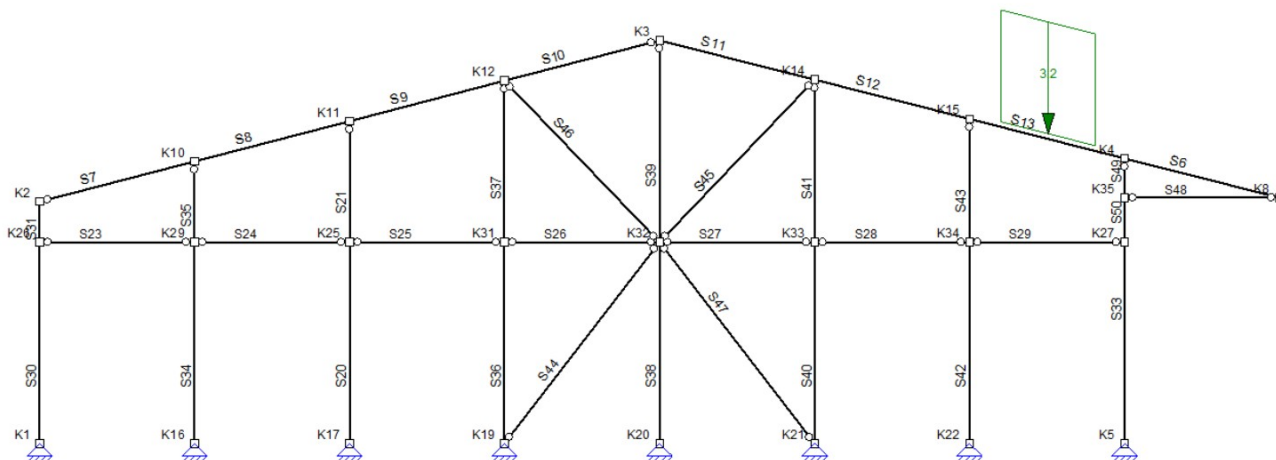
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving



Eenheden: m, mm, kN, kNm



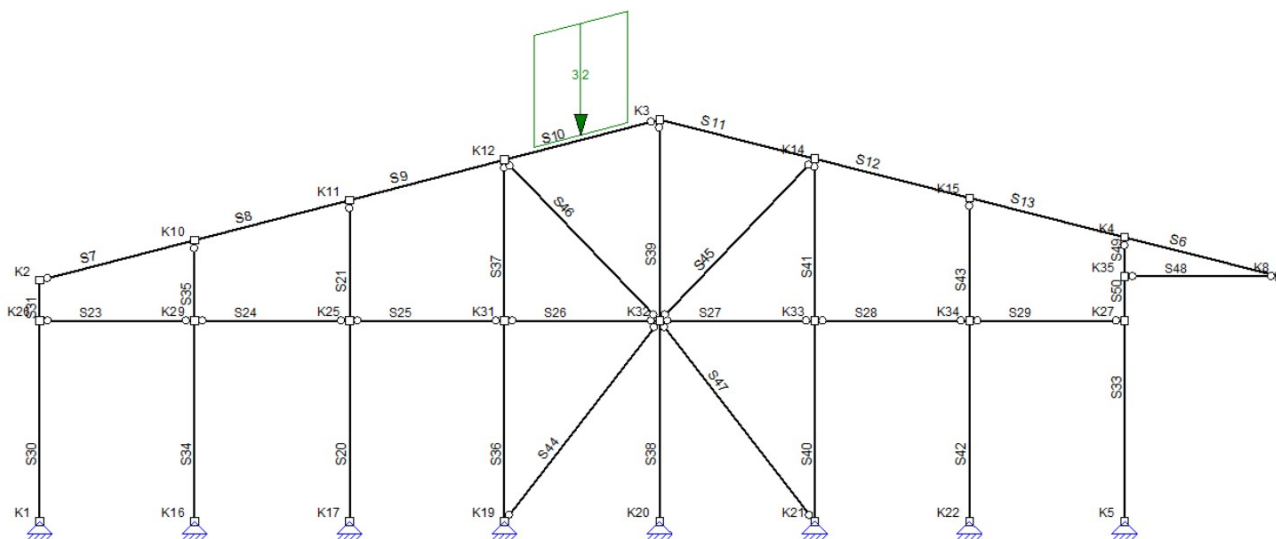
B.G.6: Opgelegde belastingen. Vloer 5, Veld 7



B.G.6: OPGELEGDE BELASTINGEN. VLOER 5, VELD 7

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S13 | |
| | | | m | m | | | |

B.G.7: Opgelegde belastingen. Vloer 6, Veld 4



B.G.7: OPGELEGDE BELASTINGEN. VLOER 6, VELD 4

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q2) | 3.2 (q2) | 1.02 | 4.15 | Z" | S10 | |
| | | | m | m | | | |

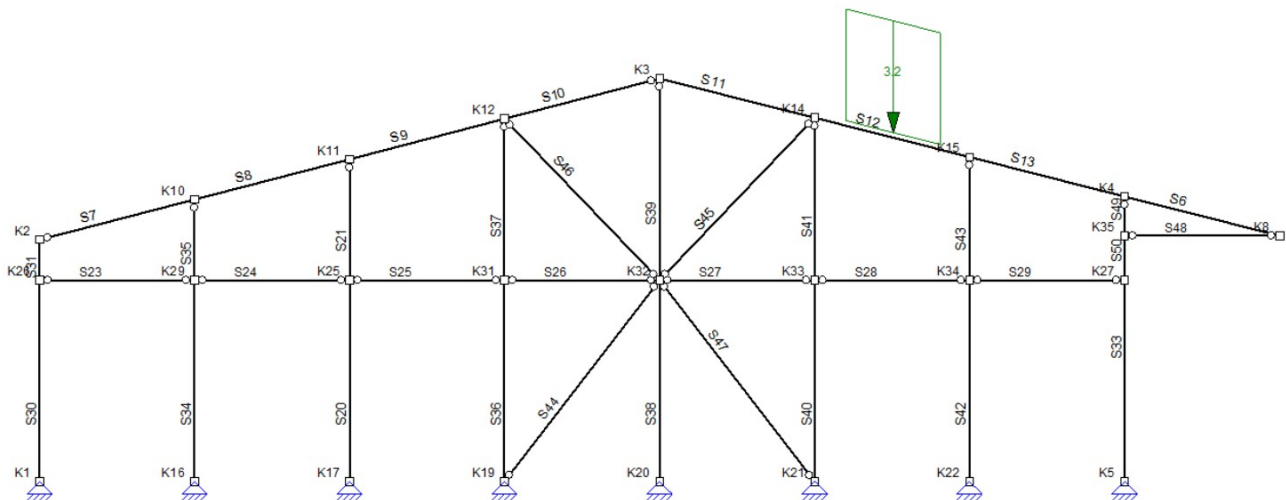
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



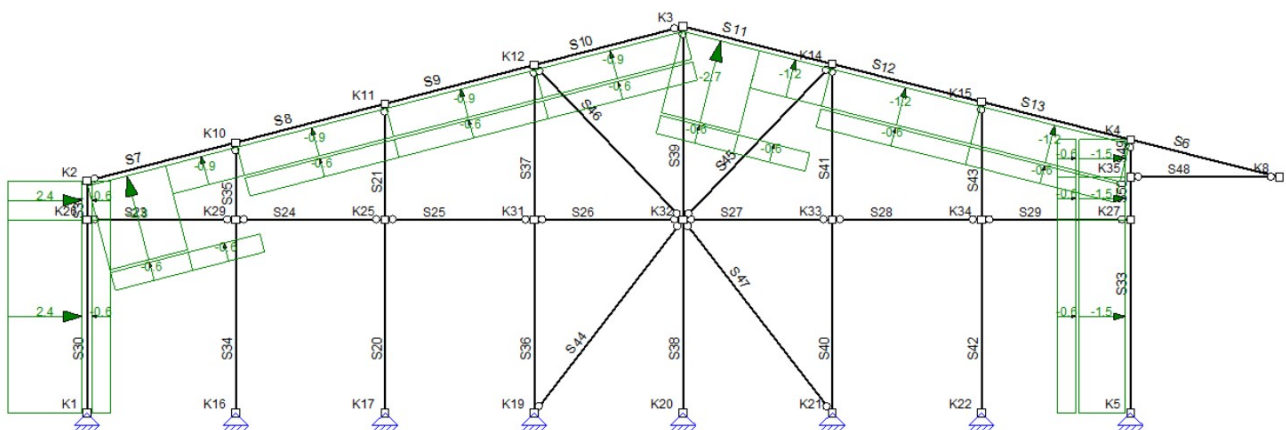
B.G.8: Opgelegde belastingen. Vloer 7, Veld 6



B.G.8: OPGELEGDE BELASTINGEN. VLOER 7, VELD 6

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|---------------|--------------|
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S12 | |
| | | | m | m | | | |

B.G.9: Windbelasting van Links + Overdruk



B.G.9: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -2.8 (q4) | -2.8 (q4) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q6) | -0.9 (q6) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.9 (q6) | -0.9 (q6) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q7) | -1.2 (q7) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q8) | -2.7 (q8) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q7) | -1.2 (q7) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q9) | 2.4 (q9) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q10) | -1.5 (q10) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

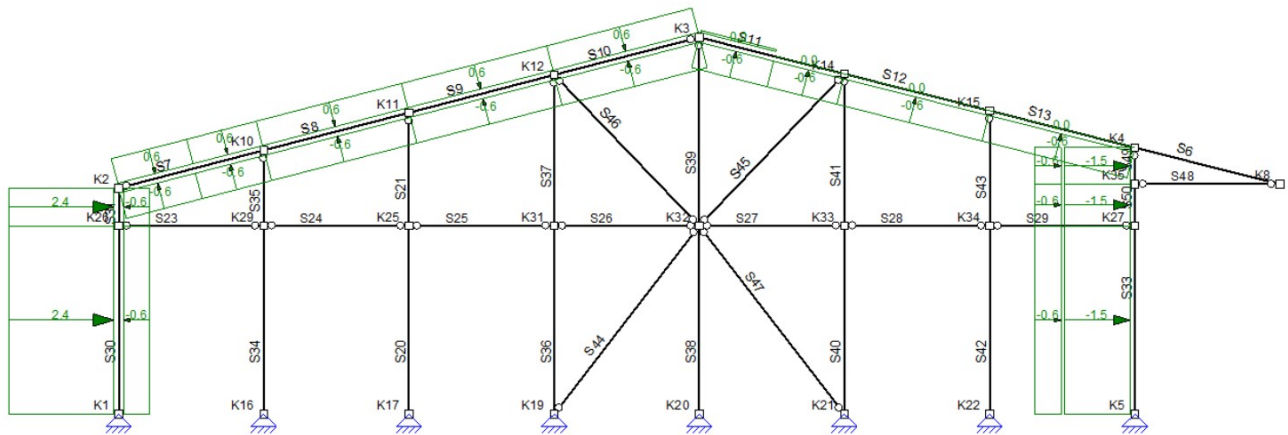
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving



Eenheden: m, mm, kN, kNm



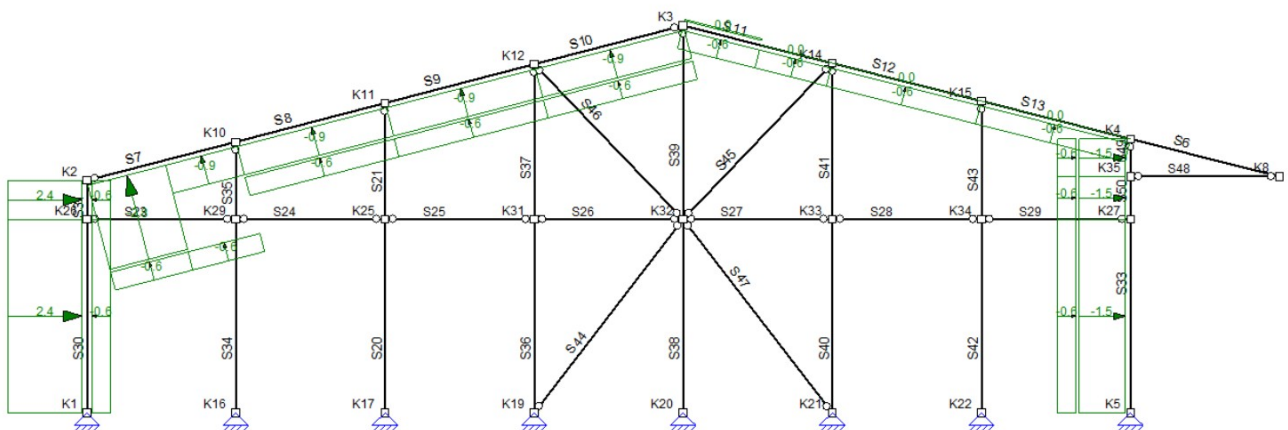
B.G.10: Windbelasting van Links + Overdruk (2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|--|--------------|
| q | 0.6 (q11) | 0.6 (q11) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 0.00 | L | Z' | S8-S10, S12-S13, S30-S31, S33, S49-S50 | |
| q | 0.0 (q14) | 0.0 (q14) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q15) | 0.0 (q15) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q14) | 0.0 (q14) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q16) | 2.4 (q16) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q17) | -1.5 (q17) | 0.00 | L | Z' | S33, S49-S50 | |
| | | | m | m | | | |

B.G.11: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.11: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -2.8 (q4) | -2.8 (q4) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q6) | -0.9 (q6) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.69 | 5.17 (L) | Z' | S7 | |
| | | | m | m | | | |

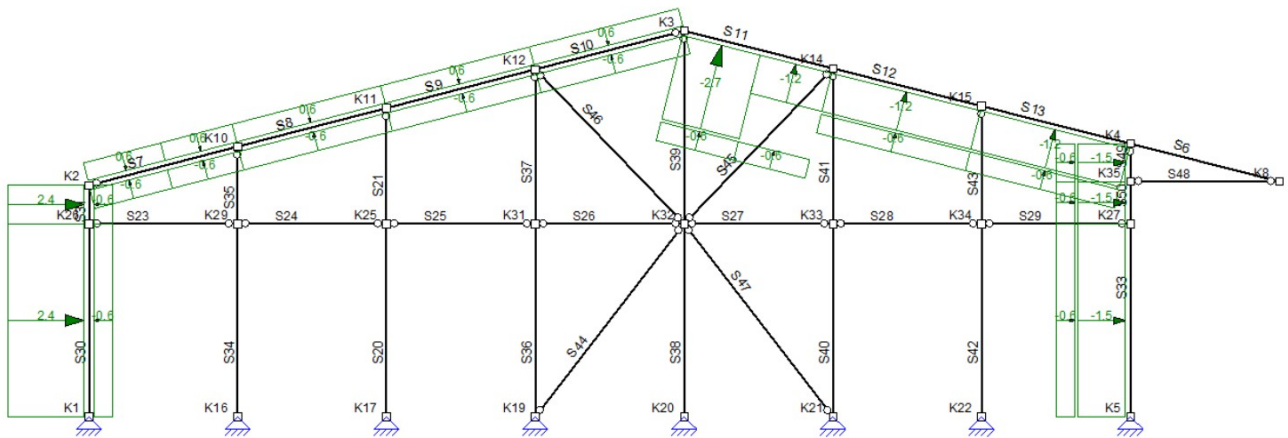
Projectnummer [REDACTED] J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED] J
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -0.9 (q6) | -0.9 (q6) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q14) | 0.0 (q14) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q15) | 0.0 (q15) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q14) | 0.0 (q14) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q9) | 2.4 (q9) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q10) | -1.5 (q10) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

B.G.12: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



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

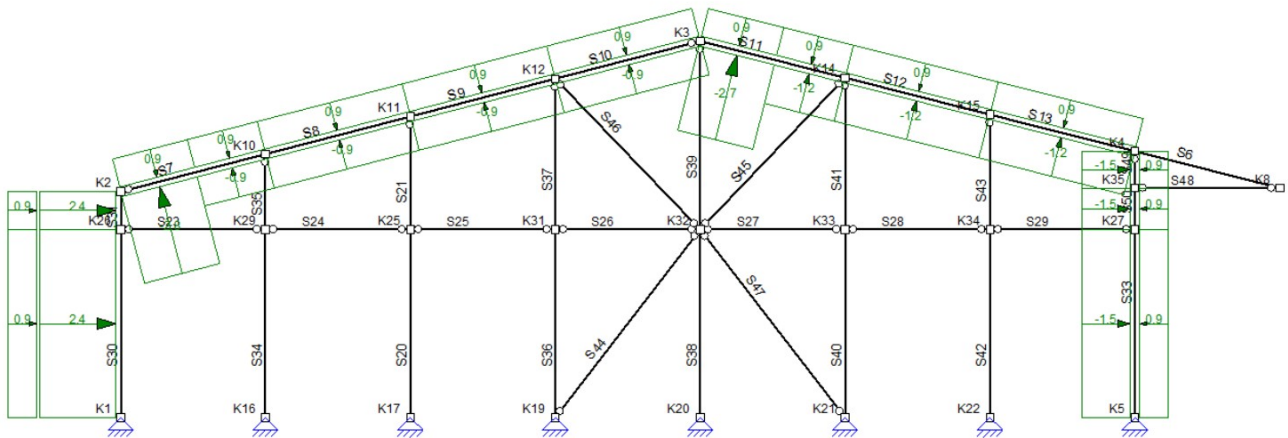
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | 0.6 (q11) | 0.6 (q11) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q7) | -1.2 (q7) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q8) | -2.7 (q8) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q7) | -1.2 (q7) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q9) | 2.4 (q9) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q10) | -1.5 (q10) | 0.00 | L | Z' | S33,S49-S50 | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



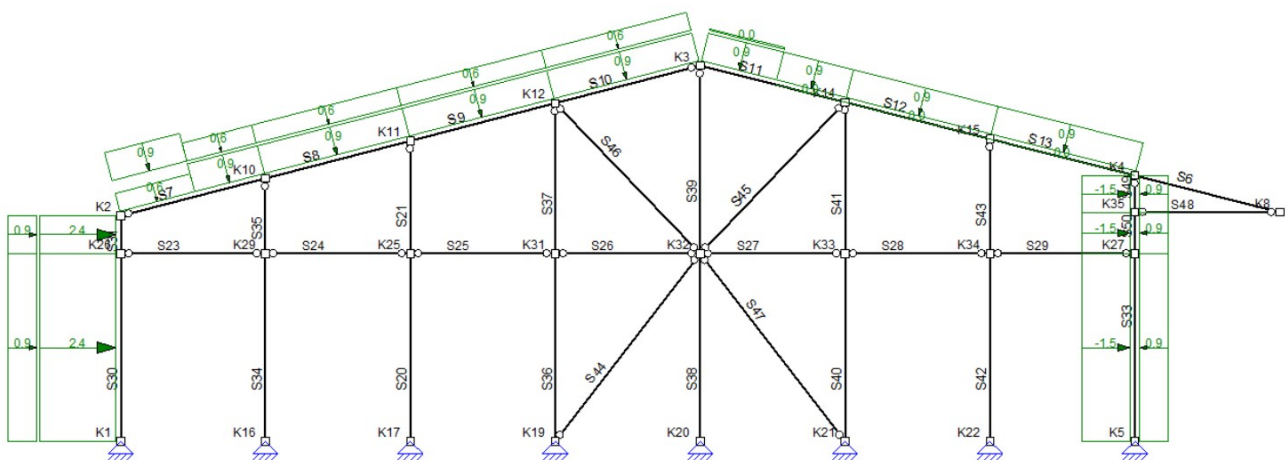
B.G.13: Windbelasting van Links + Onderdruk



B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -2.8 (q18) | -2.8 (q18) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q21) | -1.2 (q21) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q22) | -2.7 (q22) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q21) | -1.2 (q21) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q23) | 2.4 (q23) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q24) | -1.5 (q24) | 0.00 | L | Z' | S33,S49-S50 | |

B.G.14: Windbelasting van Links + Onderdruk (2e Cpe)



B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| q | 0.6 (q25) | 0.6 (q25) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 2.69 | 5.17 (L) | Z' | S7 | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

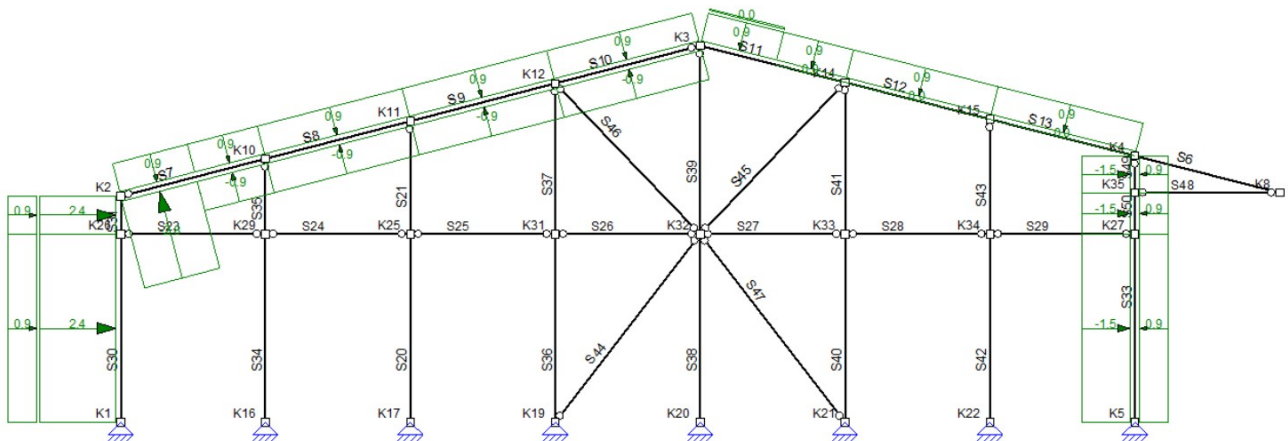
Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | 0.9 (-q26) | 0.9 (-q26) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q28) | 0.0 (q28) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q29) | 0.0 (q29) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q28) | 0.0 (q28) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q30) | 2.4 (q30) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q31) | -1.5 (q31) | 0.00 | L | Z' | S33,S49-S50 | |

m m

B.G.15: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -2.8 (q18) | -2.8 (q18) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q28) | 0.0 (q28) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q29) | 0.0 (q29) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q28) | 0.0 (q28) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q23) | 2.4 (q23) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q24) | -1.5 (q24) | 0.00 | L | Z' | S33,S49-S50 | |

m m

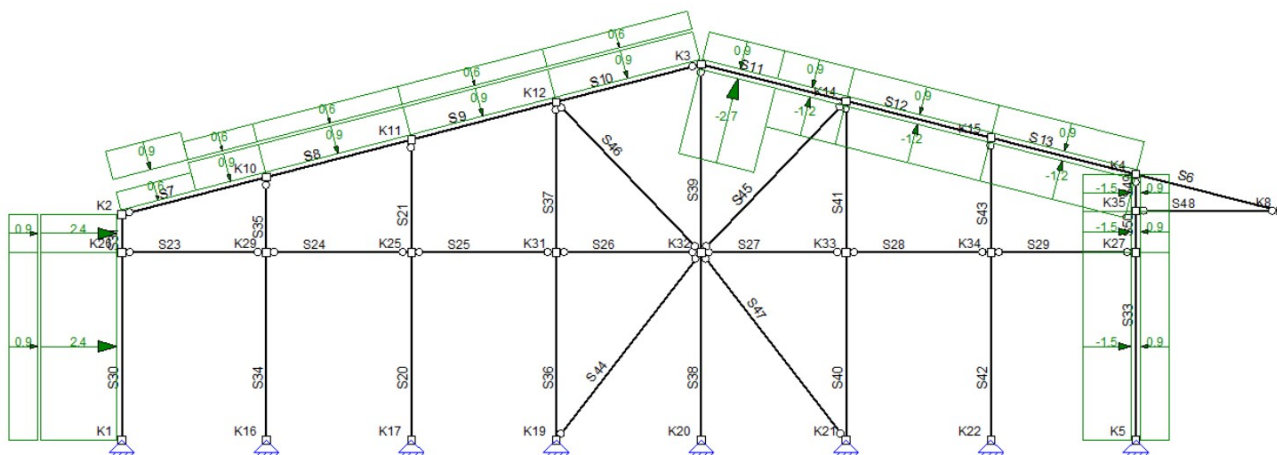
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



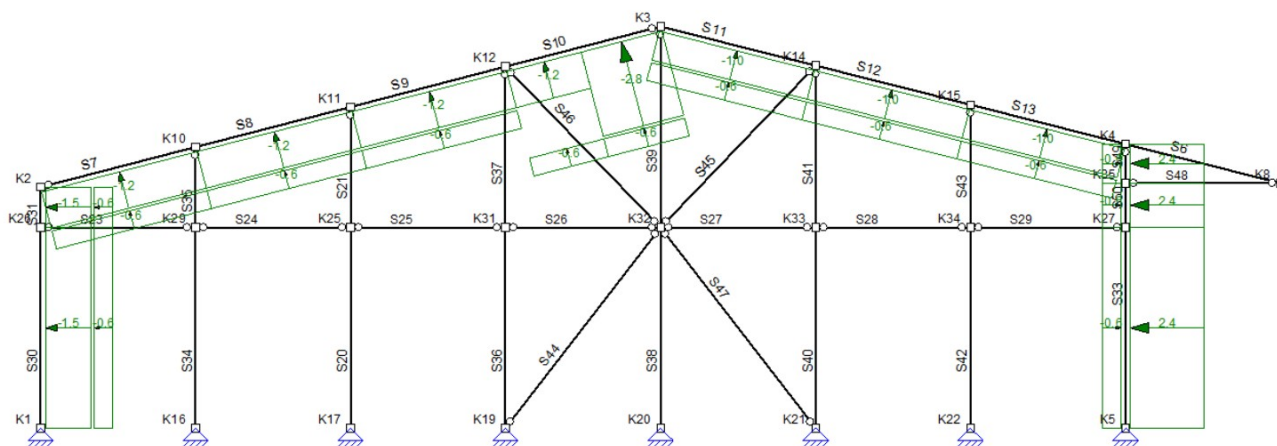
B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



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

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | 0.6 (q25) | 0.6 (q25) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q21) | -1.2 (q21) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q22) | -2.7 (q22) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q21) | -1.2 (q21) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q23) | 2.4 (q23) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q24) | -1.5 (q24) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

B.G.17: Windbelasting van Rechts + Overdruk



B.G.17: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | L | Z' | S7-S9 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | 2.48 | Z' | S10 | |
| | | | m | m | | | |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

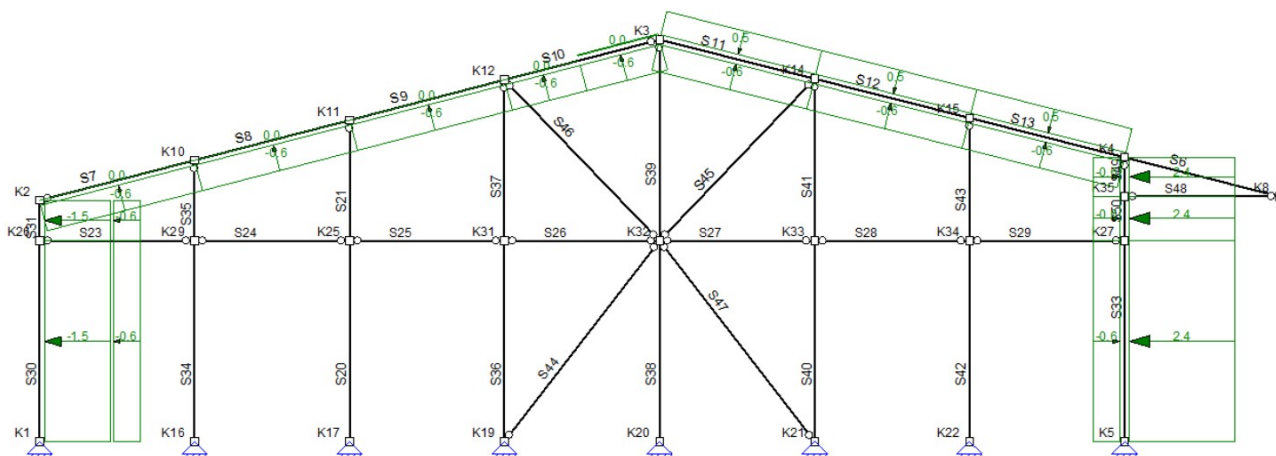
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|---------------|--------------|
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q34) | -2.8 (q34) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q35) | -1.0 (q35) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q36) | -1.5 (q36) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q37) | 2.4 (q37) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

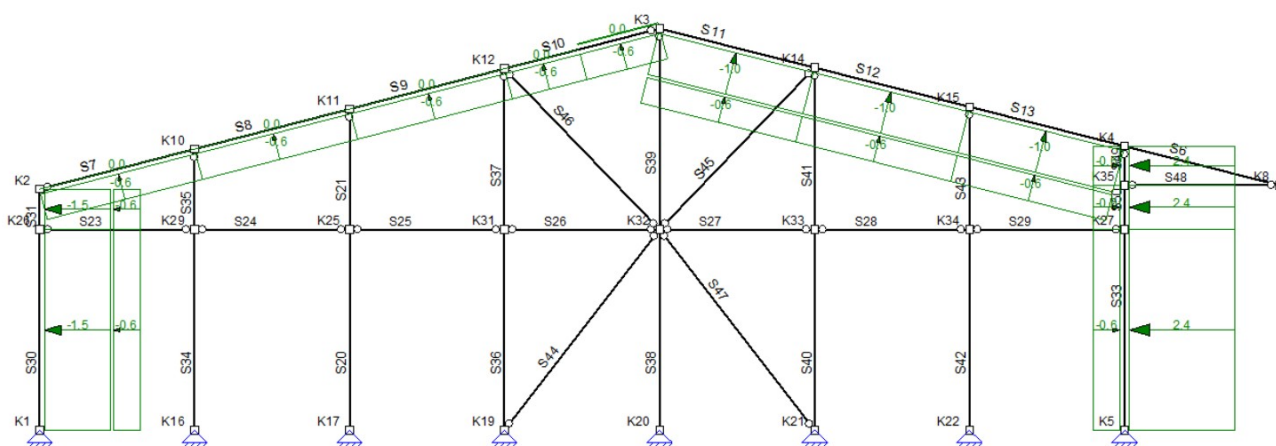
B.G.18: Windbelasting van Rechts + Overdruk (2e Cpe)



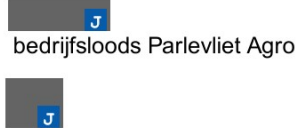
B.G.18: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | L | Z' | S7-S9 | |
| q | -0.6 (-q39) | -0.6 (-q39) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q39) | -0.6 (-q39) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q40) | 0.0 (q40) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q39) | -0.6 (-q39) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q41) | 0.5 (q41) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q42) | -1.5 (q42) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q43) | 2.4 (q43) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

B.G.19: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm

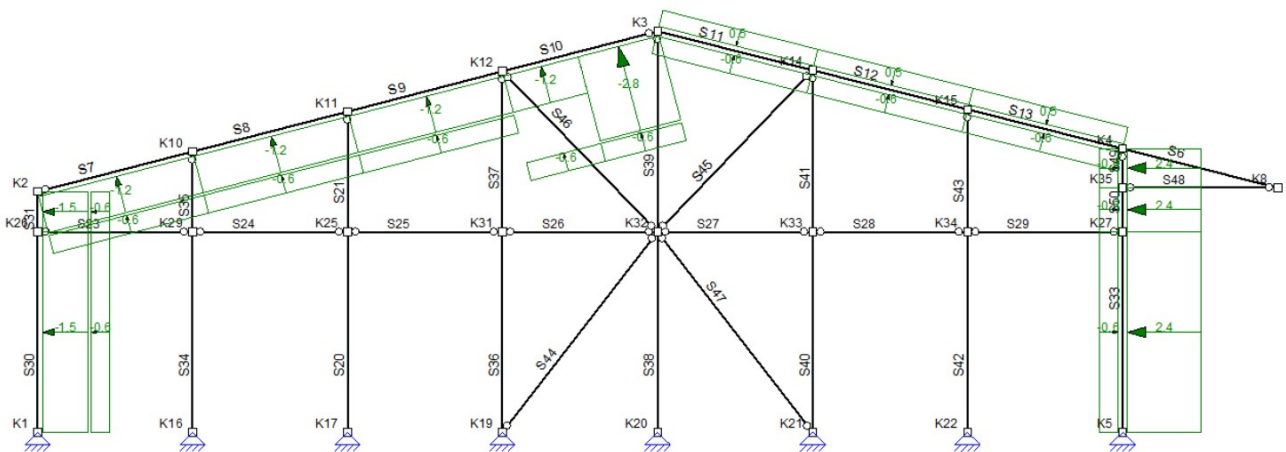


B.G.19: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | L | Z' | S7-S9 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q40) | 0.0 (q40) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q35) | -1.0 (q35) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q36) | -1.5 (q36) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q37) | 2.4 (q37) | 0.00 | L | Z' | S33,S49-S50 | |

m m

B.G.20: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



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

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | L | Z' | S7-S9 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q34) | -2.8 (q34) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q41) | 0.5 (q41) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q36) | -1.5 (q36) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q37) | 2.4 (q37) | 0.00 | L | Z' | S33,S49-S50 | |

m m

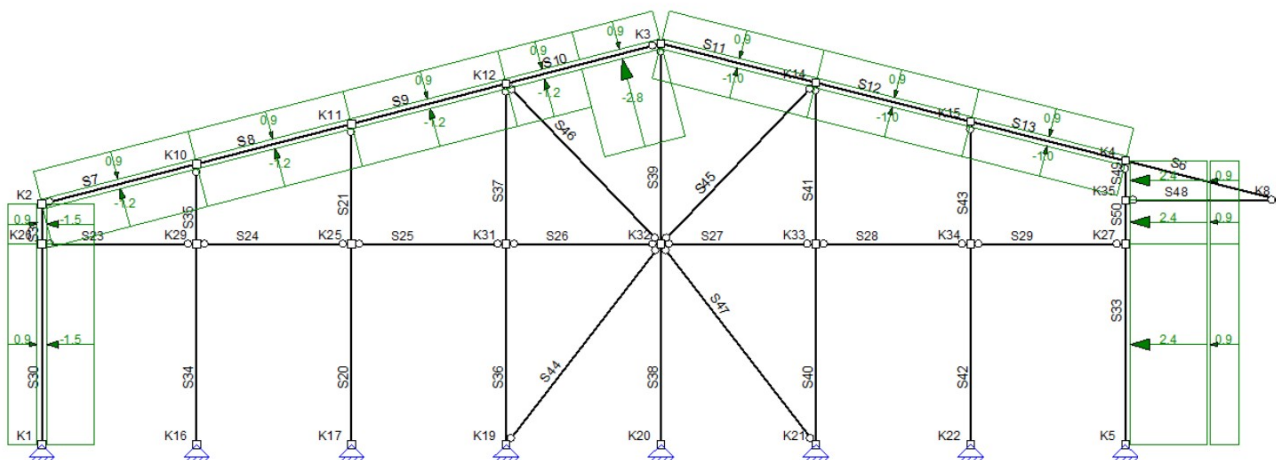
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



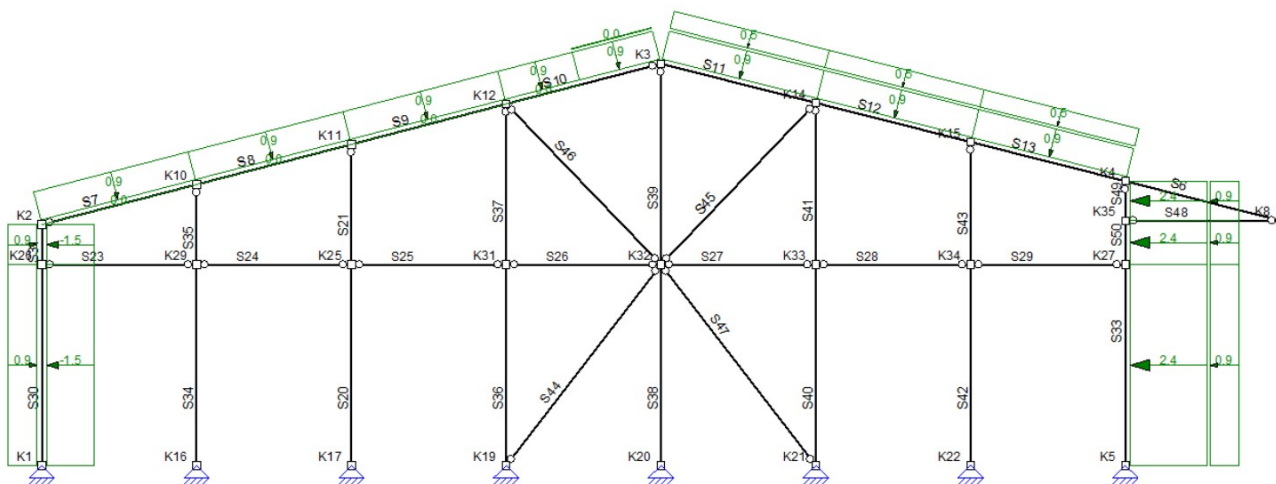
B.G.21: Windbelasting van Rechts + Onderdruk



B.G.21: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | L | Z' | S7-S9 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q46) | -2.8 (q46) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q47) | -1.0 (q47) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q48) | -1.5 (q48) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q49) | 2.4 (q49) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

B.G.22: Windbelasting van Rechts + Onderdruk (2e Cpe)



B.G.22: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | L | Z' | S7-S9 | |
| q | 0.9 (-q51) | 0.9 (-q51) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q51) | 0.9 (-q51) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q52) | 0.0 (q52) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q51) | 0.9 (-q51) | 2.48 | 5.17 (L) | Z' | S10 | |
| | | | m | m | | | |

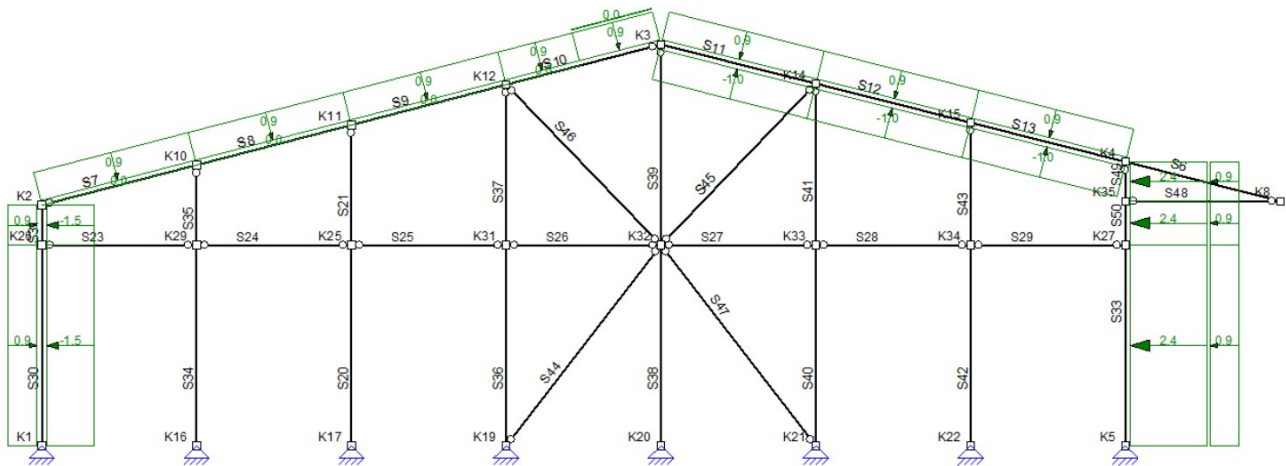
Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 0.5 (q53) | 0.5 (q53) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q54) | -1.5 (q54) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q55) | 2.4 (q55) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

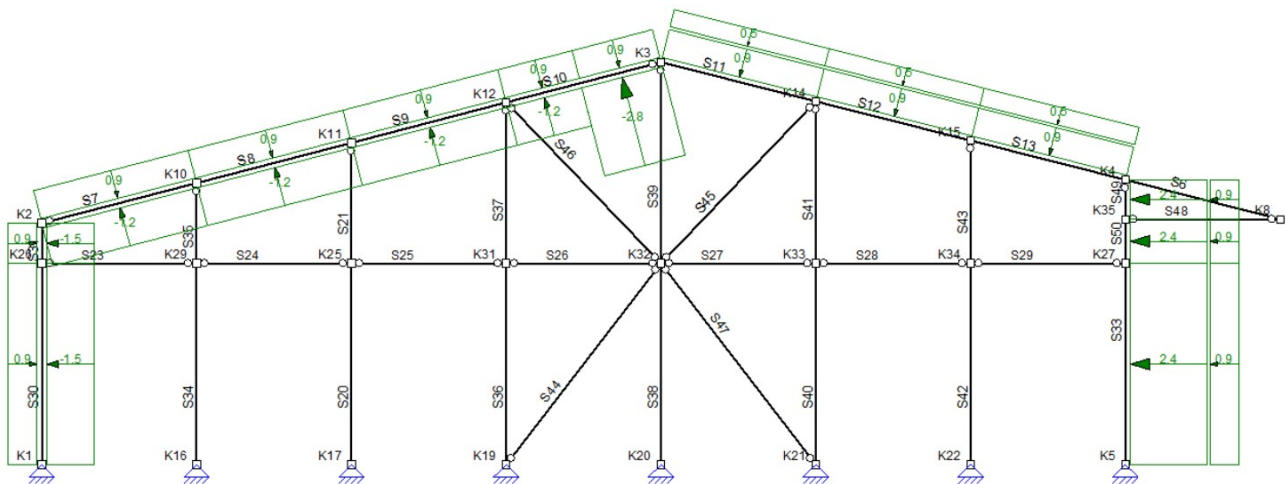
B.G.23: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.23: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | L | Z' | S7-S9 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q52) | 0.0 (q52) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q47) | -1.0 (q47) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q48) | -1.5 (q48) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q49) | 2.4 (q49) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

B.G.24: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



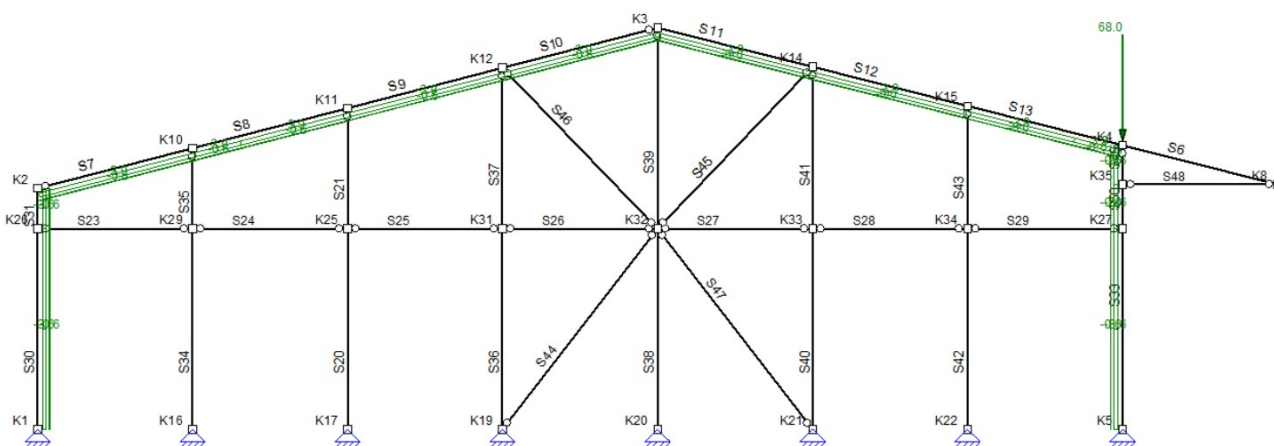
Eenheden: m, mm, kN, kNm



B.G.24: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | | L | Z' S7-S9 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q46) | -2.8 (q46) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q53) | 0.5 (q53) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q48) | -1.5 (q48) | 0.00 | | L | Z' S30-S31 | |
| q | 2.4 (q49) | 2.4 (q49) | 0.00 | | L | Z' S33,S49-S50 | |
| | | | m | m | | | |

B.G.25: Windbelasting van Voren + Overdruk



B.G.25: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------------------------|--------------|
| q | -3.9 (q56) | -3.9 (q56) | 0.00 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 0.00 | | L | Z' S7,S9-S12,S30-S31,S33,S49-S50 | |
| q | -3.9 (q56) | -3.9 (q56) | 0.00 | 1.55 | Z' | S8 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 0.00 | 1.55 | Z' | S8 | |
| q | -3.9 (q58) | -3.9 (q58) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | -3.9 (q58) | -3.9 (q58) | 0.00 | | L | Z' S9-S10 | |
| q | -3.9 (q59) | -3.9 (q59) | 0.00 | | L | Z' S11-S12 | |
| q | -3.9 (q60) | -3.9 (q60) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | -3.9 (q59) | -3.9 (q59) | 0.00 | 3.61 | Z' | S13 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 0.00 | 3.61 | Z' | S13 | |
| q | -3.6 (q61) | -3.6 (q61) | 0.00 | | L | Z' S30-S31,S33,S49-S50 | |
| N | 68.0 | | | | | Z K4 | |
| | | | m | m | | | |

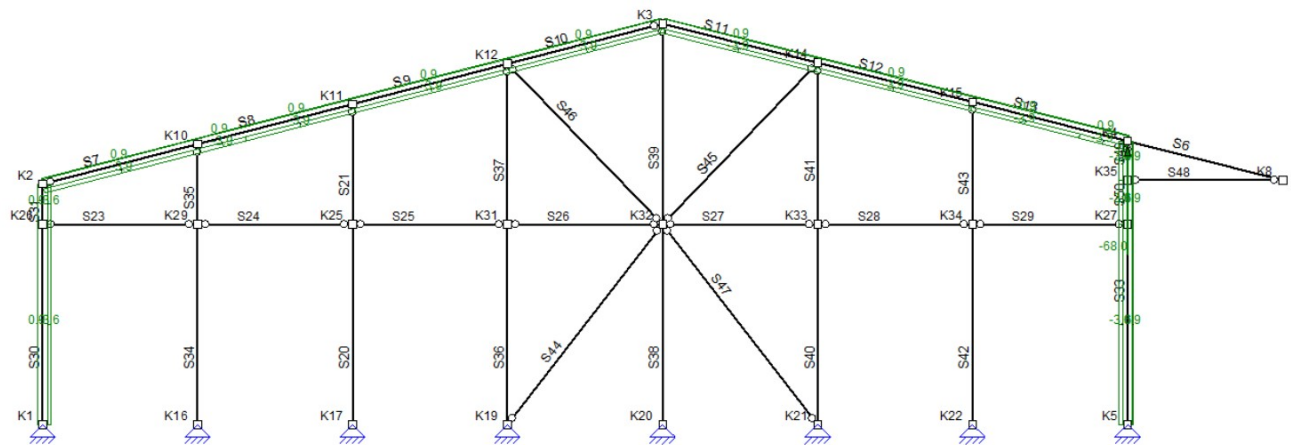
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



B.G.26: Windbelasting van Voren + Onderdruk

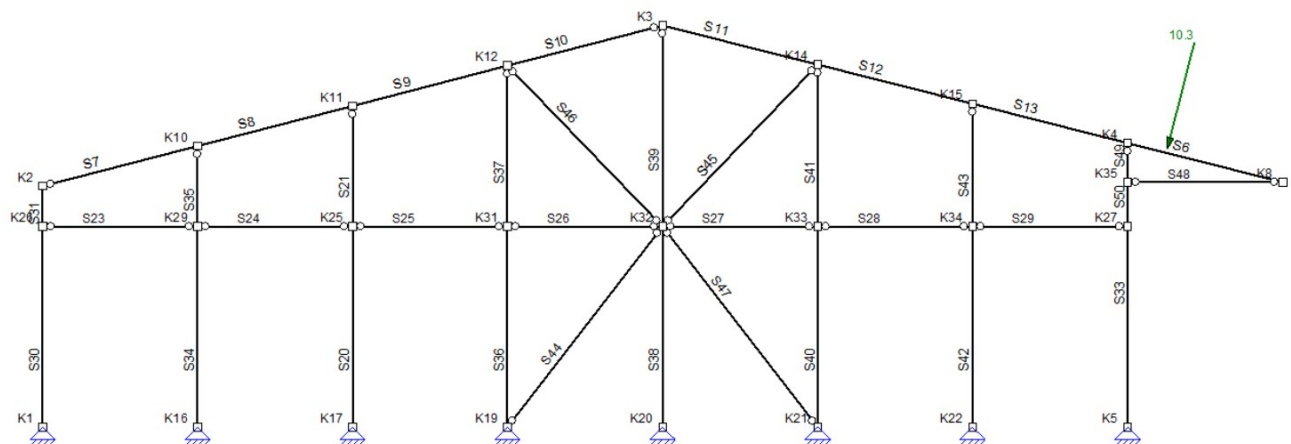


B.G.26: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------------------|--------------|
| q | -3.9 (q62) | -3.9 (q62) | 0.00 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 0.00 | L | Z' | S7,S9-S12,S30-S31,S33,S49-S50 | |
| q | -3.9 (q62) | -3.9 (q62) | 0.00 | 1.55 | Z' | S8 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 0.00 | 1.55 | Z' | S8 | |
| q | -3.9 (q64) | -3.9 (q64) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | -3.9 (q64) | -3.9 (q64) | 0.00 | L | Z' | S9-S10 | |
| q | -3.9 (q65) | -3.9 (q65) | 0.00 | L | Z' | S11-S12 | |
| q | -3.9 (q66) | -3.9 (q66) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | -3.9 (q65) | -3.9 (q65) | 0.00 | 3.61 | Z' | S13 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 0.00 | 3.61 | Z' | S13 | |
| q | -3.6 (q67) | -3.6 (q67) | 0.00 | L | Z' | S30-S31,S33,S49-S50 | |
| N | -68.0 | | | | Z | K4 | |

m m

B.G.27: Windbelasting (enkele luifel) [1/4]



B.G.27: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | 10.3 (F1) | | 1.29 | | Z' | S6 | |

m m

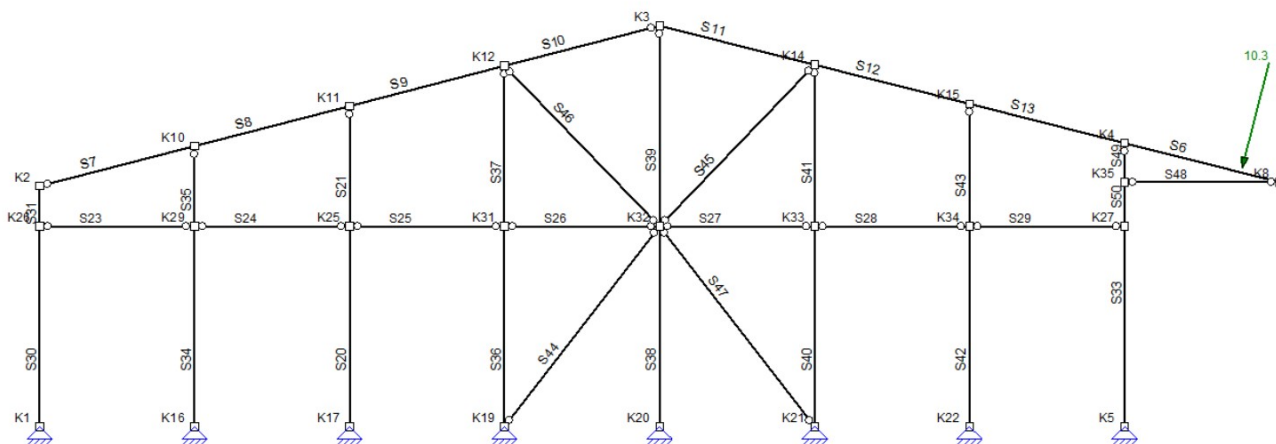
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



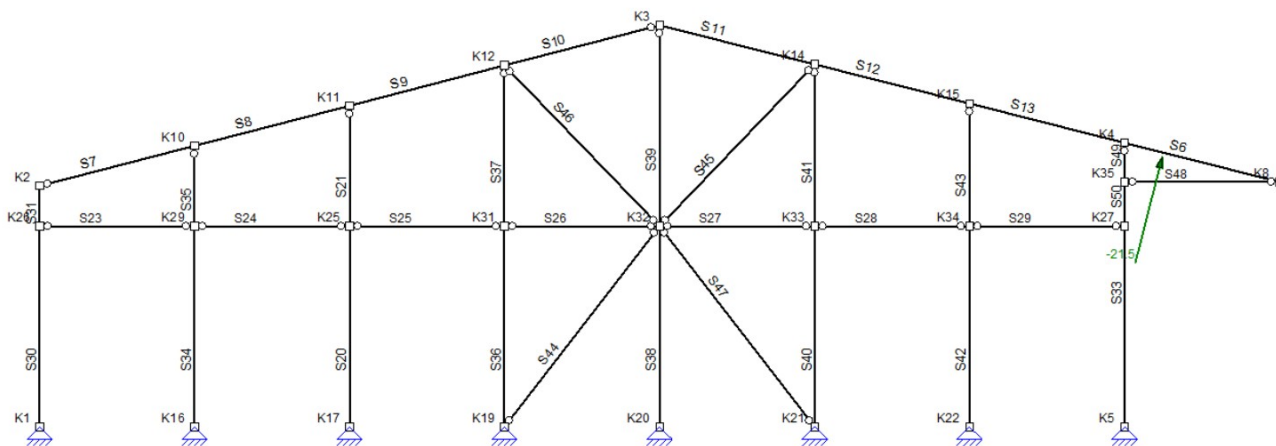
B.G.28: Windbelasting (enkele luifel) [2/4]



B.G.28: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | 10.3 (F1) | | 3.87 | | Z' | S6 | |
| | | | m | m | | | |

B.G.29: Windbelasting (enkele luifel) [3/4]



B.G.29: WINDBELASTING (ENKELE LUIFEL) [3/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | -21.5 (F2) | | 1.29 | | Z' | S6 | |
| | | | m | m | | | |

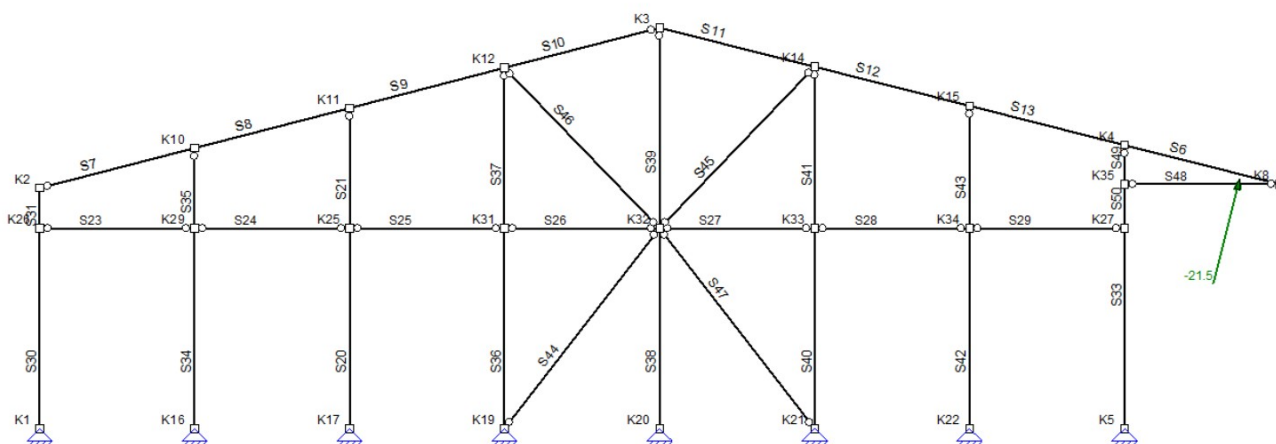
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



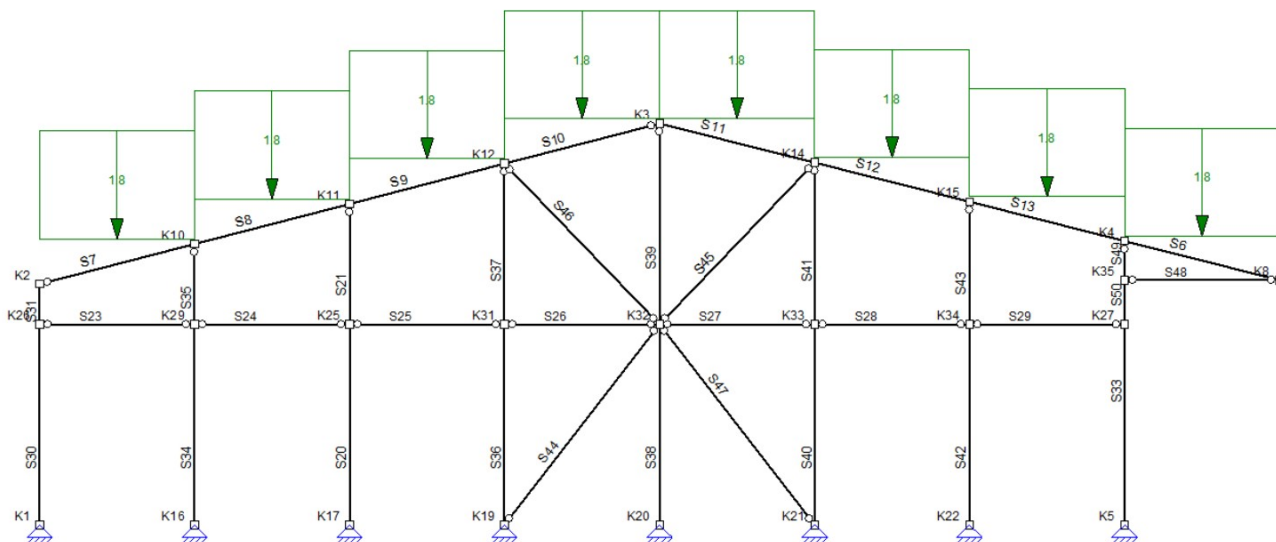
B.G.30: Windbelasting (enkele luifel) [4/4]



B.G.30: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | -21.5 (F2) | | 3.87 | | Z' | S6 | |
| | | | m | m | | | |

B.G.31: Sneeuwbelasting 1



B.G.31: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q68) | 1.8 (q68) | 0.00 | L | Z | S6,S11-S13 | |
| q | 1.8 (q70) | 1.8 (q70) | 0.00 | L | Z | S7-S10 | |
| | | | m | m | | | |

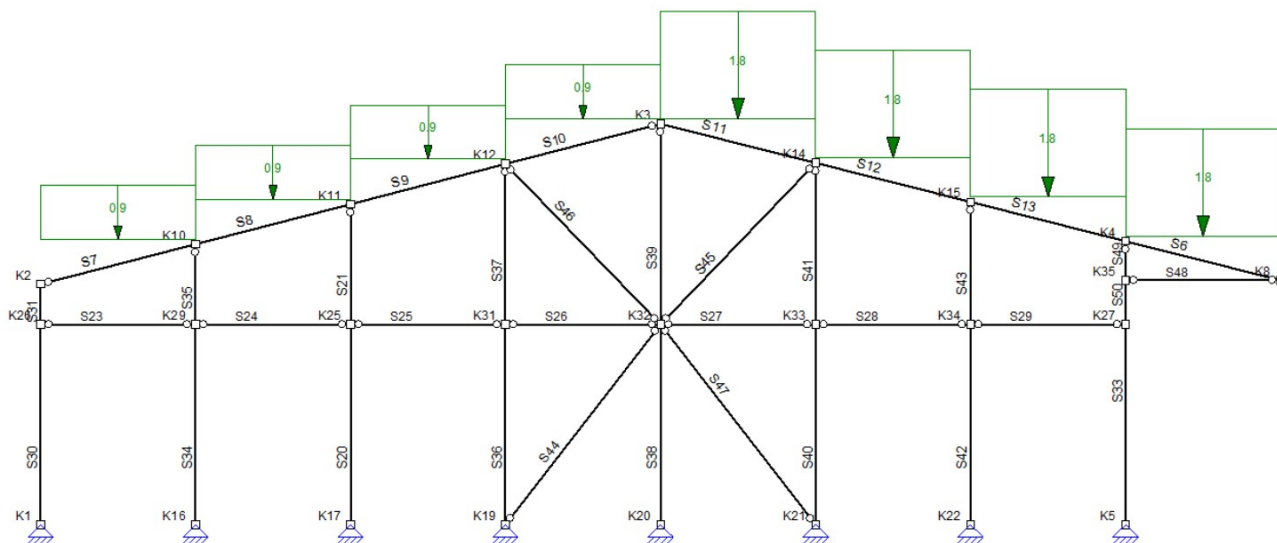
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



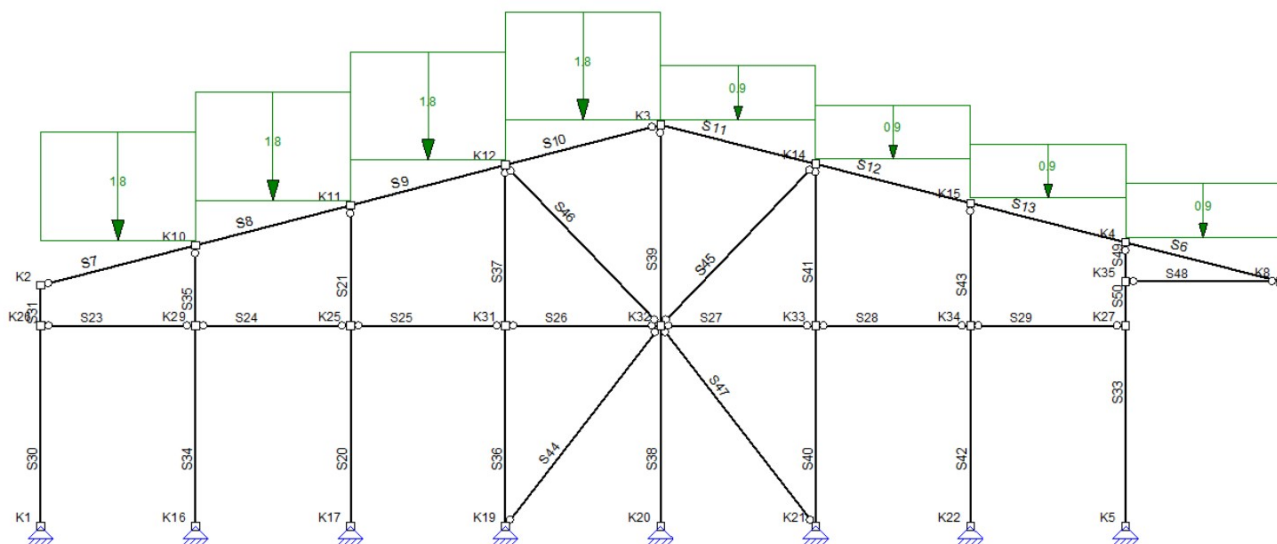
B.G.32: Sneeuwbelasting 2



B.G.32: SNEEUWBELASTING 2


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q68) | 1.8 (q68) | 0.00 | L | Z | S6,S11-S13 | |
| q | 0.9 (q71) | 0.9 (q71) | 0.00 | L | Z | S7-S10 | |
| | | | m | m | | | |

B.G.33: Sneeuwbelasting 3





B.G.33: SNEEUWBELASTING 3


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 0.9 (q69) | 0.9 (q69) | 0.00 | L | Z | S6,S11-S13 | |
| q | 1.8 (q70) | 1.8 (q70) | 0.00 | L | Z | S7-S10 | |
| | | | m | m | | | |

Projectnummer  J

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever 

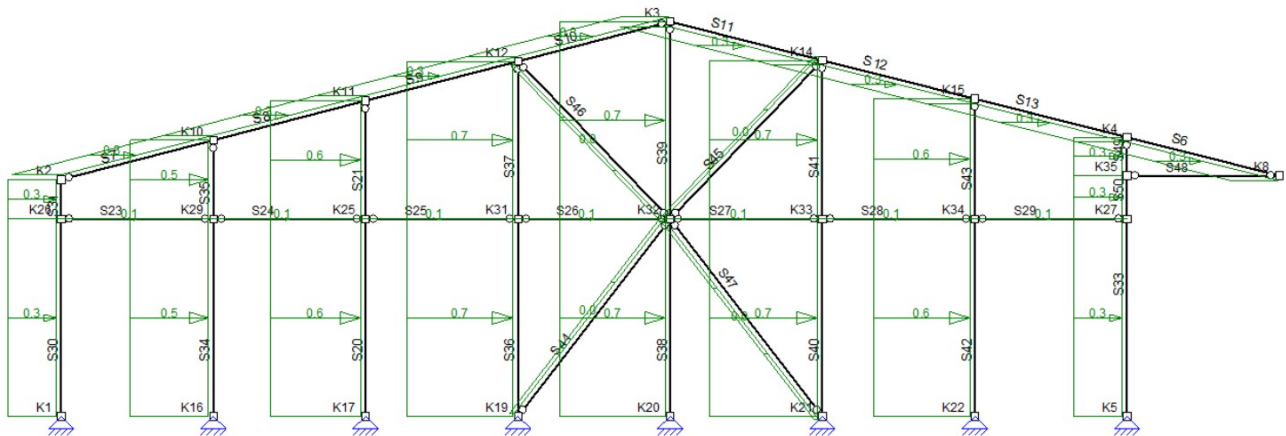
Constructeur  J

Omschrijving 

Eenheden: m, mm, kN, kNm



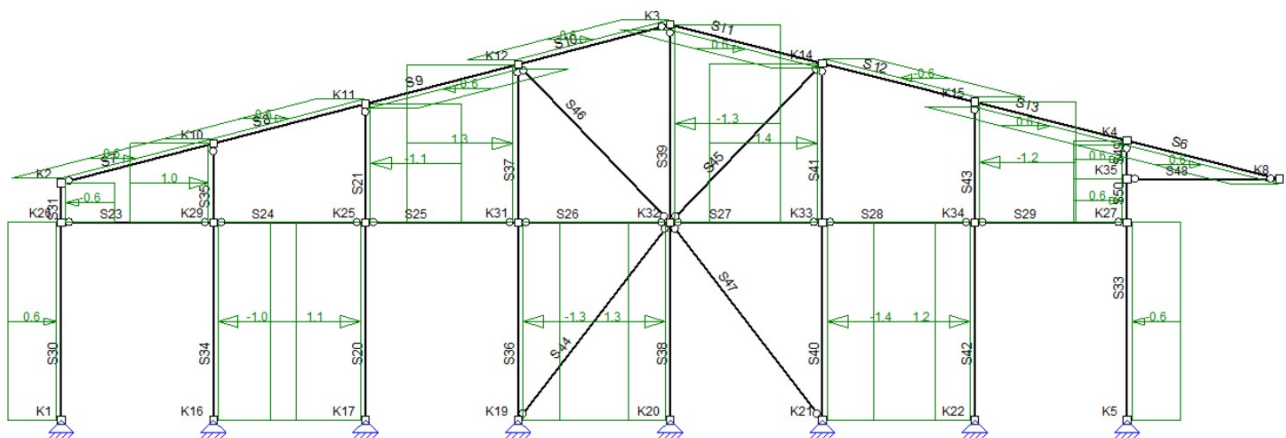
B.G.34: Kniklänge (Asymmetrisch)



B.G.34: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staa of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S6-S13,S20-S21, S23-S31,S33-S47,S49-S50 | |
| | | | m | m | | | |

B.G.35: Kniklänge (Symmetrisch)



B.G.35: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoopp | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|---|--------------|
| qG | 2.0 | 2.0 | 0.00 | L | X" | S6-S8,S10-S11, S13,S20,S30,S35, S37-S38,S41-S42,S49-S50 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S9,S12,S21,S31, S33-S34,S36,S39-S40,S43 | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

Fundamenteel

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|-------------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| B.G.7 | Opgelegde belastinge... | 1.17 | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | 1.17 | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | 1.15 | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | 1.15 | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | 1.15 | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | 1.15 | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | 1.15 | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | 1.15 | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | 1.15 | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | 1.15 | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | 1.15 | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | 1.15 |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 | |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | 1.15 | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | 1.15 | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | 1.15 | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | 1.15 | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | 1.15 | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | 1.15 | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | 1.15 | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | 1.15 | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | 1.15 | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | 1.15 | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | 1.15 |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.34 | Kniklengte (Asymmetrisch) | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetrisch) | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.21 | Fu.C.22 | Fu.C.23 | Fu.C.24 | Fu.C.25 | Fu.C.26 | Fu.C.27 | Fu.C.28 | Fu.C.29 | Fu.C.30 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 |
| B.G.2 | Opgelegde belastingen | | | | | | | | | 1.17 | |
| B.G.3 | Opgelegde belastingen | | | | | | | | | | 1.17 |
| B.G.4 | Opgelegde belastingen | | | | | | | | | | |
| B.G.5 | Opgelegde belastingen | | | | | | | | | | |
| B.G.6 | Opgelegde belastingen | | | | | | | | | | |
| B.G.7 | Opgelegde belastingen | | | | | | | | | | |
| B.G.8 | Opgelegde belastingen | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | 1.15 | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | 1.15 | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | 1.15 | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | 1.01 | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | 1.01 | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | 1.01 | | | | |
| B.G.34 | Kniklengte (Asymmetrisch) | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetrisch) | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.31 | Fu.C.32 | Fu.C.33 | Fu.C.34 | Fu.C.35 | | | | | |
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | | | | | |
| B.G.2 | Opgelegde belastingen | | | | | | | | | | |
| B.G.3 | Opgelegde belastingen | | | | | | | | | | |
| B.G.4 | Opgelegde belastingen | 1.17 | | | | | | | | | |
| B.G.5 | Opgelegde belastingen | | 1.17 | | | | | | | | |
| B.G.6 | Opgelegde belastingen | | | 1.17 | | | | | | | |
| B.G.7 | Opgelegde belastingen | | | | 1.17 | | | | | | |
| B.G.8 | Opgelegde belastingen | | | | | 1.17 | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



B.G.25 Windbelasting van Vo...
 B.G.26 Windbelasting van Vo...
 B.G.27 Windbelasting (enkele...
 B.G.28 Windbelasting (enkele...
 B.G.29 Windbelasting (enkele...
 B.G.30 Windbelasting (enkele...
 B.G.31 Sneeuwbelasting 1
 B.G.32 Sneeuwbelasting 2
 B.G.33 Sneeuwbelasting 3
 B.G.34 Kniklengte (Asymmetr...
 B.G.35 Kniklengte (Symmetris...

Karakteristiek

| 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 | Ka.C.8 | Ka.C.9 |
|--------|--------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | | | 0.87 | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | 0.87 | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | 0.87 | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | 0.87 | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | 0.87 | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | 0.87 | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | 0.87 | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | 0.85 |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 | Ka.C.13 | Ka.C.14 | Ka.C.15 | Ka.C.16 | Ka.C.17 | Ka.C.18 | Ka.C.19 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | 0.85 | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | 0.85 | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | 0.85 | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | 0.85 | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving [REDACTED] beengisloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

[illegible]

Projectnummer  J

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever 

Constructeur  J

Omschrijving

Eenheden: m, mm, kN, kNm

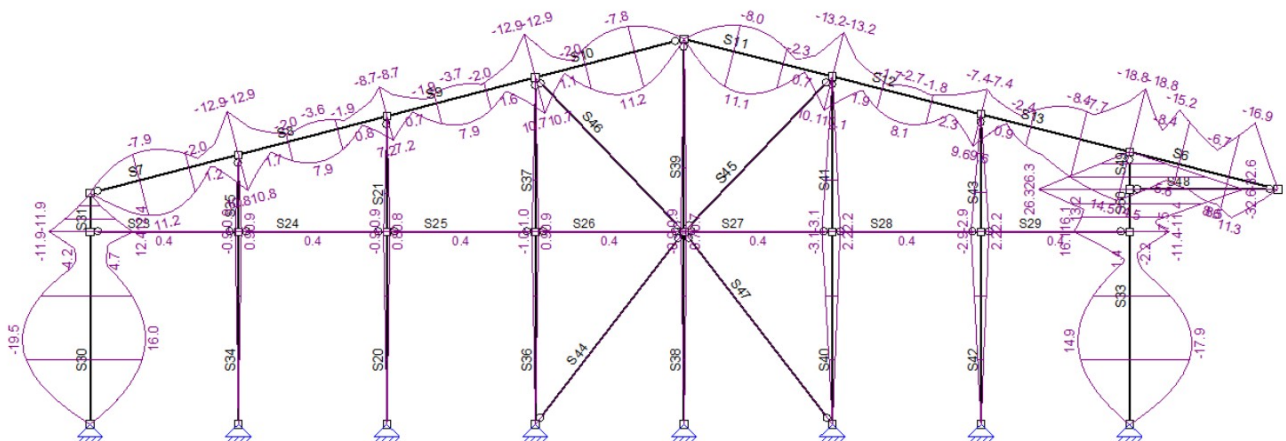


- | | | | |
|--------|--------------------------|------|------|
| B.G.5 | Opgelegde belastinge... | | |
| B.G.6 | Opgelegde belastinge... | | |
| B.G.7 | Opgelegde belastinge... | | |
| B.G.8 | Opgelegde belastinge... | | |
| B.G.9 | Windbelasting van Lin... | | |
| B.G.10 | Windbelasting van Lin... | | |
| B.G.11 | Windbelasting van Lin... | | |
| B.G.12 | Windbelasting van Lin... | | |
| B.G.13 | Windbelasting van Lin... | | |
| B.G.14 | Windbelasting van Lin... | | |
| B.G.15 | Windbelasting van Lin... | | |
| B.G.16 | Windbelasting van Lin... | | |
| B.G.17 | Windbelasting van Re... | | |
| B.G.18 | Windbelasting van Re... | | |
| B.G.19 | Windbelasting van Re... | | |
| B.G.20 | Windbelasting van Re... | | |
| B.G.21 | Windbelasting van Re... | | |
| B.G.22 | Windbelasting van Re... | | |
| B.G.23 | Windbelasting van Re... | | |
| B.G.24 | Windbelasting van Re... | | |
| B.G.25 | Windbelasting van Vo... | | |
| B.G.26 | Windbelasting van Vo... | | |
| B.G.27 | Windbelasting (enkele... | | |
| B.G.28 | Windbelasting (enkele... | | |
| B.G.29 | Windbelasting (enkele... | | |
| B.G.30 | Windbelasting (enkele... | 0.85 | |
| B.G.31 | Sneeuwbelasting 1 | 0.75 | |
| B.G.32 | Sneeuwbelasting 2 | | 0.75 |
| B.G.33 | Sneeuwbelasting 3 | | |
| B.G.34 | Kniklengte (Asymmetr... | | 0.75 |
| B.G.35 | Kniklengte (Symmetris... | | |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse
Trekelement(en) gebruikt

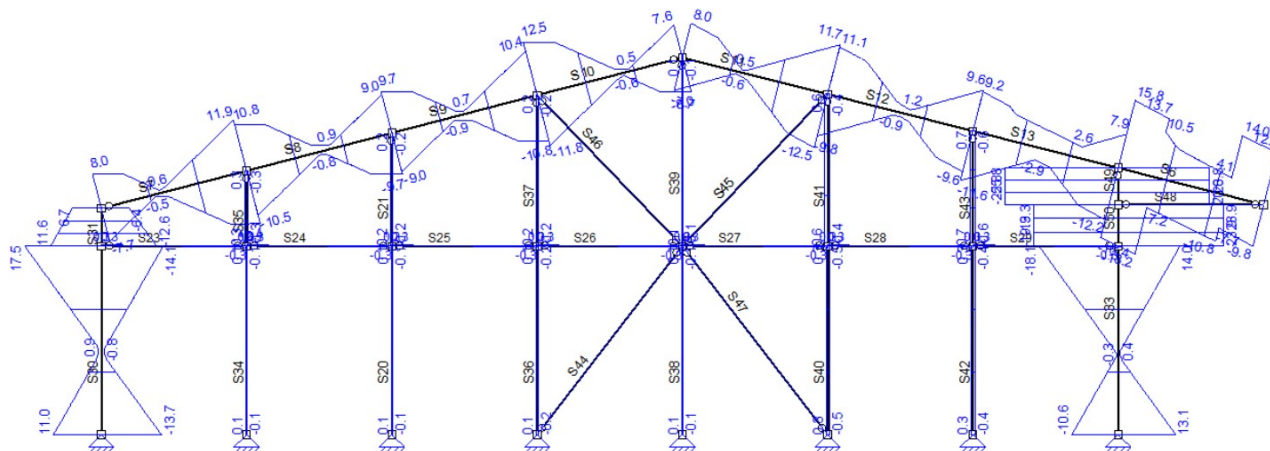
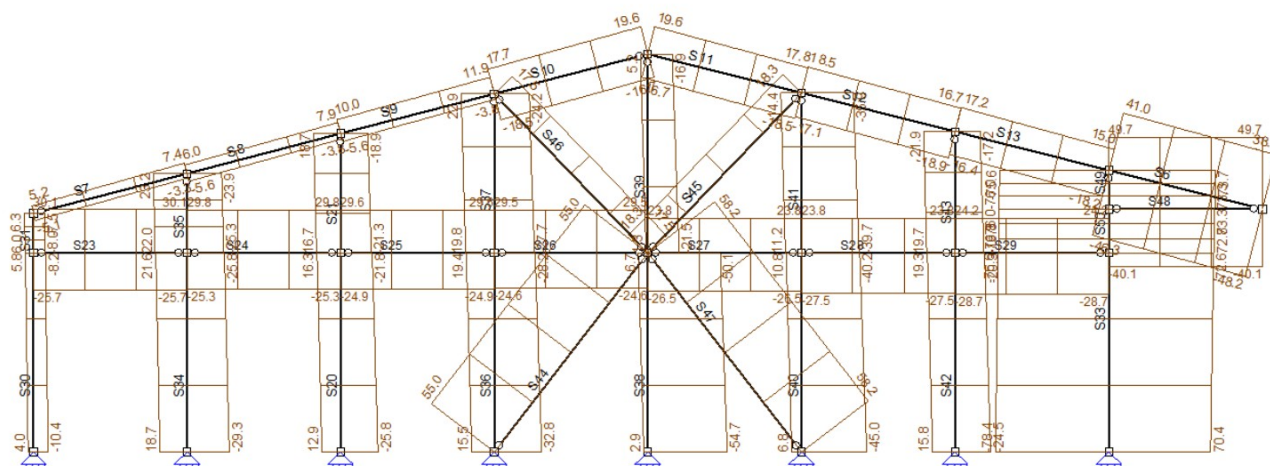
Fu.C. Omhullende Momenten (My)



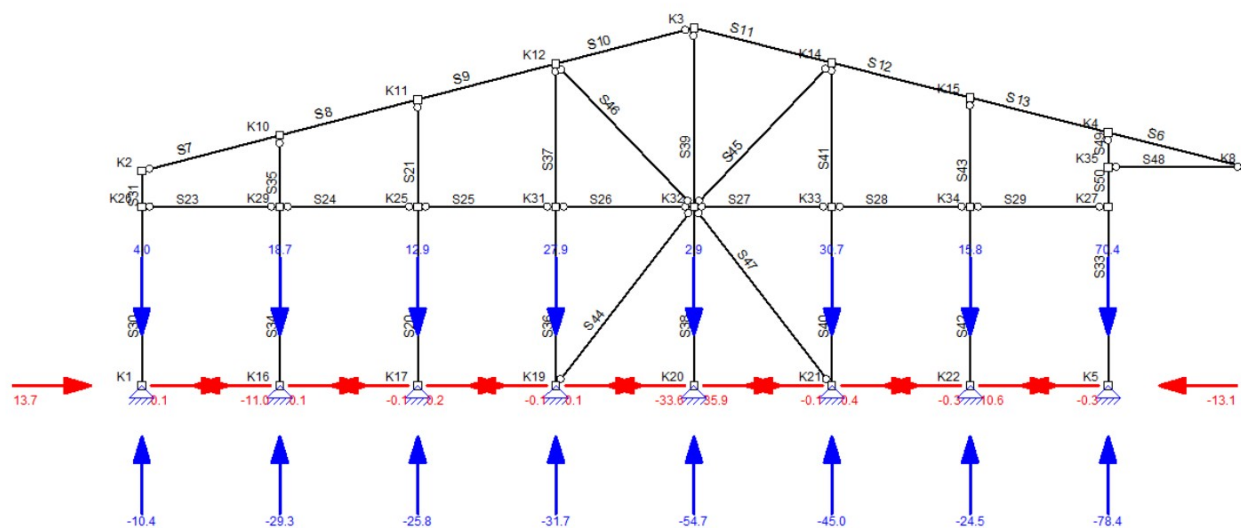
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

Fu.C. Omhullende Dwarskracht (V_z)Fu.C. Omhullende Normaalkracht (N_x)

Fu.C. Omhullende Oplegreacties



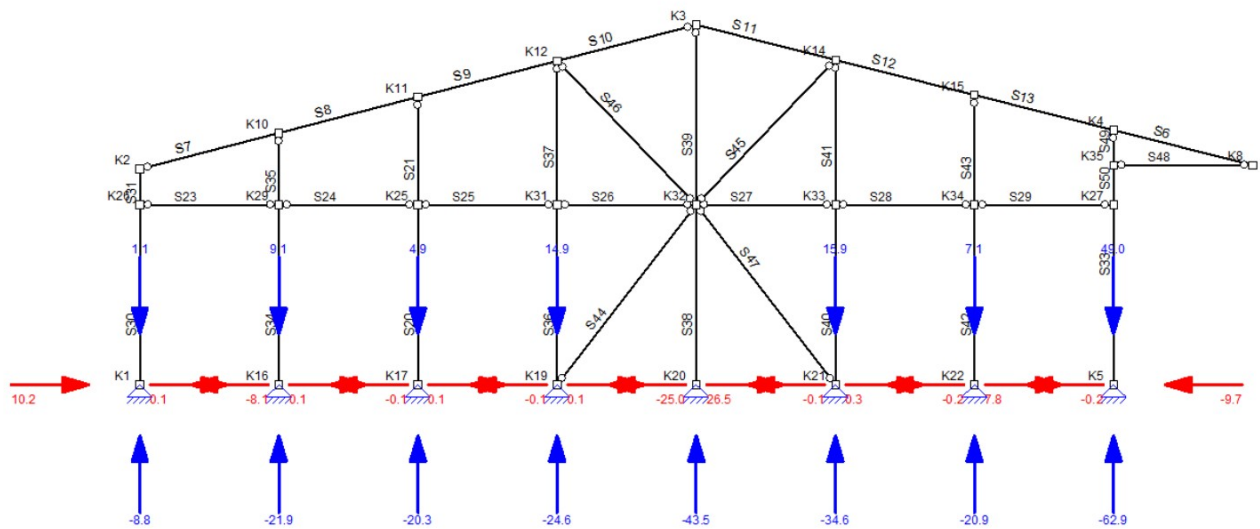
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

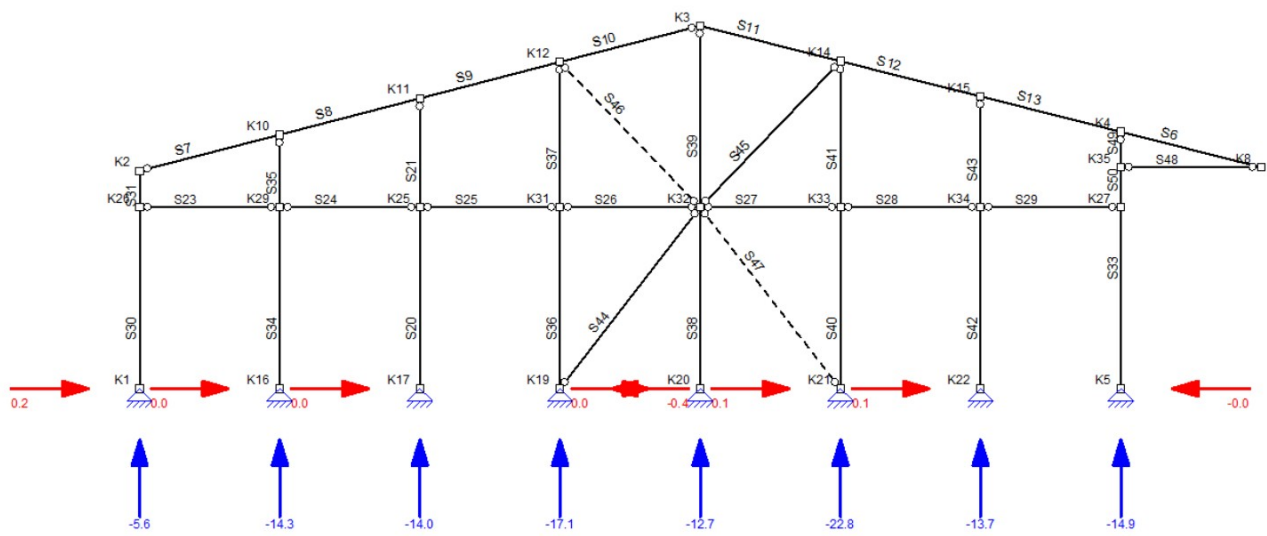
Eenheden: m, mm, kN, kNm



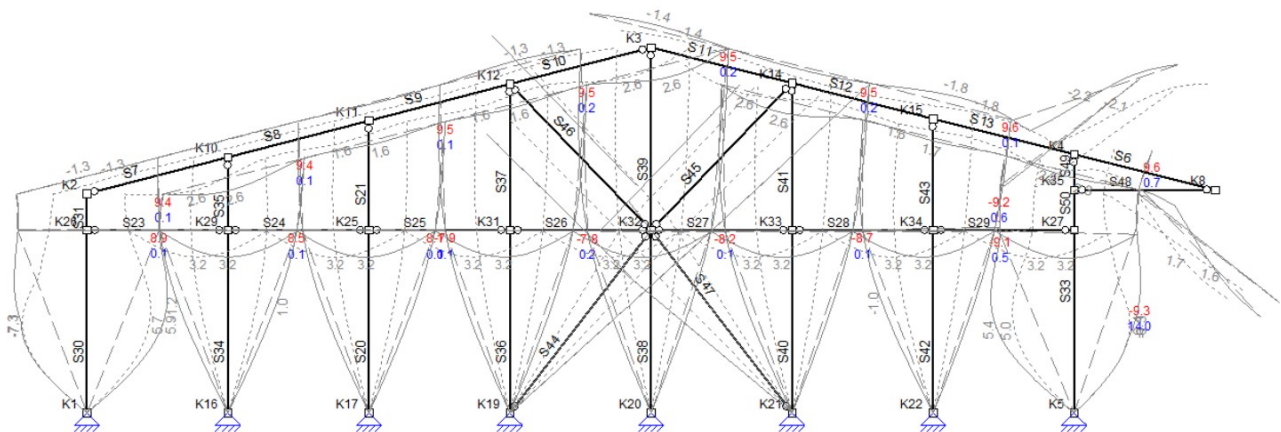
Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



Ka.C. Omhullende Doorbuigingen



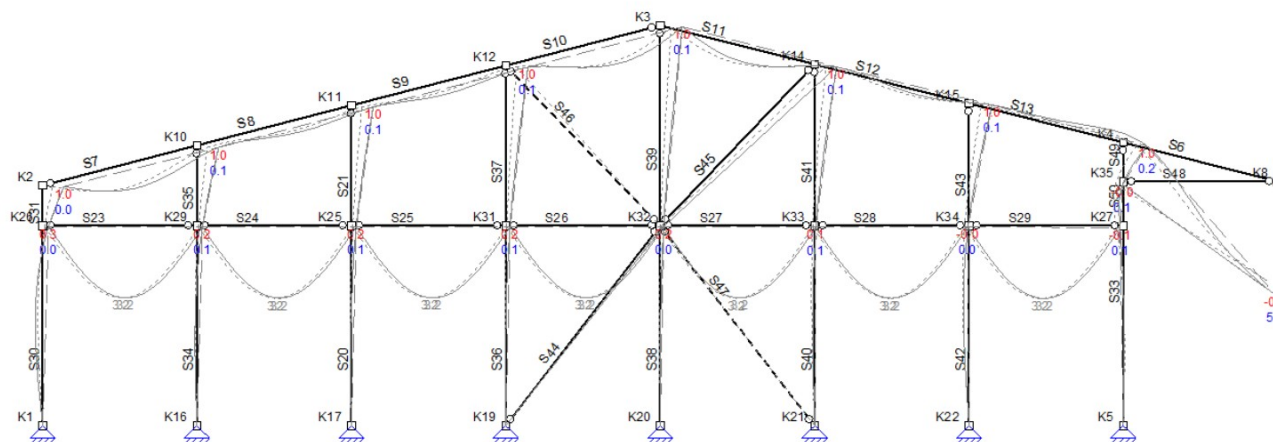
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

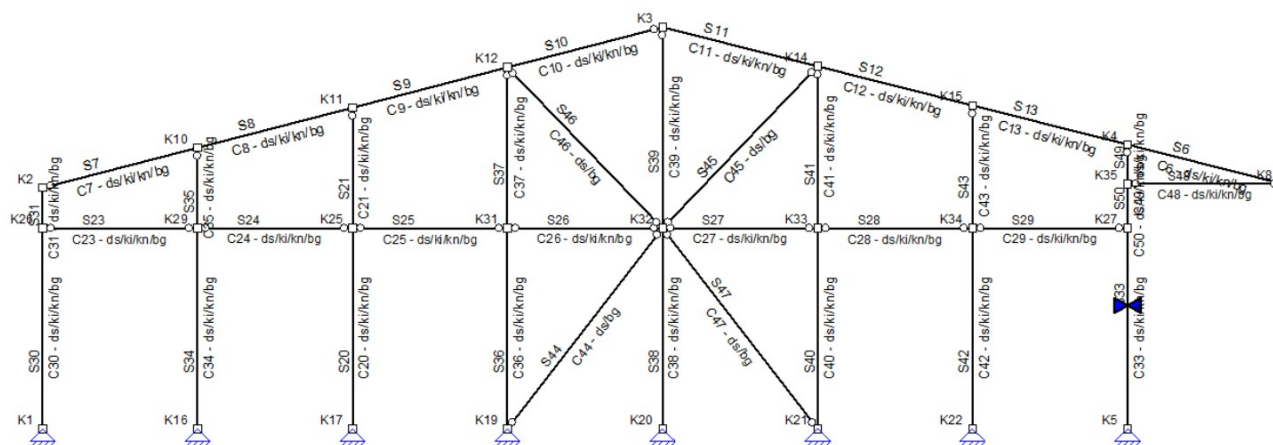
Eenheden: m, mm, kN, kNm



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|-----------------|--------------|
| C6 | S6 |
| C7 | S7 |
| C8 | S8 |
| C9 | S9 |
| C10 | S10 |
| C11 | S11 |
| C12 | S12 |
| C13 | S13 |
| C20 | S20 |
| C21 | S21 |
| C23 | S23 |
| C24 | S24 |
| C25 | S25 |
| C26 | S26 |
| C27 | S27 |
| C28 | S28 |
| C29 | S29 |
| C30 | S30 |
| C31 | S31 |
| C33 | S33 |
| C34 | S34 |
| C35 | S35 |
| C36 | S36 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Constructiedeel Staaf/staven

| | |
|-----|-----|
| C37 | S37 |
| C38 | S38 |
| C39 | S39 |
| C40 | S40 |
| C41 | S41 |
| C42 | S42 |
| C43 | S43 |
| C44 | S44 |
| C45 | S45 |
| C46 | S46 |
| C47 | S47 |
| C48 | S48 |
| C49 | S49 |
| C50 | S50 |

INVOER GEGEVENS

KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lsys | Lokale Y-as Methode | Lbuc | Lbuc/Lsys | Lokale Z-as Methode | Lbuc | Lbuc/Lsys |
|----------------------|---------|------|------------------------|------|-----------|------------------------|------|-----------|
| C6-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C7-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C8-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C9-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C10-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C11-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C12-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C13-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C20-V1 (0.000-6.500) | P6 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C21-V1 (0.000-3.900) | P6 | 3.90 | Cons. gesch. | 3.90 | 1.0 | Cons. gesch. | 3.90 | 1.0 |
| C23-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C24-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C25-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C26-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C27-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C28-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C29-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C30-V1 (0.000-6.500) | P1 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C31-V1 (0.000-1.300) | P1 | 1.30 | Cons. gesch. | 1.30 | 1.0 | Cons. gesch. | 1.30 | 1.0 |
| C33-V1 (0.000-6.500) | P1 | 6.50 | Cons. gesch. | 6.50 | 1.0 | handmatig geschoord | 4.00 | 0.6 |
| C34-V1 (0.000-6.500) | P9 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C35-V1 (0.000-2.600) | P9 | 2.60 | Cons. gesch. | 2.60 | 1.0 | Cons. gesch. | 2.60 | 1.0 |
| C36-V1 (0.000-6.500) | P5 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C37-V1 (0.000-5.200) | P5 | 5.20 | Cons. gesch. | 5.20 | 1.0 | Cons. gesch. | 5.20 | 1.0 |
| C38-V1 (0.000-6.500) | P5 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C39-V1 (0.000-6.500) | P5 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C40-V1 (0.000-6.500) | P7 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C41-V1 (0.000-5.233) | P7 | 5.23 | Cons. gesch. | 5.23 | 1.0 | Cons. gesch. | 5.23 | 1.0 |
| C42-V1 (0.000-6.500) | P8 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C43-V1 (0.000-3.967) | P8 | 3.97 | Cons. gesch. | 3.97 | 1.0 | Cons. gesch. | 3.97 | 1.0 |
| C48-V1 (0.000-5.000) | P4 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C49-V1 (0.000-1.267) | P1 | 1.27 | Cons. gesch. | 1.27 | 1.0 | Cons. gesch. | 1.27 | 1.0 |
| C50-V1 (0.000-1.433) | P1 | 1.43 | Cons. gesch. | 1.43 | 1.0 | Cons. gesch. | 1.43 | 1.0 |
| | | | | m | | | m | |

KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---------------------|---------|----------|----------|------------------|------------------|----------------|
| C6-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C7-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staal | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C8-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C9-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C10-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C11-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C12-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C13-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C20-V1 (0.000-6.500) | P6 | Gesteund | Gesteund | | | Centrum |
| C21-V1 (0.000-3.900) | P6 | Gesteund | Gesteund | | | Centrum |
| C23-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C24-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C25-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C26-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C27-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C28-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C29-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C30-V1 (0.000-6.500) | P1 | Gesteund | Gesteund | | | Centrum |
| C31-V1 (0.000-1.300) | P1 | Gesteund | Gesteund | | | Centrum |
| C33-V1 (0.000-6.500) | P1 | Gesteund | Gesteund | 2.5 | 2.5 | Centrum |
| C34-V1 (0.000-6.500) | P9 | Gesteund | Gesteund | | | Centrum |
| C35-V1 (0.000-2.600) | P9 | Gesteund | Gesteund | | | Centrum |
| C36-V1 (0.000-6.500) | P5 | Gesteund | Gesteund | | | Centrum |
| C37-V1 (0.000-5.200) | P5 | Gesteund | Gesteund | | | Centrum |
| C38-V1 (0.000-6.500) | P5 | Gesteund | Gesteund | | | Centrum |
| C39-V1 (0.000-6.500) | P5 | Gesteund | Gesteund | | | Centrum |
| C40-V1 (0.000-6.500) | P7 | Gesteund | Gesteund | | | Centrum |
| C41-V1 (0.000-5.233) | P7 | Gesteund | Gesteund | | | Centrum |
| C42-V1 (0.000-6.500) | P8 | Gesteund | Gesteund | | | Centrum |
| C43-V1 (0.000-3.967) | P8 | Gesteund | Gesteund | | | Centrum |
| C48-V1 (0.000-5.000) | P4 | Gesteund | Gesteund | | | Centrum |
| C49-V1 (0.000-1.267) | P1 | Gesteund | Gesteund | | | Centrum |
| C50-V1 (0.000-1.433) | P1 | Gesteund | Gesteund | | | Centrum |

DOORBUIGINGGEGEVENS

| Staal | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|------------|---------|-------------|------------------|---------------------------------|---|
| C6-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C7-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C8-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C9-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C10-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C11-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C12-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C13-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C20-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C21-V1 (0.000-3.900) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C23-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C24-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C25-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C26-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C27-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C28-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C29-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C30-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C31-V1 (0.000-1.300) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C33-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C34-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C35-V1 (0.000-2.600) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C36-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C37-V1 (0.000-5.200) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C38-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C39-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |

mm

mm

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

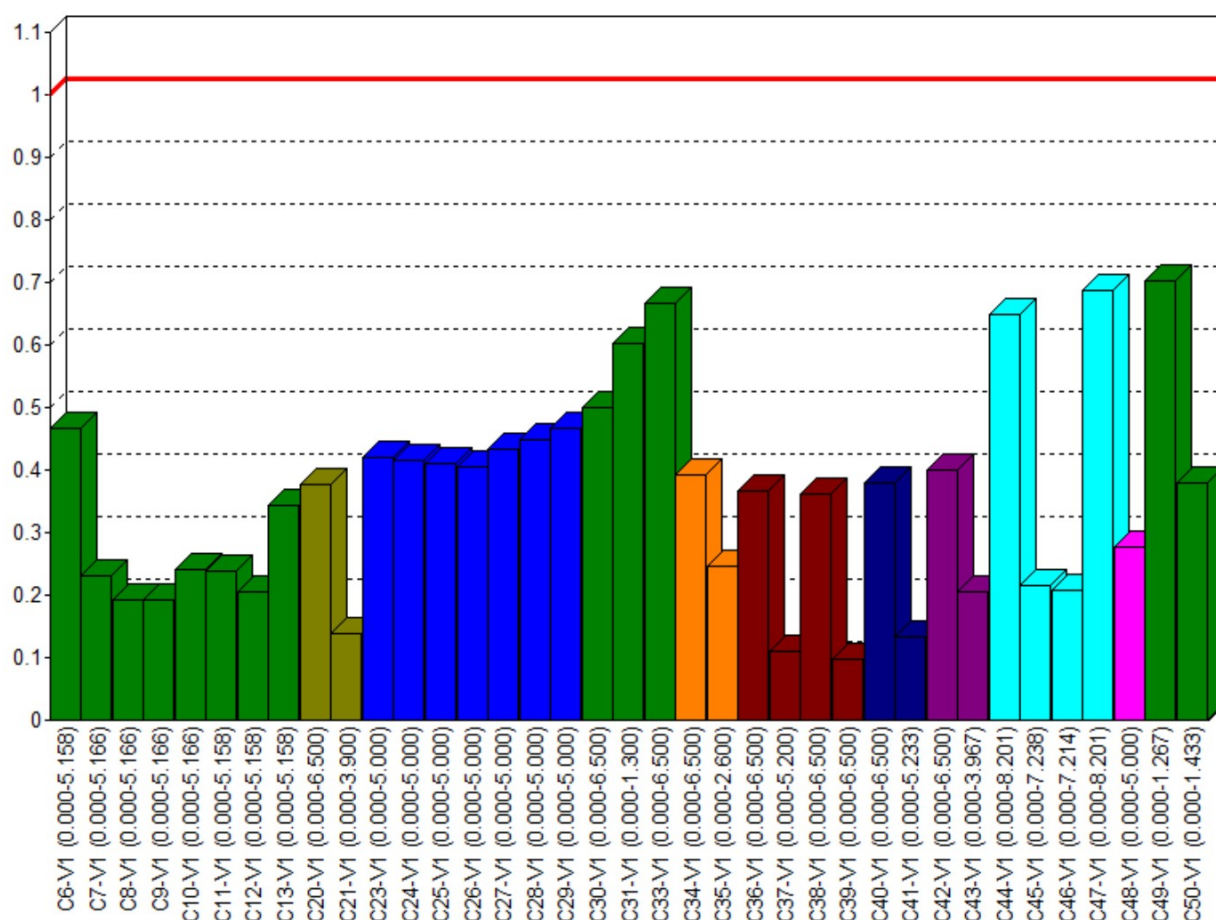


| Staaft | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|------------|---------|-------------|------------------|---------------------------------|---|
| C40-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C41-V1 (0.000-5.233) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C42-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C43-V1 (0.000-3.967) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C44-V1 (0.000-8.201) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C45-V1 (0.000-7.238) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C48-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C49-V1 (0.000-1.267) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C50-V1 (0.000-1.433) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |

mm

mm

Afb. Staal UC Diagram



EXTREME UNITY CHECK

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------------|------------|---------------------------|-------------|
| C10-V1 (0.000-5.166) | Buiging & Druk | Fu.C.34 | NEN-EN1993-1-1(6.61&6.62) | 0.24 |
| C11-V1 (0.000-5.158) | Buiging & Druk | Fu.C.30 | NEN-EN1993-1-1(6.61&6.62) | 0.24 |
| C12-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.21 |
| C13-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.34 |
| C20-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.16 | NEN-EN1990/NB A1.4.2 | 0.38 |
| C21-V1 (0.000-3.900) | Doorbuigingstoetsing | Ka.C.28 | NEN-EN1990/NB A1.4.2 | 0.14 |
| C23-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.42 |
| C24-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.42 |
| C25-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.41 |
| C26-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.41 |
| C27-V1 (0.000-5.000) | Buiging & Druk | Fu.C.14 | NEN-EN1993-1-1(6.61&6.62) | 0.43 |
| C28-V1 (0.000-5.000) | Buiging & Druk | Fu.C.14 | NEN-EN1993-1-1(6.61&6.62) | 0.45 |

Projectnummer
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 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



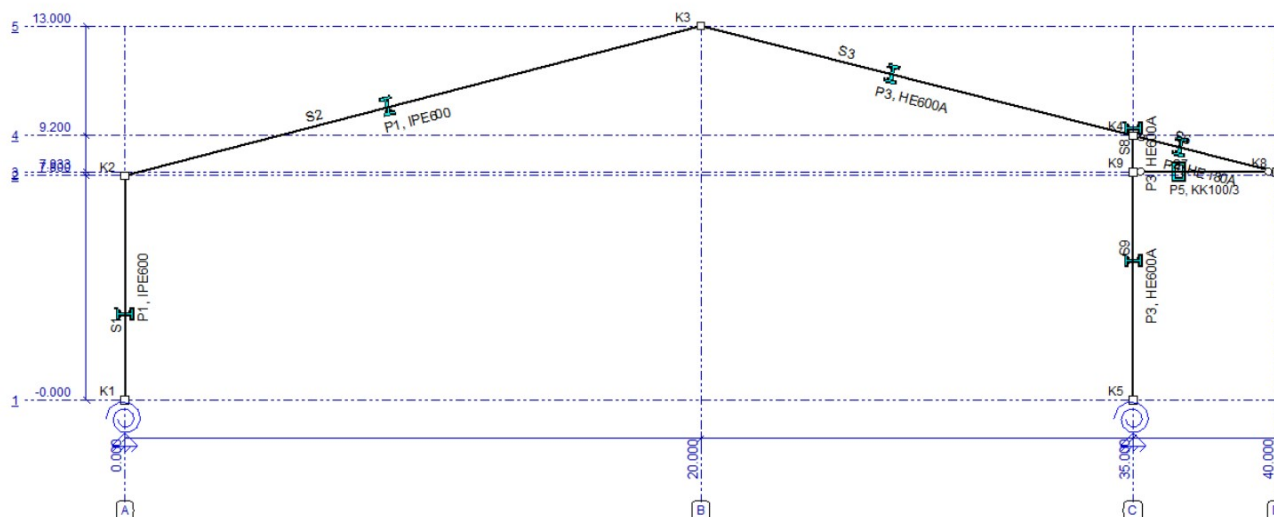
| Label | Toetsing | Combinatie | ArtikeI | Unity Check |
|----------------------|----------------------|------------|---------------------------|-------------|
| C29-V1 (0.000-5.000) | Buiging & Druk | Fu.C.14 | NEN-EN1993-1-1(6.61&6.62) | 0.47 |
| C30-V1 (0.000-6.500) | Kiptoetsing | Fu.C.18 | NEN-EN1993-1-1(6.54) | 0.50 |
| C31-V1 (0.000-1.300) | Doorbuigingstoetsing | Ka.C.25 | NEN-EN1990/NB A1.4.2 | 0.60 |
| C33-V1 (0.000-6.500) | Buiging & Druk | Fu.C.18 | NEN-EN1993-1-1(6.61&6.62) | 0.67 |
| C34-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.16 | NEN-EN1990/NB A1.4.2 | 0.39 |
| C35-V1 (0.000-2.600) | Doorbuigingstoetsing | Ka.C.25 | NEN-EN1990/NB A1.4.2 | 0.25 |
| C36-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.20 | NEN-EN1990/NB A1.4.2 | 0.37 |
| C37-V1 (0.000-5.200) | Doorbuigingstoetsing | Ka.C.28 | NEN-EN1990/NB A1.4.2 | 0.11 |
| C38-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.24 | NEN-EN1990/NB A1.4.2 | 0.36 |
| C39-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.12 | NEN-EN1990/NB A1.4.2 | 0.10 |
| C40-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.24 | NEN-EN1990/NB A1.4.2 | 0.38 |
| C41-V1 (0.000-5.233) | Doorbuigingstoetsing | Ka.C.28 | NEN-EN1990/NB A1.4.2 | 0.13 |
| C42-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.24 | NEN-EN1990/NB A1.4.2 | 0.40 |
| C43-V1 (0.000-3.967) | Doorbuigingstoetsing | Ka.C.28 | NEN-EN1990/NB A1.4.2 | 0.21 |
| C44-V1 (0.000-8.201) | Doorsnede | Fu.C.5 | NEN-EN1993-1-1(6.5) | 0.65 |
| C45-V1 (0.000-7.238) | Doorsnede | Fu.C.5 | NEN-EN1993-1-1(6.5) | 0.22 |
| C46-V1 (0.000-7.214) | Doorsnede | Fu.C.23 | NEN-EN1993-1-1(6.5) | 0.21 |
| C47-V1 (0.000-8.201) | Doorsnede | Fu.C.17 | NEN-EN1993-1-1(6.5) | 0.69 |
| C48-V1 (0.000-5.000) | Stabiliteit | Fu.C.21 | NEN-EN1993-1-1(6.46) | 0.28 |
| C49-V1 (0.000-1.267) | Doorbuigingstoetsing | Ka.C.28 | NEN-EN1990/NB A1.4.2 | 0.70 |
| C50-V1 (0.000-1.433) | Doorsnede | Fu.C.23 | NEN-EN1993-1-1(6.12) | 0.38 |
| C6-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.47 |
| C7-V1 (0.000-5.166) | Kiptoetsing | Fu.C.29 | NEN-EN1993-1-1(6.54) | 0.23 |
| C8-V1 (0.000-5.166) | Kiptoetsing | Fu.C.1 | NEN-EN1993-1-1(6.54) | 0.19 |
| C9-V1 (0.000-5.166) | Kiptoetsing | Fu.C.1 | NEN-EN1993-1-1(6.54) | 0.19 |

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Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 7 | 7 | 2 | 5 | 30 | 90 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -7.80 | 7.80 | P1 | 0.00 - 7.80 (L) |
| S2 | K2 | K3 | 0.00 | 20.00 | -7.80 | -13.00 | 20.66 | P1 | 0.00 - 20.66 (L) |
| S3 | K3 | K4 | 20.00 | 35.00 | -13.00 | -9.20 | 15.47 | P3 | 0.00 - 15.47 (L) |
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.93 | 5.16 | P4 | 0.00 - 5.16 (L) |
| S7 | K9 | K8 | 35.00 | 40.00 | -7.93 | -7.93 | 5.00 | P5 | 0.00 - 5.00 (L) |
| S8 | K4 | K9 | 35.00 | 35.00 | -9.20 | -7.93 | 1.27 | P3 | 0.00 - 1.27 (L) |
| S9 | K9 | K5 | 35.00 | 35.00 | -7.93 | 0.00 | 7.93 | P3 | 0.00 - 7.93 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | IPE600 | 15598 | 9.2083e+08 | S355 | 0 |
| P3 | HE600A | 22646 | 1.4121e+09 | S355 | 0 |
| P4 | HE180A | 4525 | 2.5103e+07 | S235 | 0 |
| P5 | KK100/3 | 1149 | 1.7896e+06 | S235H(EN10219-1) | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoeff |
|------------------|--------|-------------------|-------------------|-----------------|
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | C°m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S6 | 0.00 | A4 | Vast | Vast | 700.0 |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A3 | Vast | Vast | Vrij |
| | 5.00 (L) | A3 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

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Eenheden: m, mm, kN, kNm



| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S8 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.27 (L) | A1 | Vast | Vast | Vast |
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 7.93 (L) | A1 | Vast | Vast | Vast |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|-------|---------|----|
| O1 | K1 | K1 | Vast | Vast | 500.0 | 0 | |
| O2 | K5 | K5 | Vast | Vast | 500.0 | 0 | |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|--|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 6.40 | 6.40 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 40.00 | 40.00 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S2,S3,S6) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.4 | 0.40 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 2.56 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=6.40)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S2 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m²] |
| q2 | Opgelegde belastingen (q) (Lsys=6.40) | qk1 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| | S3,S6 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m²] |
| q3 | Opgelegde belastingen (q) (Lsys=6.40) | qk2 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |

LR4 (Vertikale wand; Verdeelde element belasting (q): S4)

Windbelasting van Links + Overdruk NEN-EN1991-1-4:2011/NB:2019

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|--------|--|--|--------|----------|
| Width3 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A1 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q4 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 1.19 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57) | -0.93 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -5.57 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.87 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe6 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q9 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp1*Cpe7*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|--|--|-------|---------|
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A2 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe9 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q11 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe9*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 1.19 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe13 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q16 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe13*CsCd1) * Lsys1 | 0.09 | [kN/m] |

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Eenheden: m, mm, kN, kNm



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|-------|---|---|--------|----------|
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q17 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp2 * Cpe14 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR6 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A3 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe16 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q18 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp3 * Cpe16 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | $(Cpi3 * Qp3) * Lsys1$ | -1.79 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57) | -0.93 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp3 * Cpe17 * CsCd1) * Lsys1$ | -5.57 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp3 * Cpe18 * CsCd1) * Lsys1$ | -1.87 | [kN/m] |
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp3 * Cpe19 * CsCd1) * Lsys1$ | -2.48 | [kN/m] |
| Cpe20 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q23 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp3 * Cpe20 * CsCd1) * Lsys1$ | -5.40 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp3 * Cpe21 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A4 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe23 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q25 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp4 * Cpe23 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | $(Cpi4 * Qp4) * Lsys1$ | -1.79 | [kN/m] |
| Cpe24 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe24 * CsCd1) * Lsys1$ | 1.14 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |

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|-------|---|--|--------|----------|
| q28 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe25 * CsCd1) * Lsys1$ | 1.14 | [kN/m] |
| Cpe26 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp4 * Cpe26 * CsCd1) * Lsys1$ | 0.00 | [kN/m] |
| Cpe27 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q30 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp4 * Cpe27 * CsCd1) * Lsys1$ | 0.09 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp4 * Cpe28 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A5 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q32 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp5 * Cpe30 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | $(Cpi5 * Qp5) * Lsys1$ | 1.19 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp5 * Cpe31 * CsCd1) * Lsys1$ | -2.44 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp5 * Cpe32 * CsCd1) * Lsys1$ | -5.65 | [kN/m] |
| Cpe33 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q36 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp5 * Cpe33 * CsCd1) * Lsys1$ | -1.93 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp5 * Cpe34 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A6 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q38 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp6 * Cpe36 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | $(Cpi6 * Qp6) * Lsys1$ | 1.19 | [kN/m] |

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|-------|---|--|--------|----------|
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q40 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp6*Cpe37*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp6*Cpe38*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe39 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q42 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp6*Cpe39*CsCd1) * Lsys1 | 1.10 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp6*Cpe40*CsCd1) * Lsys1 | 4.77 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A7 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q44 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp7*Cpe42*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1.79 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp7*Cpe43*CsCd1) * Lsys1 | -2.44 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp7*Cpe44*CsCd1) * Lsys1 | -5.65 | [kN/m] |
| Cpe45 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q48 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp7*Cpe45*CsCd1) * Lsys1 | -1.93 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp7*Cpe46*CsCd1) * Lsys1 | 4.77 | [kN/m] |

LR11 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|---------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A8 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |

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|-------|---|--|--------|----------|
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe48 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | $(Cpi8 * Qp8) * Lsys1$ | -1.79 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe49 * CsCd1) * Lsys1$ | 0.00 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe50 * CsCd1) * Lsys1$ | 0.05 | [kN/m] |
| Cpe51 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q54 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp8 * Cpe51 * CsCd1) * Lsys1$ | 1.10 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp8 * Cpe52 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |

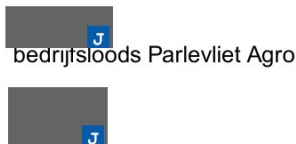
LR12 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|---------|--|--|--------|---------|
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Vertikale wand; Druk coefficient (Cpe): S1,S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S1,S4 | $(Qp9 * Cpe54 * CsCd1) * Lsys1$ | -4.77 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | $(Cpi9 * Qp9) * Lsys1$ | 1.19 | [kN/m] |
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Richting=90) | -0.60 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp9 * Cpe55 * CsCd1) * Lsys1$ | -3.60 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Richting=90) | -0.61 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp9 * Cpe56 * CsCd1) * Lsys1$ | -3.62 | [kN/m] |

LR13 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe57 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe57,Openingen=0.00,Over=False) | -0.30 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S1,S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S4 | $(Qp10 * Cpe58 * CsCd1) * Lsys1$ | -4.77 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(Cpi10 * Qp10) * Lsys1$ | -1.79 | [kN/m] |

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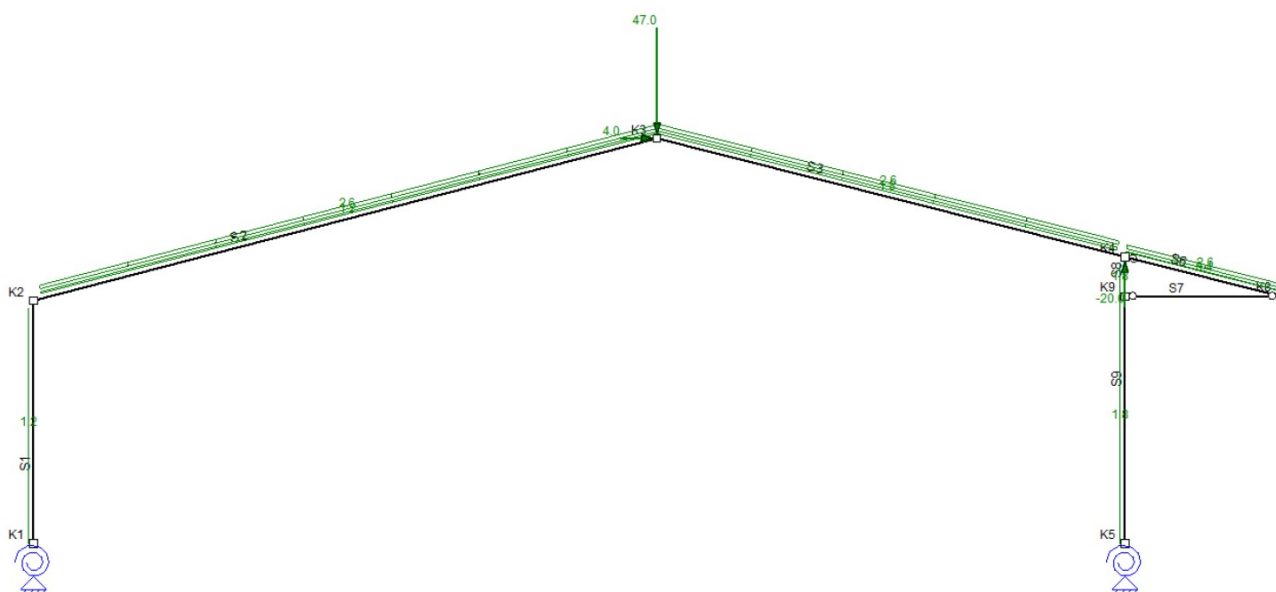
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|---|--|---|--------|----------|
| Cpe59 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Richting=90) | -0.60 | |
| q62 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp10*Cpe59*CsCd1) * Lsys1 | -3.60 | [kN/m] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Richting=90) | -0.61 | |
| q63 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp10*Cpe60*CsCd1) * Lsys1 | -3.62 | [kN/m] |
| LR14 (Geconcentreerde element belasting (F)) | | | | |
| | Windbelasting (enkele luifel) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| | Eenzijdige overkappingen S6 | | | |
| Cpnet1 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen,Zone=CF,Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | (Qp11*Cpnet1*CsCd1) * Lsys1*5.16 | 20.58 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen,Zone=CF,Hoek=14.22,Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | (Qp11*Cpnet2*CsCd1) * Lsys1*5.16 | -43.07 | [kN] |
| LR15 (Verdeelde element belasting (q)) | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| 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: 14.57; S2 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=M1,Sk=Sk1) | 0.80 | |
| q64 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*M1) * Lsys1 | 3.58 | [kN/m] |
| q65 | Verdeelde element belasting (q) | q64*0.50 | 1.79 | [kN/m] |
| | Zadeldak, Mu1 Hoek: 14.22; S3,S6 | | | |
| Mu2 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=M1,Sk=Sk1) | 0.80 | |
| q66 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*M2) * Lsys1 | 3.58 | [kN/m] |
| q67 | Verdeelde element belasting (q) | q66*0.50 | 1.79 | [kN/m] |

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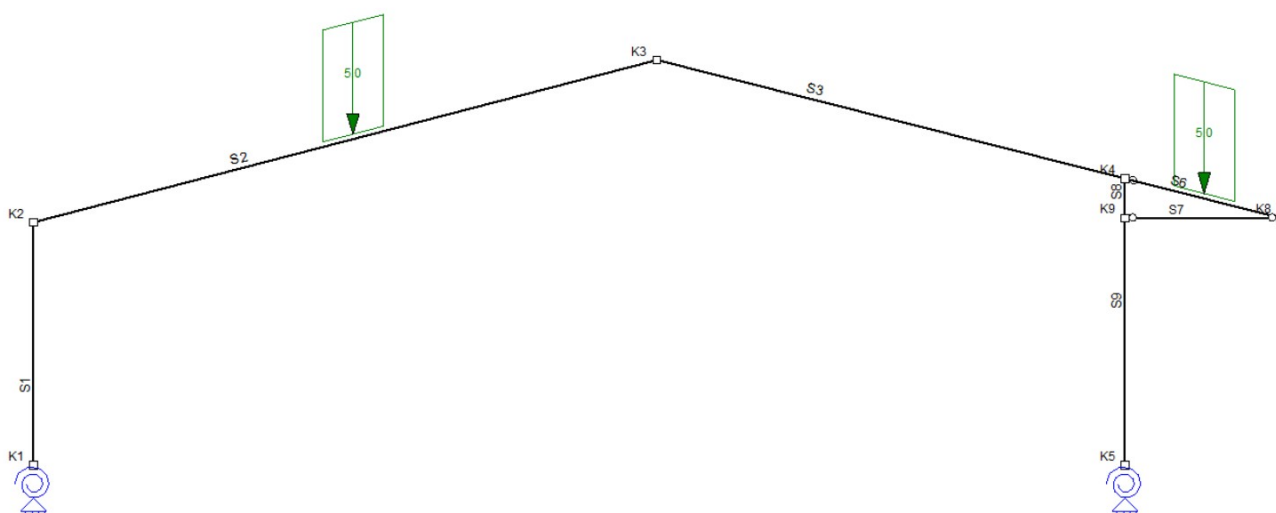
B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1-S3,S6,S8-S9 | |
| q | 2.6 (q1) | 2.6 (q1) | 0.00 | L | Z" | S2-S3,S6 | |
| N | 47.0 | | | | Z | K3 | |
| N | -20.0 | | | | Z | K4 | |
| N | 4.0 | | | | X | K3 | |

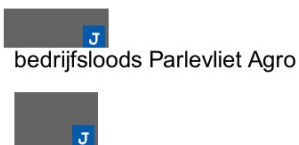
B.G.2: Opgelegde belastingen. Vloer 1, Veld 1



B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| q | 5.0 (q2) | 5.0 (q2) | 9.33 | 11.33 | Z" | S2 | |
| q | 5.0 (q3) | 5.0 (q3) | 1.58 | 3.58 | Z" | S6 | |
| | | | m | m | | | |

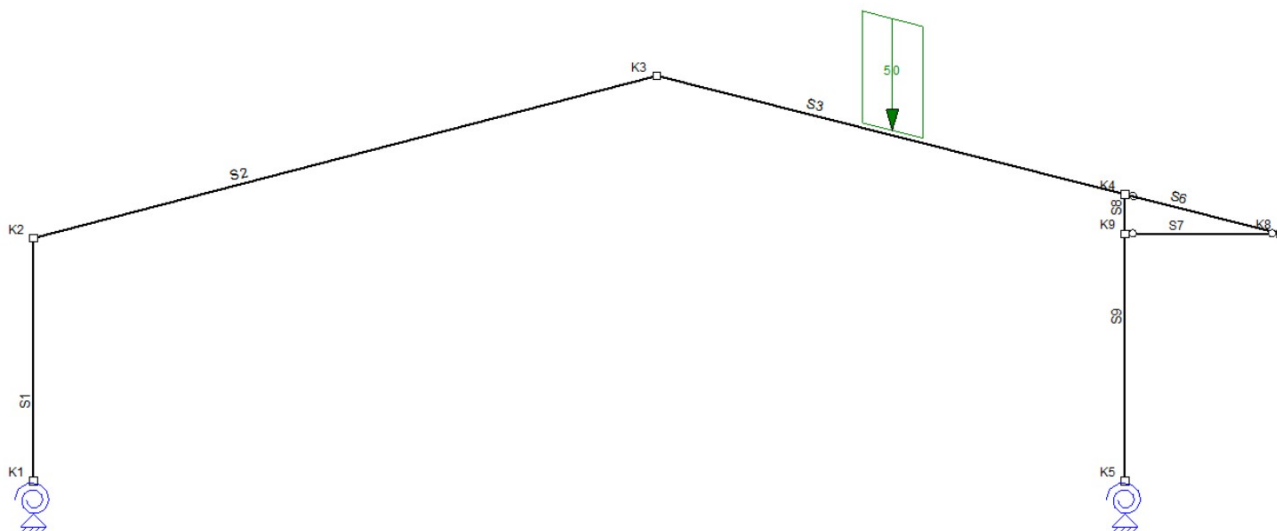
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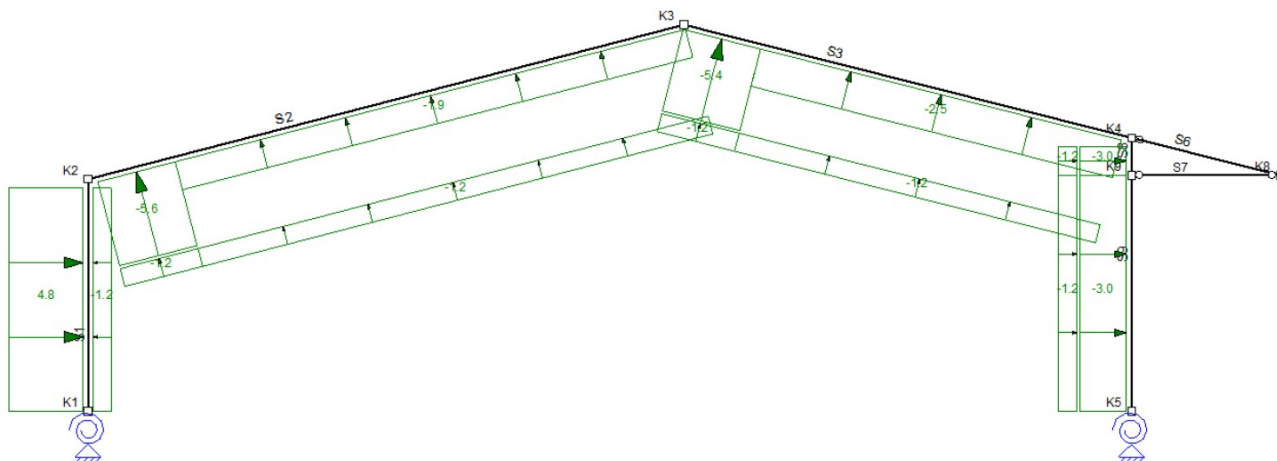
B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q3) | 5.0 (q3) | 6.74 | 8.74 | Z" | S3 | |
| | | | m | m | | | |

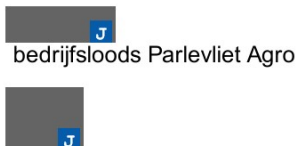
B.G.4: Windbelasting van Links + Overdruk



B.G.4: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -5.6 (q6) | -5.6 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

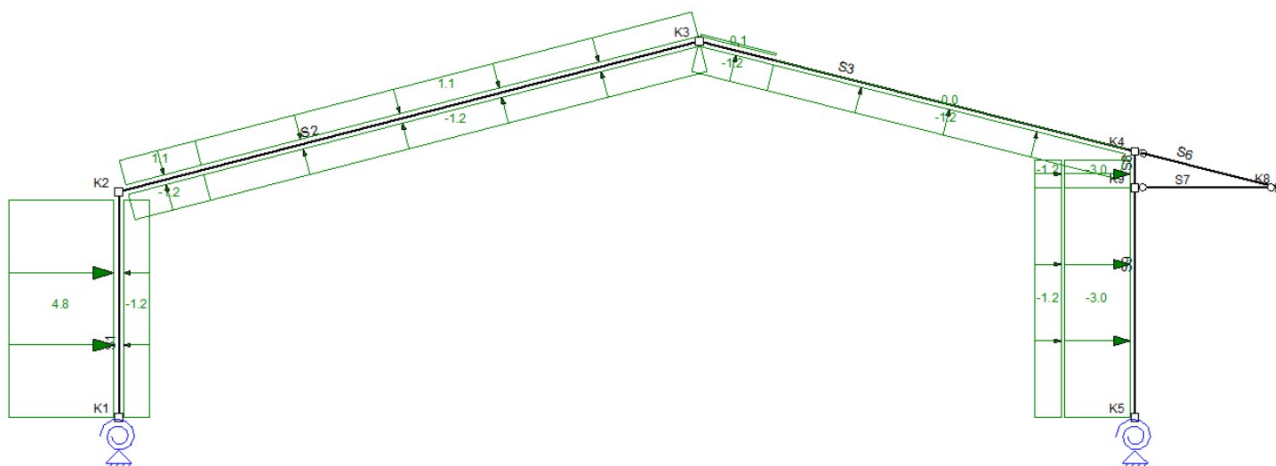
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



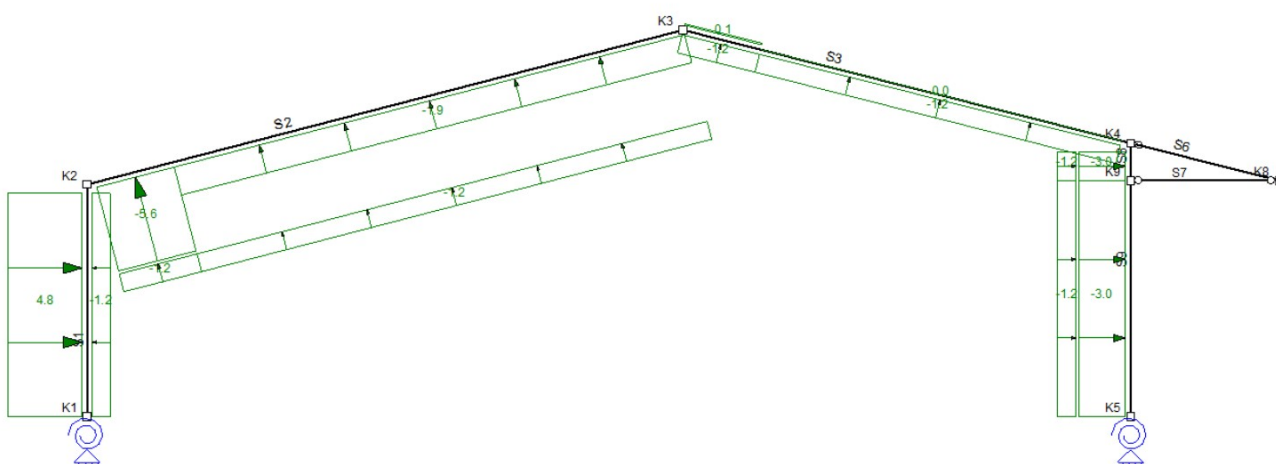
B.G.5: Windbelasting van Links + Overdruk (2e Cpe)



B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q11) | 4.8 (q11) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q17) | -3.0 (q17) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.6: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -5.6 (q6) | -5.6 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

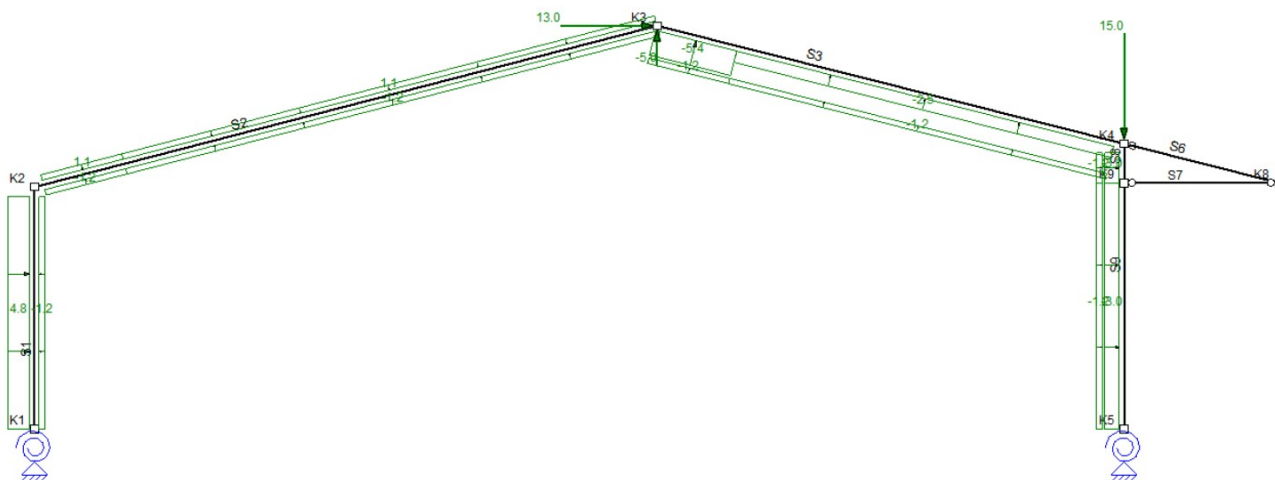
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.7: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| N | 13.0 | | | | X | K3 | |
| N | -5.0 | | | | Z | K3 | |
| N | 15.0 | | | | Z | K4 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

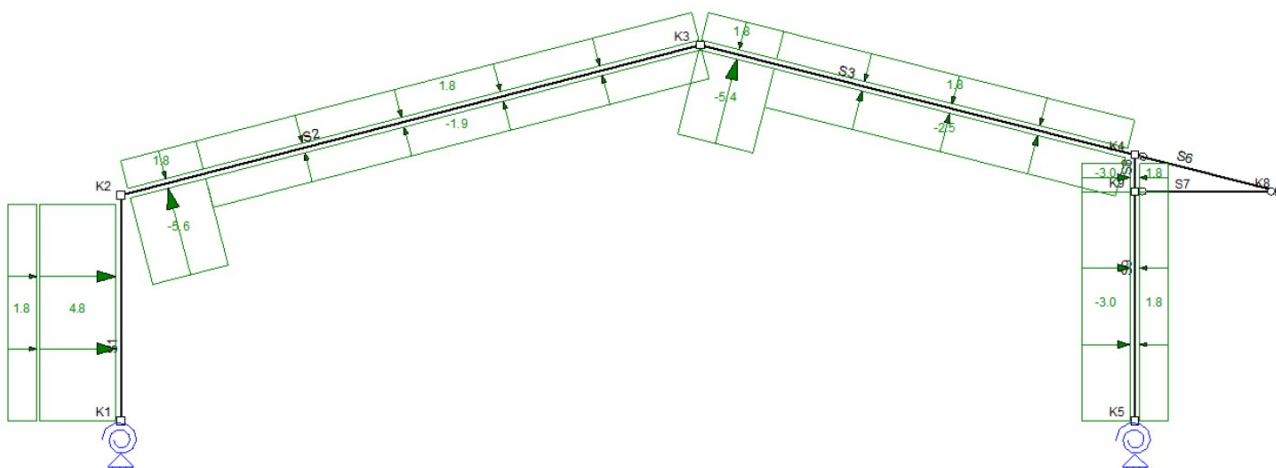
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



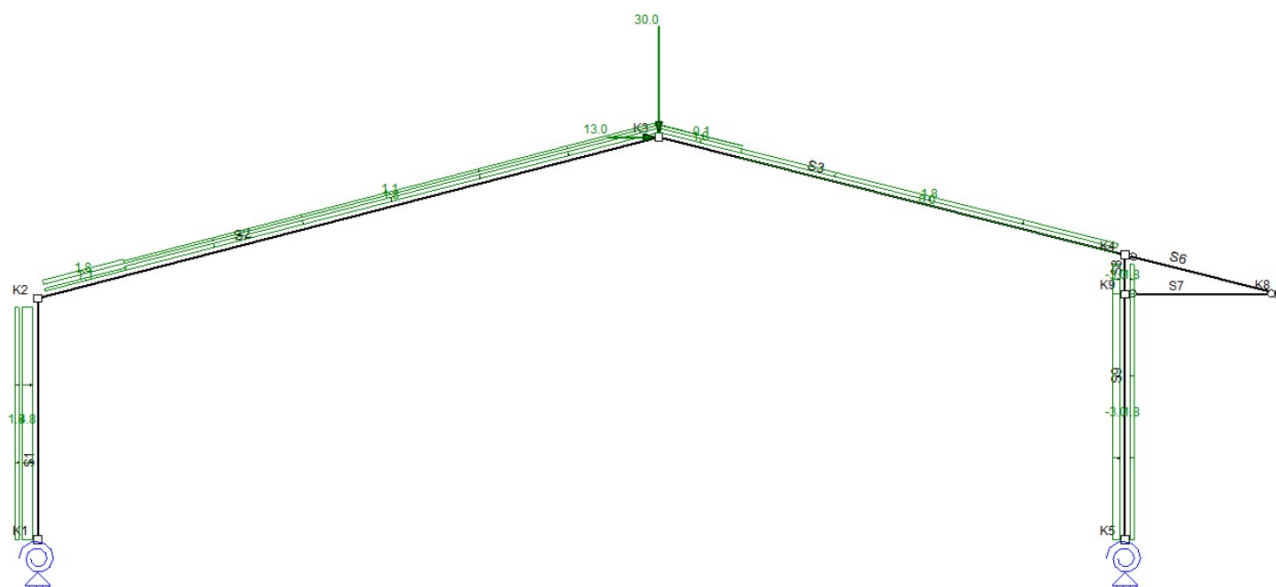
B.G.8: Windbelasting van Links + Onderdruk



B.G.8: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -5.6 (q20) | -5.6 (q20) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.9: Windbelasting van Links + Onderdruk (2e Cpe)



B.G.9: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| | | | m | m | | | |

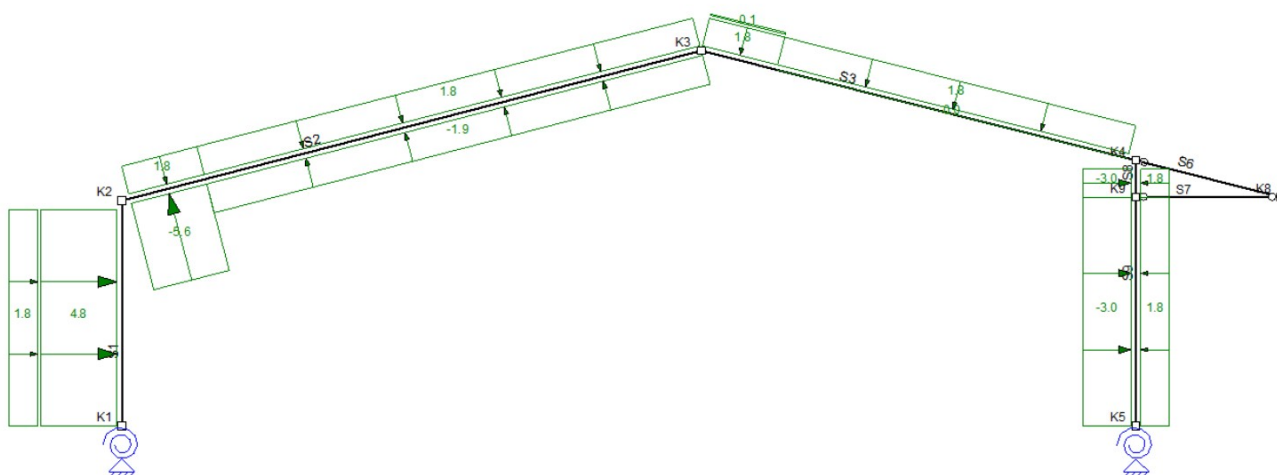
Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q25) | 4.8 (q25) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.68 | Z' | S3 | |
| N | 13.0 | | | | X | K3 | |
| N | 30.0 | | | | Z | K3 | |
| q | -3.0 (q31) | -3.0 (q31) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.10: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z | S1,S8-S9 | |
| q | -5.6 (q20) | -5.6 (q20) | 0.00 | 2.69 | Z | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z | S8-S9 | |
| | | | m | m | | | |

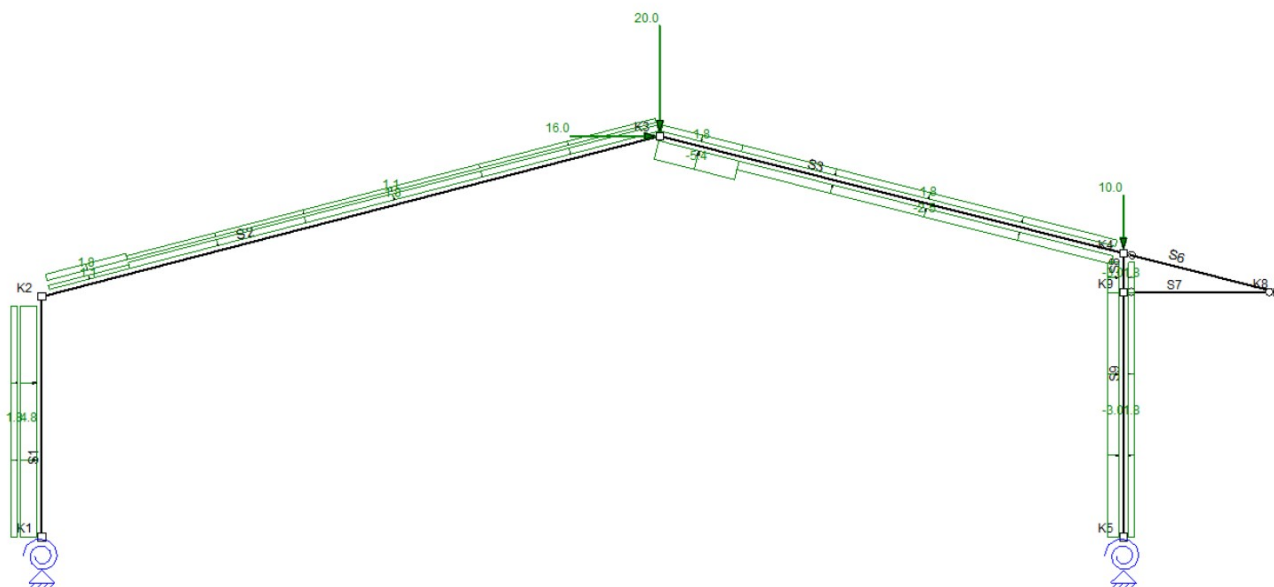
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



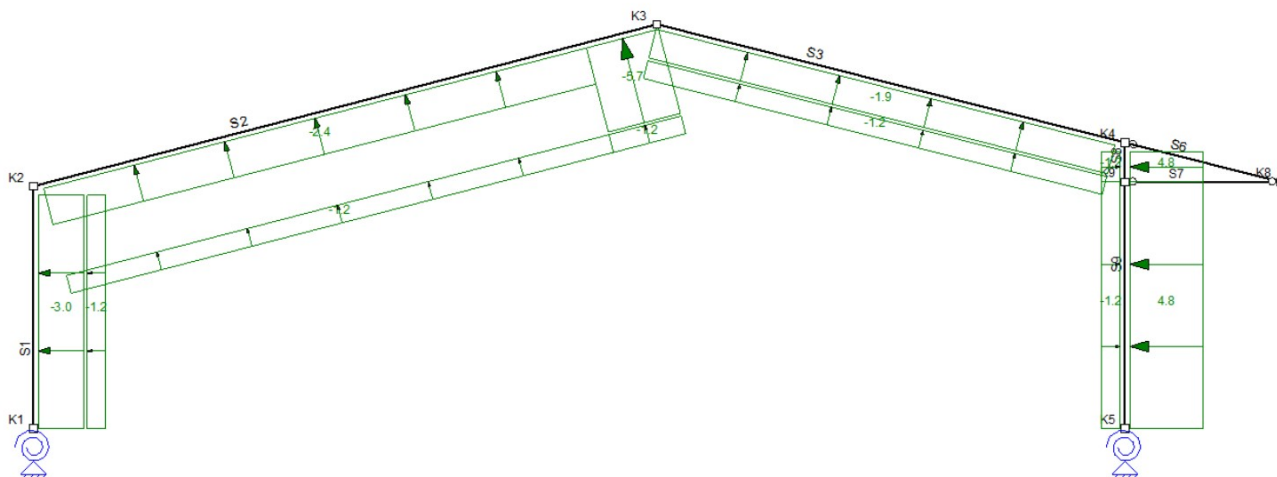
B.G.11: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| N | 20.0 | | | | Z | K3 | |
| N | 10.0 | | | | Z | K4 | |
| N | 16.0 | | | | X | K3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.12: Windbelasting van Rechts + Overdruk

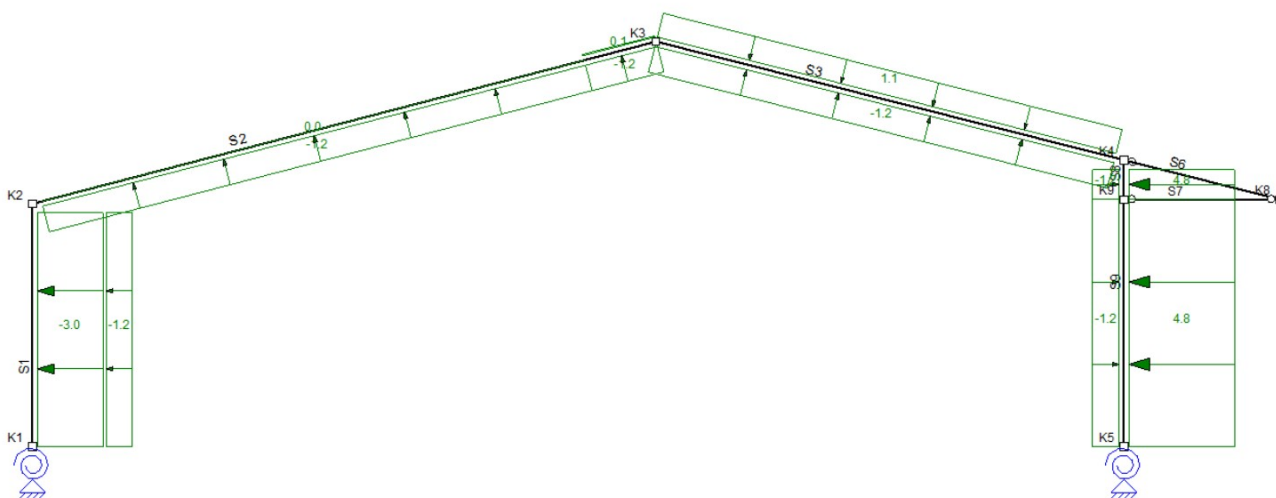


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 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm

**B.G.12: WINDBELASTING VAN RECHTS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.13: Windbelasting van Rechts + Overdruk (2e Cpe)**B.G.13: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q38) | -3.0 (q38) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q43) | 4.8 (q43) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

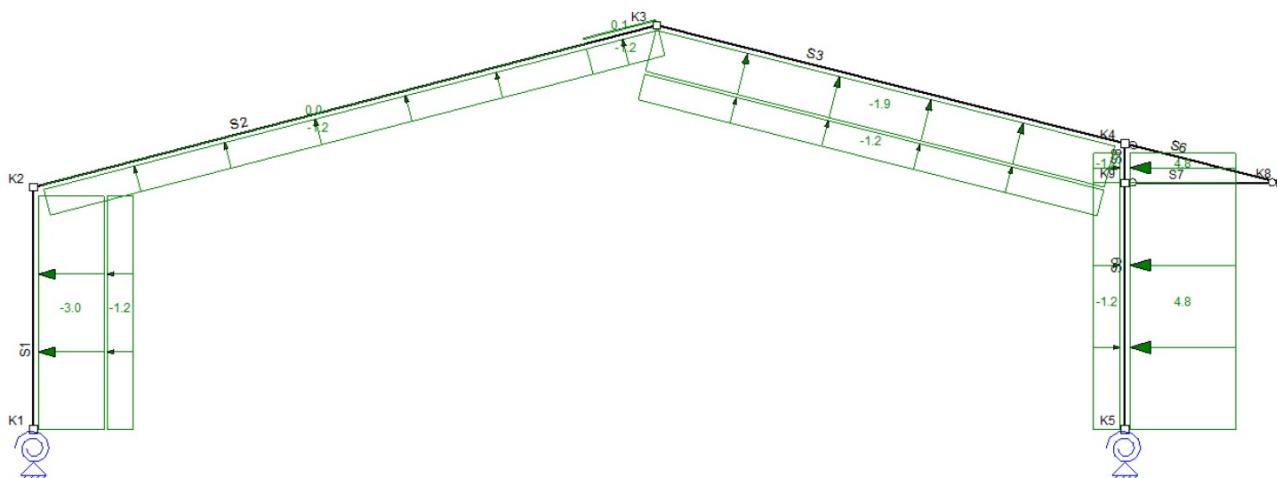
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



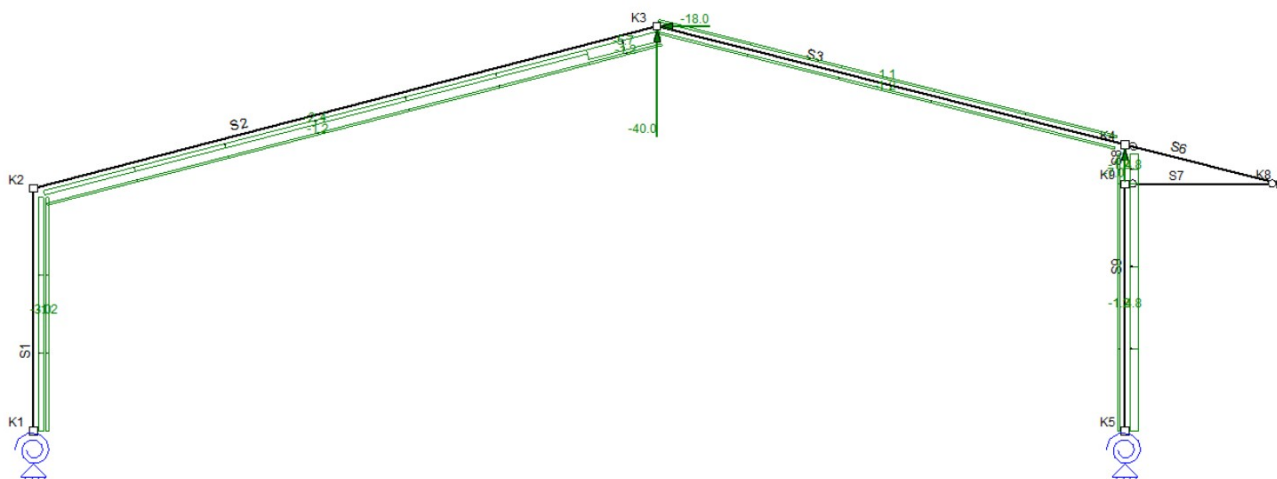
B.G.14: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.14: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.15: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.15: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

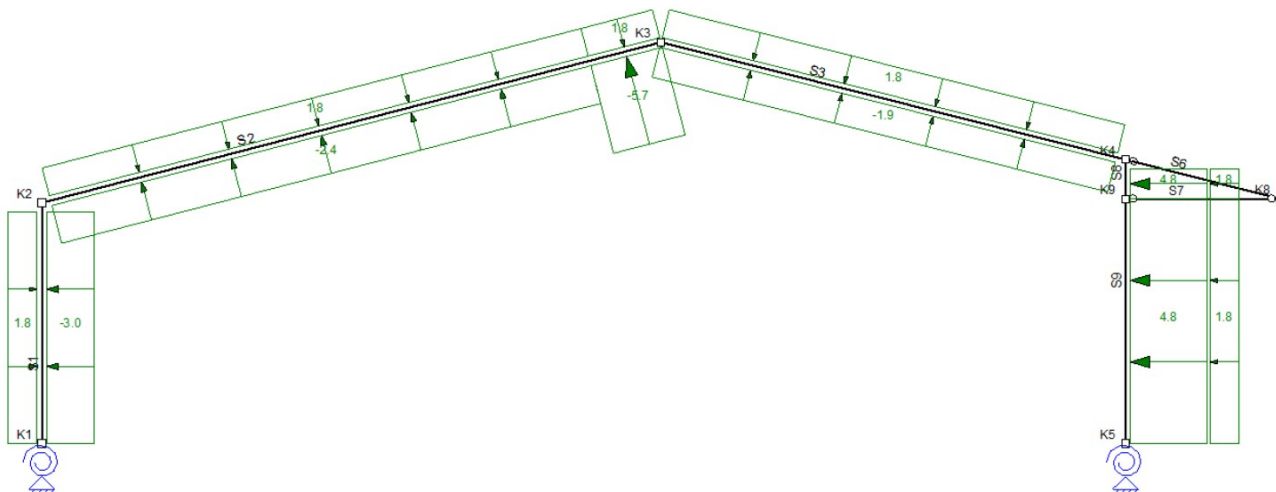
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | -40.0 | | | | Z | K3 | |
| N | -7.0 | | | | Z | K4 | |
| N | -18.0 | | | | X | K3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

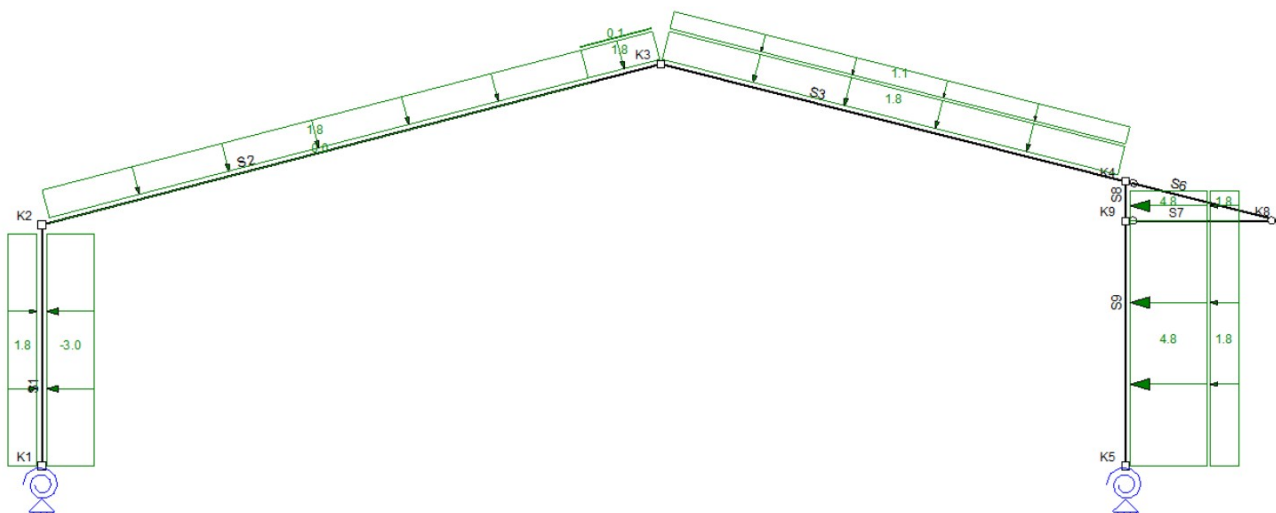
B.G.16: Windbelasting van Rechts + Onderdruk



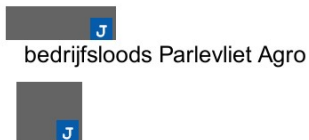
B.G.16: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.17: Windbelasting van Rechts + Onderdruk (2e Cpe)



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



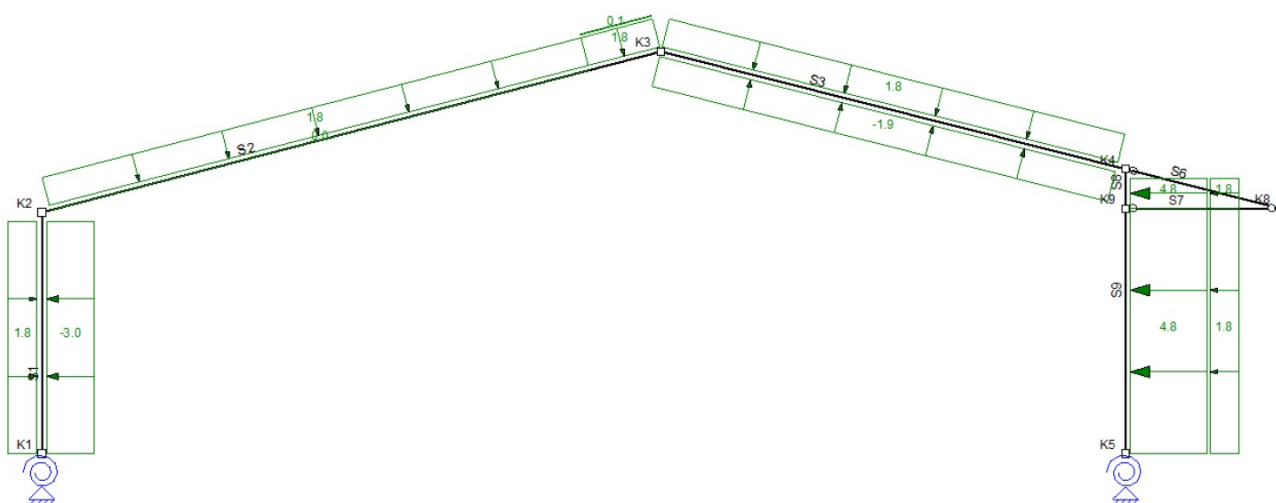
Eenheden: m, mm, kN, kNm



B.G.17: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q50) | -3.0 (q50) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q55) | 4.8 (q55) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

B.G.18: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.18: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

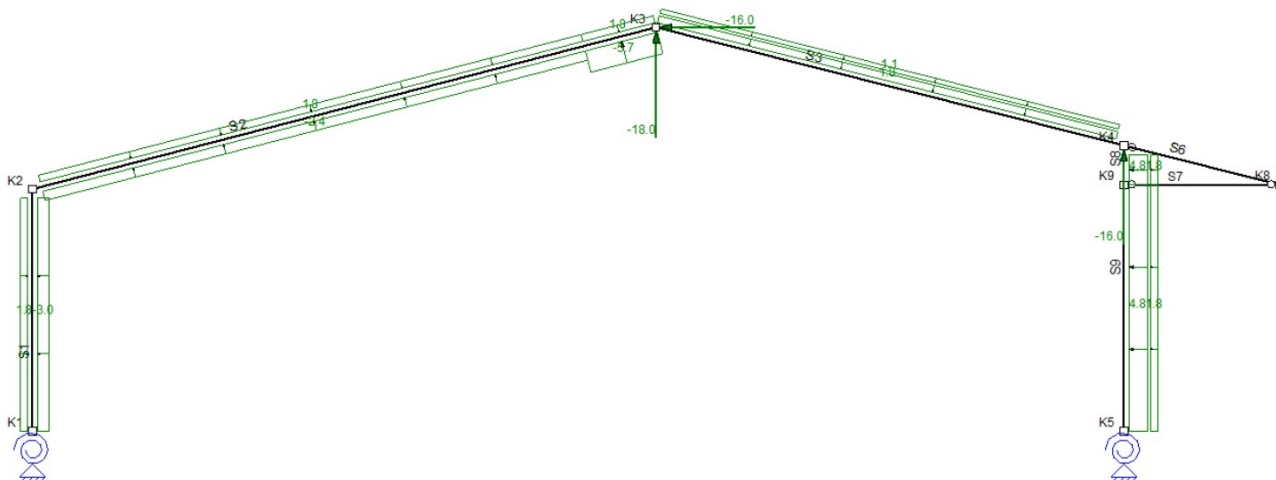
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| | | | m | m | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



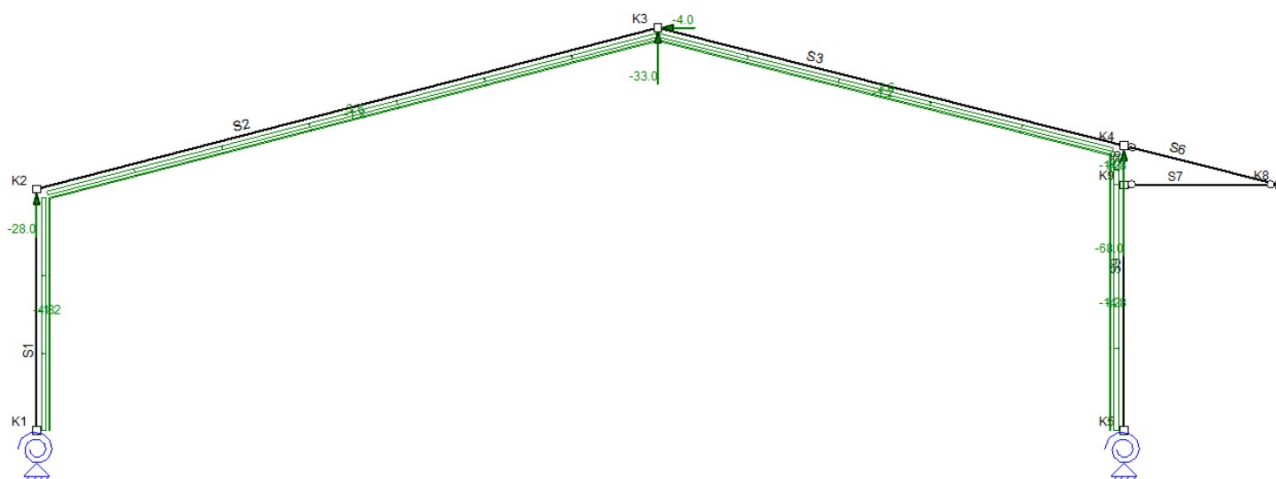
B.G.19: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.19: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoopp | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z | S1,S3,S8-S9 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z | S3 | |
| N | -16.0 | | | | X | K3 | |
| N | -18.0 | | | | Z | K3 | |
| N | -16.0 | | | | Z | K4 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z | S8-S9 | |

B.G.20: Windbelasting van Voren + Overdruk



B.G.20: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -4.8 (q56) | -4.8 (q56) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -1.2 (-q57) | -1.2 (-q57) | 0.00 | L | Z' | S1-S3,S8-S9 | |
| q | -3.6 (q58) | -3.6 (q58) | 0.00 | 20.66 (L) | Z' | S2 | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

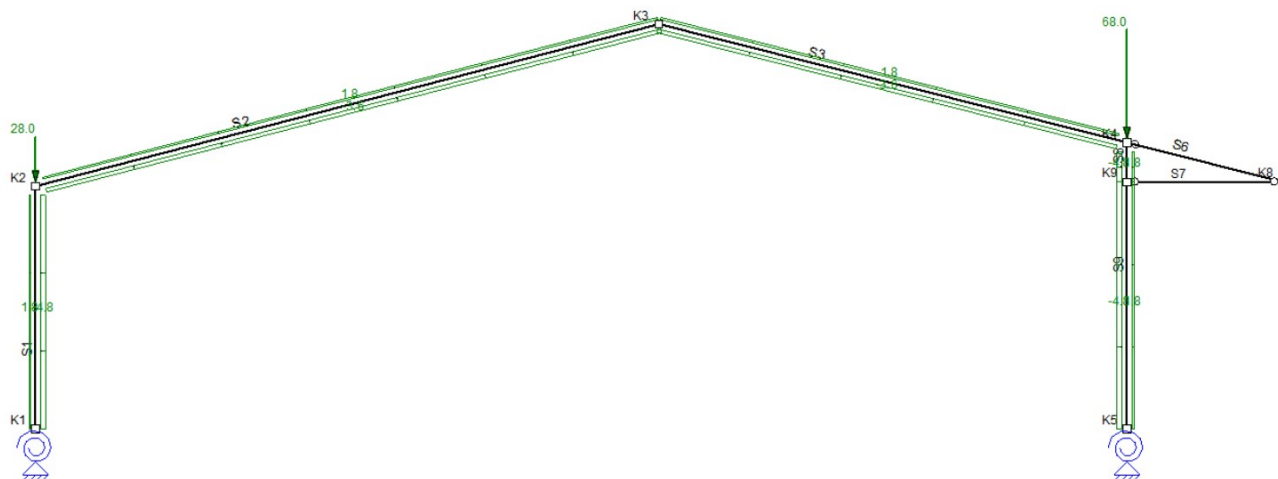
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.6 (q59) | -3.6 (q59) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | -33.0 | | | | Z | K3 | |
| N | -68.0 | | | | Z | K4 | |
| N | -4.0 | | | | X | K3 | |
| N | -28.0 | | | | Z | K2 | |
| | | | m | m | | | |

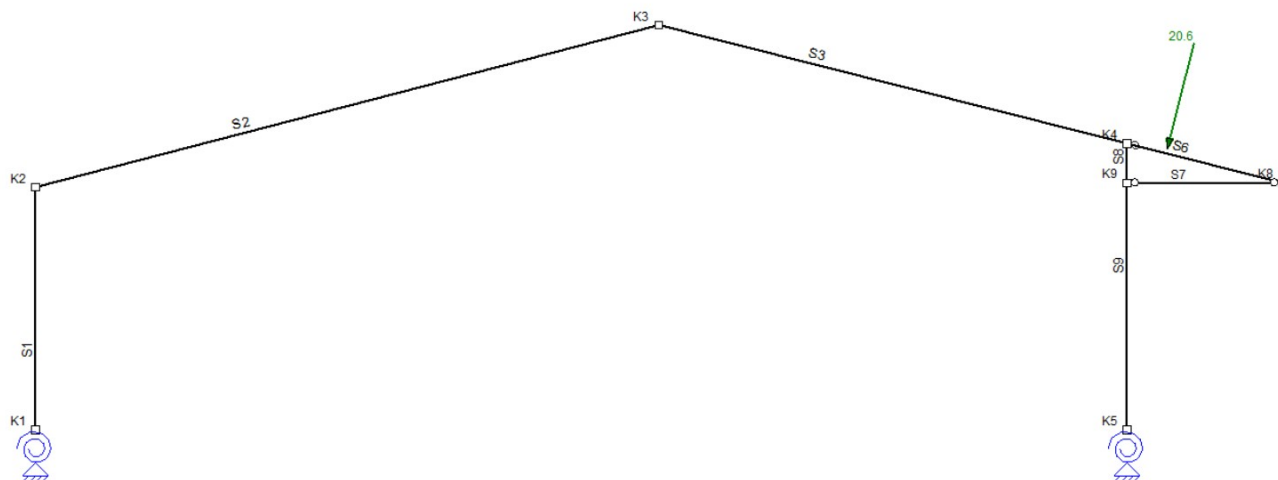
B.G.21: Windbelasting van Voren + Onderdruk



B.G.21: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -4.8 (q60) | -4.8 (q60) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.8 (-q61) | 1.8 (-q61) | 0.00 | L | Z' | S1-S3,S8-S9 | |
| q | -3.6 (q62) | -3.6 (q62) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.6 (q63) | -3.6 (q63) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | 68.0 | | | | Z | K4 | |
| N | 28.0 | | | | Z | K2 | |
| | | | m | m | | | |

B.G.22: Windbelasting (enkele luifel) [1/4]



Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

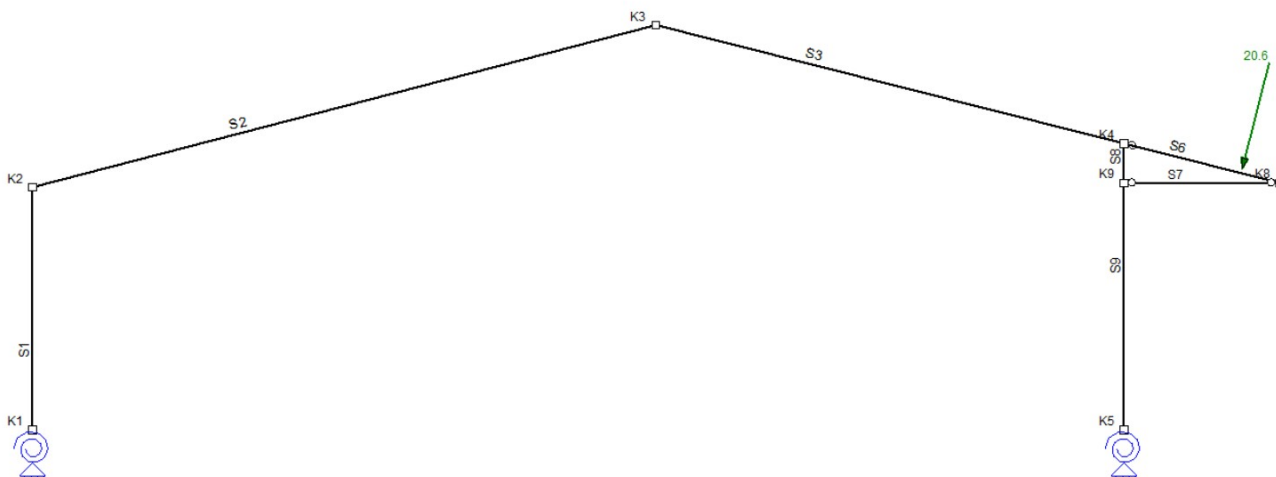
Eenheden: m, mm, kN, kNm



B.G.22: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 1.29 | | Z' | S6 | |
| | | | m | m | | | |

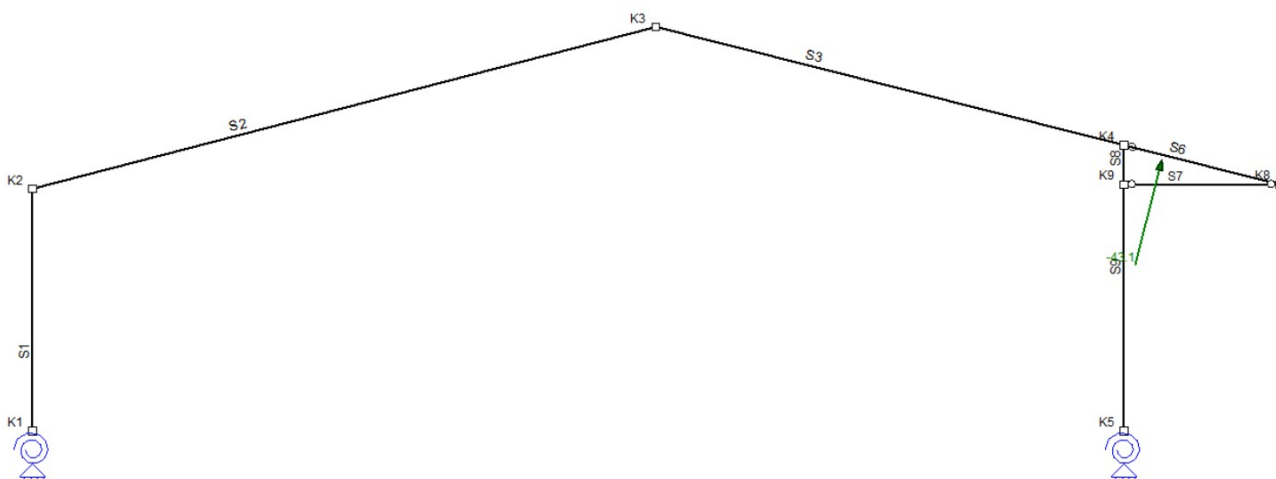
B.G.23: Windbelasting (enkele luifel) [2/4]



B.G.23: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 3.87 | | Z' | S6 | |
| | | | m | m | | | |

B.G.24: Windbelasting (enkele luifel) [3/4]



B.G.24: WINDBELASTING (ENKELE LUIFEL) [3/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 1.29 | | Z' | S6 | |
| | | | m | m | | | |

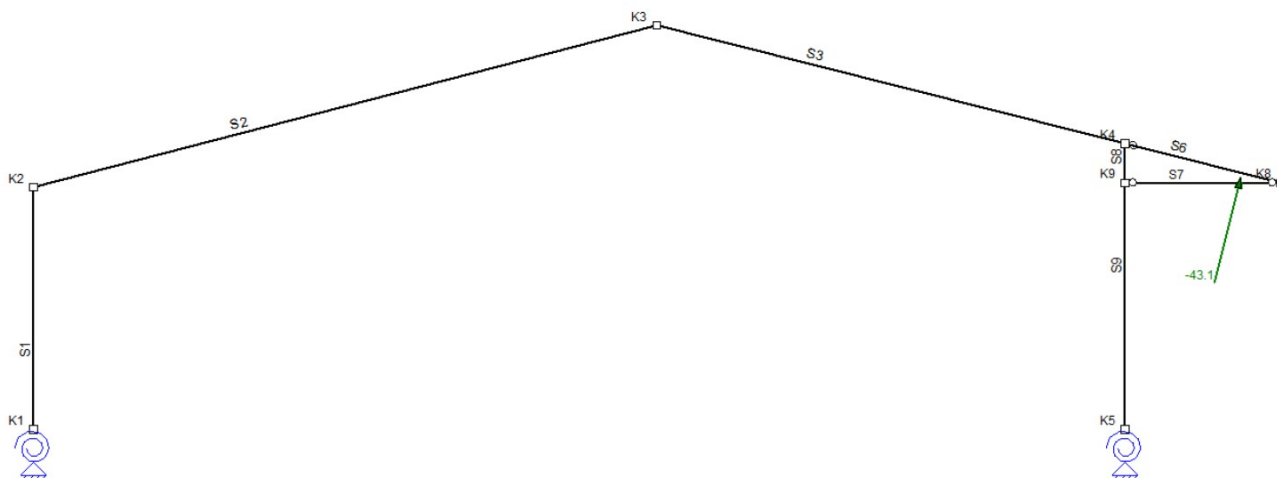
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



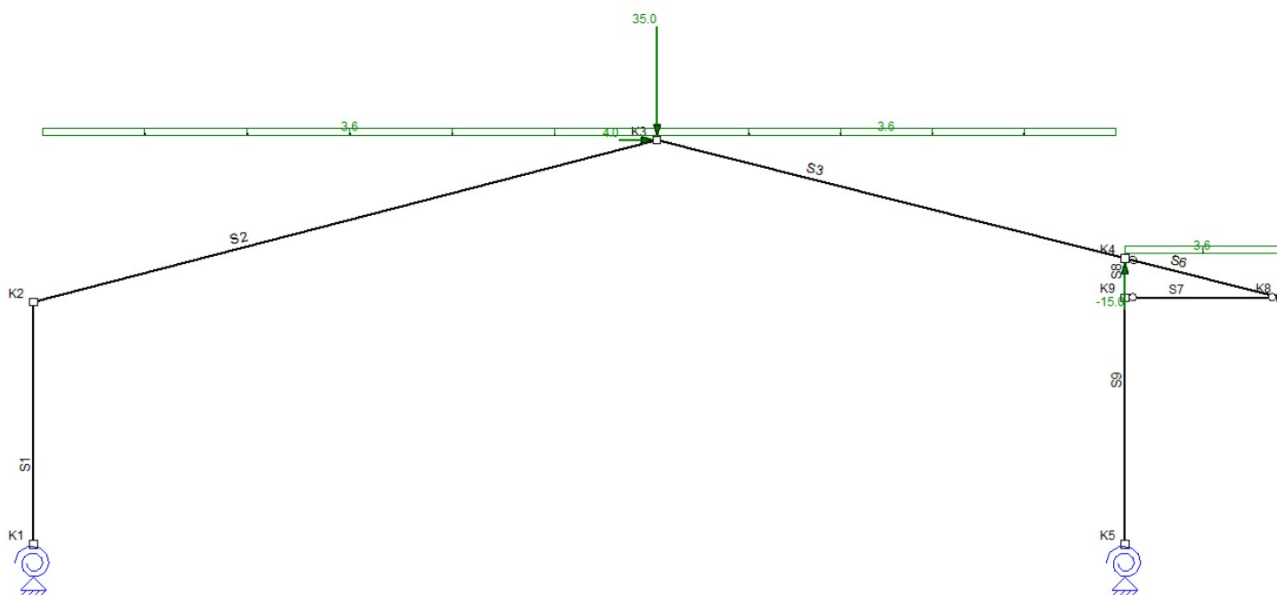
B.G.25: Windbelasting (enkele luifel) [4/4]



B.G.25: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 3.87 | | Z' | S6 | |
| | | | m | m | | | |

B.G.26: Sneeuwbelasting 1



B.G.26: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| N | 35.0 | | | | Z | K3 | |
| N | -15.0 | | | | Z | K4 | |
| N | 4.0 | | | | X | K3 | |
| | | | m | m | | | |

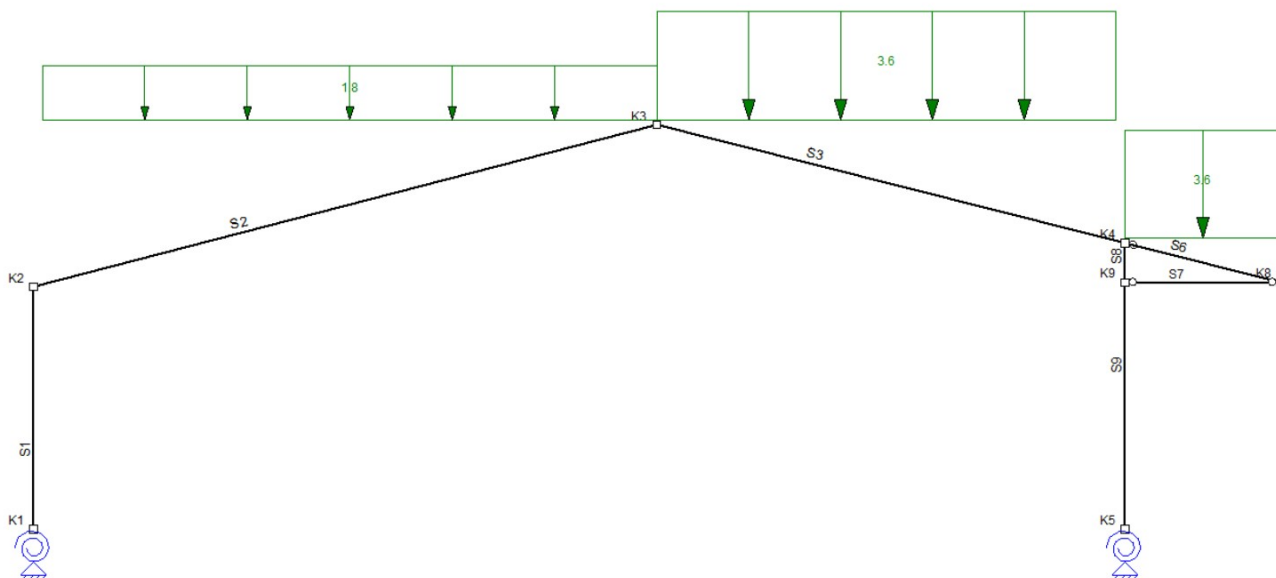
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



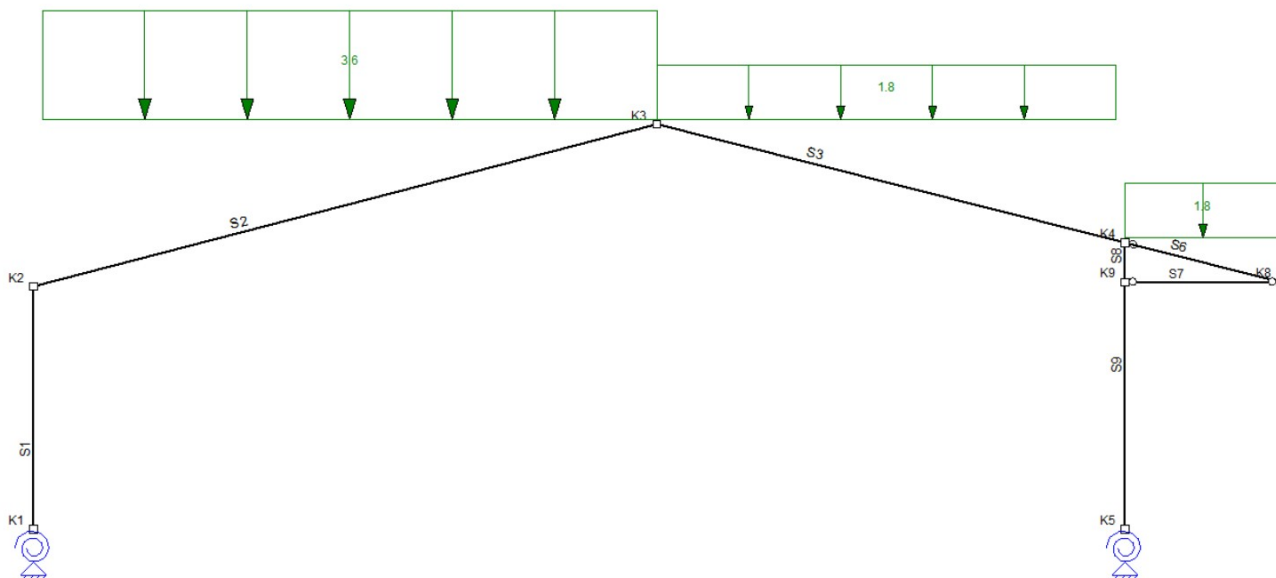
B.G.27: Sneeuwbelasting 2



B.G.27: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q65) | 1.8 (q65) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| | | | m | m | | | |

B.G.28: Sneeuwbelasting 3



B.G.28: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 1.8 (q67) | 1.8 (q67) | 0.00 | L | Z | S3,S6 | |
| | | | m | m | | | |

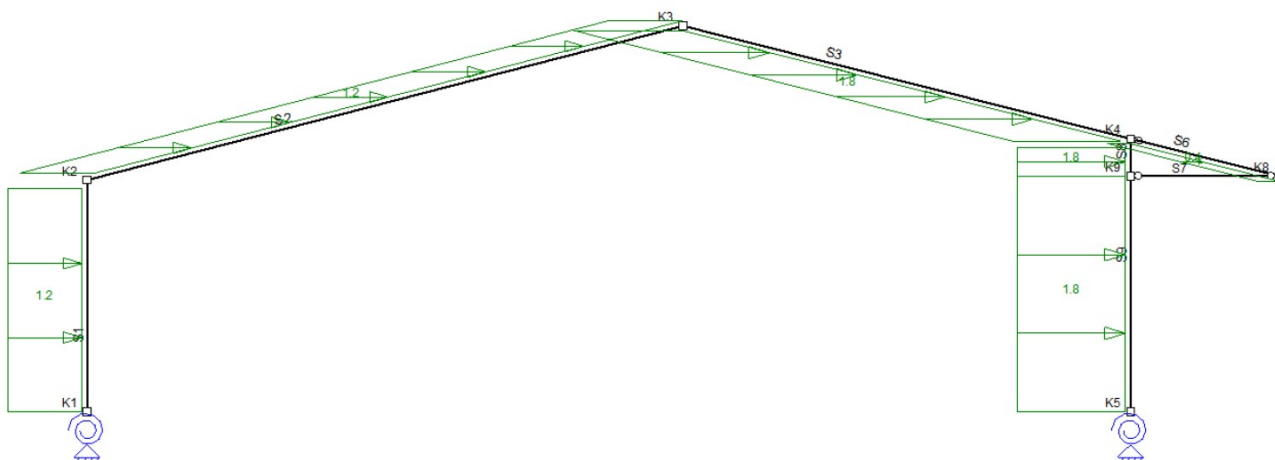
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



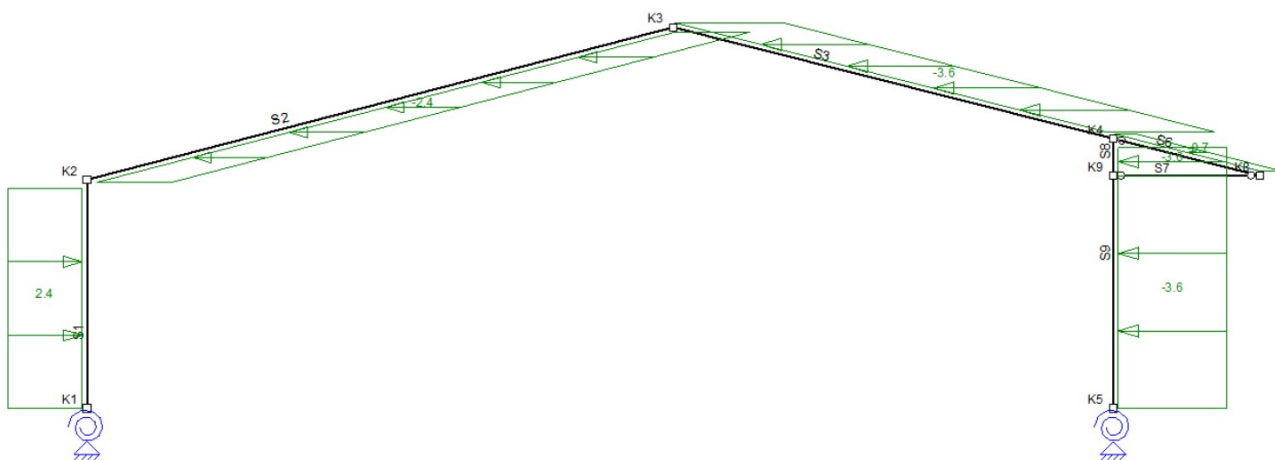
B.G.29: Kniklengte (Asymmetrisch)



B.G.29: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3,S6,S8-S9 | |
| | | | m | m | | | |

B.G.30: Kniklengte (Symmetrisch)



B.G.30: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| qG | 2.00 (2.45) | 2.00 (2.45) | 0.00 | 7.80 (L) | X" | S1 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S2-S3,S6,S8-S9 | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES


| Fundamenteel | | | | | | | | | | | |
|--------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 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 | Fu.C.9 | Fu.C.10 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 |
| B.G.2 | Opgelegde belastinge... | 1.17 | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | 1.17 | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | 1.15 | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | 1.15 | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | 1.15 | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | 1.15 | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | 1.15 | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]


Eenheden: m, mm, kN, kNm





| | | | | | | | | | | | |
|--------|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.9 | Windbelasting van Lin... | | | | | | | 1.15 | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | 1.15 | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | 1.15 | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | 1.15 |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | 1.15 | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | 1.15 | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | 1.15 | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | 1.15 | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | 1.15 | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | 1.15 | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | 1.15 | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | 1.15 | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | 1.15 | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | 1.15 |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.21 | Fu.C.22 | Fu.C.23 | Fu.C.24 | Fu.C.25 | Fu.C.26 | Fu.C.27 | Fu.C.28 | Fu.C.29 | Fu.C.30 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | 1.17 | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | 1.17 |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |

Projectnummer  J

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever 

Constructeur  J

Omschrijving 

Eenheden: m, mm, kN, kNm



- B.G.10 Windbelasting van Lin...
- B.G.11 Windbelasting van Lin...
- B.G.12 Windbelasting van Re...
- B.G.13 Windbelasting van Re...
- B.G.14 Windbelasting van Re...
- B.G.15 Windbelasting van Re...
- B.G.16 Windbelasting van Re...
- B.G.17 Windbelasting van Re...
- B.G.18 Windbelasting van Re...
- B.G.19 Windbelasting van Re...
- B.G.20 Windbelasting van Vo...
- B.G.21 Windbelasting van Vo...
- B.G.22 Windbelasting (enkele...
- B.G.23 Windbelasting (enkele... 1.15
- B.G.24 Windbelasting (enkele...
- B.G.25 Windbelasting (enkele...
- B.G.26 Sneeuwbelasting 1
- B.G.27 Sneeuwbelasting 2
- B.G.28 Sneeuwbelasting 3
- B.G.29 Kniklengte (Asymmetr...
- B.G.30 Kniklengte (Symmetris...

1.15

1.15

1.01

1.01

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Karakteristiek

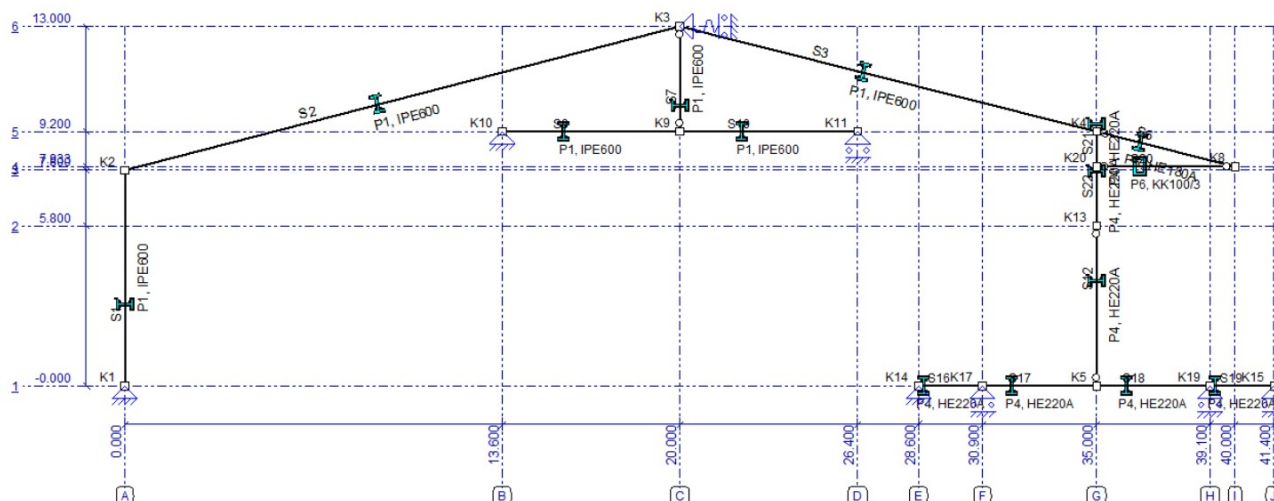
[illegible][illegible]

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving
 Bestand

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knoten | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 15 | 15 | 8 | 6 | 30 | 90 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -7.80 | 7.80 | P1 | 0.00 - 7.80 (L) |
| S2 | K2 | K3 | 0.00 | 20.00 | -7.80 | -13.00 | 20.66 | P1 | 0.00 - 20.66 (L) |
| S3 | K3 | K4 | 20.00 | 35.00 | -13.00 | -9.20 | 15.47 | P1 | 0.00 - 15.47 (L) |
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.93 | 5.16 | P5 | 0.00 - 5.16 (L) |
| S7 | K9 | K3 | 20.00 | 20.00 | -9.20 | -13.00 | 3.80 | P1 | 0.00 - 3.80 (L) |
| S9 | K10 | K9 | 13.60 | 20.00 | -9.20 | -9.20 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S10 | K9 | K11 | 20.00 | 26.40 | -9.20 | -9.20 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S12 | K13 | K5 | 35.00 | 35.00 | -5.80 | 0.00 | 5.80 | P4 | 0.00 - 5.80 (L) |
| S16 | K14 | K17 | 28.60 | 30.90 | 0.00 | 0.00 | 2.30 | P4 | 0.00 - 2.30 (L) |
| S17 | K17 | K5 | 30.90 | 35.00 | 0.00 | 0.00 | 4.10 | P4 | 0.00 - 4.10 (L) |
| S18 | K5 | K19 | 35.00 | 39.10 | 0.00 | 0.00 | 4.10 | P4 | 0.00 - 4.10 (L) |
| S19 | K19 | K15 | 39.10 | 41.40 | 0.00 | 0.00 | 2.30 | P4 | 0.00 - 2.30 (L) |
| S20 | K20 | K8 | 35.00 | 40.00 | -7.93 | -7.93 | 5.00 | P6 | 0.00 - 5.00 (L) |
| S21 | K4 | K20 | 35.00 | 35.00 | -9.20 | -7.93 | 1.27 | P4 | 0.00 - 1.27 (L) |
| S22 | K20 | K13 | 35.00 | 35.00 | -7.93 | -5.80 | 2.13 | P4 | 0.00 - 2.13 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | IPE600 | 15598 | 9.2083e+08 | S355 | 0 |
| P4 | HE220A | 6434 | 5.4097e+07 | S355 | 0 |
| P5 | HE180A | 4525 | 2.5103e+07 | S235 | 0 |
| P6 | KK100/3 | 1149 | 1.7896e+06 | S235H(EN10219-1) | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|------------------|--------|-------------------|-------------------|-----------------|
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °C/m |

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**SCHARNIEREN**

| Staaf | Positie | Scharnier | X | Z | Yr |
|----------|----------|-----------|-------------|-------------|----------------|
| S6 | 0.00 | A3 | Vast | Vast | 500.0 |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A2 | Vast | Vast | Vrij |
| | 3.80 (L) | A2 | Vast | Vast | Vrij |
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.40 (L) | A1 | Vast | Vast | Vast |
| S10 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.40 (L) | A1 | Vast | Vast | Vast |
| S12 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.80 (L) | A2 | Vast | Vast | Vrij |
| S16 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.30 (L) | A1 | Vast | Vast | Vast |
| S17 | 0.00 | A1 | Vast | Vast | Vast |
| | 4.10 | A1 | Vast | Vast | Vast |
| S18 | 0.00 | A1 | Vast | Vast | Vast |
| | 4.10 (L) | A1 | Vast | Vast | Vast |
| S19 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.30 | A1 | Vast | Vast | Vast |
| S20 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S21 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.27 (L) | A1 | Vast | Vast | Vast |
| S22 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.13 | A1 | Vast | Vast | Vast |
| m | | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|-------------|-------------|----------------|------|----------|
| O1 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O3 | K10 | K10 | Vast | Vast | Vrij | 0 | |
| O4 | K11 | K11 | Vrij | Vast | Vrij | 0 | |
| O5 | K14 | K14 | Vast | Vast | Vrij | 0 | |
| O6 | K15 | K15 | Vrij | Vast | Vrij | 0 | |
| O7 | K3 | K3 | 300.0 | Vrij | Vrij | 0 | |
| O8 | K17 | K17 | Vrij | Vast | Vrij | 0 | |
| O9 | K19 | K19 | Vrij | Vast | Vrij | 0 | |
| m | | | kN/m | kN/m | kNm/rad | | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--------------------------|--------------------------------|------------|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 6.40 | 6.40 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 41.40 | 41.40 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |

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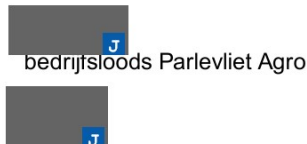
Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|---|--|--|--------|----------------------|
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S2,S3,S6) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.4 | 0.40 | [kN/m ²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 2.56 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=6.40)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S2 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m ²] |
| q2 | Opgelegde belastingen (q) (Lsys=6.40) | qk1 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| | S3,S6 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m ²] |
| q3 | Opgelegde belastingen (q) (Lsys=6.40) | qk2 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S11,S12) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A1 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q4 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 1.19 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -4.87 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.87 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe6 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q9 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp1*Cpe7*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

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Eenheden: m, mm, kN, kNm



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|---|---|--|--------|----------------------|
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A2 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe9 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q11 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe9*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 1.19 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe13 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q16 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe13*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q17 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp2*Cpe14*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| LR6 (Vertikale wand; Verdeelde element belasting (q): S11,S12) | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A3 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe16 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q18 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp3*Cpe16*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -1.79 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp3*Cpe17*CsCd1) * Lsys1 | -4.87 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp3*Cpe18*CsCd1) * Lsys1 | -1.87 | [kN/m] |

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|-------|--|--|--------|----------|
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp3*Cpe19*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe20 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q23 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp3*Cpe20*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp3*Cpe21*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A4 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe23 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q25 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp4*Cpe23*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -1.79 | [kN/m] |
| Cpe24 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp4*Cpe24*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q28 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp4*Cpe25*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe26 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe26*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe27 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q30 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe27*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp4*Cpe28*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A5 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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Eenheden: m, mm, kN, kNm



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|-------|--|--|--------|----------|
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q32 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp5 \cdot Cpe30 \cdot CsCd1) \cdot Lsys1$ | -2.98 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | $(Cpi5 \cdot Qp5) \cdot Lsys1$ | 1.19 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp5 \cdot Cpe31 \cdot CsCd1) \cdot Lsys1$ | -2.44 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp5 \cdot Cpe32 \cdot CsCd1) \cdot Lsys1$ | -5.65 | [kN/m] |
| Cpe33 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q36 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp5 \cdot Cpe33 \cdot CsCd1) \cdot Lsys1$ | -1.93 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | $(Qp5 \cdot Cpe34 \cdot CsCd1) \cdot Lsys1$ | 4.77 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A6 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q38 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp6 \cdot Cpe36 \cdot CsCd1) \cdot Lsys1$ | -2.98 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | $(Cpi6 \cdot Qp6) \cdot Lsys1$ | 1.19 | [kN/m] |
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q40 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 \cdot Cpe37 \cdot CsCd1) \cdot Lsys1$ | 0.00 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 \cdot Cpe38 \cdot CsCd1) \cdot Lsys1$ | 0.05 | [kN/m] |
| Cpe39 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q42 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp6 \cdot Cpe39 \cdot CsCd1) \cdot Lsys1$ | 1.10 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | $(Qp6 \cdot Cpe40 \cdot CsCd1) \cdot Lsys1$ | 4.77 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|---|-------|------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A7 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=0.00,Over=False) | -0.30 | |

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|--|---|--|--------|----------------------|
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q44 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp7*Cpe42*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1.79 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp7*Cpe43*CsCd1) * Lsys1 | -2.44 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp7*Cpe44*CsCd1) * Lsys1 | -5.65 | [kN/m] |
| Cpe45 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q48 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp7*Cpe45*CsCd1) * Lsys1 | -1.93 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp7*Cpe46*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| LR11 (Vertikale wand; Verdeelde element belasting (q): S11,S12) | | | | |
| Windbelasting van Rechts + Onderdruk (2e Cpe) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A8 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp8*Cpe48*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp8) * Lsys1 | -1.79 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp8*Cpe49*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp8*Cpe50*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe51 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q54 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp8*Cpe51*CsCd1) * Lsys1 | 1.10 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp8*Cpe52*CsCd1) * Lsys1 | 4.77 | [kN/m] |

LR12 (Zadeldak; Verdeelde element belasting (q): S3)

Windbelasting van Voren + Overdruk NEN-EN1991-1-4:2011/NB:2019

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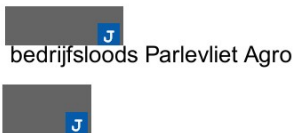
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Eenheden: m, mm, kN, kNm



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|---|---|--|--------|----------|
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Vertikale wand; Druk coefficient (Cpe): S1,S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S1,S11,S12 | (Qp9*Cpe54*CsCd1) * Lsys1 | -4.77 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | (Cpi9*Qp9) * Lsys1 | 1.19 | [kN/m] |
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Richting=90) | -0.60 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp9*Cpe55*CsCd1) * Lsys1 | -3.60 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Richting=90) | -0.61 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp9*Cpe56*CsCd1) * Lsys1 | -3.62 | [kN/m] |
| LR13 (Zadeldak; Verdeelde element belasting (q): S3) | | | | |
| Windbelasting van Voren + Onderdruk | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe57 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe57,Openingen=0.00,Over=False) | -0.30 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S1,S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S11,S12 | (Qp10*Cpe58*CsCd1) * Lsys1 | -4.77 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | (Cpi10*Qp10) * Lsys1 | -1.79 | [kN/m] |
| Cpe59 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Richting=90) | -0.60 | |
| q62 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp10*Cpe59*CsCd1) * Lsys1 | -3.60 | [kN/m] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Richting=90) | -0.61 | |
| q63 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp10*Cpe60*CsCd1) * Lsys1 | -3.62 | [kN/m] |
| LR14 (Geconcentreerde element belasting (F)) | | | | |
| Windbelasting (enkele luifel) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Eenzijdige overkappingen S6 | | | | |

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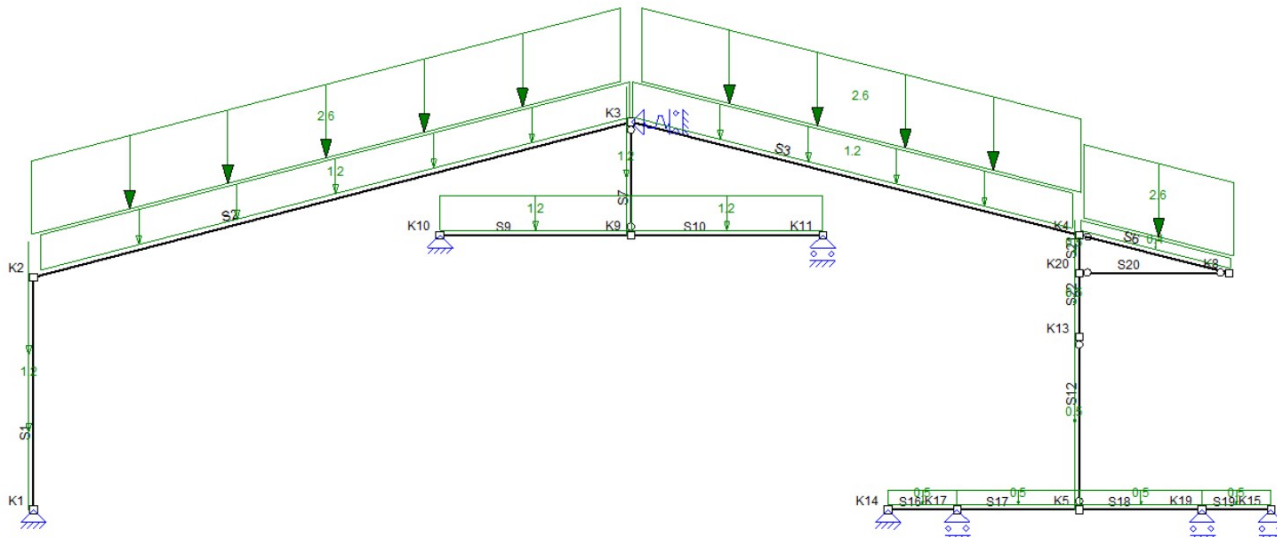


Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|---|--|--|--------|----------------------|
| Cpnet1 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappinggen,Zone=CF,Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | $(Q_{p11} \cdot C_{pnet1} \cdot C_{sCd1}) \cdot L_{sys1} \cdot 5.16$ | 20.58 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappinggen,Zone=CF,Hoek=14.22,Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | $(Q_{p11} \cdot C_{pnet2} \cdot C_{sCd1}) \cdot L_{sys1} \cdot 5.16$ | -43.07 | [kN] |
| LR15 (Verdeelde element belasting (q)) | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0.70 | [kN/m ²] |
| 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: 14.57; S2 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q64 | Verdeelde element belasting (q) | $(Sk1 \cdot Ce1 \cdot Ct1 \cdot Mu1) \cdot L_{sys1}$ | 3.58 | [kN/m] |
| q65 | Verdeelde element belasting (q) | $q_{64} \cdot 0.50$ | 1.79 | [kN/m] |
| | Zadeldak, Mu1 Hoek: 14.22; S3,S6 | | | |
| Mu2 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q66 | Verdeelde element belasting (q) | $(Sk1 \cdot Ce1 \cdot Ct1 \cdot Mu2) \cdot L_{sys1}$ | 3.58 | [kN/m] |
| q67 | Verdeelde element belasting (q) | $q_{66} \cdot 0.50$ | 1.79 | [kN/m] |

B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

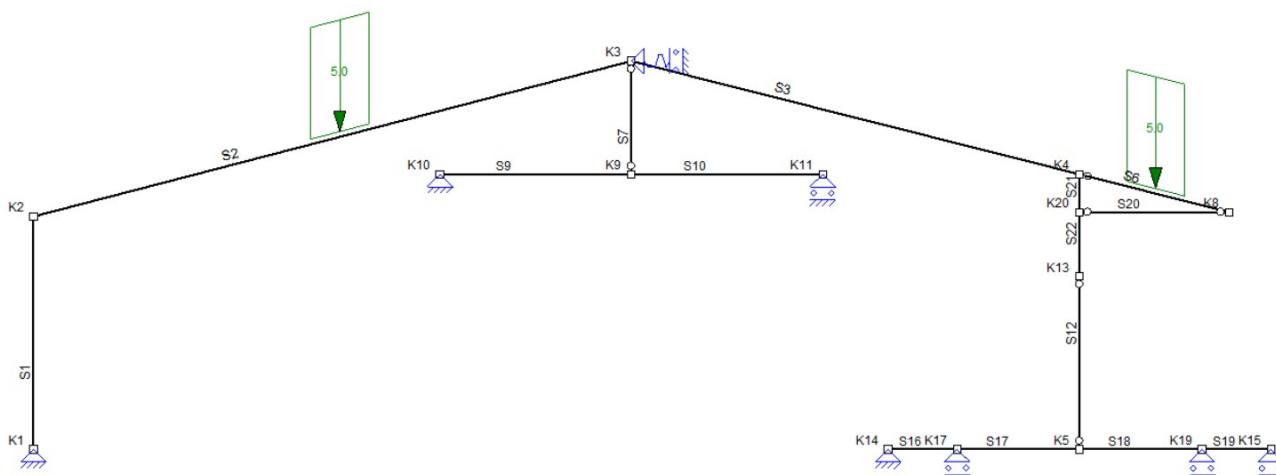
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1-S3,S6-S7,S9-S10,S12,S16-S19,S21-S22 | |
| q | 2.6 (q1) | 2.6 (q1) | 0.00 | L | Z" | S2-S3,S6 | |
| Som lasten | | Z: 190.5 Yr: 0.0 | | | | | |
| | | | m | m | | | |

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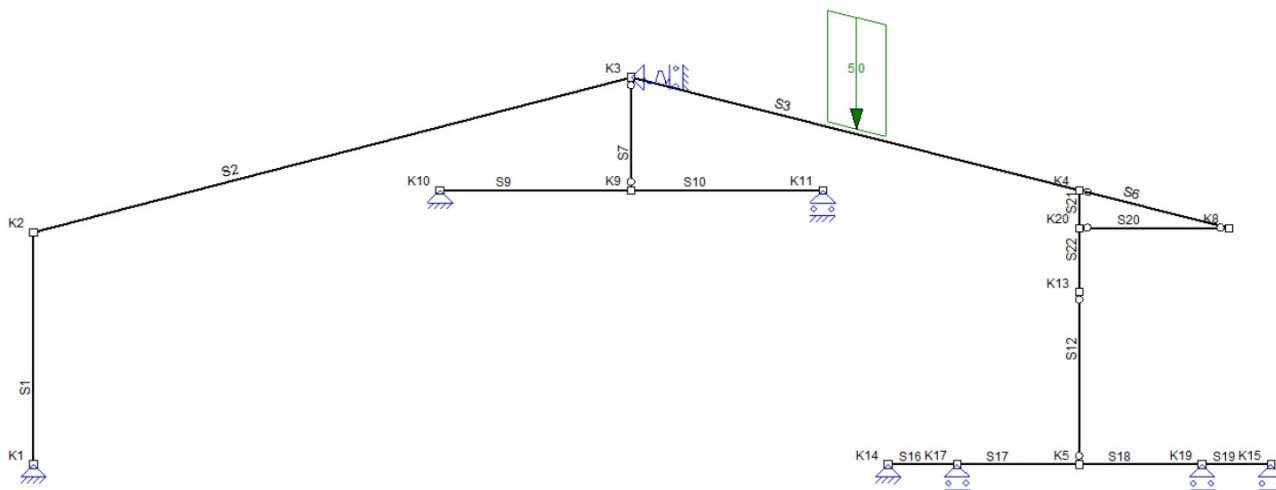
B.G.2: Opgelegde belastingen. Vloer 1, Veld 1



B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q2) | 5.0 (q2) | 9.33 | 11.33 | Z" | S2 | |
| q | 5.0 (q3) | 5.0 (q3) | 1.58 | 3.58 | Z" | S6 | |
| Som lasten | | X: 0.0 Z: 20.0 Yr: 0.7 | | | | | |
| | | | m | m | | | |

B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

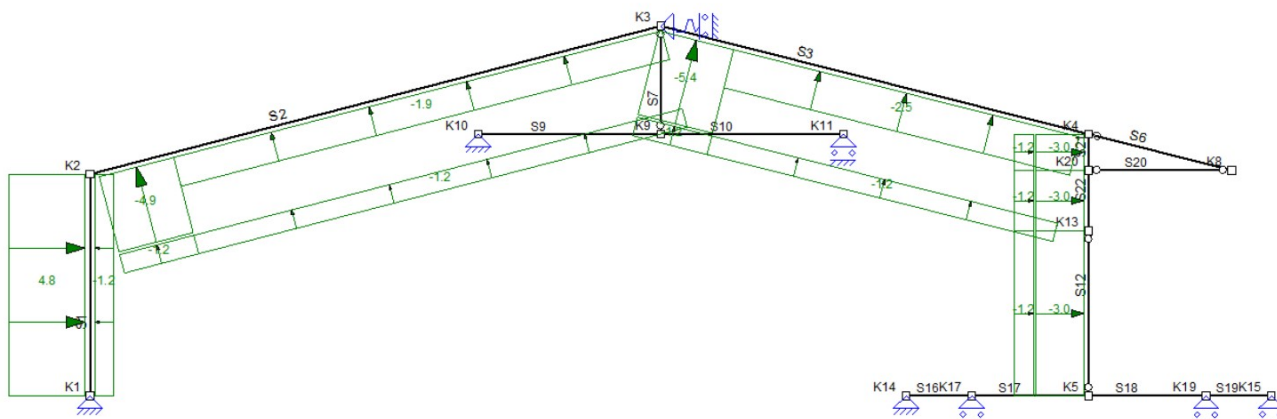
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q3) | 5.0 (q3) | 6.74 | 8.74 | Z" | S3 | |
| Som lasten | | Z: 10.0 Yr: 0.6 | | | | | |
| | | | m | m | | | |

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Eenheden: m, mm, kN, kNm



B.G.4: Windbelasting van Links + Overdruk



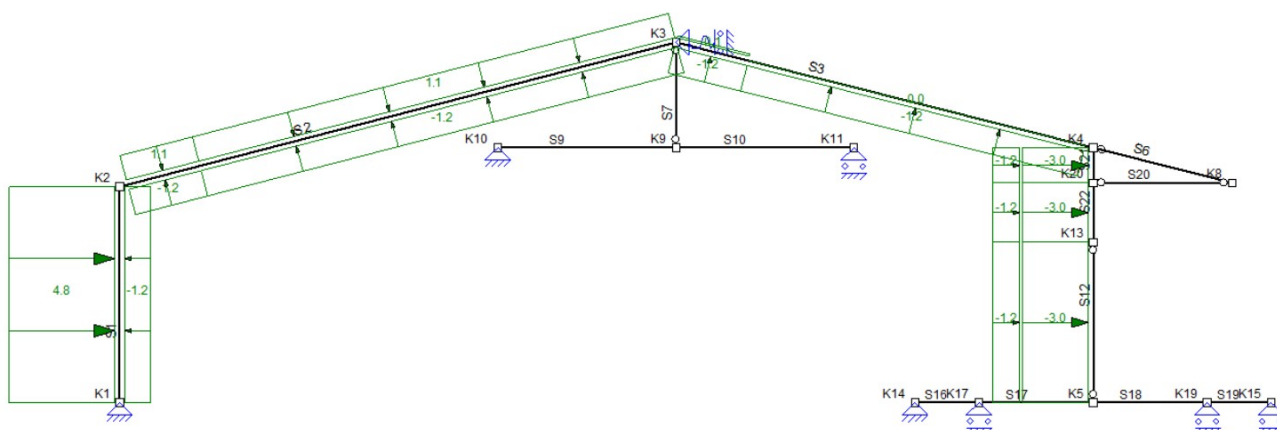
B.G.4: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 64.2 Z: -129.7 Yr: 8.2 | | | | | |

m

m

B.G.5: Windbelasting van Links + Overdruk (2e Cpe)



B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q11) | 4.8 (q11) | 0.00 | 7.80 (L) | Z | S1 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.69 | Z | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.69 | 20.66 (L) | Z | S2 | |

m

m

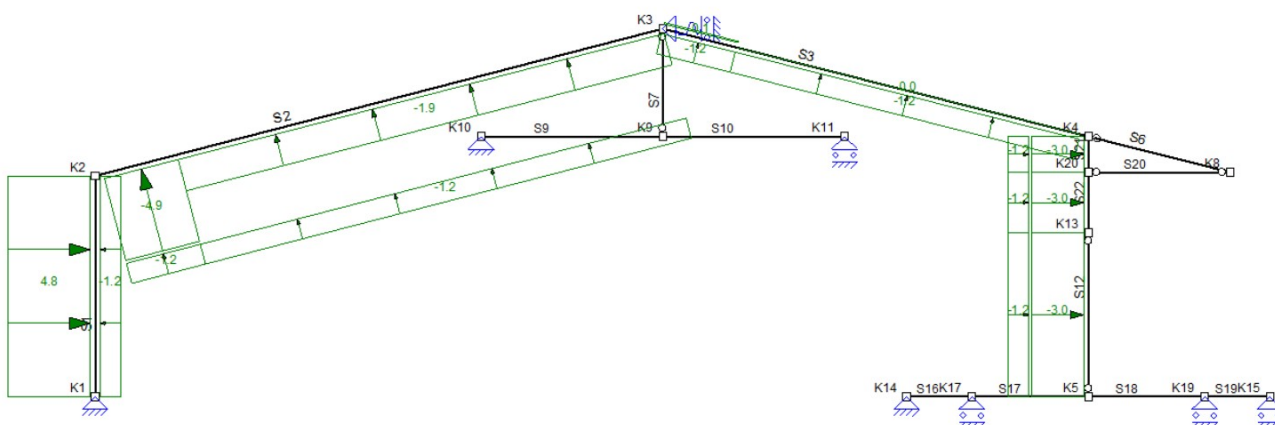
Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q17) | -3.0 (q17) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 70.4 Z: -18.3 Yr: 1.9 | | | | | |
| | | | m | m | | | |

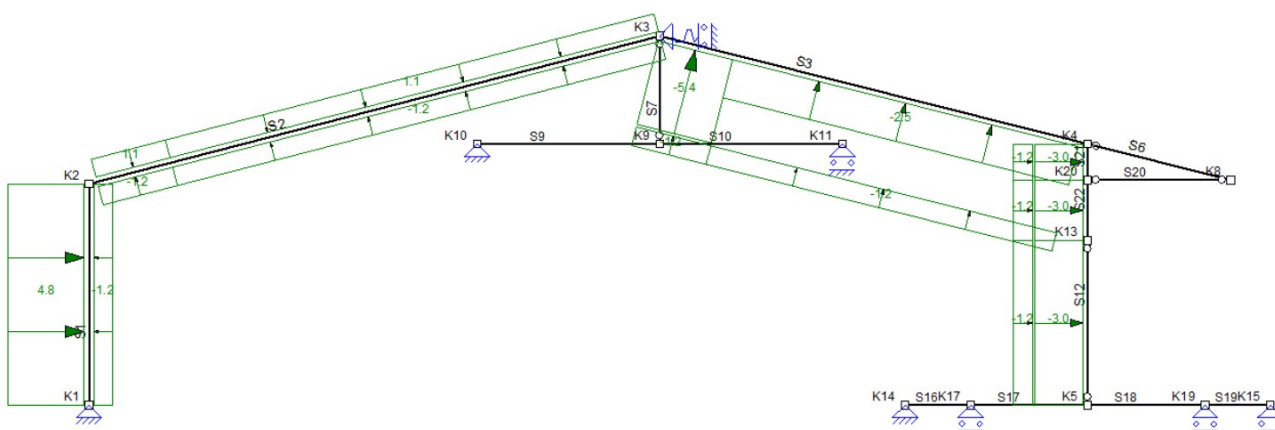
B.G.6: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 53.0 Z: -85.4 Yr: 5.8 | | | | | |
| | | | m | m | | | |

B.G.7: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



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Eenheden: m, mm, kN, kNm

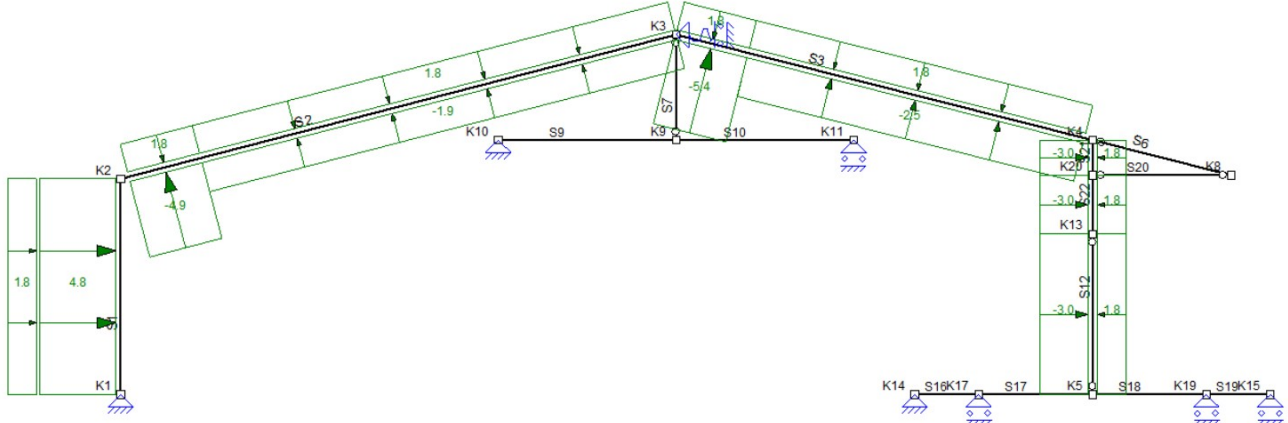


B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 81.6 Z: -62.6 Yr: 4.3 | | | | | |

m m

B.G.8: Windbelasting van Links + Onderdruk



B.G.8: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 64.2 Z: -27.1 Yr: 6.8 | | | | | |

m m

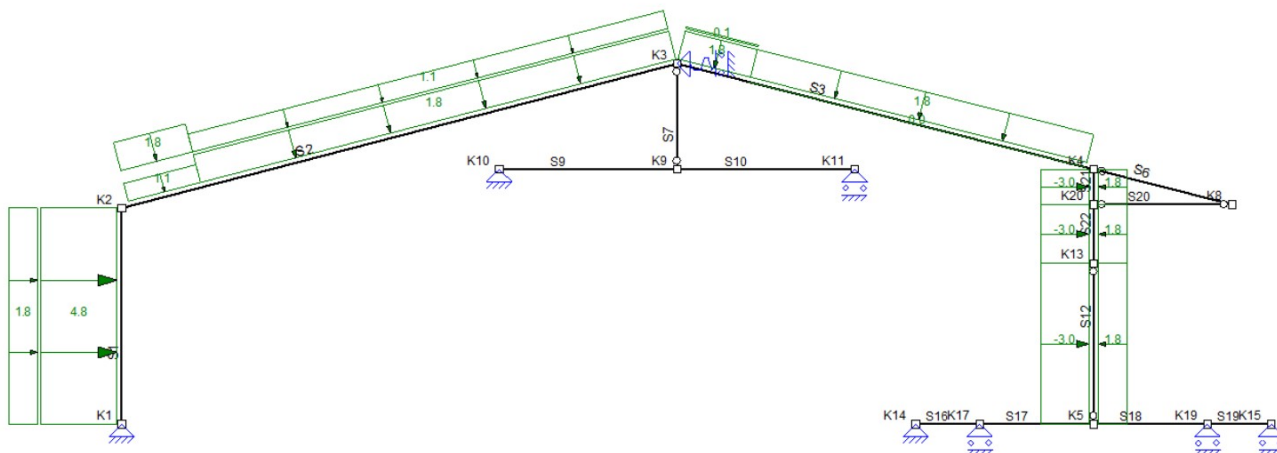
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 Omschrijving



Eenheden: m, mm, kN, kNm



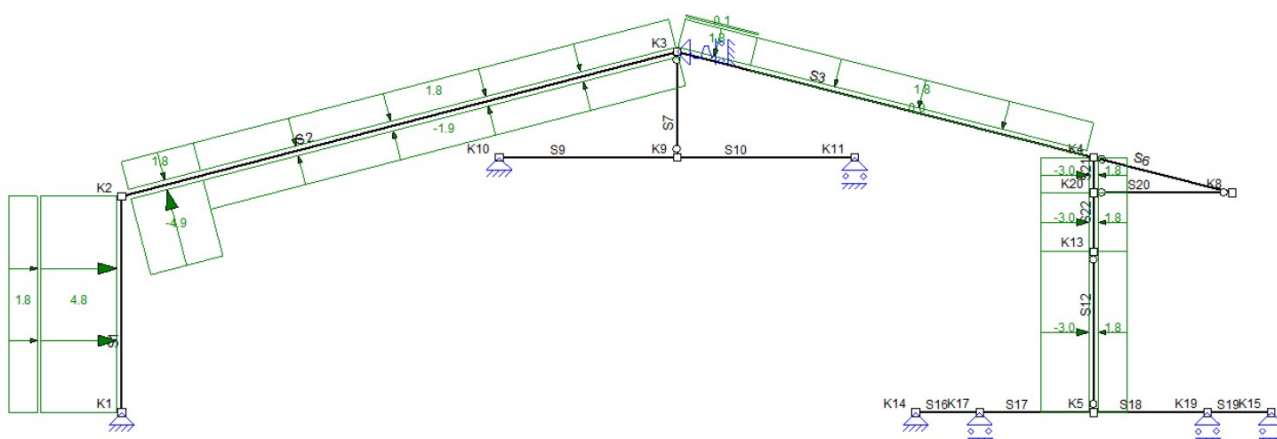
B.G.9: Windbelasting van Links + Onderdruk (2e Cpe)



B.G.9: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q25) | 4.8 (q25) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.69 | Z | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q31) | -3.0 (q31) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 70.4 Z: 84.3 Yr: 0.5 | | | | | |
| | | | m | m | | | |

B.G.10: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z | S2 | |
| | | | m | m | | | |

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 Omschrijving

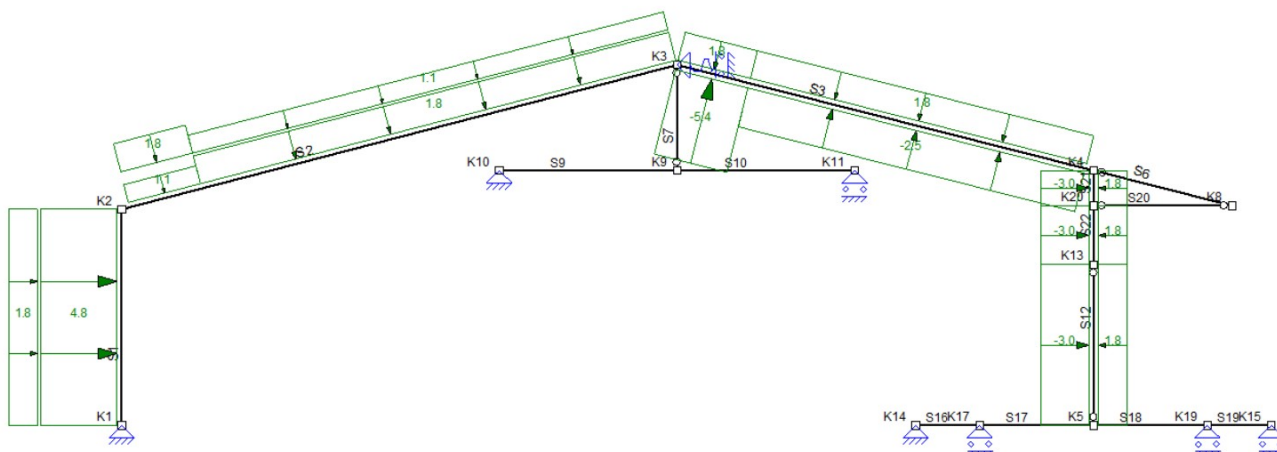
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 53.0 Z: 17.2 Yr: 4.4 | | | | | |
| | | | m | m | | | |

B.G.11: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

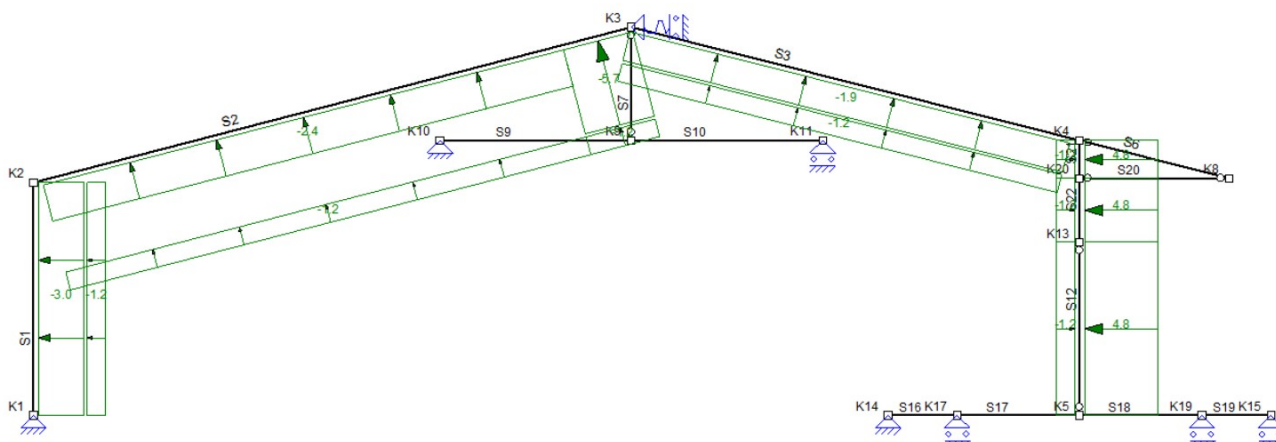
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 81.6 Z: 40.0 Yr: 2.9 | | | | | |
| | | | m | m | | | |

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 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



B.G.12: Windbelasting van Rechts + Overdruk



B.G.12: WINDBELASTING VAN RECHTS + OVERDRUK

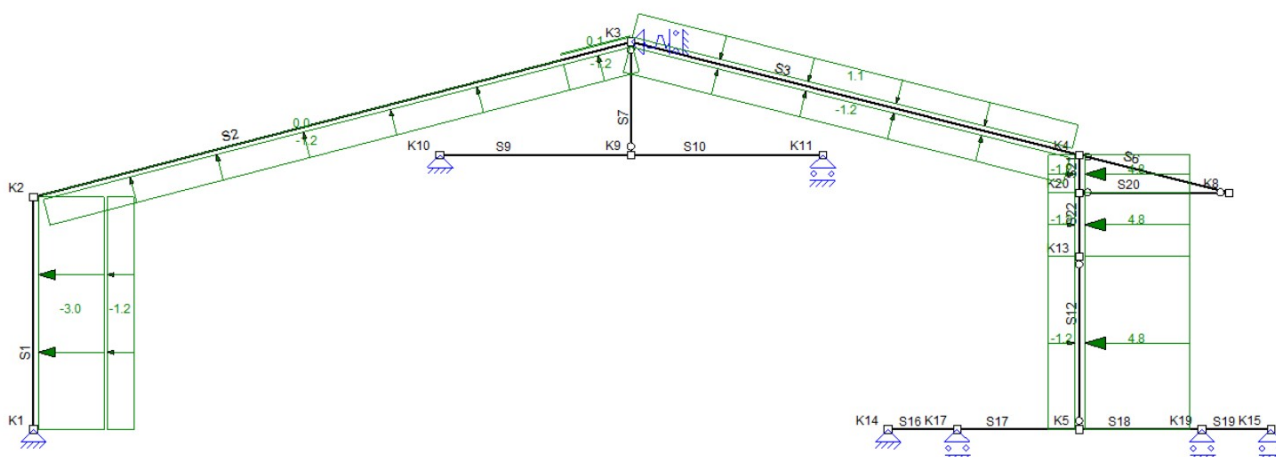
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -74.4 Z: -124.8 Yr: -5.5

m

m

B.G.13: Windbelasting van Rechts + Overdruk (2e Cpe)



B.G.13: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q38) | -3.0 (q38) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |

m

m

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm

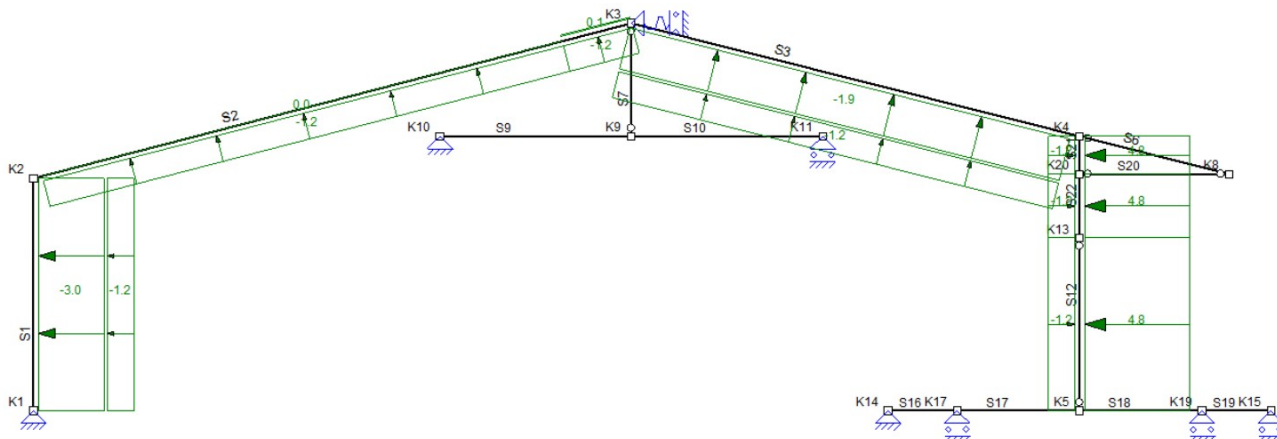


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q43) | 4.8 (q43) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -71.2 Z: -24.8 Yr: -1.6 | | | | | |

m

m

B.G.14: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



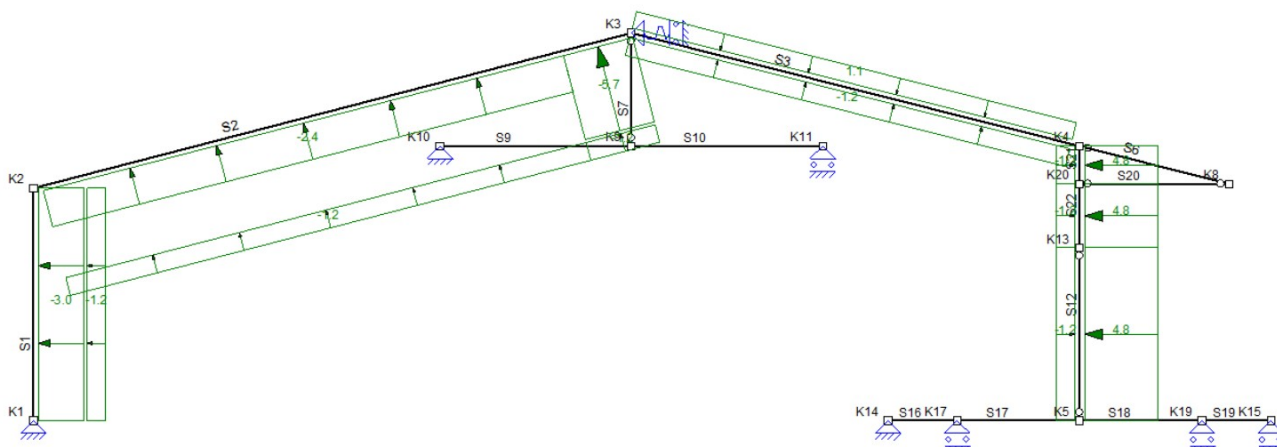
B.G.14: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -59.9 Z: -69.3 Yr: -1.6 | | | | | |

m

m

B.G.15: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.15: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |

m

m

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

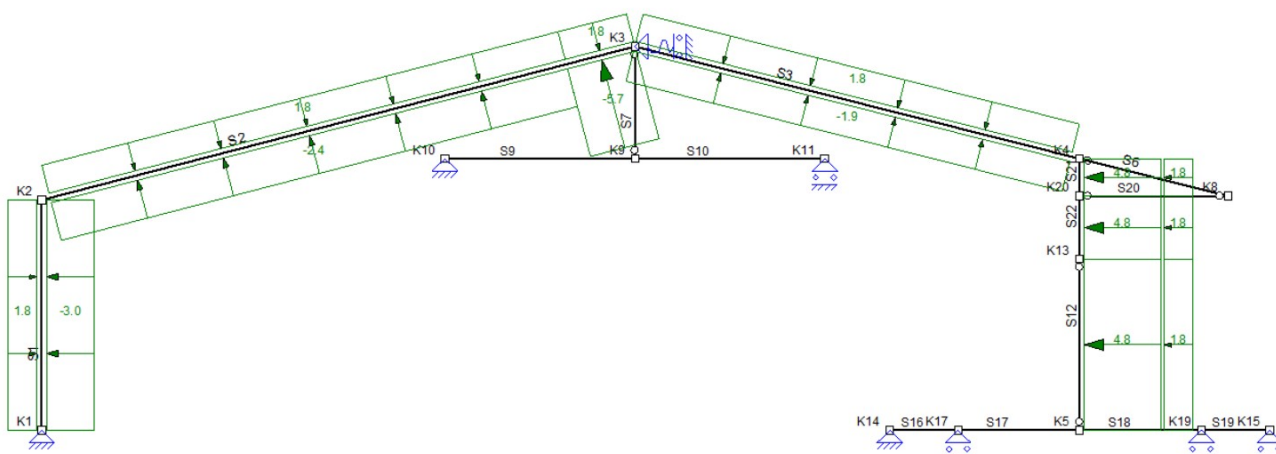


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -85.6 Z: -80.3 Yr: -5.5 | | | | | |

m

m

B.G.16: Windbelasting van Rechts + Onderdruk



B.G.16: WINDBELASTING VAN RECHTS + ONDERDRUK

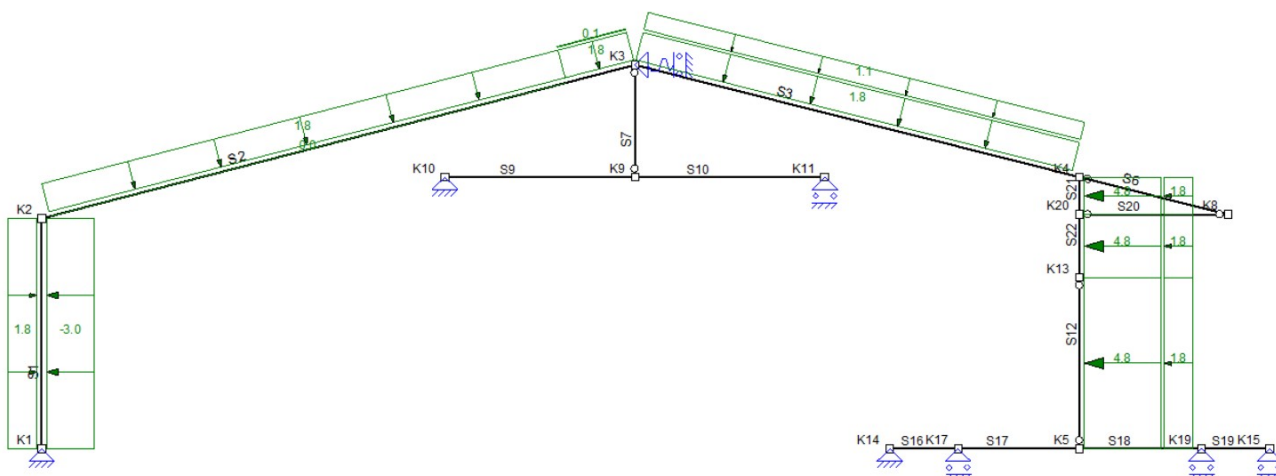
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -74.4 Z: -22.2 Yr: -6.9

m

m

B.G.17: Windbelasting van Rechts + Onderdruk (2e Cpe)



Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

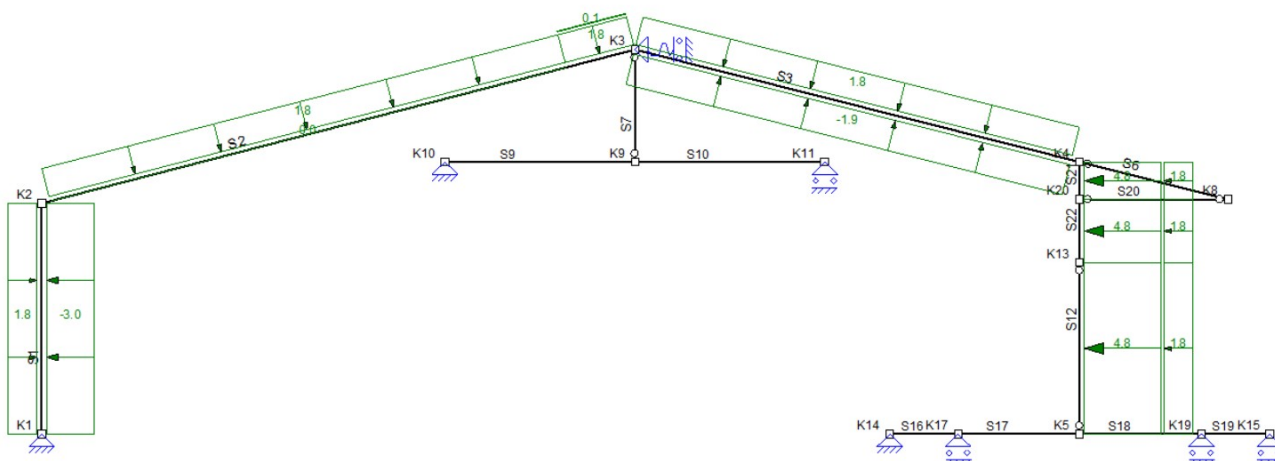
Eenheden: m, mm, kN, kNm

**B.G.17: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q50) | -3.0 (q50) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q55) | 4.8 (q55) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -71.2 Z: 77.9 Yr: -3.0 | | | | | |

m

m

B.G.18: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)**B.G.18: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -59.9 Z: 33.3 Yr: -3.0 | | | | | |

m

m

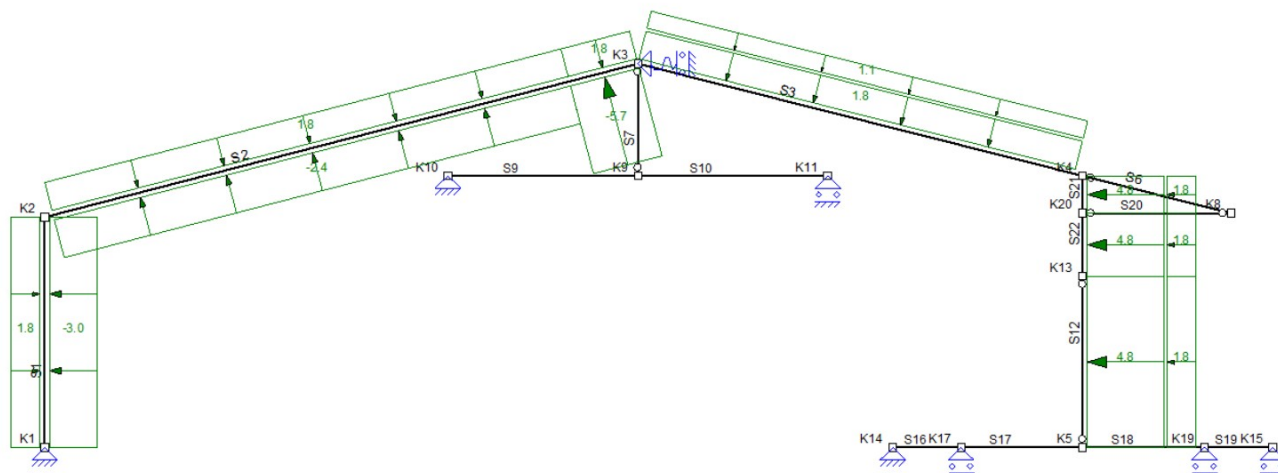
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



B.G.19: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.19: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

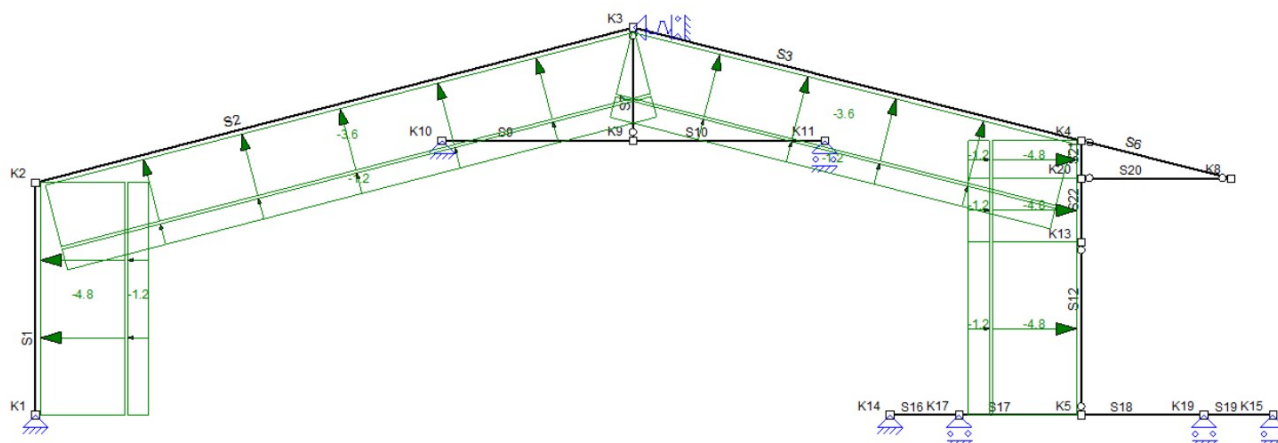
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -85.6 Z: 22.3 Yr: -6.9

m

m

B.G.20: Windbelasting van Voren + Overdruk



B.G.20: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -4.8 (q56) | -4.8 (q56) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | -1.2 (-q57) | -1.2 (-q57) | 0.00 | L | Z' | S1-S3,S12,S21-S22 | |
| q | -3.6 (q58) | -3.6 (q58) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.6 (q59) | -3.6 (q59) | 0.00 | 15.47 (L) | Z' | S3 | |

Som lasten X: 1.7 Z: -165.4 Yr: 2.8

m

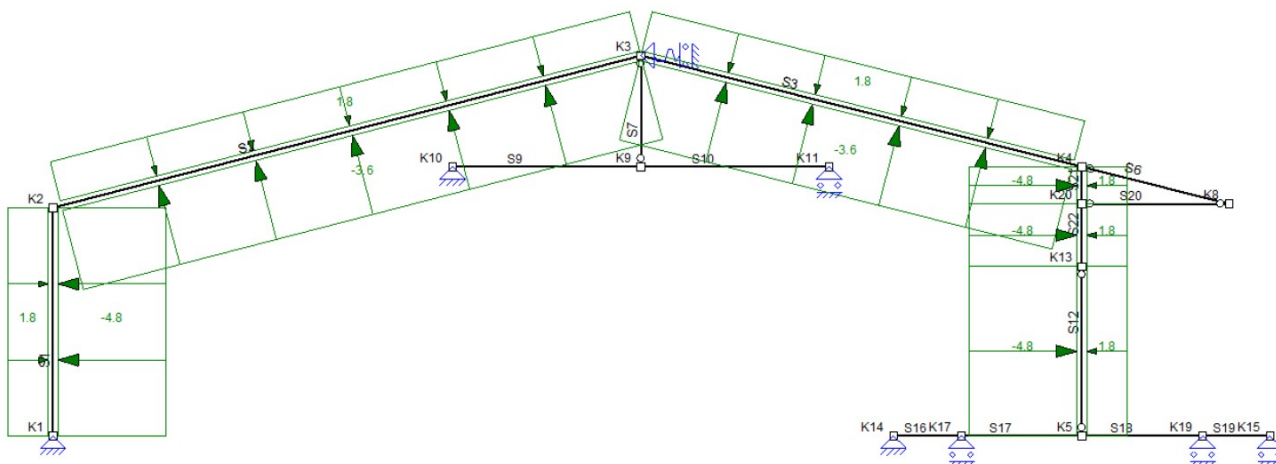
m

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



B.G.21: Windbelasting van Voren + Onderdruk



B.G.21: WINDBELASTING VAN VOREN + ONDERDRUK

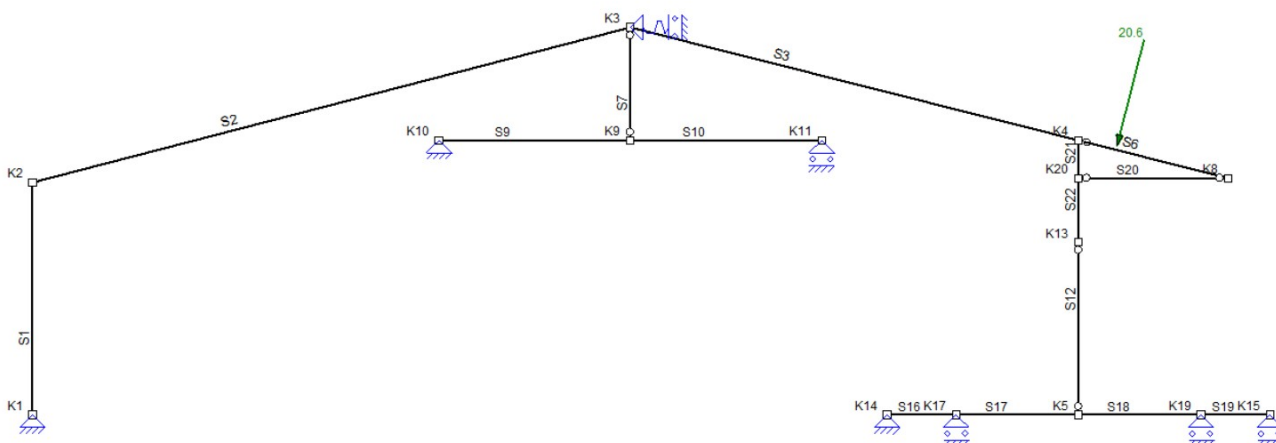
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------|--------------|
| q | -4.8 (q60) | -4.8 (q60) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | 1.8 (-q61) | 1.8 (-q61) | 0.00 | L | Z' | S1-S3,S12,S21-S22 | |
| q | -3.6 (q62) | -3.6 (q62) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.6 (q63) | -3.6 (q63) | 0.00 | 15.47 (L) | Z' | S3 | |

Som lasten X: 1.7 Z: -62.8 Yr: 1.4

m

m

B.G.22: Windbelasting (enkele luifel) [1/4]



B.G.22: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 1.29 | | Z' | S6 | |

Som lasten X: -5.1 Z: 19.9

m

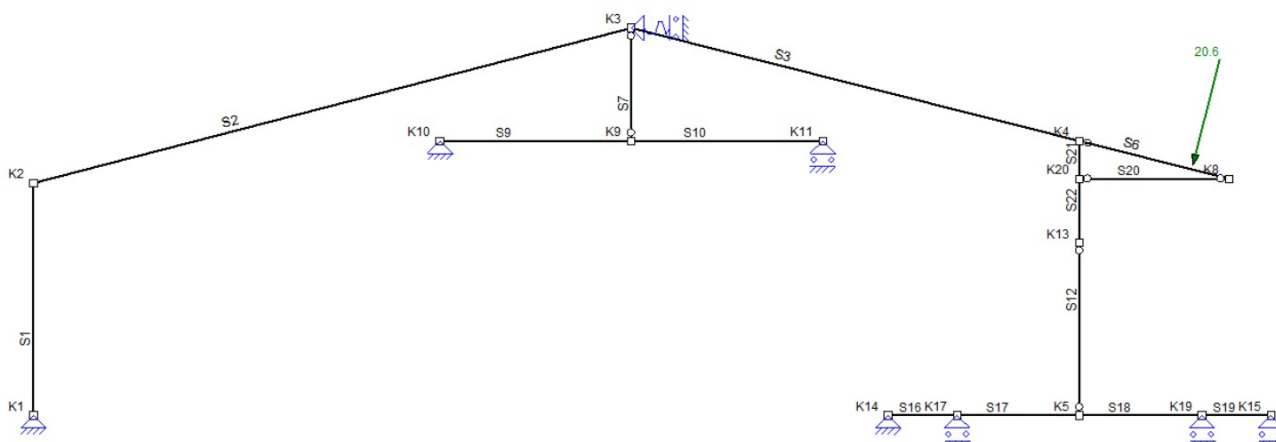
m

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



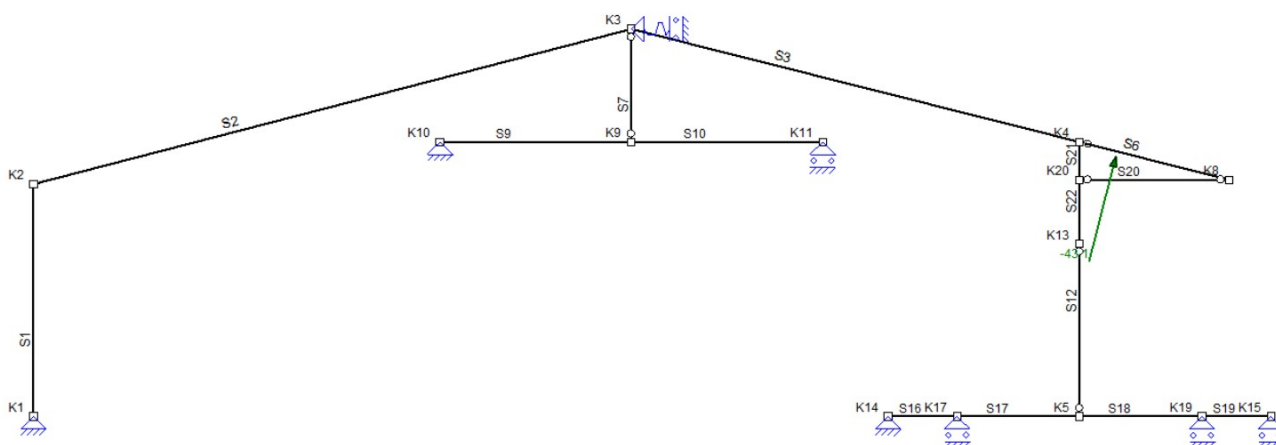
B.G.23: Windbelasting (enkele luifel) [2/4]



B.G.23: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: -5.1 Z: 19.9 | | | | | |
| | | | m | m | | | |

B.G.24: Windbelasting (enkele luifel) [3/4]



B.G.24: WINDBELASTING (ENKELE LUIFEL) [3/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 1.29 | | Z' | S6 | |
| Som lasten | | X: 10.6 Z: -41.8 | | | | | |
| | | | m | m | | | |

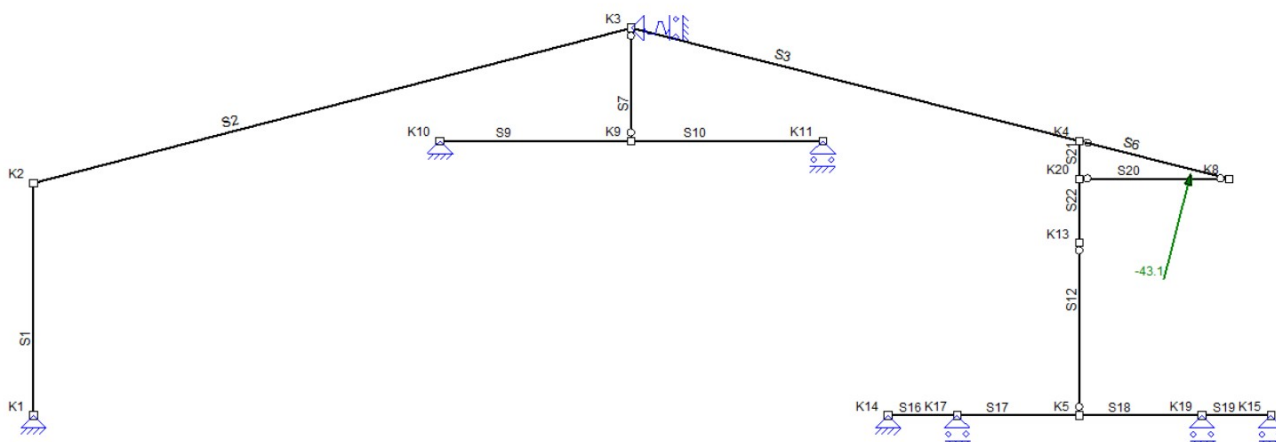
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



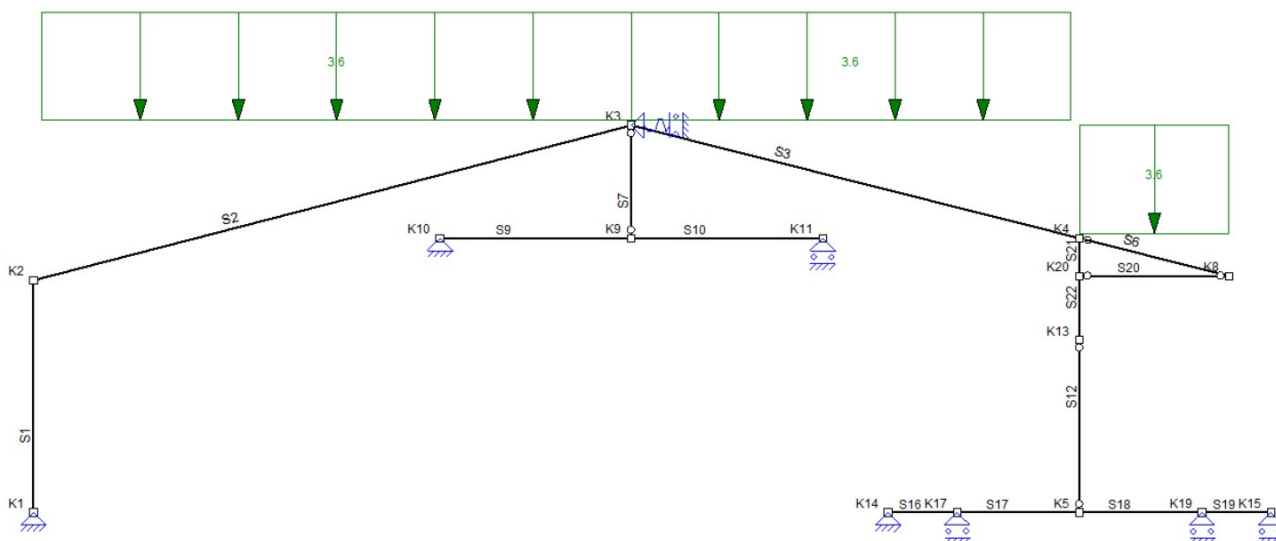
B.G.25: Windbelasting (enkele luifel) [4/4]



B.G.25: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: 10.6 Z: -41.8 | | | | | |
| | | | m | m | | | |

B.G.26: Sneeuwbelasting 1



B.G.26: SNEEUWBELASTING 1

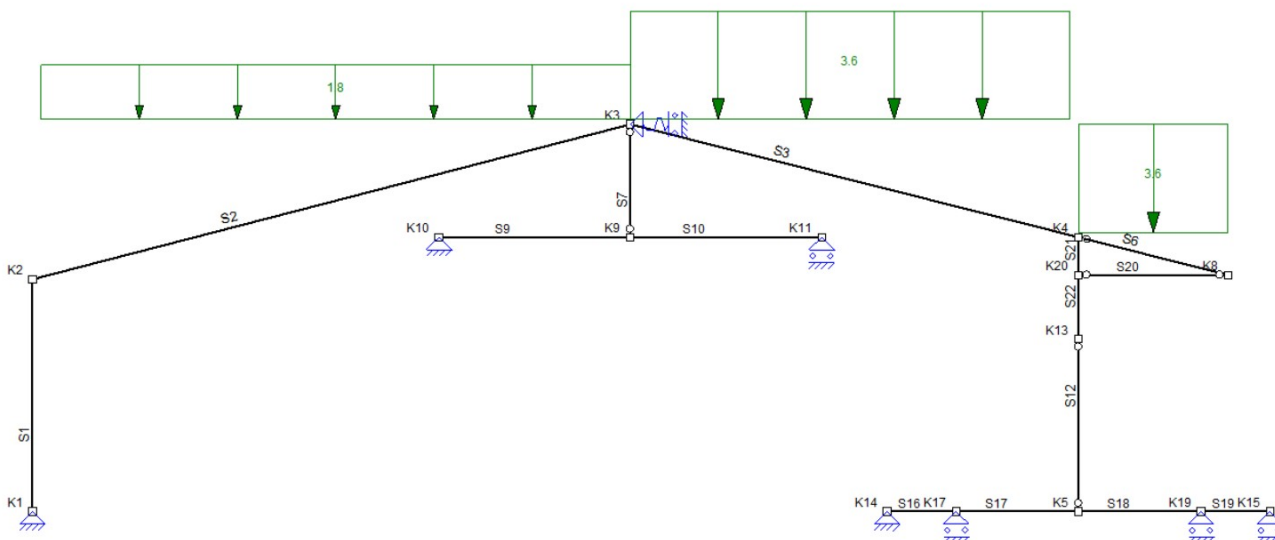
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 141.3 Yr: 0.0 | | | | | |
| | | | m | m | | | |

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 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving

Eenheden: m, mm, kN, kNm



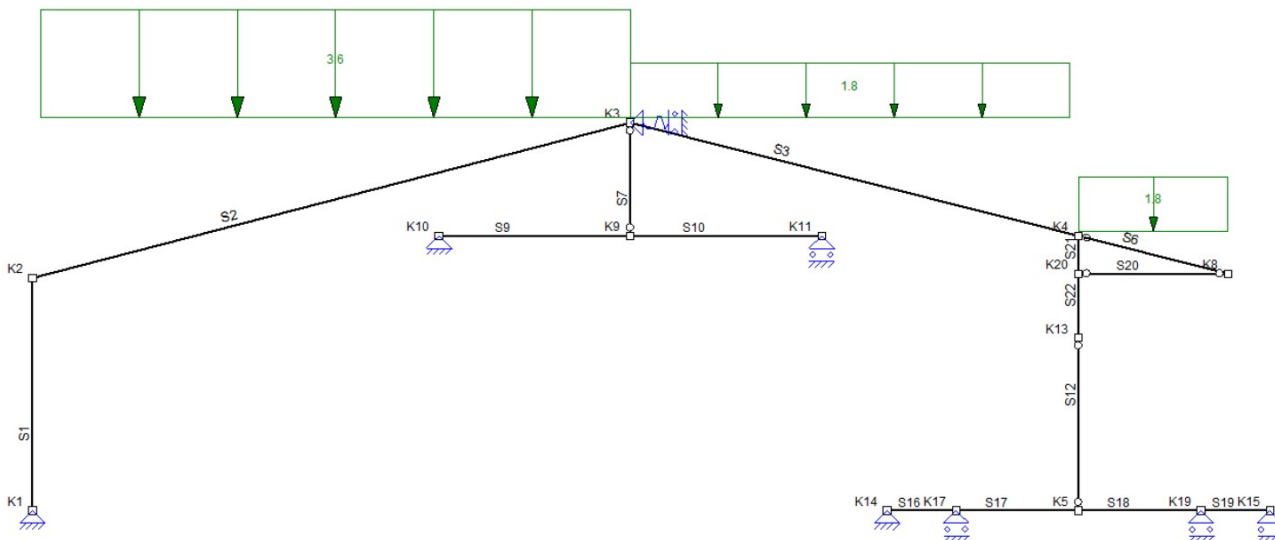
B.G.27: Sneeuwbelasting 2



B.G.27: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q65) | 1.8 (q65) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 106.0 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.28: Sneeuwbelasting 3



B.G.28: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 1.8 (q67) | 1.8 (q67) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 106.0 Yr: 0.0 | | | | | |
| | | | m | m | | | |

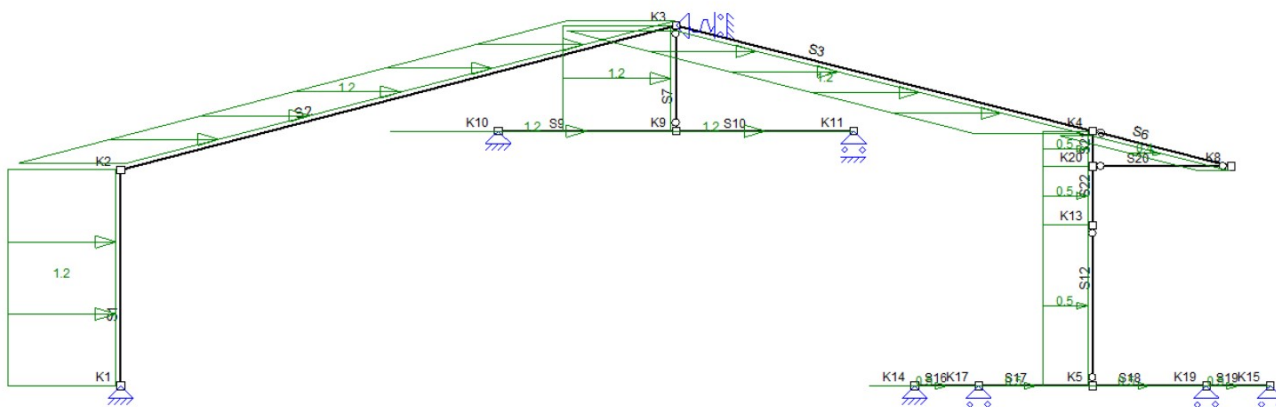
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



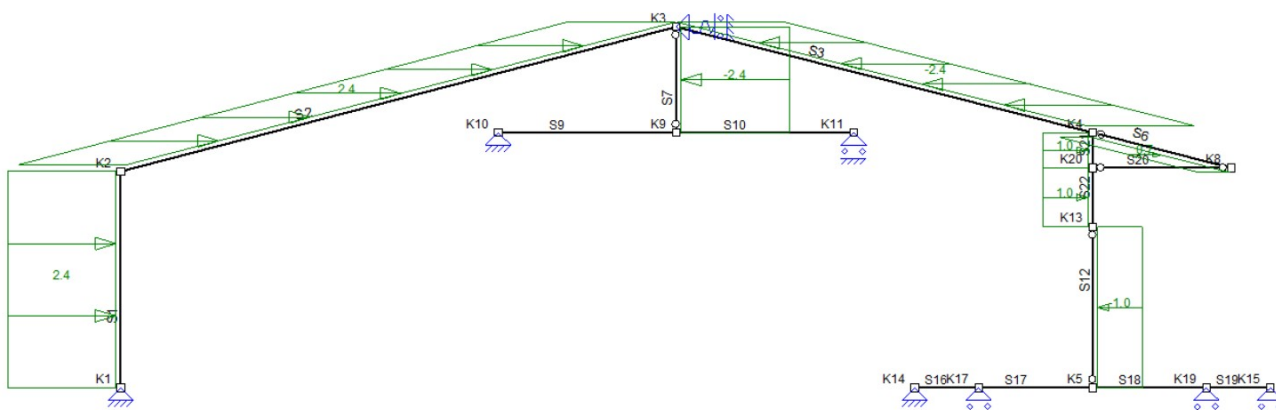
B.G.29: Kniklengte (Asymmetrisch)



B.G.29: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3,S6-S7,S9-S10,S12,S16-S19,S21-S22 | |
| Som lasten | | X: 86.3 Yr: -0.0 | | | | | |
| | | | m | m | | | |

B.G.30: Kniklengte (Symmetrisch)



B.G.30: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|------------------|--------------|
| qG | 2.0 | 2.0 | 0.00 | L | X" | S1-S2,S6,S21-S22 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S3,S7,S12 | |
| Som lasten | | X: 23.7 Yr: 0.0 | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

| Fundamenteel | | | | | | | | | | | |
|--------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 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 | Fu.C.9 | Fu.C.10 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 |
| B.G.2 | Opgelegde belastinge... | 1.17 | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | 1.17 | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | 1.15 | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | 1.15 | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | 1.15 | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | 1.15 | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | 1.15 | | | | |

Projectnummer [REDACTED]
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 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|--------|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.9 | Windbelasting van Lin... | | | | | | | 1.15 | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | 1.15 | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | 1.15 | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | 1.15 |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | 1.15 | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | 1.15 | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | 1.15 | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | 1.15 | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | 1.15 | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | 1.15 | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | 1.15 | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | 1.15 | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | 1.15 | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | 1.15 |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.21 | Fu.C.22 | Fu.C.23 | Fu.C.24 | Fu.C.25 | Fu.C.26 | Fu.C.27 | Fu.C.28 | Fu.C.29 | Fu.C.30 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | 1.17 | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | 1.17 |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



- B.G.10 Windbelasting van Lin...
- B.G.11 Windbelasting van Lin...
- B.G.12 Windbelasting van Re...
- B.G.13 Windbelasting van Re...
- B.G.14 Windbelasting van Re...
- B.G.15 Windbelasting van Re...
- B.G.16 Windbelasting van Re...
- B.G.17 Windbelasting van Re...
- B.G.18 Windbelasting van Re...
- B.G.19 Windbelasting van Re...
- B.G.20 Windbelasting van Vo...
- B.G.21 Windbelasting van Vo...
- B.G.22 Windbelasting (enkele...
- B.G.23 Windbelasting (enkele... 1.15
- B.G.24 Windbelasting (enkele...
- B.G.25 Windbelasting (enkele...
- B.G.26 Sneeuwbelasting 1
- B.G.27 Sneeuwbelasting 2
- B.G.28 Sneeuwbelasting 3
- B.G.29 Niklengte (Asymmetr...
- B.G.30 Niklengte (Symmetris...

1.15

1.15

1.01

1.01

1.01

Karakteristiek

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
|--------|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| B.G.10 | Windbelasting van Lin... | 0.85 | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | 0.85 | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | 0.85 | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | 0.85 | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | 0.85 | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | 0.85 | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | 0.85 | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | 0.85 | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | 0.85 |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.20 | Ka.C.21 | Ka.C.22 | Ka.C.23 | Ka.C.24 | Ka.C.25 | Ka.C.26 | Ka.C.27 | Ka.C.28 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | 0.85 | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | 0.85 | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | 0.85 | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | 0.85 | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | 0.85 | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | 0.85 | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | 0.75 | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | 0.75 | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | 0.75 | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |

UITGANGSPUNTEN VAN DE ANALYSE

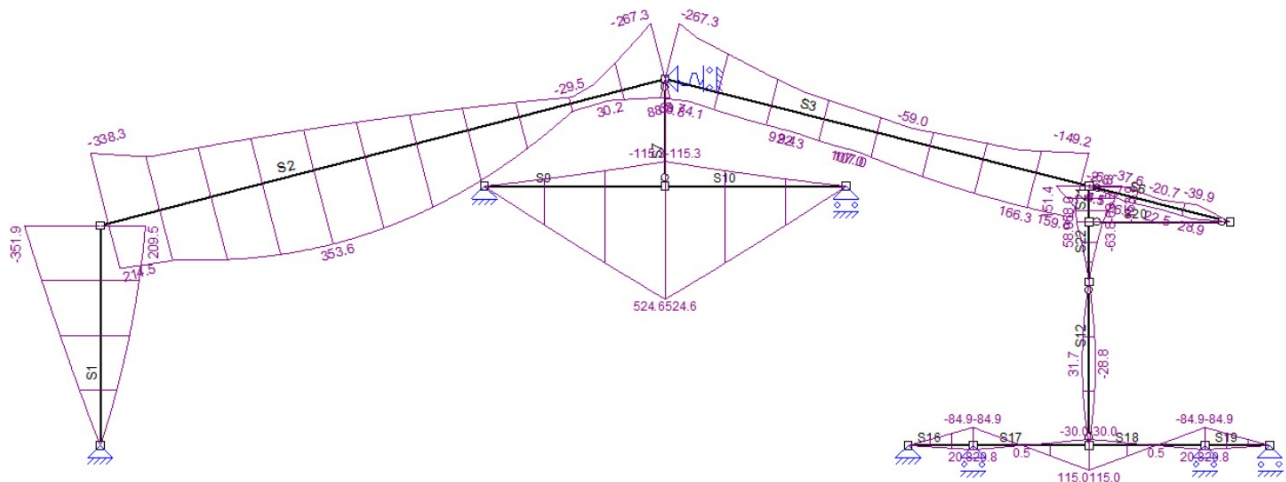
Geavanceerde Analyse

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

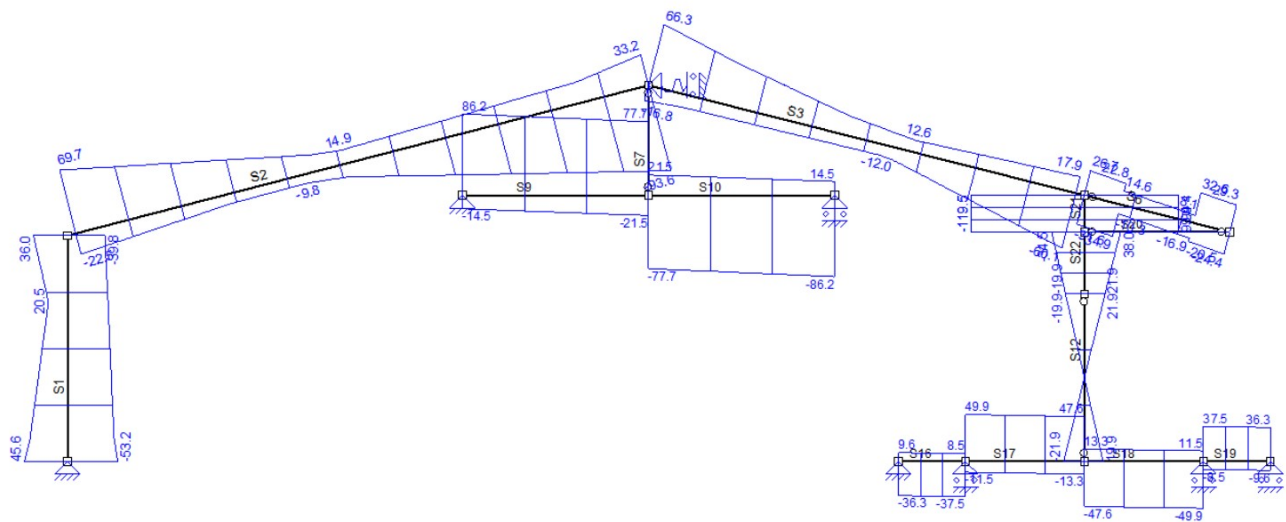
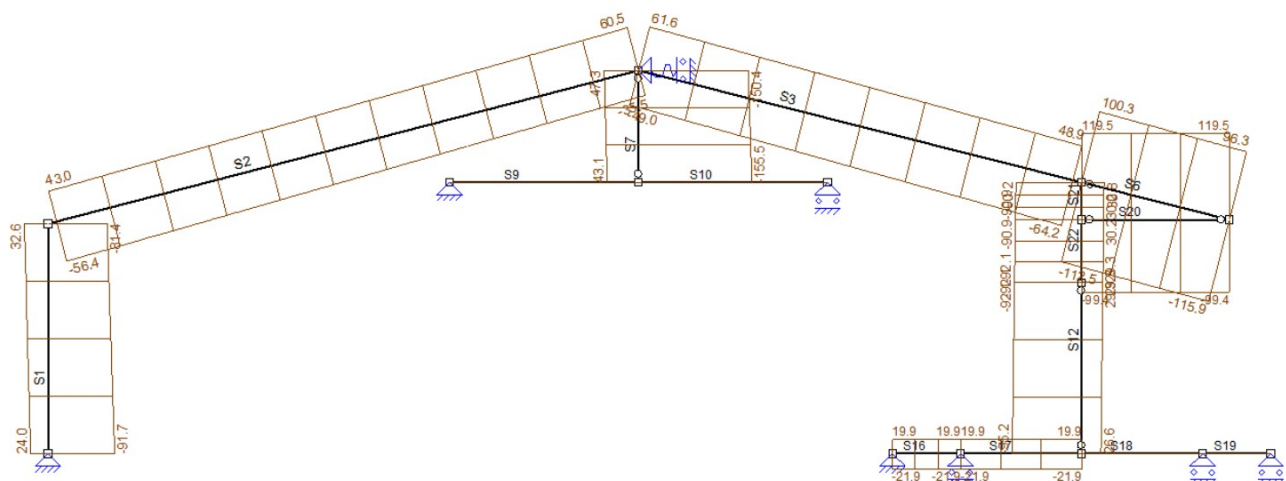
Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Momenten (My)



Fu.C. Omhullende Dwarskracht (V_z)

Fu.C. Omhullende Normaalkracht (N_x)

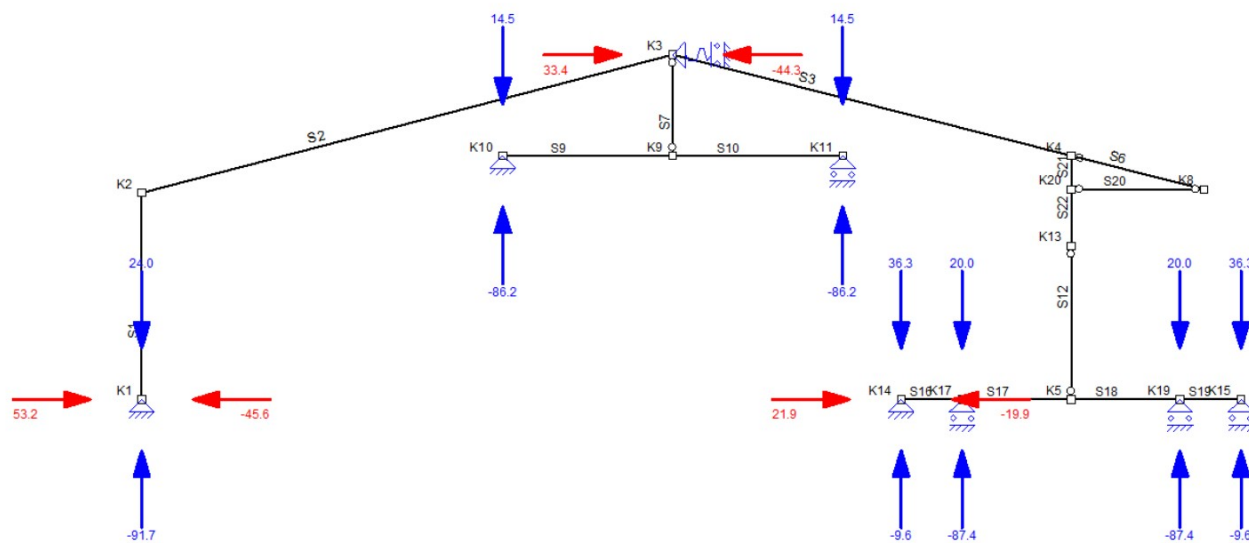
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

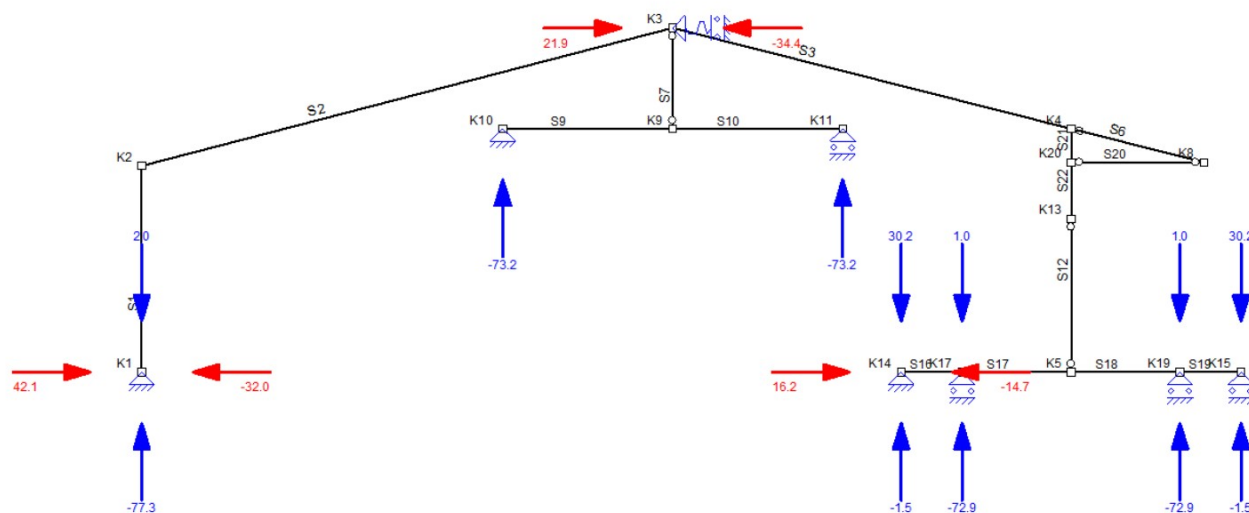
Eenheden: m, mm, kN, kNm



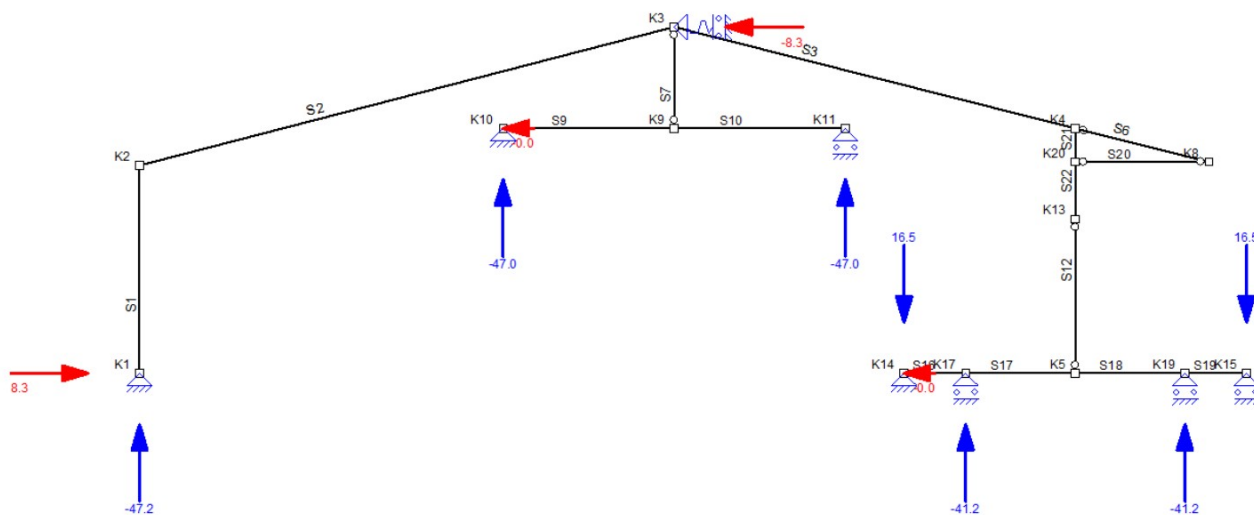
Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



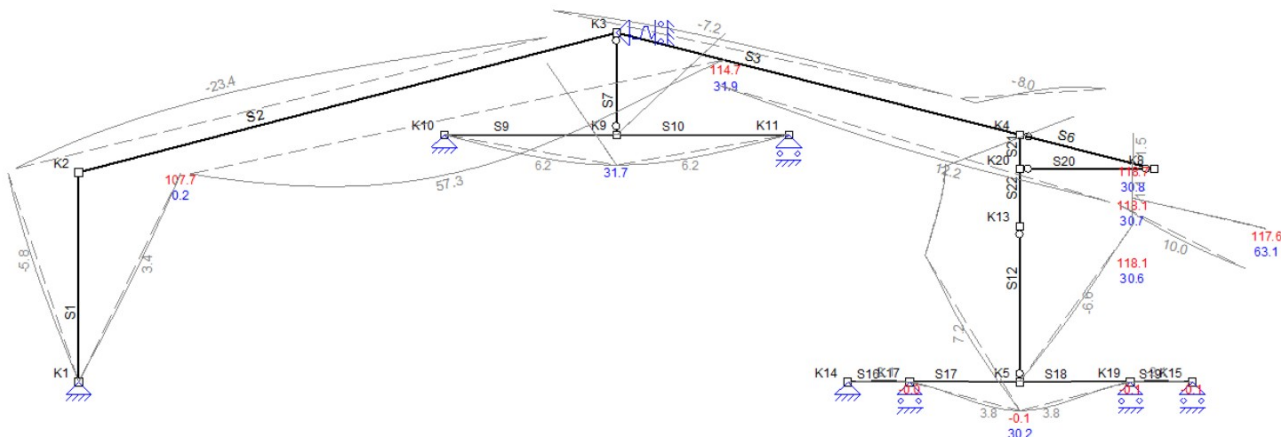
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

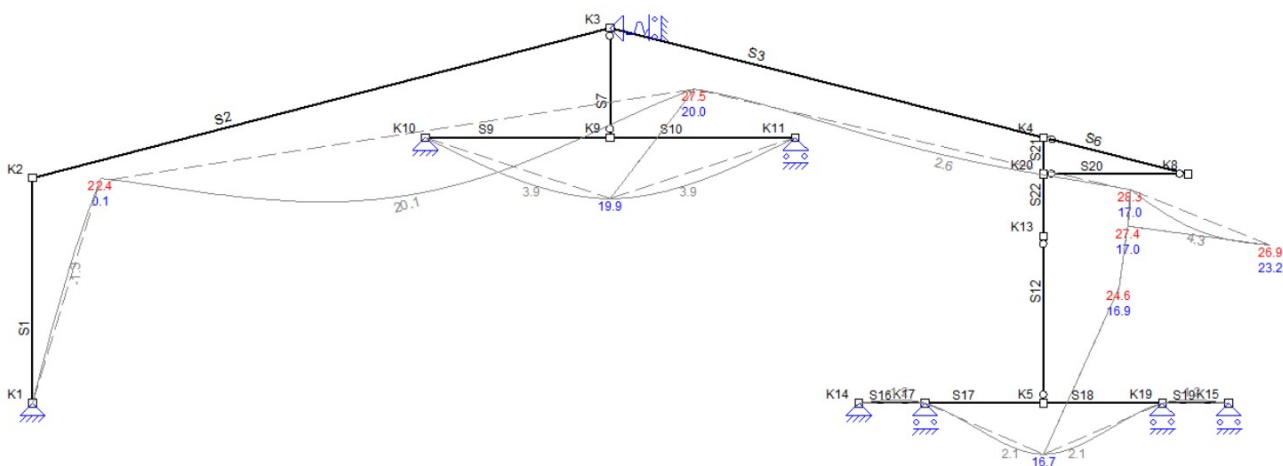
Eenheden: m, mm, kN, kNm



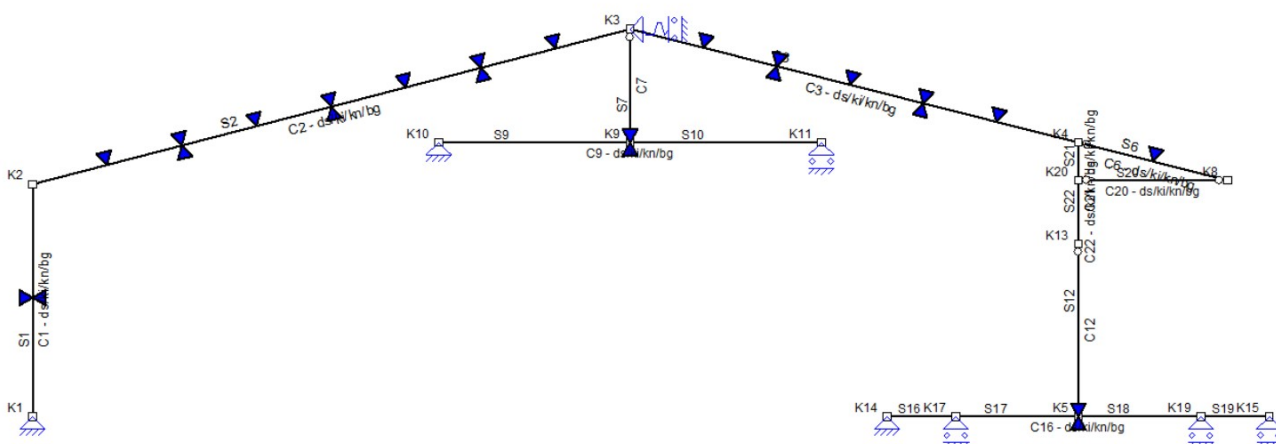
Ka.C. Omhullende Doorbuigingen



Ka.C.(w1) Doorbuigingen




Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|-----------------|--------------|
| C1 | S1 |
| C2 | S2 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro


Eenheden: m, mm, kN, kNm

**Constructiedeel Staaf/staven**

| | |
|-----|--------------------|
| C3 | S3 |
| C6 | S6 |
| C7 | S7 |
| C9 | S9; S10 |
| C12 | S12 |
| C16 | S16; S17; S18; S19 |
| C20 | S20 |
| C21 | S21 |
| C22 | S22 |

INVOER GEGEVENS**KNIKLENGTEGEGEVENS**

| Staaf | Profiel | Lsys | Lokale Y-as | | Lokale Z-as | | | |
|-----------------------|---------|-------|--------------|-------|-------------|-----------------------|------|-----------|
| | | | Methode | Lbuc | Lbuc/Lsys | Methode | Lbuc | Lbuc/Lsys |
| C1-V1 (0.000-7.800) | P1 | 7.80 | Ongeschoord | 24.19 | 3.1 | handmatig geschoord | 4.00 | 0.5 |
| C2-V1 (0.000-20.365) | P1 | 20.36 | Cons. gesch. | 20.36 | 1.0 | handmatig ongeschoord | 5.20 | 0.3 |
| C3-V1 (0.000-15.174) | P1 | 15.17 | Cons. gesch. | 15.17 | 1.0 | handmatig ongeschoord | 5.20 | 0.3 |
| C6-V1 (0.000-5.158) | P5 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C9-V1 (0.000-12.800) | P1 | 12.80 | Cons. gesch. | 12.80 | 1.0 | handmatig geschoord | 6.40 | 0.5 |
| C16-V1 (0.000-12.800) | P4 | 12.80 | Cons. gesch. | 12.80 | 1.0 | handmatig geschoord | 6.40 | 0.5 |
| C20-V1 (0.000-5.000) | P6 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C21-V1 (0.000-1.267) | P4 | 1.27 | Cons. gesch. | 1.27 | 1.0 | Cons. gesch. | 1.27 | 1.0 |
| C22-V1 (0.000-2.133) | P4 | 2.13 | Cons. gesch. | 2.13 | 1.0 | Cons. gesch. | 2.13 | 1.0 |
| | | | | m | | | | |
| | | | | | | | | m |

KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|-----------------------|---------|----------|----------|---------------------------------------|------------------|----------------|
| C1-V1 (0.000-7.800) | P1 | Gesteund | Gesteund | 4 | 4 | Centrum |
| C2-V1 (0.000-20.365) | P1 | Gesteund | Gesteund | 2.58,5.17,7.75,10.33,12.92,15.5,18.08 | 5.17,10.33,15.5 | Centrum |
| C3-V1 (0.000-15.174) | P1 | Gesteund | Gesteund | 2.53,5.06,7.59,10.12,12.64 | 5.06,10.12 | Centrum |
| C6-V1 (0.000-5.158) | P5 | Gesteund | Gesteund | 2.58 | | Centrum |
| C9-V1 (0.000-12.800) | P1 | Gesteund | Gesteund | 6.4 | 6.4 | Centrum |
| C16-V1 (0.000-12.800) | P4 | Gesteund | Gesteund | 6.4 | 6.4 | Centrum |
| C20-V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C21-V1 (0.000-1.267) | P4 | Gesteund | Gesteund | | | Centrum |
| C22-V1 (0.000-2.133) | P4 | Gesteund | Gesteund | | | Centrum |

DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|-----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-7.800) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | Htot/0 | |
| C2-V1 (0.000-20.365) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C3-V1 (0.000-15.174) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C6-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C9-V1 (0.000-12.800) | Dak | Algemeen | 20 | Parabolisch | L/250 | L/250 | |
| C16-V1 (0.000-12.800) | Dak | Handmatig | 15 | Parabolisch | L/500 | L/500 | |
| C20-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C21-V1 (0.000-1.267) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | Htot/0 | |
| C22-V1 (0.000-2.133) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | Htot/0 | |
| | | | | mm | | | |
| | | | | | | | mm |

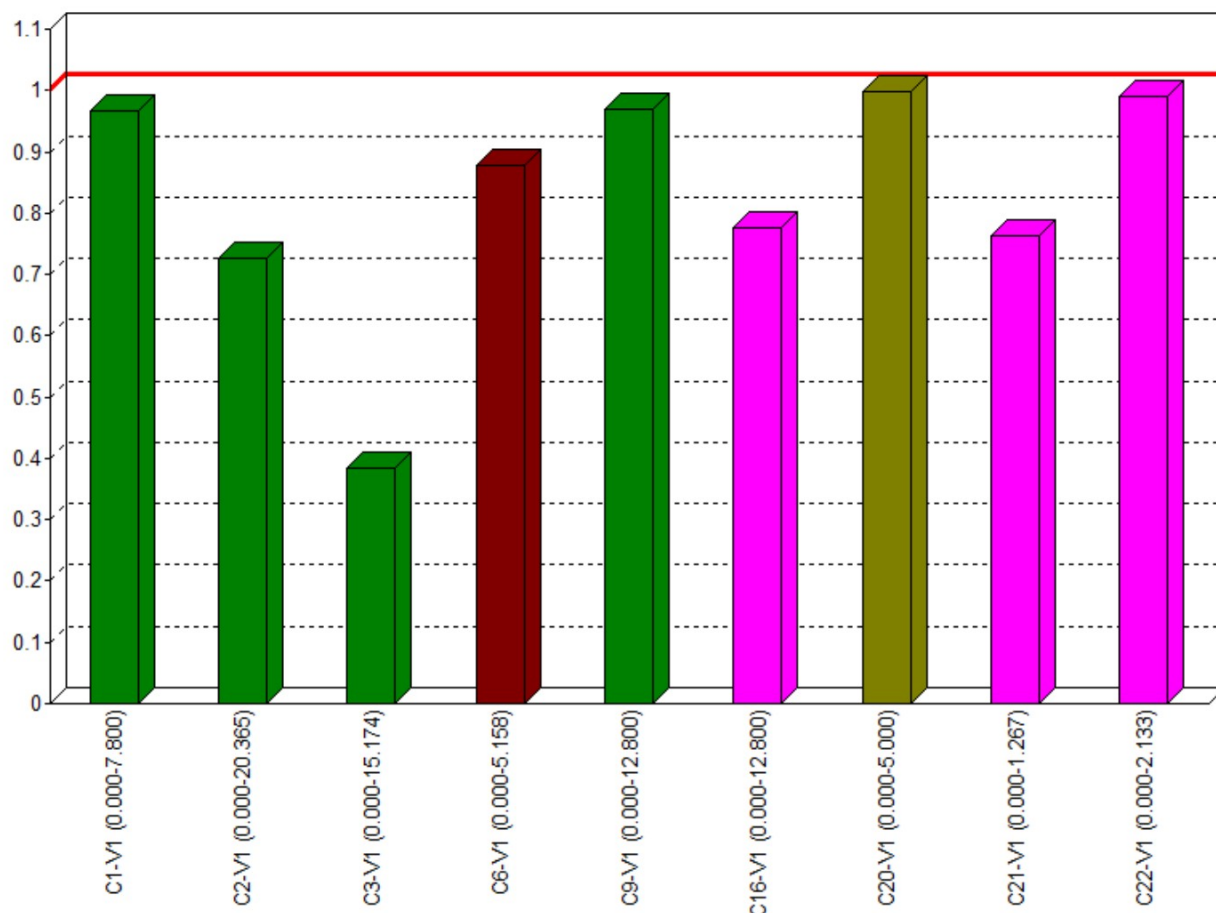
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



Afb. Staal UC Diagram



EXTREME UNITY CHECK

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|-----------------------|----------------------|------------|---------------------------|-------------|
| C1-V1 (0.000-7.800) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN1990/NB A1.4.2 | 0.97 |
| C16-V1 (0.000-12.800) | Buiging & Druk | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0.78 |
| C2-V1 (0.000-20.365) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN1990/NB A1.4.2 | 0.73 |
| C20-V1 (0.000-5.000) | Stabiliteit | Fu.C.21 | NEN-EN1993-1-1(6.46) | 1.00 |
| C21-V1 (0.000-1.267) | Doorsnede | Fu.C.14 | NEN-EN1993-1-1(6.12) | 0.76 |
| C22-V1 (0.000-2.133) | Doorbuigingstoetsing | Ka.C.18 | NEN-EN1990/NB A1.4.2 | 0.99 |
| C3-V1 (0.000-15.174) | Buiging & Druk | Fu.C.26 | NEN-EN1993-1-1(6.61&6.62) | 0.38 |
| C6-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.88 |
| C9-V1 (0.000-12.800) | Kiptoetsing | Fu.C.7 | NEN-EN1993-1-1(6.54) | 0.97 |

EXTREME UC'S PER CONSTRUCTIEDEEL

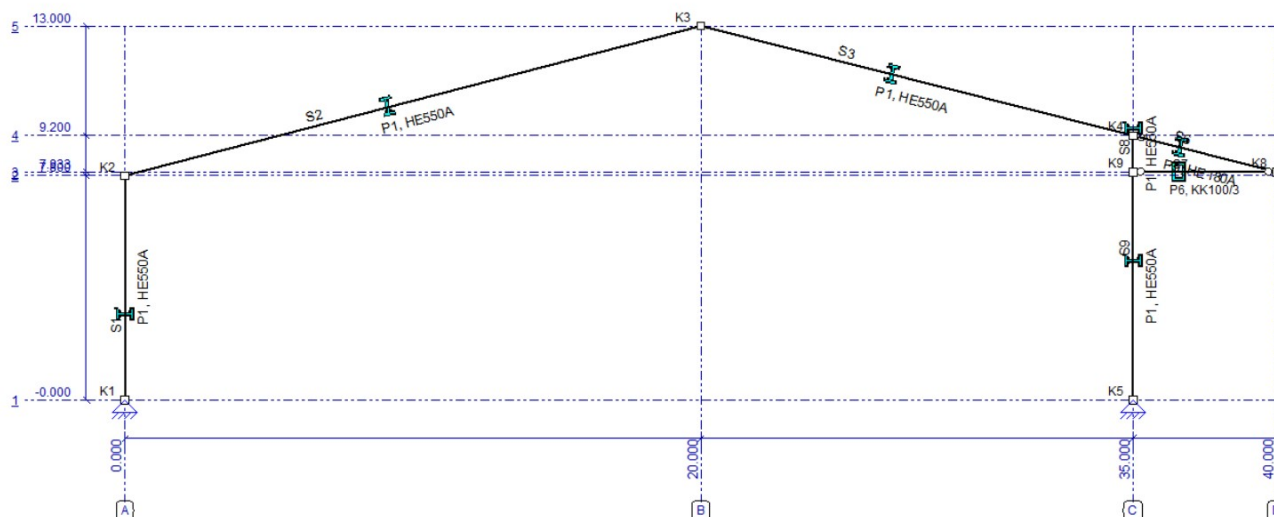
| Label | Toetsing | Combinatie | Artikel | Unity Check |
|-------|----------------------|------------|---------------------------|-------------|
| C1 | Doorbuigingstoetsing | Ka.C.11 | NEN-EN1990/NB A1.4.2 | 0.97 |
| C16 | Buiging & Druk | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0.78 |
| C2 | Doorbuigingstoetsing | Ka.C.11 | NEN-EN1990/NB A1.4.2 | 0.73 |
| C20 | Stabiliteit | Fu.C.21 | NEN-EN1993-1-1(6.46) | 1.00 |
| C21 | Doorsnede | Fu.C.14 | NEN-EN1993-1-1(6.12) | 0.76 |
| C22 | Doorbuigingstoetsing | Ka.C.18 | NEN-EN1990/NB A1.4.2 | 0.99 |
| C3 | Buiging & Druk | Fu.C.26 | NEN-EN1993-1-1(6.61&6.62) | 0.38 |
| C6 | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.88 |
| C9 | Kiptoetsing | Fu.C.7 | NEN-EN1993-1-1(6.54) | 0.97 |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving
 Bestand

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 7 | 7 | 2 | 6 | 31 | 148 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -7.80 | 7.80 | P1 | 0.00 - 7.80 (L) |
| S2 | K2 | K3 | 0.00 | 20.00 | -7.80 | -13.00 | 20.66 | P1 | 0.00 - 20.66 (L) |
| S3 | K3 | K4 | 20.00 | 35.00 | -13.00 | -9.20 | 15.47 | P1 | 0.00 - 15.47 (L) |
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.93 | 5.16 | P5 | 0.00 - 5.16 (L) |
| S7 | K9 | K8 | 35.00 | 40.00 | -7.93 | -7.93 | 5.00 | P6 | 0.00 - 5.00 (L) |
| S8 | K4 | K9 | 35.00 | 35.00 | -9.20 | -7.93 | 1.27 | P1 | 0.00 - 1.27 (L) |
| S9 | K9 | K5 | 35.00 | 35.00 | -7.93 | 0.00 | 7.93 | P1 | 0.00 - 7.93 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | HE550A | 21176 | 1.1193e+09 | S235 | 0 |
| P5 | HE180A | 4525 | 2.5103e+07 | S235 | 0 |
| P6 | KK100/3 | 1149 | 1.7896e+06 | S235H(EN10219-1) | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|------------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °/m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S6 | 0.00 | A3 | Vast | Vast | 700.0 |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S8 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.27 (L) | A1 | Vast | Vast | Vast |
| | m | | kN/m | kN/m | kNm/rad |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 7.93 (L) | A1 | Vast | Vast | Vast |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | | 0 |
| O2 | K5 | K5 | Vast | Vast | Vrij | | 0 |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

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|--|--|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 6.40 | 6.40 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 40.00 | 40.00 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S2,S3,S6) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.40 | 0.40 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 2.56 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=6.40)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S2 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m²] |
| q2 | Opgelegde belastingen (q) (Lsys=6.40) | qk1 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| | S3,S6 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m²] |
| q3 | Opgelegde belastingen (q) (Lsys=6.40) | qk2 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S4) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A1 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |

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|-------|--|--|--------|----------------------|
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q4 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 1.19 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -4.87 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.87 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe6 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q9 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp1*Cpe7*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|--|--|-------|----------------------|
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A2 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe9 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q11 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe9*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 1.19 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe13 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q16 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe13*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |

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| q17 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp2 * Cpe14 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR6 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A3 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe16 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q18 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp3 * Cpe16 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | $(Cpi3 * Qp3) * Lsys1$ | -1.79 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp3 * Cpe17 * CsCd1) * Lsys1$ | -4.87 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp3 * Cpe18 * CsCd1) * Lsys1$ | -1.87 | [kN/m] |
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp3 * Cpe19 * CsCd1) * Lsys1$ | -2.48 | [kN/m] |
| Cpe20 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q23 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp3 * Cpe20 * CsCd1) * Lsys1$ | -5.40 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp3 * Cpe21 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A4 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe23 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q25 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp4 * Cpe23 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | $(Cpi4 * Qp4) * Lsys1$ | -1.79 | [kN/m] |
| Cpe24 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe24 * CsCd1) * Lsys1$ | 1.14 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q28 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe25 * CsCd1) * Lsys1$ | 1.14 | [kN/m] |

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| Cpe26 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe26*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe27 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q30 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe27*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp4*Cpe28*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A5 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q32 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp5*Cpe30*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 1.19 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp5*Cpe31*CsCd1) * Lsys1 | -2.44 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp5*Cpe32*CsCd1) * Lsys1 | -5.65 | [kN/m] |
| Cpe33 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q36 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp5*Cpe33*CsCd1) * Lsys1 | -1.93 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp5*Cpe34*CsCd1) * Lsys1 | 4.77 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A6 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q38 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp6*Cpe36*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 1.19 | [kN/m] |
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |

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| q40 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe37 * CsCd1) * Lsys1$ | 0.00 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe38 * CsCd1) * Lsys1$ | 0.05 | [kN/m] |
| Cpe39 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q42 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp6 * Cpe39 * CsCd1) * Lsys1$ | 1.10 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp6 * Cpe40 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A7 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q44 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp7 * Cpe42 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | $(Cpi7 * Qp7) * Lsys1$ | -1.79 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe43 * CsCd1) * Lsys1$ | -2.44 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe44 * CsCd1) * Lsys1$ | -5.65 | [kN/m] |
| Cpe45 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q48 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp7 * Cpe45 * CsCd1) * Lsys1$ | -1.93 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp7 * Cpe46 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |

LR11 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|---------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A8 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe48 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

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| q51 | Interne druk; Verdeelde element belasting (q) | $(C_{pi}8 * Q_{p8}) * L_{sys1}$ | -1.79 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe49} * C_{sCd1}) * L_{sys1}$ | 0.00 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe50} * C_{sCd1}) * L_{sys1}$ | 0.05 | [kN/m] |
| Cpe51 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q54 | Zadeldak; Verdeelde element belasting (q): S3 | $(Q_{p8} * C_{pe51} * C_{sCd1}) * L_{sys1}$ | 1.10 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Q_{p8} * C_{pe52} * C_{sCd1}) * L_{sys1}$ | 4.77 | [kN/m] |

LR12 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|------------------------------------|--|--|--------|---------|
| Windbelasting van Voren + Overdruk | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Vertikale wand; Druk coefficient (Cpe): S1,S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S1,S4 | $(Q_{p9} * C_{pe54} * C_{sCd1}) * L_{sys1}$ | -4.77 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | $(C_{pi9} * Q_{p9}) * L_{sys1}$ | 1.19 | [kN/m] |
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Richting=90) | -0.50 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S2 | $(Q_{p9} * C_{pe55} * C_{sCd1}) * L_{sys1}$ | -3.01 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Richting=90) | -0.51 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S3 | $(Q_{p9} * C_{pe56} * C_{sCd1}) * L_{sys1}$ | -3.03 | [kN/m] |

LR13 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|-------------------------------------|--|--|--------|---------|
| Windbelasting van Voren + Onderdruk | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe57 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe57,Openingen=0.00,Over=False) | -0.30 | |
| Z11 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S1,S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S4 | $(Q_{p10} * C_{pe58} * C_{sCd1}) * L_{sys1}$ | -4.77 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(C_{pi10} * Q_{p10}) * L_{sys1}$ | -1.79 | [kN/m] |
| Cpe59 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Richting=90) | -0.50 | |

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| q62 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp10 * Cpe59 * CsCd1) * Lsys1$ | -3.01 | [kN/m] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Richting=90) | -0.51 | |
| q63 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp10 * Cpe60 * CsCd1) * Lsys1$ | -3.03 | [kN/m] |

LR14 (Geconcentreerde element belasting (F))

| | | | | |
|---------|---|---|--------|---------|
| | Windbelasting (enkele luifel) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpnet1 | Eenzijdige overkappingen S6 Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen,Zone=CF,Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | $(Qp11 * Cpnet1 * CsCd1) * Lsys1 * 5.16$ | 20.58 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen,Zone=CF,Hoek=14.22,Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | $(Qp11 * Cpnet2 * CsCd1) * Lsys1 * 5.16$ | -43.07 | [kN] |

LR15 (Verdeelde element belasting (q))

| | | | | |
|-----|--|--|------|---------|
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| 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: 14.57; S2 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q64 | Verdeelde element belasting (q) | $(Sk1 * Ce1 * Ct1 * Mu1) * Lsys1$ | 3.58 | [kN/m] |
| q65 | Verdeelde element belasting (q) | $q64 * 0.50$ | 1.79 | [kN/m] |
| | Zadeldak, Mu1 Hoek: 14.22; S3,S6 | | | |
| Mu2 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q66 | Verdeelde element belasting (q) | $(Sk1 * Ce1 * Ct1 * Mu2) * Lsys1$ | 3.58 | [kN/m] |
| q67 | Verdeelde element belasting (q) | $q66 * 0.50$ | 1.79 | [kN/m] |

LR16 (Horizontale druk bewaring)

| | | | | |
|---------|--|------------------------------|-------|---------|
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q68 | Horizontale druk bewaring | $Ka1 * Height4 * D1 * Lsys1$ | 59.10 | [kN/m] |

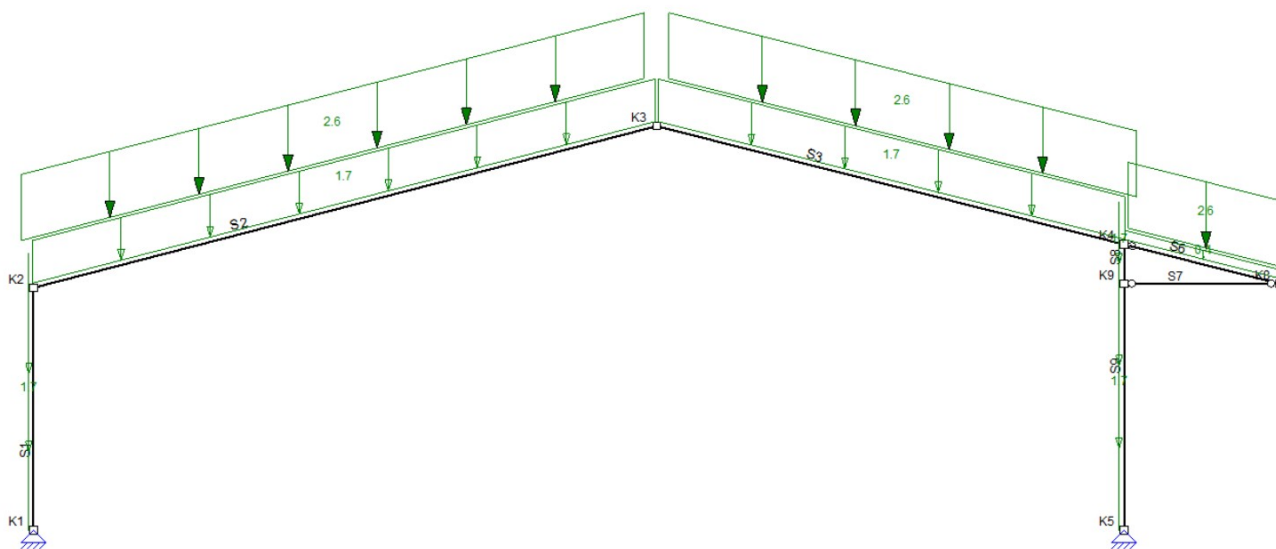
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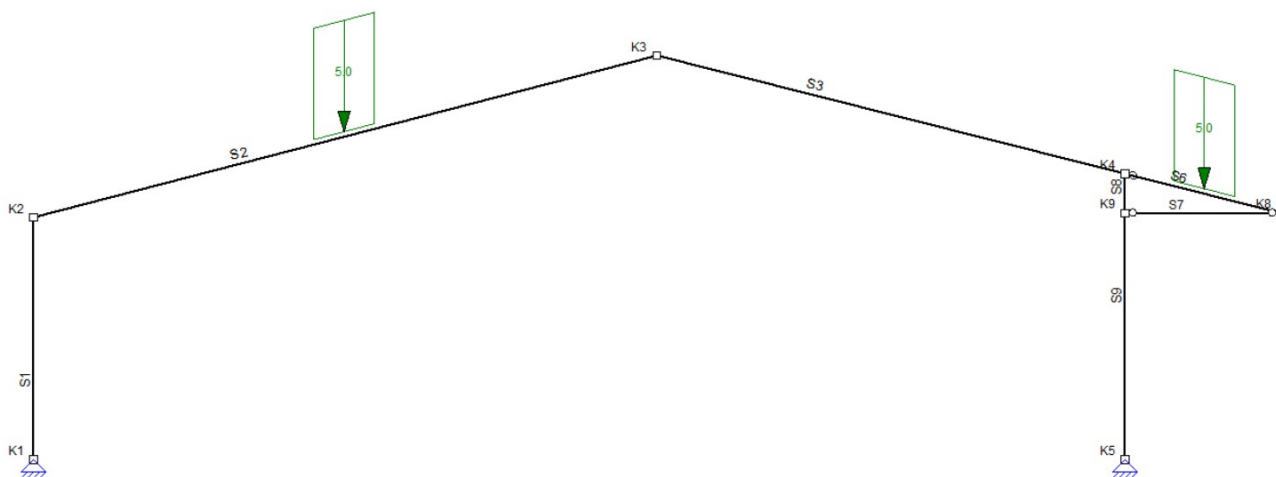
B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1-S3,S6,S8-S9 | |
| q | 2.6 (q1) | 2.6 (q1) | 0.00 | L | Z" | S2-S3,S6 | |
| Som lasten | | Z: 195.5 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.2: Opgelegde belastingen. Vloer 1, Veld 1



B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q2) | 5.0 (q2) | 9.33 | 11.33 | Z" | S2 | |
| q | 5.0 (q3) | 5.0 (q3) | 1.58 | 3.58 | Z" | S6 | |
| Som lasten | | X: 0.0 Z: 20.0 Yr: -0.0 | | | | | |
| | | | m | m | | | |

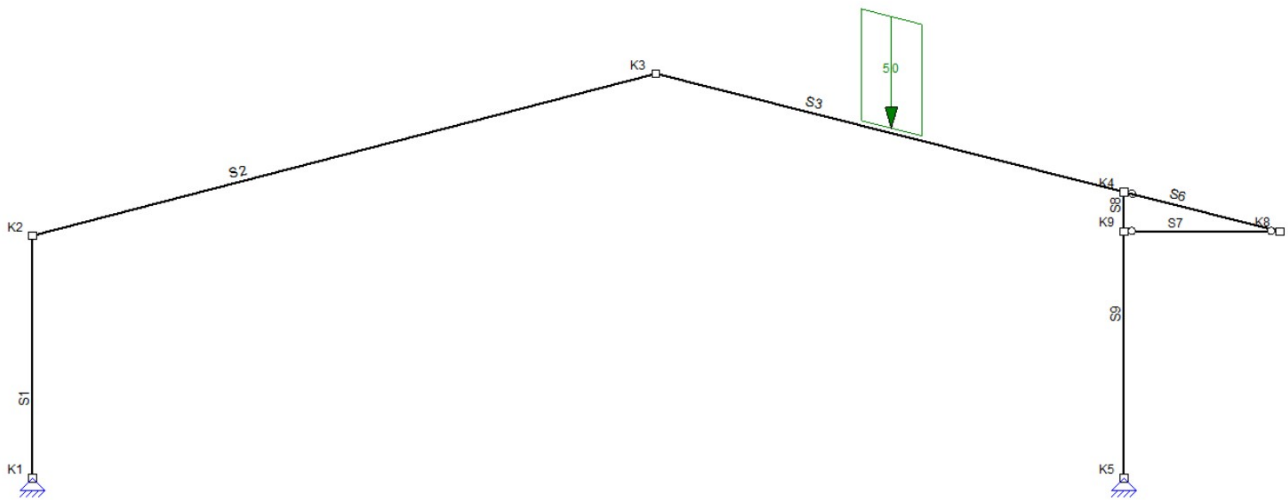
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B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



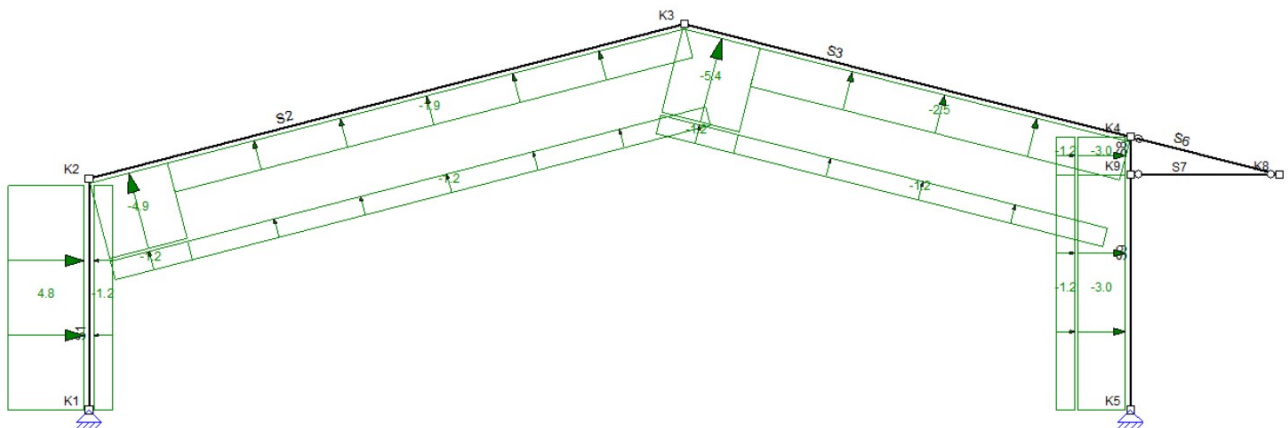
B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q3) | 5.0 (q3) | 6.74 | 8.74 | Z" | S3 | |
| Som lasten | | Z: 10.0 Yr: 0.0 | | | | | |

m

m

B.G.4: Windbelasting van Links + Overdruk



B.G.4: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 63.3 Z: -131.6 Yr: 6.5 | | | | | |

m

m

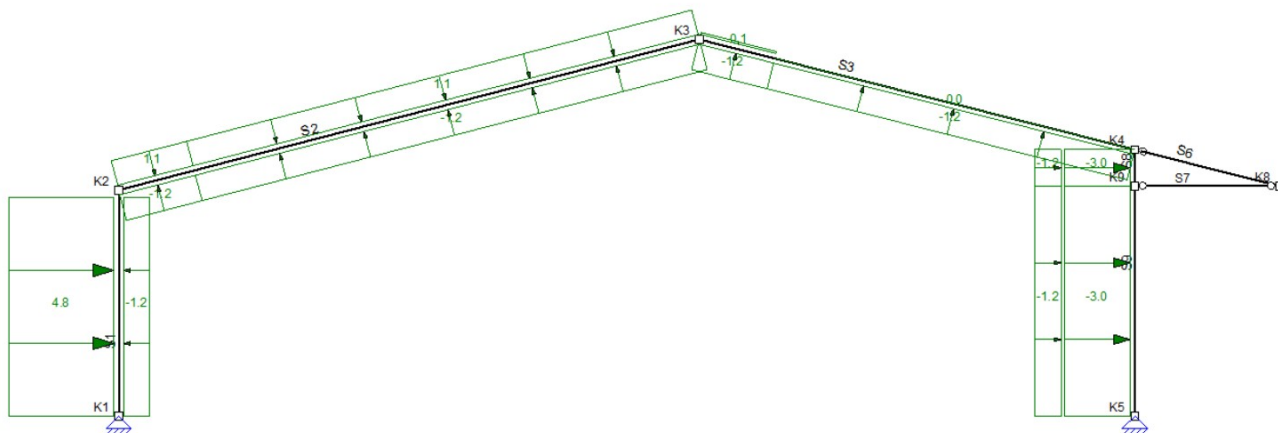
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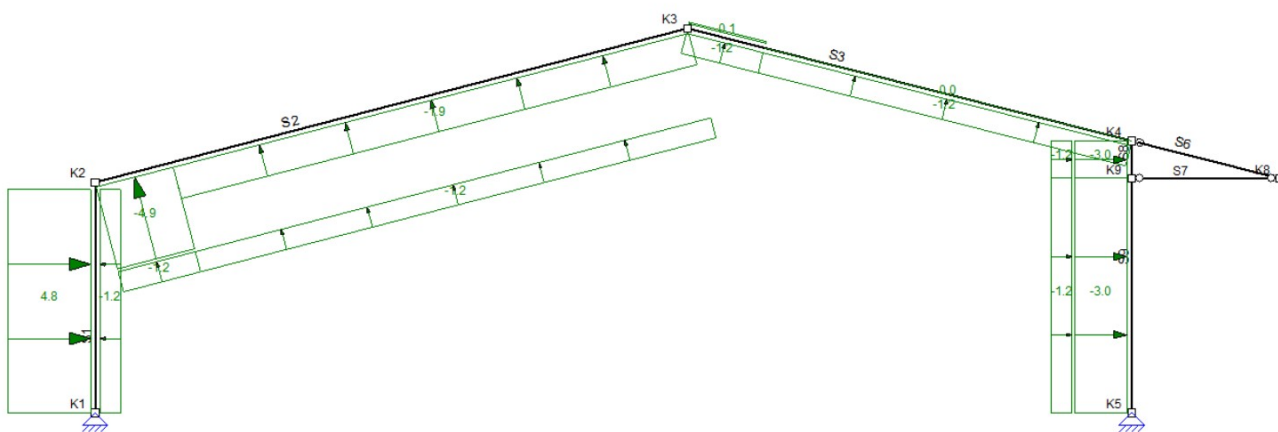
B.G.5: Windbelasting van Links + Overdruk (2e Cpe)



B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q11) | 4.8 (q11) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q17) | -3.0 (q17) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 69.6 Z: -18.7 Yr: -0.1 | | | | | |
| | | | m | m | | | |

B.G.6: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| | | | m | m | | | |

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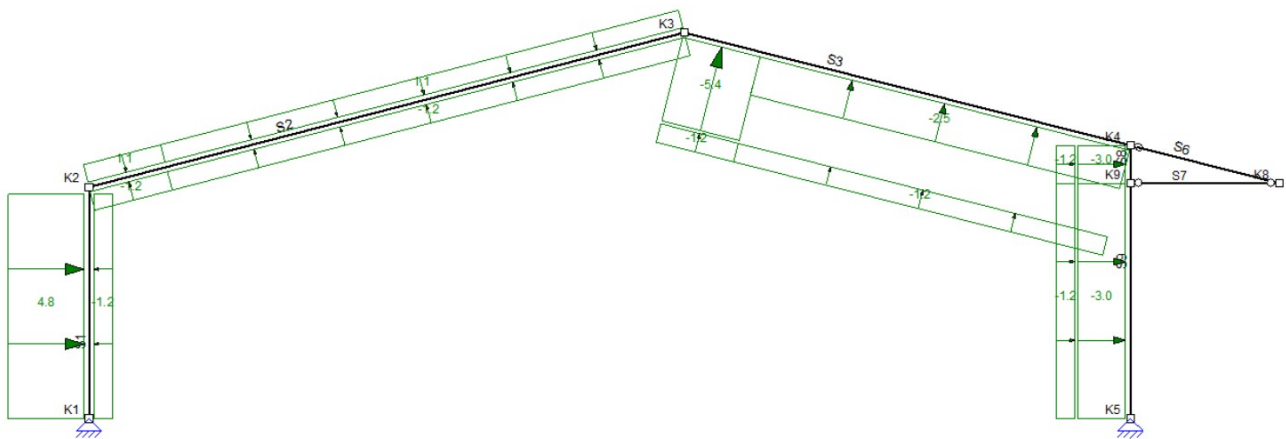
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J

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 51.9 Z: -86.6 Yr: 4.0 | | | | | |
| | | | m | m | | | |

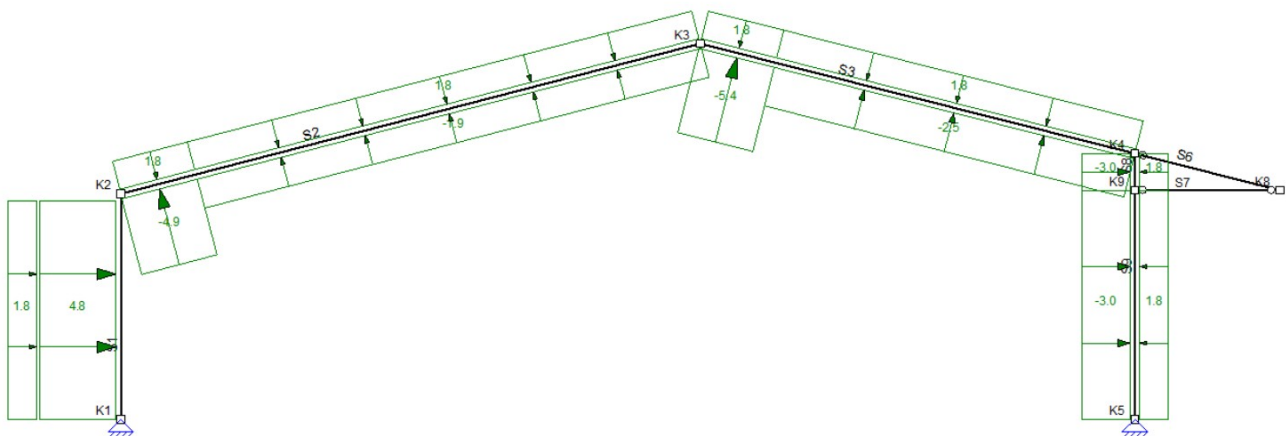
B.G.7: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 81.0 Z: -63.7 Yr: 2.4 | | | | | |
| | | | m | m | | | |

B.G.8: Windbelasting van Links + Onderdruk

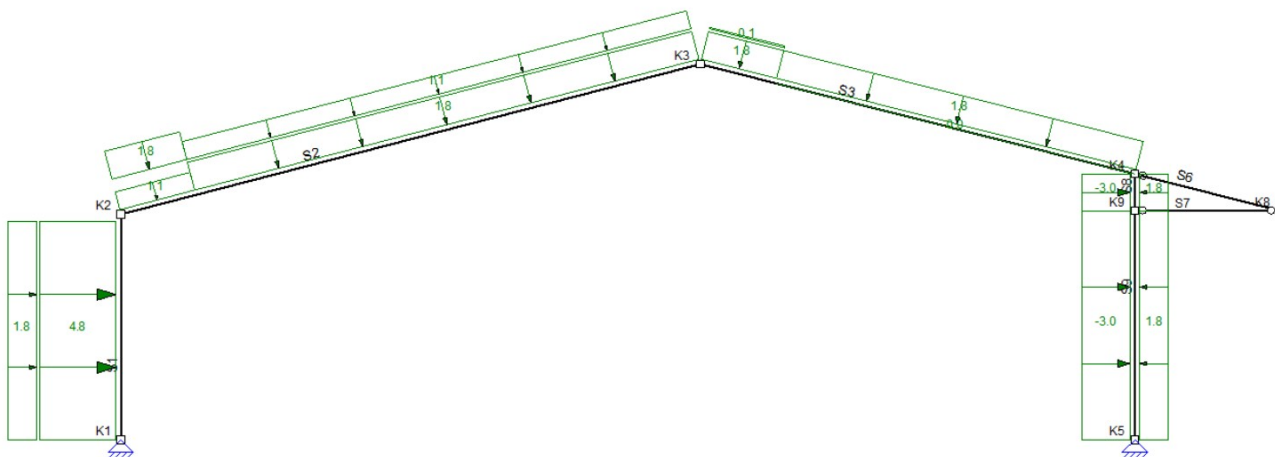


Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm

**B.G.8: WINDBELASTING VAN LINKS + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 62.6 Z: -27.3 Yr: 6.5 | | | | | |
| | | | m | m | | | |

B.G.9: Windbelasting van Links + Onderdruk (2e Cpe)**B.G.9: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q25) | 4.8 (q25) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q31) | -3.0 (q31) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 68.9 Z: 85.7 Yr: -0.1 | | | | | |
| | | | m | m | | | |

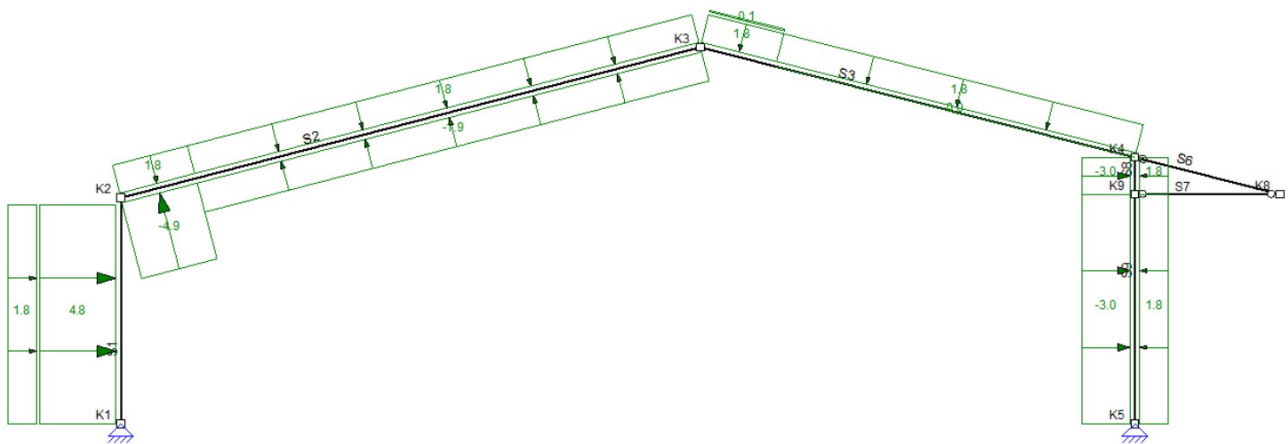
Projectnummer
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 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



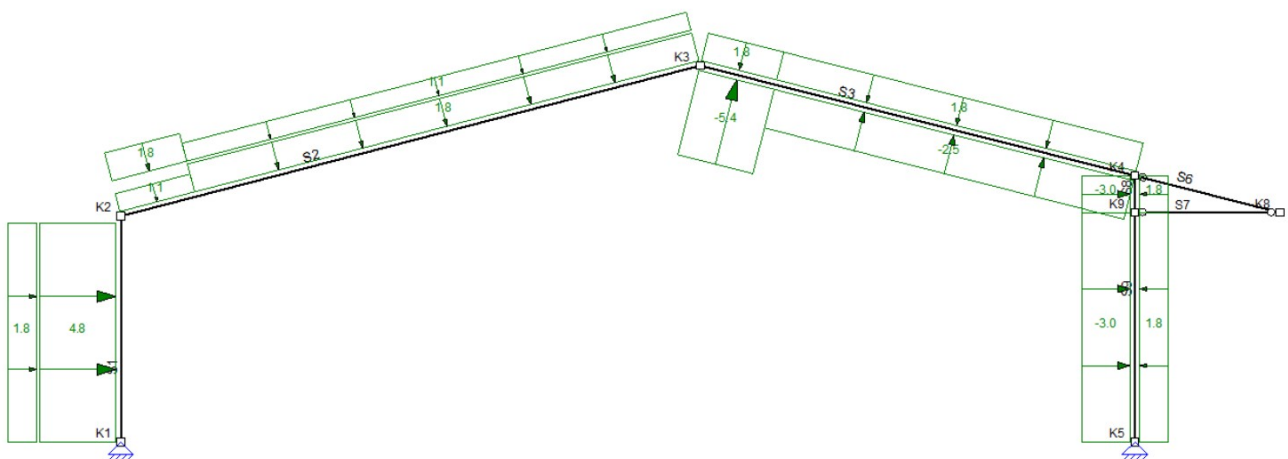
B.G.10: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 51.2 Z: 17.7 Yr: 4.0 | | | | | |
| | | | m | m | | | |

B.G.11: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| | | | m | m | | | |

Projectnummer
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 Omschrijving

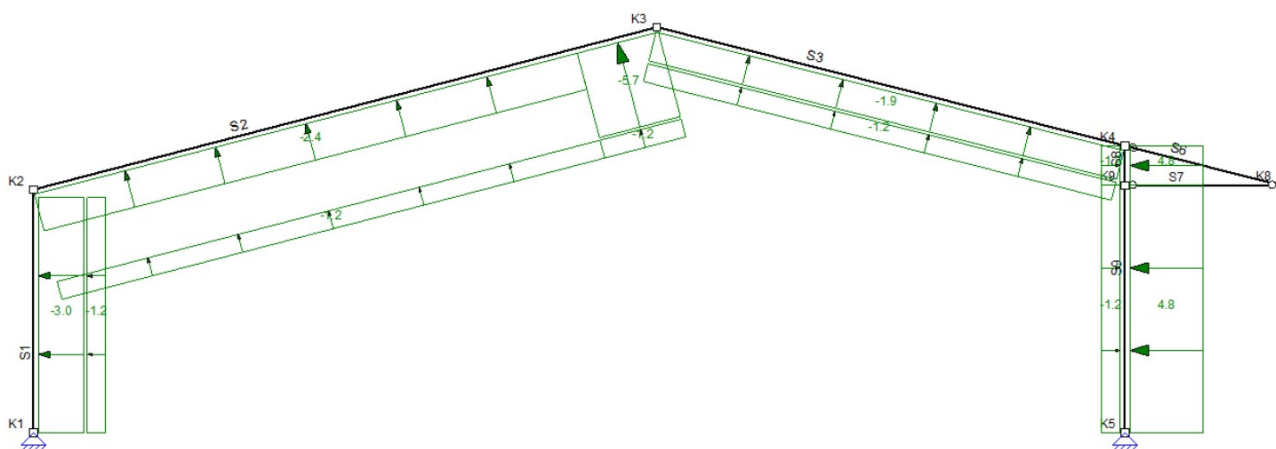
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 80.3 Z: 40.6 Yr: 2.4 | | | | | |
| | | | m | m | | | |

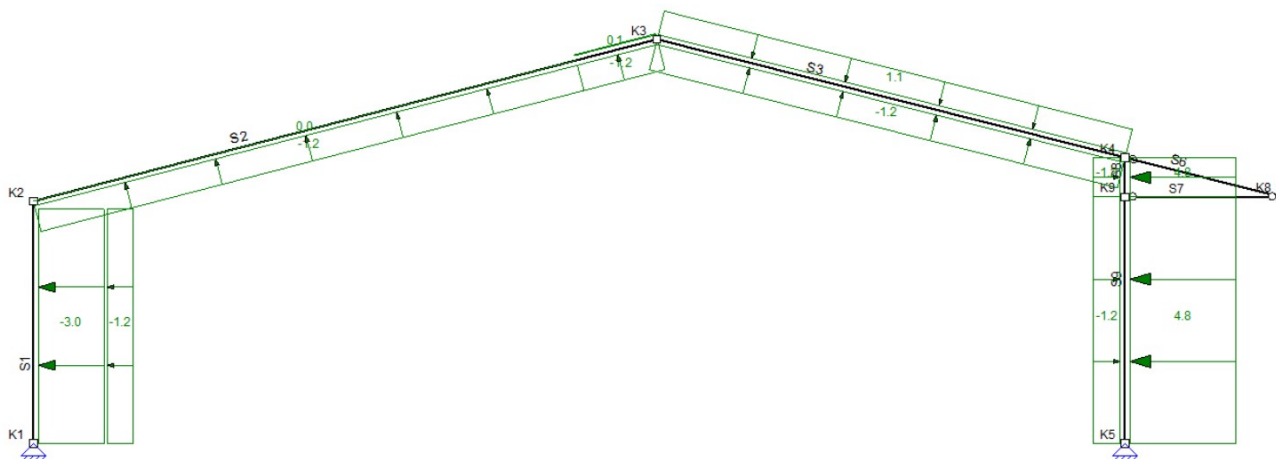
B.G.12: Windbelasting van Rechts + Overdruk



B.G.12: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|------------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -73.6 Z: -127.7 Yr: -4.3 | | | | | |
| | | | m | m | | | |

B.G.13: Windbelasting van Rechts + Overdruk (2e Cpe)



Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

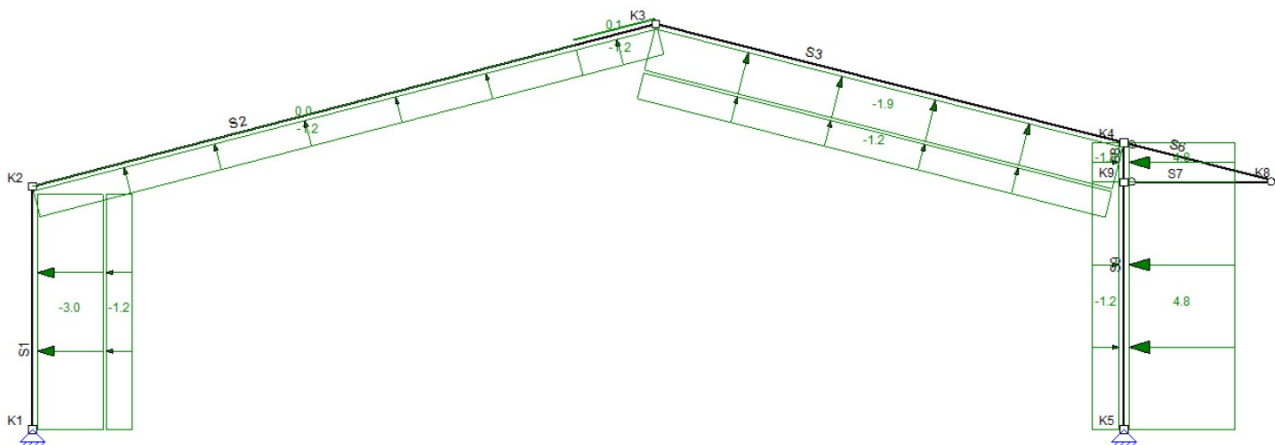
Eenheden: m, mm, kN, kNm

**B.G.13: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q38) | -3.0 (q38) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q43) | 4.8 (q43) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -70.2 Z: -25.1 Yr: 0.1 | | | | | |

m

m

B.G.14: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)**B.G.14: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)**

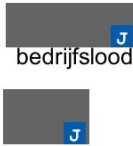
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |

Som lasten X: -58.7 Z: -70.5 Yr: 0.1

m

m

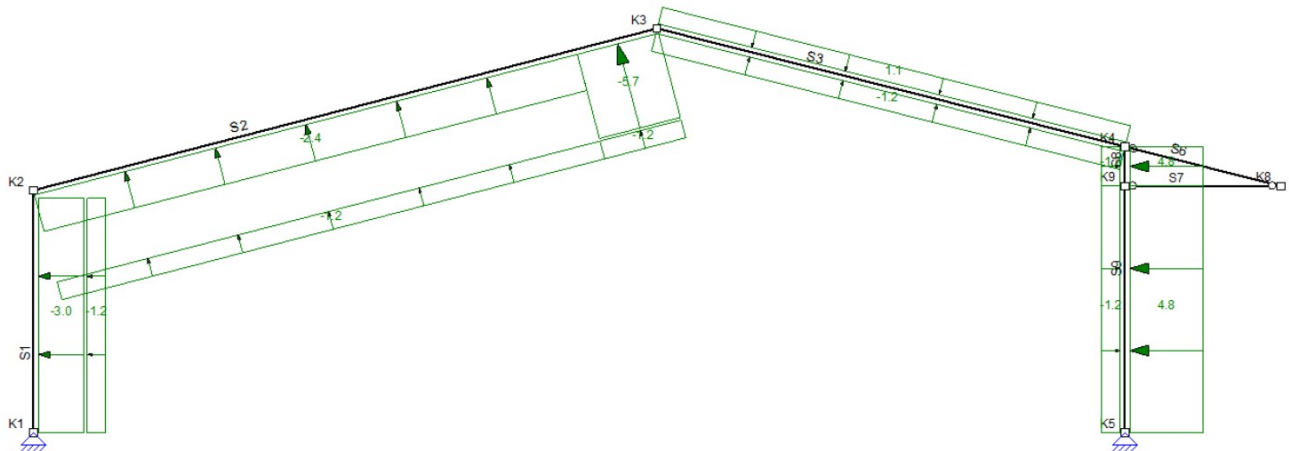
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



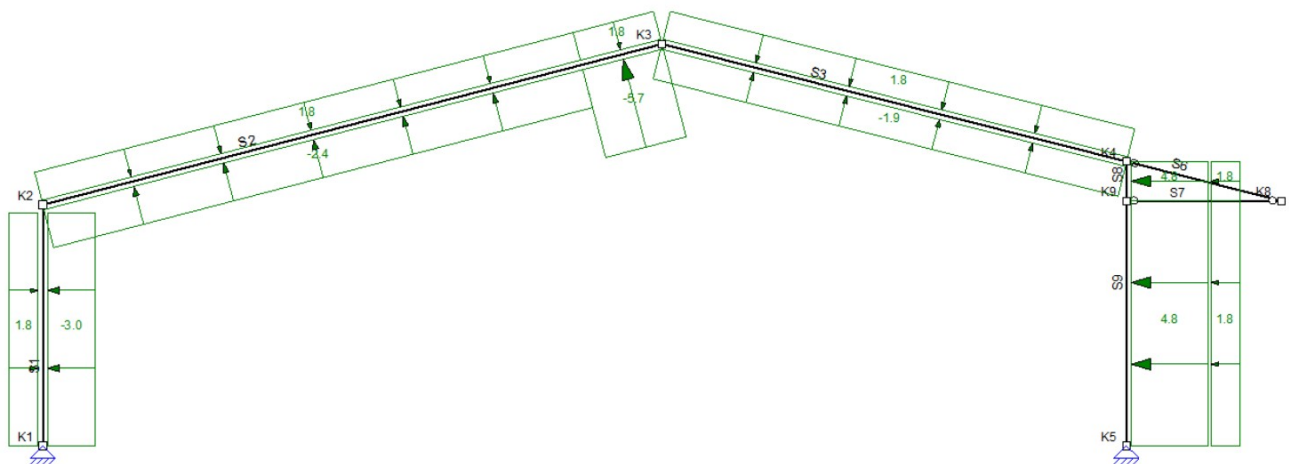
B.G.15: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.15: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -85.1 Z: -82.3 Yr: -4.3 | | | | | |
| | | | m | m | | | |

B.G.16: Windbelasting van Rechts + Onderdruk



B.G.16: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| | | | m | m | | | |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

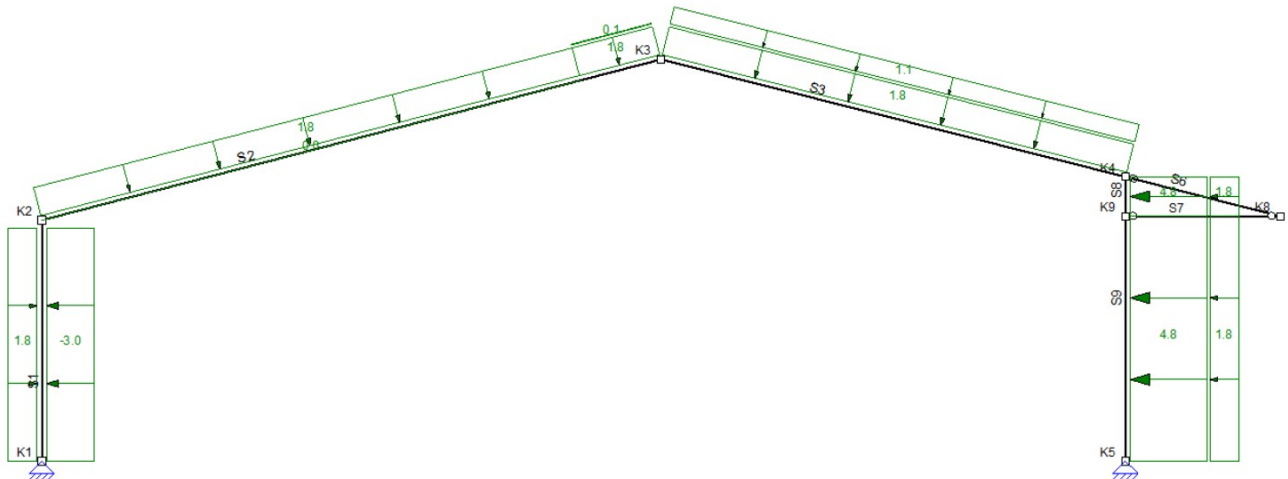
Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -74.4 Z: -23.4 Yr: -4.3 | | | | | |

m m

B.G.17: Windbelasting van Rechts + Onderdruk (2e Cpe)

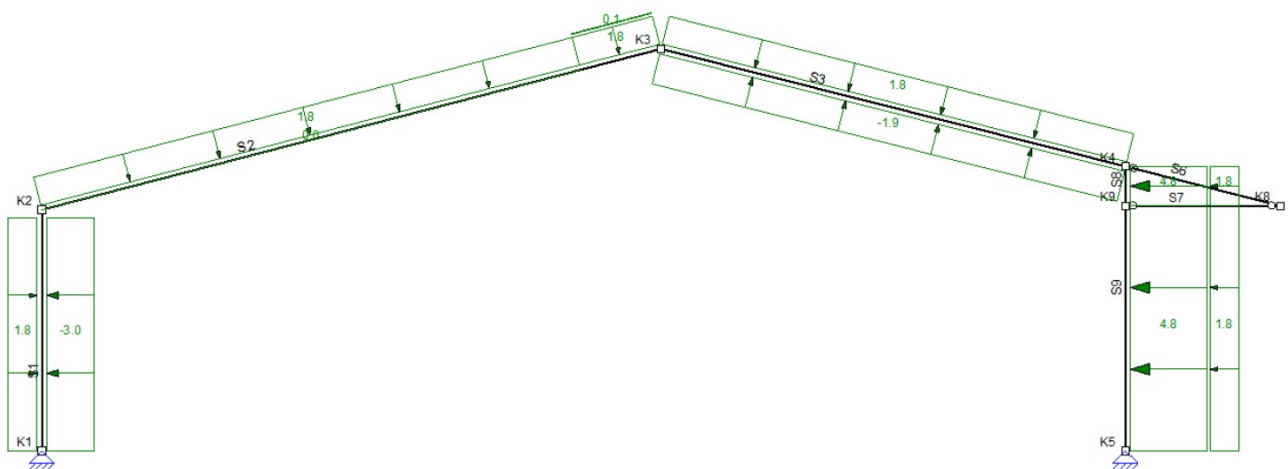


B.G.17: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q50) | -3.0 (q50) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q55) | 4.8 (q55) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -71.0 Z: 79.2 Yr: 0.1 | | | | | |

m m

B.G.18: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.18: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|

m m

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

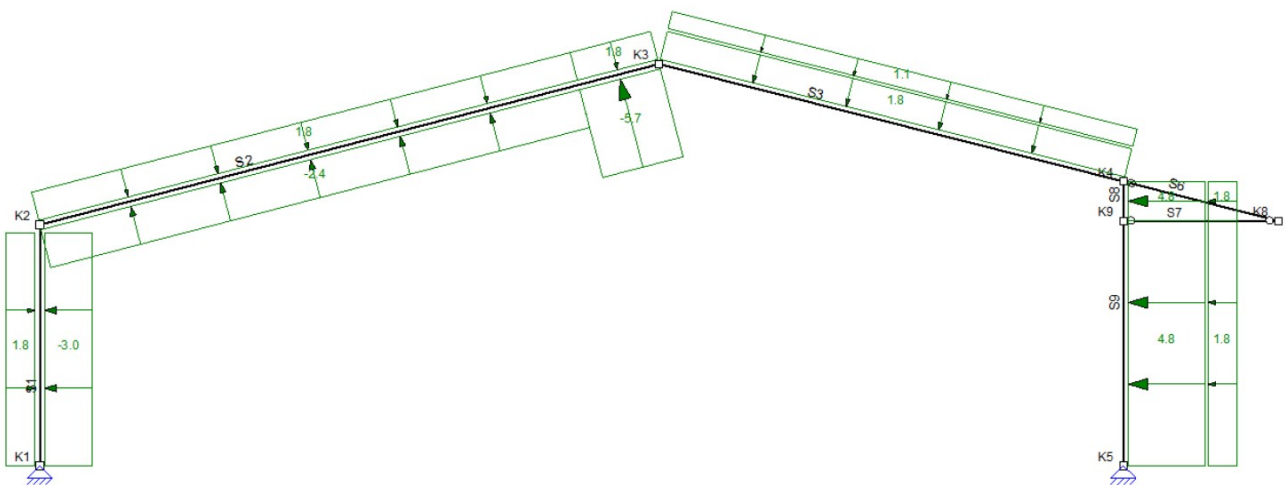


Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -59.5 Z: 33.8 Yr: 0.1 | | | | | |
| | | | m | m | | | |

B.G.19: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.19: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -85.9 Z: 22.0 Yr: -4.3 | | | | | |
| | | | m | m | | | |

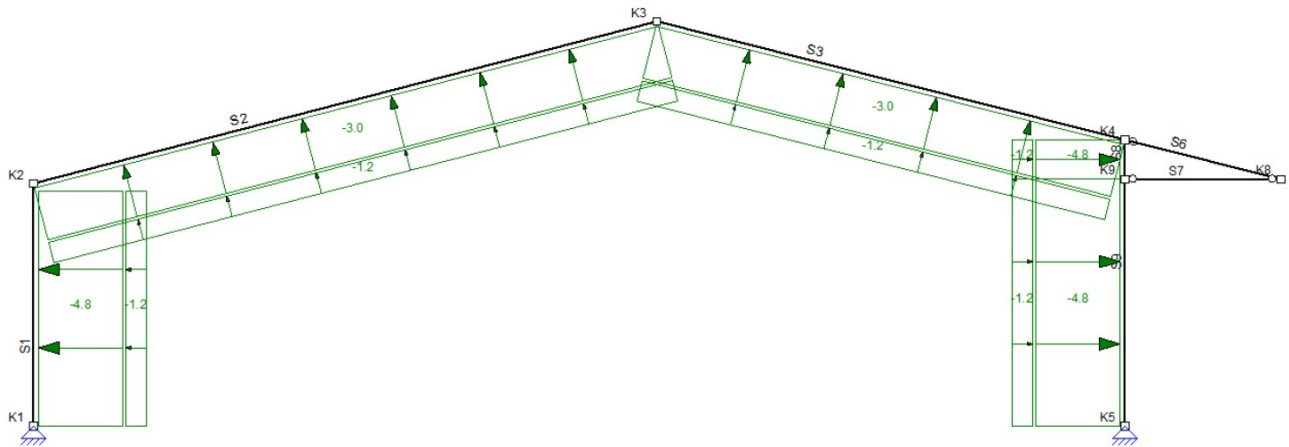
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



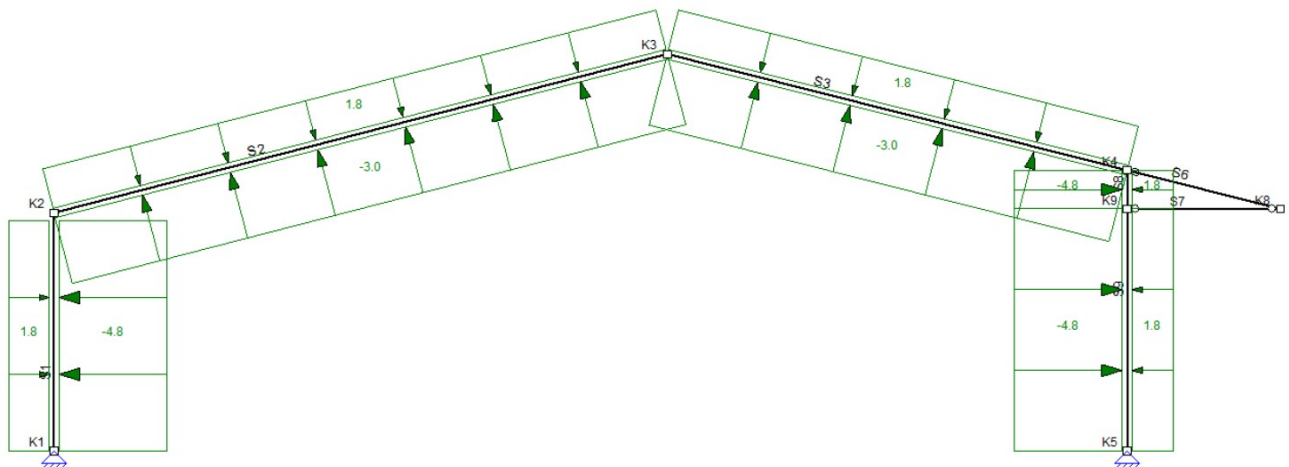
B.G.20: Windbelasting van Voren + Overdruk



B.G.20: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -4.8 (q56) | -4.8 (q56) | 0.00 | L | Z' | S1, S8-S9 | |
| q | -1.2 (-q57) | -1.2 (-q57) | 0.00 | L | Z' | S1-S3, S8-S9 | |
| q | -3.0 (q58) | -3.0 (q58) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.0 (q59) | -3.0 (q59) | 0.00 | 15.47 (L) | Z' | S3 | |
| Som lasten | | X: 4.0 Z: -147.3 Yr: -0.0 | | | | | |
| | | | m | m | | | |

B.G.21: Windbelasting van Voren + Onderdruk



B.G.21: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -4.8 (q60) | -4.8 (q60) | 0.00 | L | Z' | S1, S8-S9 | |
| q | 1.8 (-q61) | 1.8 (-q61) | 0.00 | L | Z' | S1-S3, S8-S9 | |
| q | -3.0 (q62) | -3.0 (q62) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.0 (q63) | -3.0 (q63) | 0.00 | 15.47 (L) | Z' | S3 | |
| Som lasten | | X: 3.3 Z: -42.9 Yr: 0.0 | | | | | |
| | | | m | m | | | |

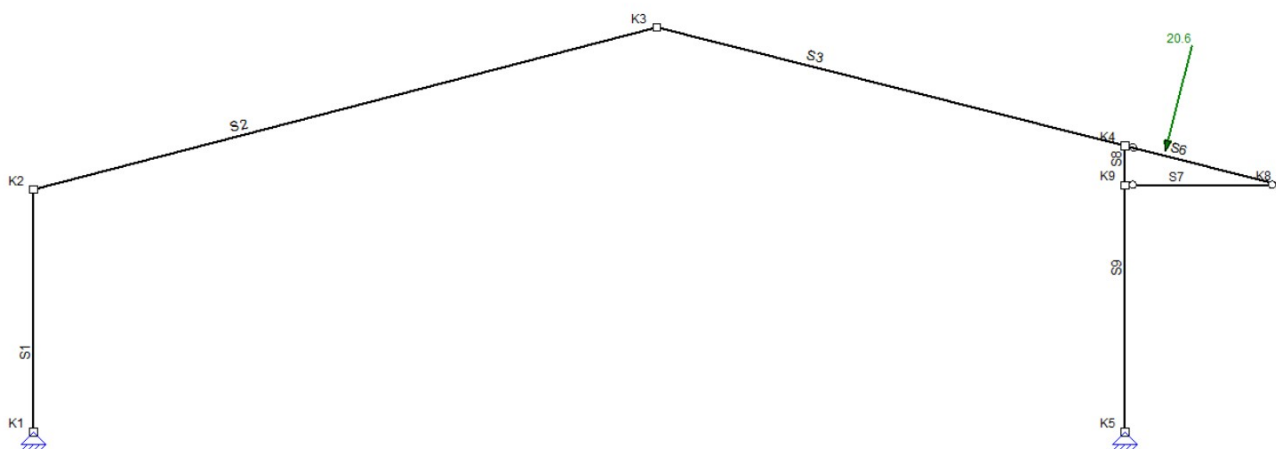
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



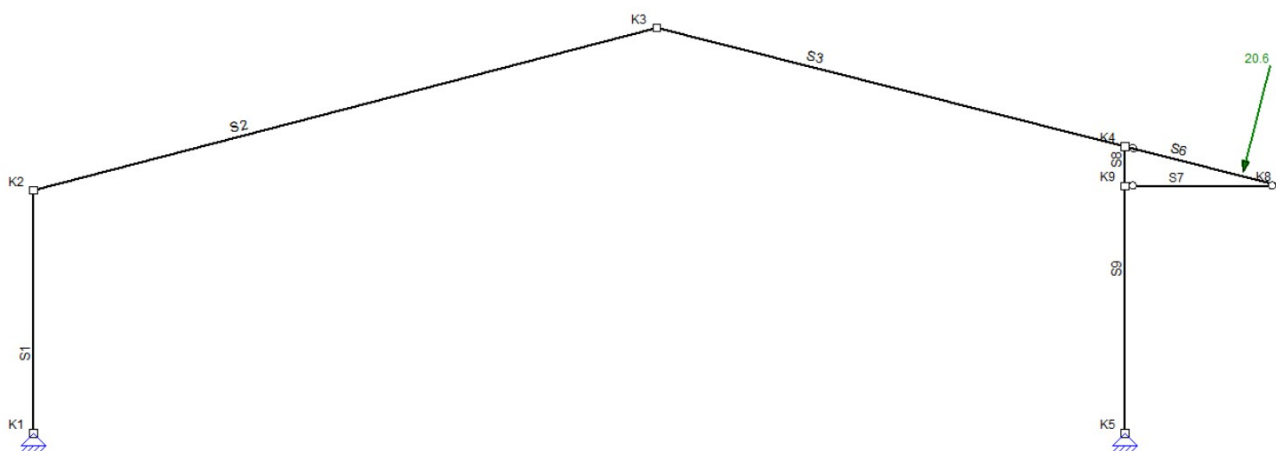
B.G.22: Windbelasting (enkele luifel) [1/4]



B.G.22: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 1.29 | | Z' | S6 | |
| Som lasten | | X: -5.1 Z: 19.9 | | | | | |
| | | | m | m | | | |

B.G.23: Windbelasting (enkele luifel) [2/4]



B.G.23: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: -5.1 Z: 19.9 | | | | | |
| | | | m | m | | | |

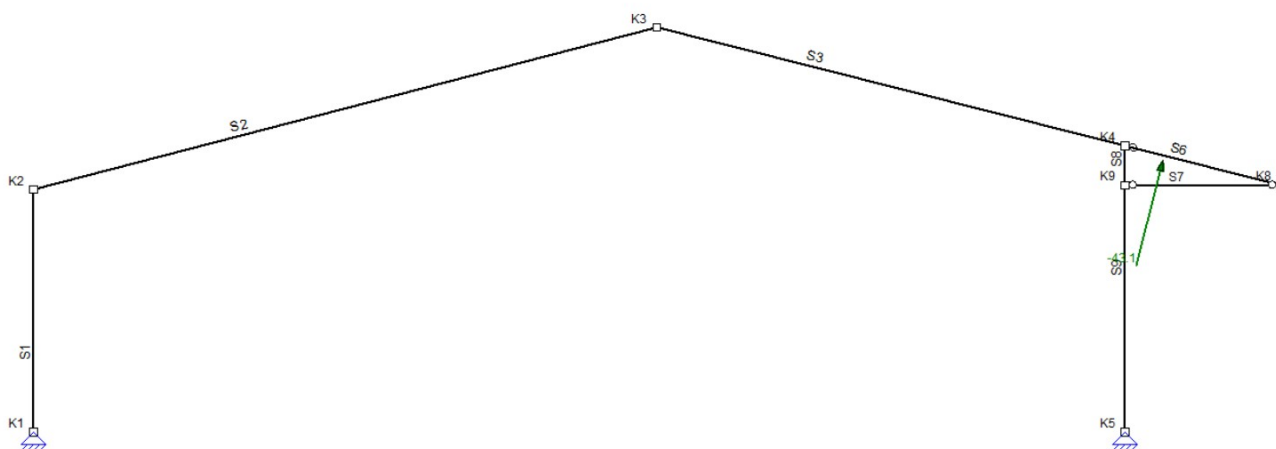
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



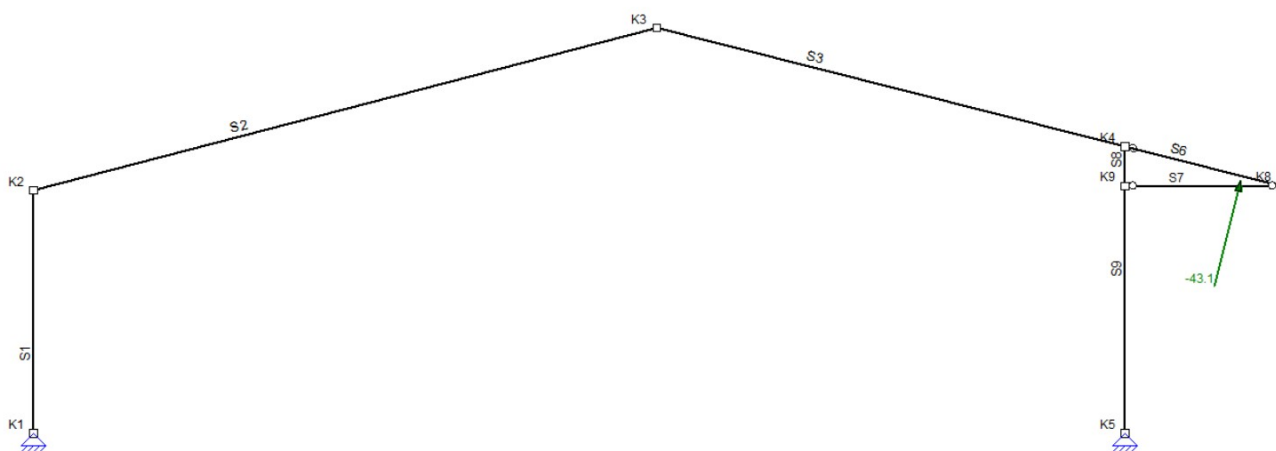
B.G.24: Windbelasting (enkele luifel) [3/4]



B.G.24: WINDBELASTING (ENKELE LUIFEL) [3/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 1.29 | | Z' | S6 | |
| Som lasten | | X: 10.6 Z: -41.8 | | | | | |
| | | | m | m | | | |

B.G.25: Windbelasting (enkele luifel) [4/4]



B.G.25: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: 10.6 Z: -41.8 | | | | | |
| | | | m | m | | | |

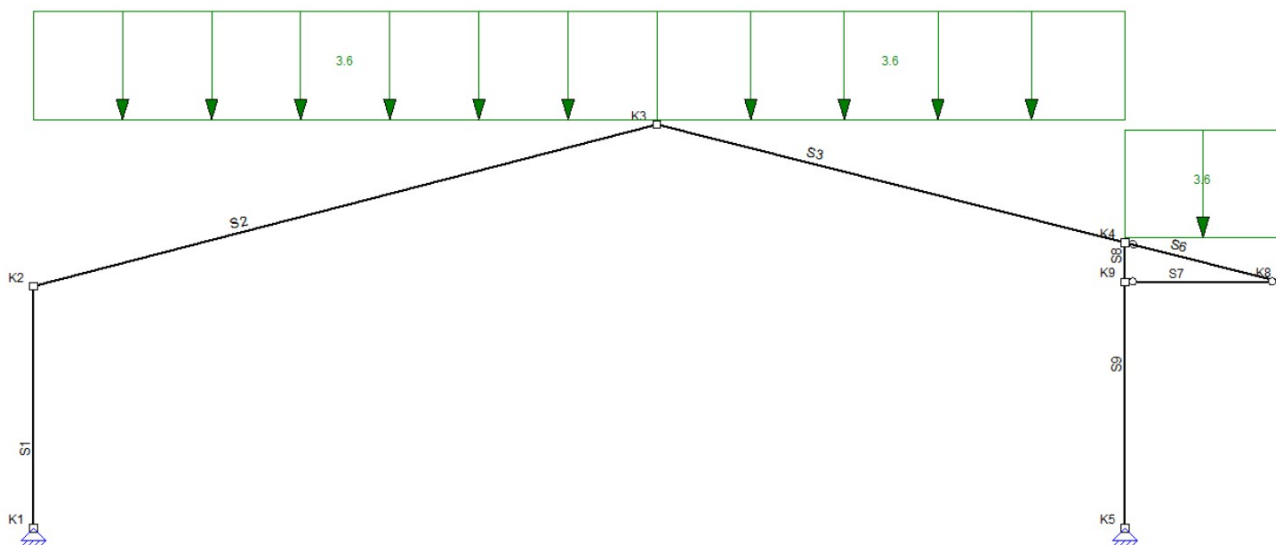
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



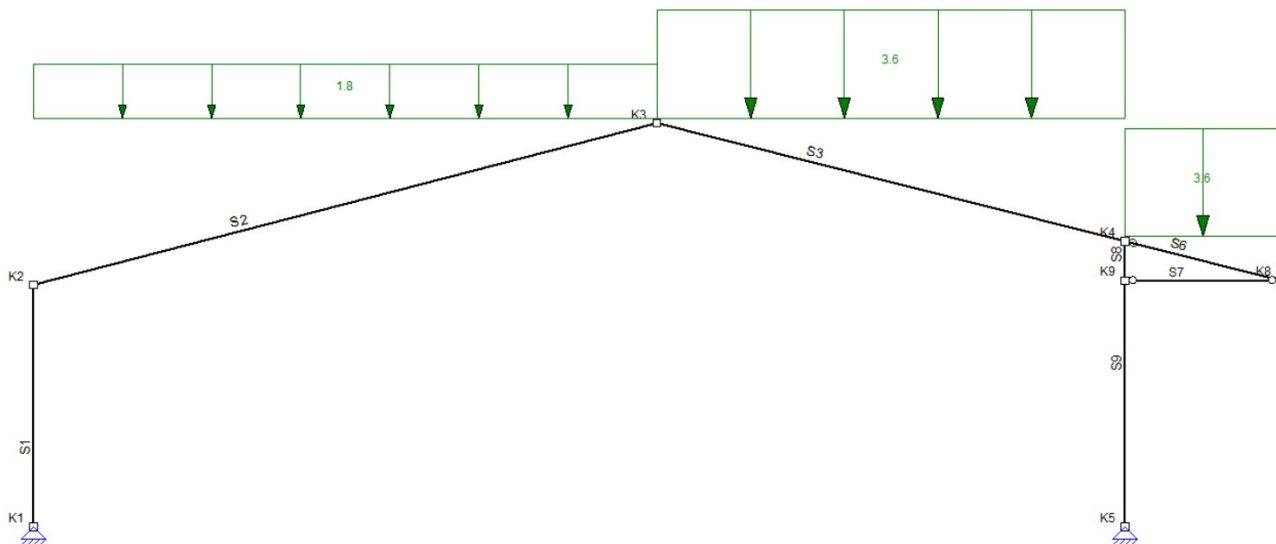
B.G.26: Sneeuwbelasting 1



B.G.26: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 143.4 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.27: Sneeuwbelasting 2



B.G.27: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q65) | 1.8 (q65) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 107.5 Yr: 0.0 | | | | | |
| | | | m | m | | | |

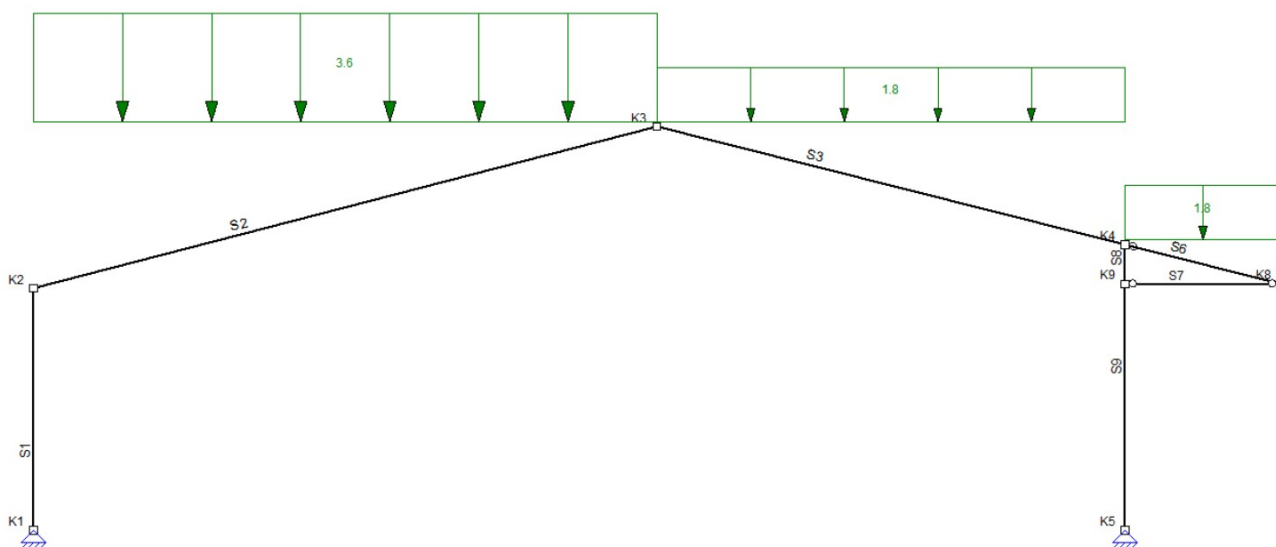
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



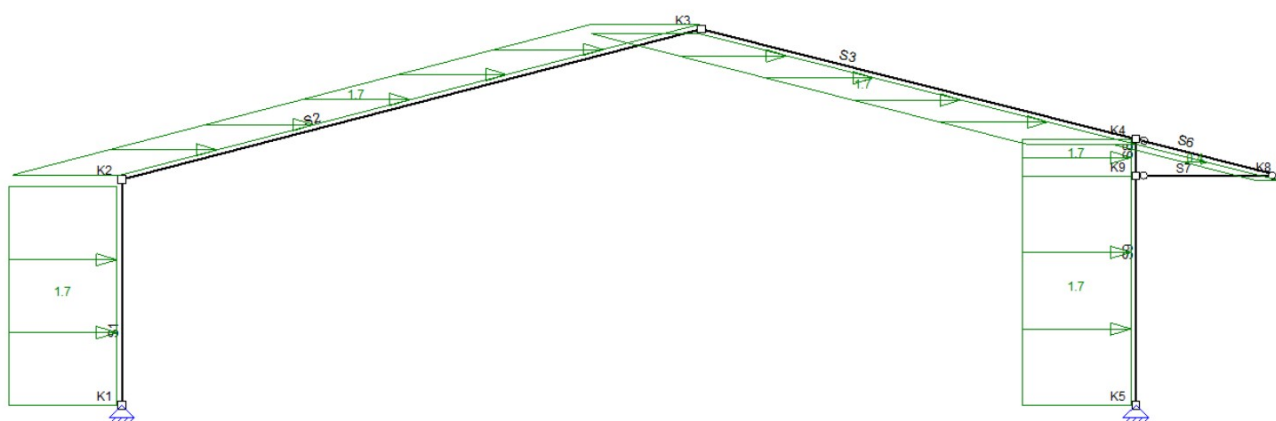
B.G.28: Sneeuwbelasting 3



B.G.28: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 1.8 (q67) | 1.8 (q67) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 107.5 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.29: Kniklengte (Asymmetrisch)



B.G.29: KNIKLENGTE (ASYMMETRISCH)

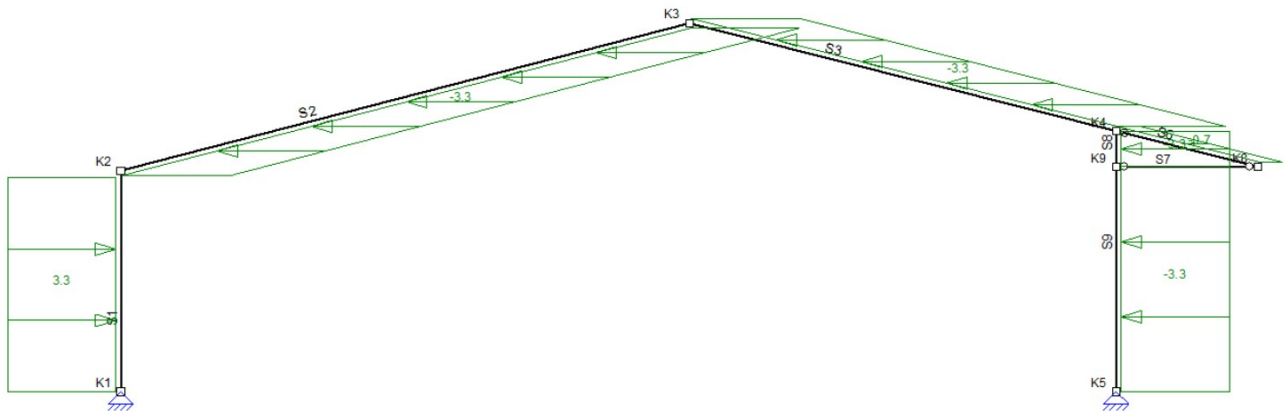
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3,S6,S8-S9 | |
| Som lasten | | X: 89.7 Yr: -0.0 | | | | | |
| | | | m | m | | | |

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Eenheden: m, mm, kN, kNm



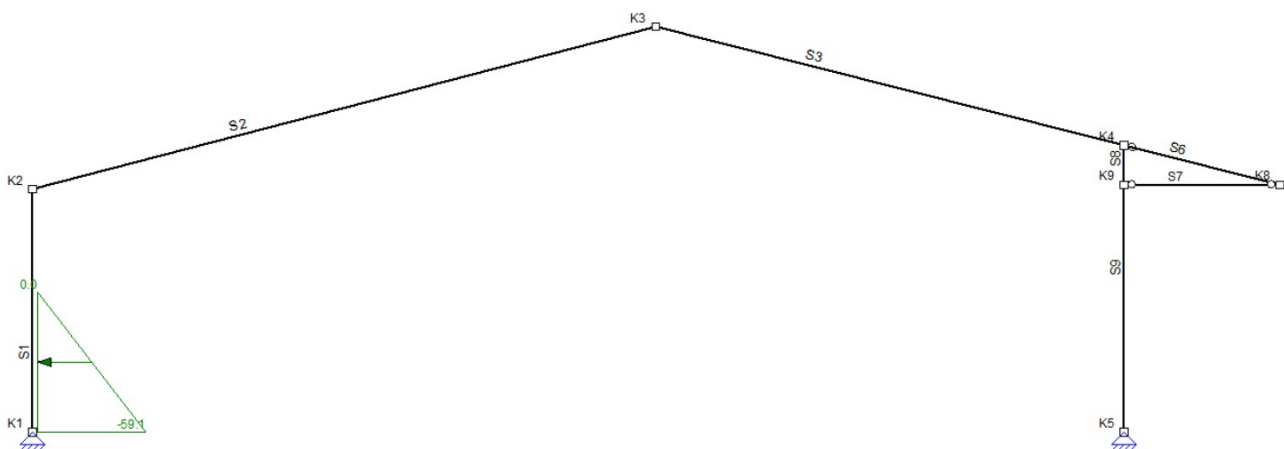
B.G.30: Kniklengte (Symmetrisch)



B.G.30: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|-------------------|--------------|-------------|----------|------------------|--------------|
| qG | 2.00 (3.32) | 2.00 (3.32) | 0.00 | 7.80 (L) | X" | S1 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S2-S3, S6, S8-S9 | |
| Som lasten | | X: -129.3 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.31: Verdeelde veranderlijke belasting



B.G.31: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|--------------|-------------------|--------------|-------------|----------|----------------|--------------|
| q | -59.1 (-q68) | 0.0 | 0.00 | 4.50 | Z' | S1 | |
| Som lasten | | X: -133.0 Yr: 6.7 | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

| Fundamenteel | | | | | | | | | | | |
|--------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 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 | Fu.C.9 | Fu.C.10 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 |
| B.G.2 | Opgelegde belastingen... | 1.17 | | | | | | | | | |
| B.G.3 | Opgelegde belastingen... | 1.17 | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | 1.15 | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | 1.15 | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | 1.15 | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | 1.15 | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | 1.15 | | | | |

Projectnummer [REDACTED]
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 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| B.G.9 | Windbelasting van Lin... | | | | | | | 1.15 | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | 1.15 | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | 1.15 | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | 1.15 | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | | 1.15 |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 | |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | 1.15 | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | 1.15 | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | 1.15 | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | 1.15 | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | 1.15 | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | 1.15 | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | 1.15 | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | 1.15 | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | 1.15 | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | 1.15 | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | | 1.15 |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.21 | Fu.C.22 | Fu.C.23 | Fu.C.24 | Fu.C.25 | Fu.C.26 | Fu.C.27 | Fu.C.28 | Fu.C.29 | Fu.C.30 | |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | 1.17 | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | 1.17 | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving

Eenheden: m, mm, kN, kNm

[illegible]

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|-----------------------|---------------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | 1.15 | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | 1.15 | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | 1.15 | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | 1.15 | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | 1.15 | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | 1.15 | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | 1.15 | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | 1.15 | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | 1.15 | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | 1.15 |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 |
| B.G. | Omschrijving | Fu.C.51 | Fu.C.52 | Fu.C.53 | Fu.C.54 | Fu.C.55 | Fu.C.56 | Fu.C.57 | Fu.C.58 | Fu.C.59 | Fu.C.60 |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | 1.17 | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | 1.17 |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | 1.15 | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | 1.15 | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | 1.15 | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | 1.01 | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | 1.01 | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | 1.01 | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 |
| Karakteristiek | | | | | | | | | | | |
| 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 | Ka.C.8 | Ka.C.9 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | | | 0.87 | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | 0.87 | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| B.G.4 | Windbelasting van Lin... | | | | | 0.85 | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | 0.85 | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | 0.85 | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | 0.85 | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | 0.85 | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | 0.85 | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | 0.85 |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 | Ka.C.13 | Ka.C.14 | Ka.C.15 | Ka.C.16 | Ka.C.17 | Ka.C.18 | Ka.C.19 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | 0.85 | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | 0.85 | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | 0.85 | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | 0.85 | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | 0.85 | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | 0.85 | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | 0.85 | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | 0.85 | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | 0.85 | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | 0.85 | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.20 | Ka.C.21 | Ka.C.22 | Ka.C.23 | Ka.C.24 | Ka.C.25 | Ka.C.26 | Ka.C.27 | Ka.C.28 | Ka.C.29 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | |
|----------------|--------------------------------|
| B.G.2 | Opgelegde belastinge... |
| B.G.3 | Opgelegde belastinge... |
| B.G.4 | Windbelasting van Lin... |
| B.G.5 | Windbelasting van Lin... |
| B.G.6 | Windbelasting van Lin... |
| B.G.7 | Windbelasting van Lin... |
| B.G.8 | Windbelasting van Lin... |
| B.G.9 | Windbelasting van Lin... |
| B.G.10 | Windbelasting van Lin... |
| B.G.11 | Windbelasting van Lin... |
| B.G.12 | Windbelasting van Re... 0.85 |
| B.G.13 | Windbelasting van Re... 0.85 |
| B.G.14 | Windbelasting van Re... 0.85 |
| B.G.15 | Windbelasting van Re... 0.85 |
| B.G.16 | Windbelasting van Re... 0.85 |
| B.G.17 | Windbelasting van Re... 0.85 |
| B.G.18 | Windbelasting van Re... 0.85 |
| B.G.19 | Windbelasting van Re... 0.85 |
| B.G.20 | Windbelasting van Vo... 0.85 |
| B.G.21 | Windbelasting van Vo... 0.85 |
| B.G.22 | Windbelasting (enkele... |
| B.G.23 | Windbelasting (enkele... |
| B.G.24 | Windbelasting (enkele... |
| B.G.25 | Windbelasting (enkele... |
| B.G.26 | Sneeuwbelasting 1 |
| B.G.27 | Sneeuwbelasting 2 |
| B.G.28 | Sneeuwbelasting 3 |
| B.G.29 | Kniklengte (Asymmetr... |
| B.G.30 | Kniklengte (Symmetris... |
| B.G.31 | Verdeelde veranderlijk... 1.00 |
| B.G. | Omschrijving |
| Ka.C.50 | Ka.C.51 |
| Ka.C.52 | Ka.C.53 |
| Ka.C.54 | Ka.C.55 |
| Ka.C.56 | |
| B.G.1 | Permanente Belasting 1.00 |
| B.G.2 | Opgelegde belastinge... |
| B.G.3 | Opgelegde belastinge... |
| B.G.4 | Windbelasting van Lin... |
| B.G.5 | Windbelasting van Lin... |
| B.G.6 | Windbelasting van Lin... |
| B.G.7 | Windbelasting van Lin... |
| B.G.8 | Windbelasting van Lin... |
| B.G.9 | Windbelasting van Lin... |
| B.G.10 | Windbelasting van Lin... |
| B.G.11 | Windbelasting van Lin... |
| B.G.12 | Windbelasting van Re... |
| B.G.13 | Windbelasting van Re... |
| B.G.14 | Windbelasting van Re... |
| B.G.15 | Windbelasting van Re... |
| B.G.16 | Windbelasting van Re... |
| B.G.17 | Windbelasting van Re... |
| B.G.18 | Windbelasting van Re... |
| B.G.19 | We... |
| B.G.20 | Windbelasting van Vo... |
| B.G.21 | Windbelasting van Vo... |
| B.G.22 | Windbelasting (enkele... 0.85 |
| B.G.23 | Windbelasting (enkele... 0.85 |
| B.G.24 | Windbelasting (enkele... 0.85 |
| B.G.25 | Windbelasting (enkele... 0.85 |
| B.G.26 | Sneeuwbelasting 1 0.75 |
| B.G.27 | Sneeuwbelasting 2 0.75 |
| B.G.28 | Sneeuwbelasting 3 0.75 |
| B.G.29 | Kniklengte (Asymmetr... |
| B.G.30 | Kniklengte (Symmetris... |
| B.G.31 | Verdeelde veranderlijk... 1.00 |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

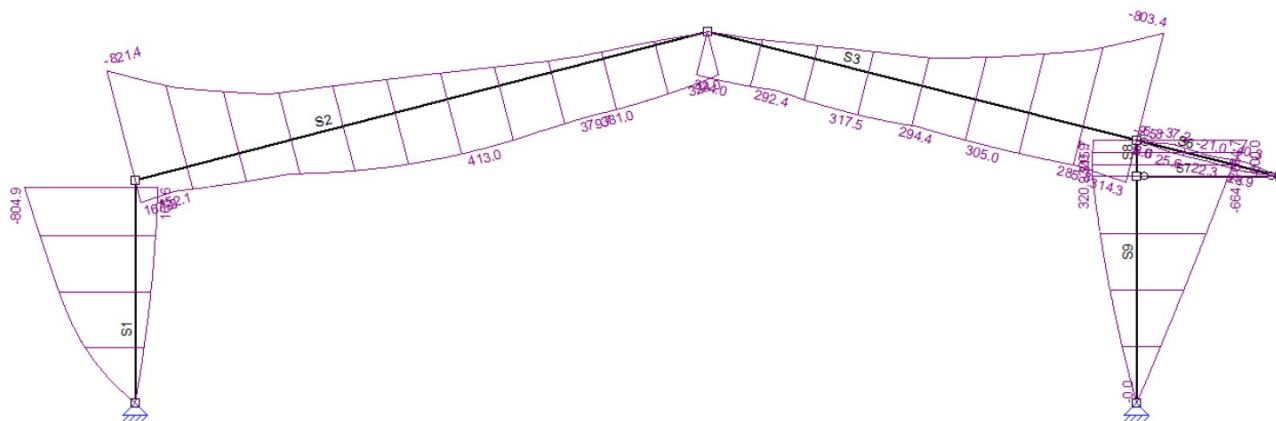
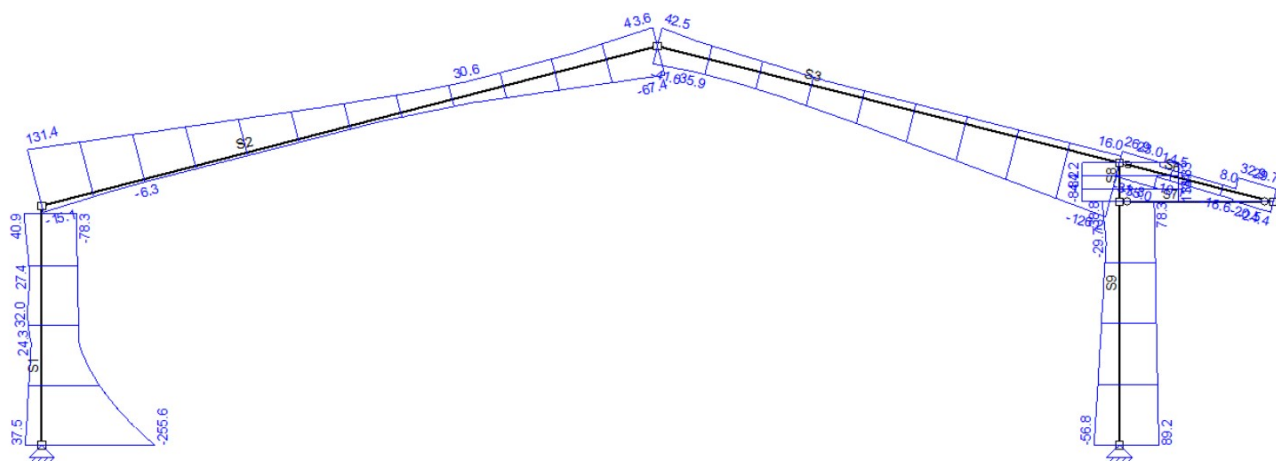
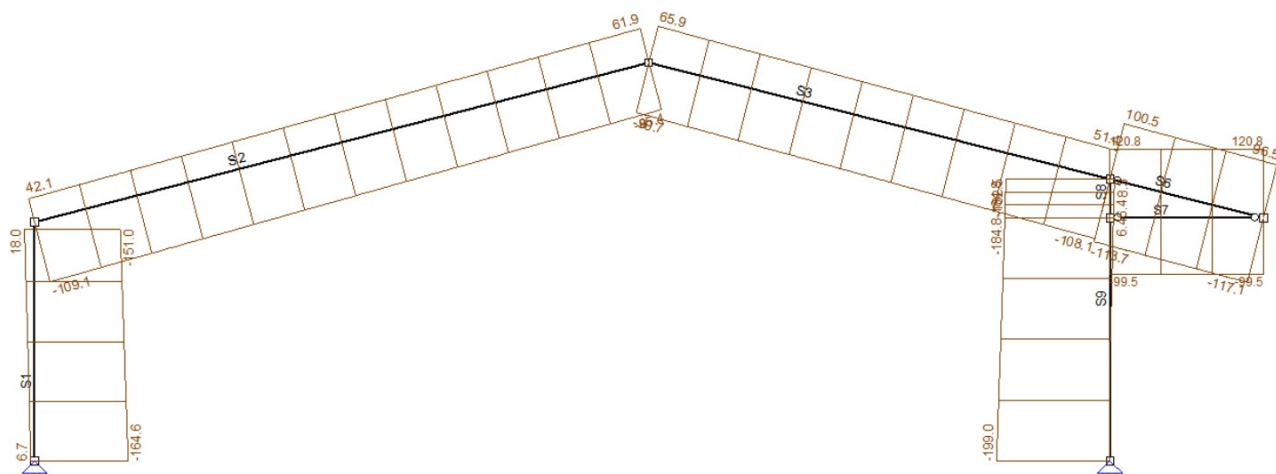
Eenheden: m, mm, kN, kNm



UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My)

Fu.C. Omhullende Dwarskracht (V_z)Fu.C. Omhullende Normaalkracht (N_x)

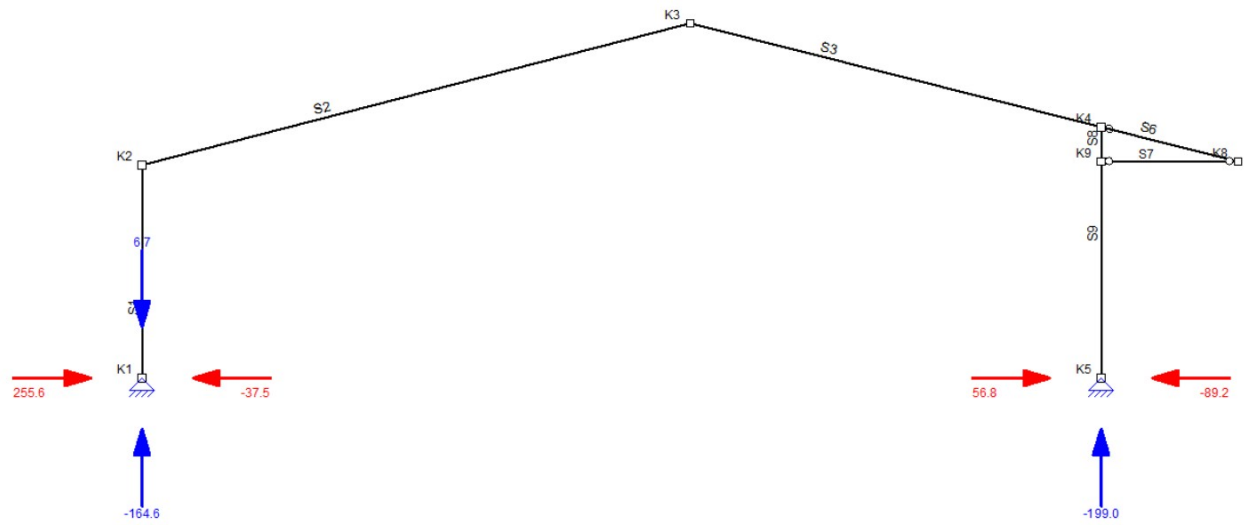
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 J

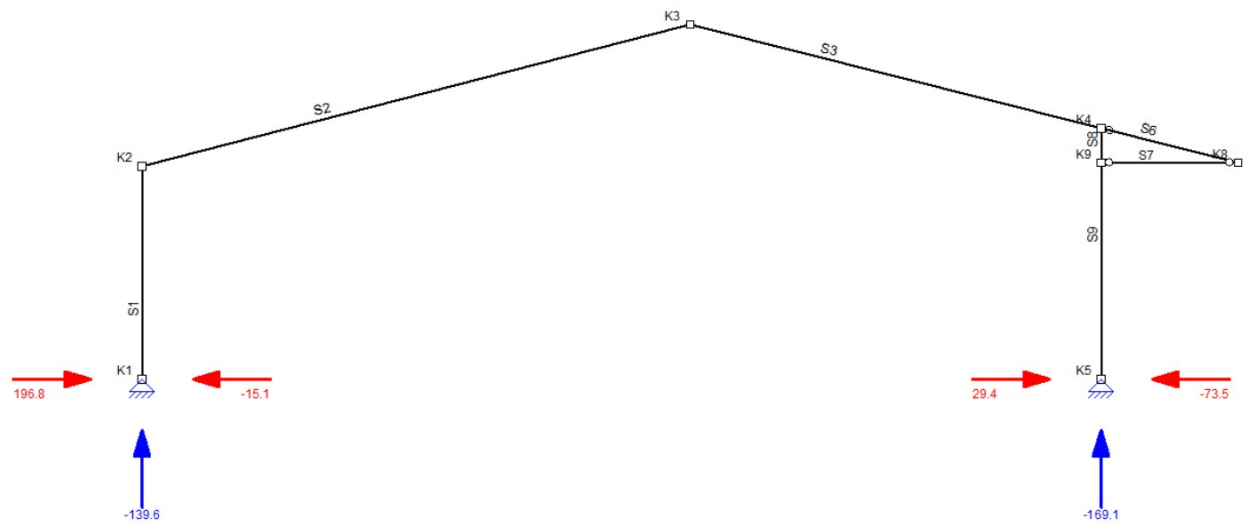
Eenheden: m, mm, kN, kNm



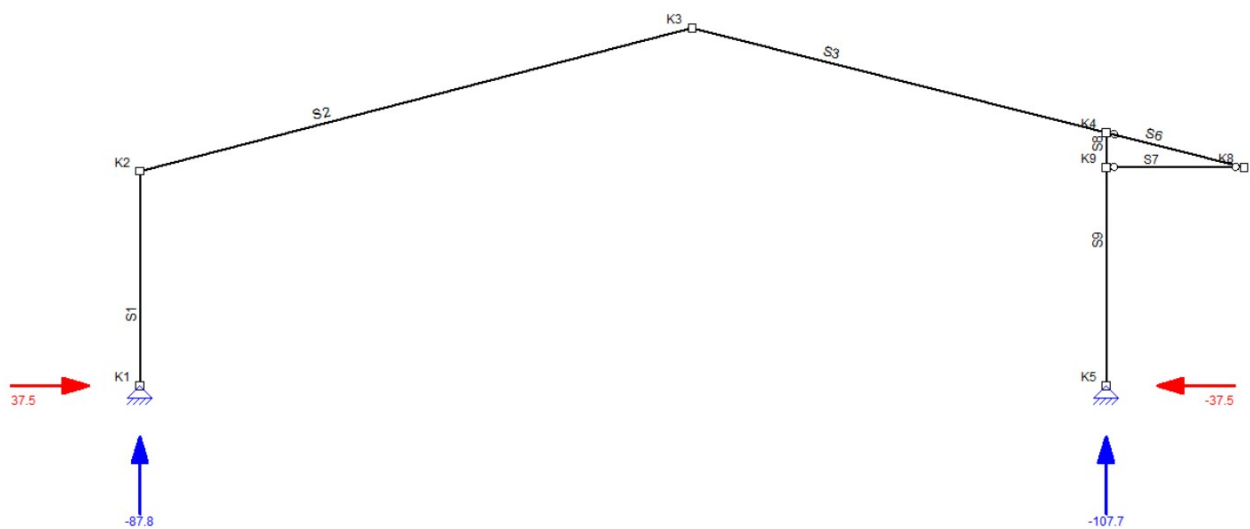
Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



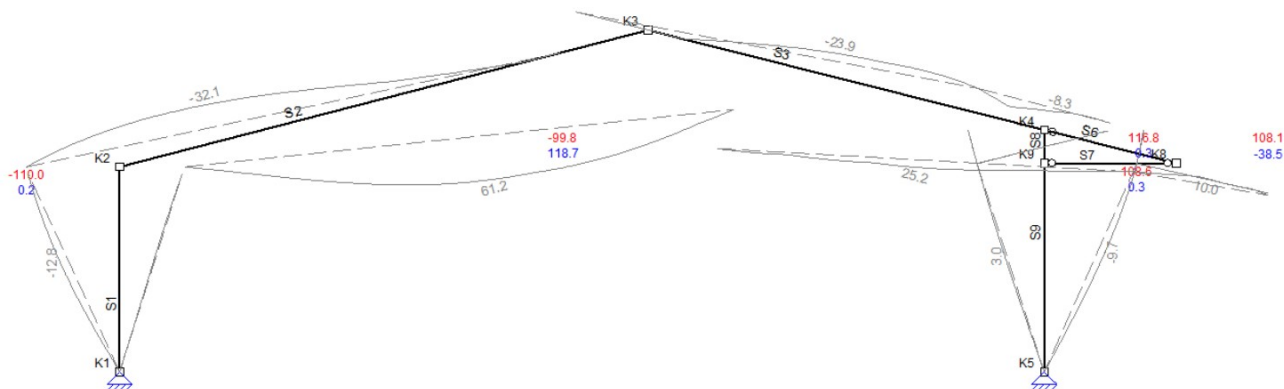
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

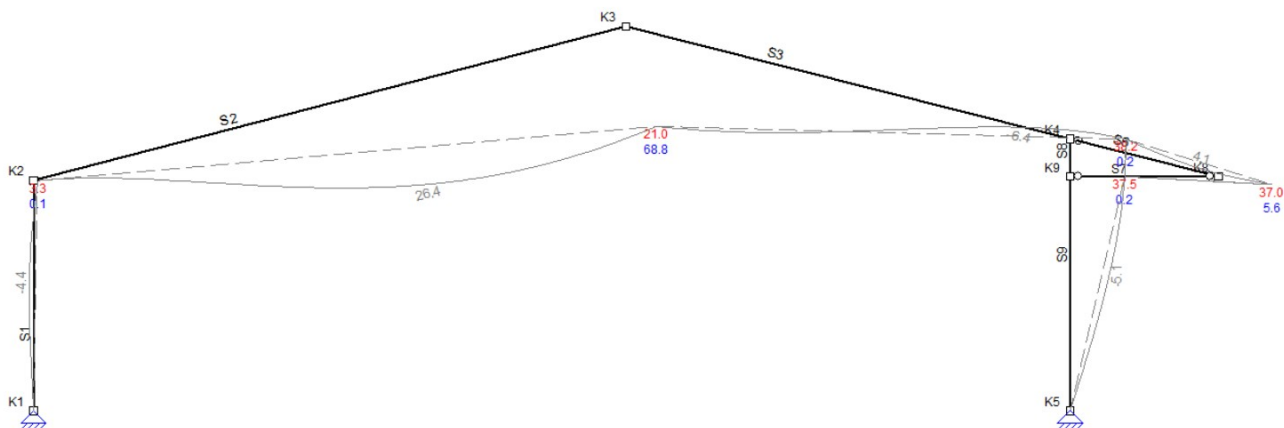
Eenheden: m, mm, kN, kNm



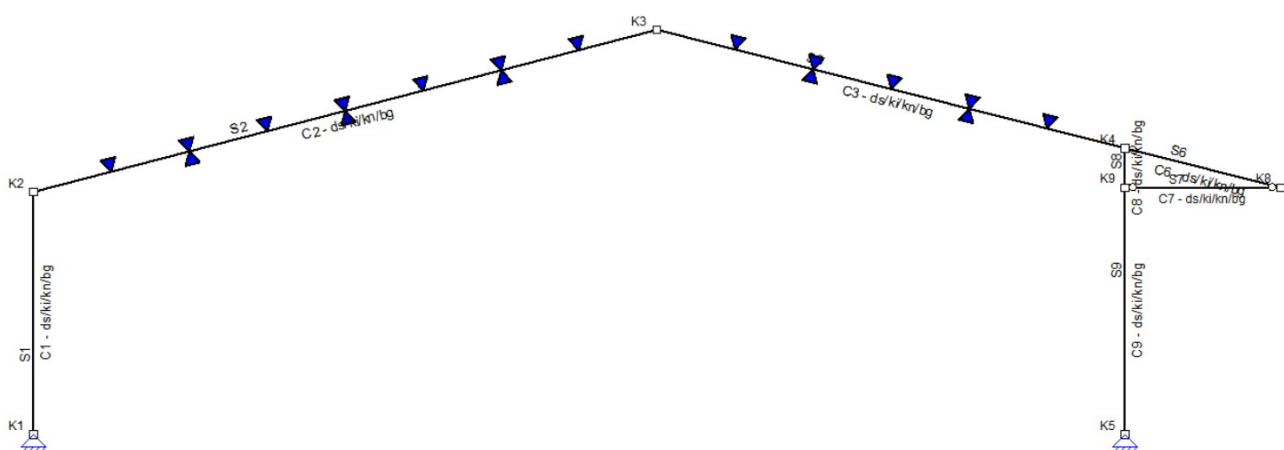
Ka.C. Omhullende Doorbuigingen



Ka.C.(w1) Doorbuigingen



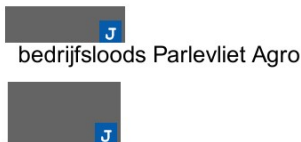
Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staal/staven |
|-----------------|--------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |
| C6 | S6 |
| C7 | S7 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm

**Constructiedeel Staal/staven**

C8 S8
 C9 S9

INVOER GEGEVENS**KNIKLENGTEGEGEVENS**

| Staal | Profiel | Lsys | Lokale Y-as Methode | Lbuc | Lbuc/Lsys | Lokale Z-as Methode | Lbuc | Lbuc/Lsys |
|----------------------|---------|-------|------------------------|-------|-----------|------------------------|-------|-----------|
| C1-V1 (0.000-7.550) | P1 | 7.55 | Ongeschoord | 24.33 | 3.2 | Cons. gesch. | 7.55 | 1.0 |
| C2-V1 (0.000-20.665) | P1 | 20.66 | Cons. gesch. | 20.66 | 1.0 | Cons. gesch. | 20.66 | 1.0 |
| C3-V1 (0.000-15.474) | P1 | 15.47 | Cons. gesch. | 15.47 | 1.0 | Cons. gesch. | 15.47 | 1.0 |
| C6-V1 (0.000-5.158) | P5 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C7-V1 (0.000-5.000) | P6 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C8-V1 (0.000-1.267) | P1 | 1.27 | Cons. gesch. | 1.27 | 1.0 | Cons. gesch. | 1.27 | 1.0 |
| C9-V1 (0.000-7.933) | P1 | 7.93 | Ongeschoord | 24.66 | 3.1 | Cons. gesch. | 7.93 | 1.0 |
| | | | | m | | | m | |

KIPSTEUNENGEGEVENS

| Staal | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|---------------------------------------|------------------|----------------|
| C1-V1 (0.000-7.550) | P1 | Gesteund | Gesteund | | | Centrum |
| C2-V1 (0.000-20.665) | P1 | Gesteund | Gesteund | 2.58,5.17,7.75,10.33,12.92,15.5,18.08 | 5.17,10.33,15.5 | Centrum |
| C3-V1 (0.000-15.474) | P1 | Gesteund | Gesteund | 2.58,5.16,7.74,10.32,12.89 | 5.16,10.32 | Centrum |
| C6-V1 (0.000-5.158) | P5 | Gesteund | Gesteund | | | Centrum |
| C7-V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C8-V1 (0.000-1.267) | P1 | Gesteund | Gesteund | | | Centrum |
| C9-V1 (0.000-7.933) | P1 | Gesteund | Gesteund | | | Centrum |

DOORBUIGINGGEGEVENS

| Staal | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-7.550) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | Htot/0 | |
| C2-V1 (0.000-20.665) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C3-V1 (0.000-15.474) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C6-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C7-V1 (0.000-5.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C8-V1 (0.000-1.267) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | Htot/0 | |
| C9-V1 (0.000-7.933) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | Htot/0 | |
| | | | | mm | | | mm |

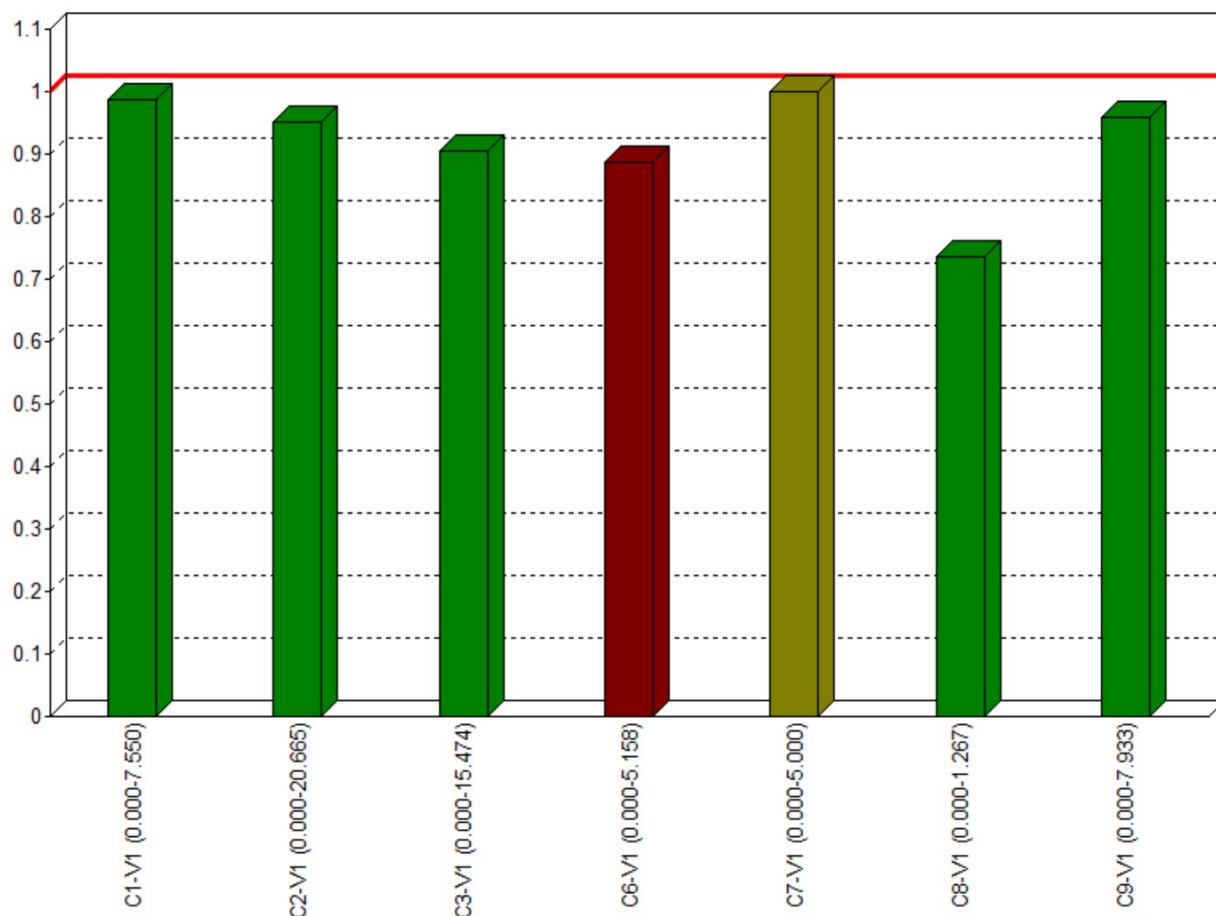
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Afb. Staal UC Diagram



EXTREME UNITY CHECK

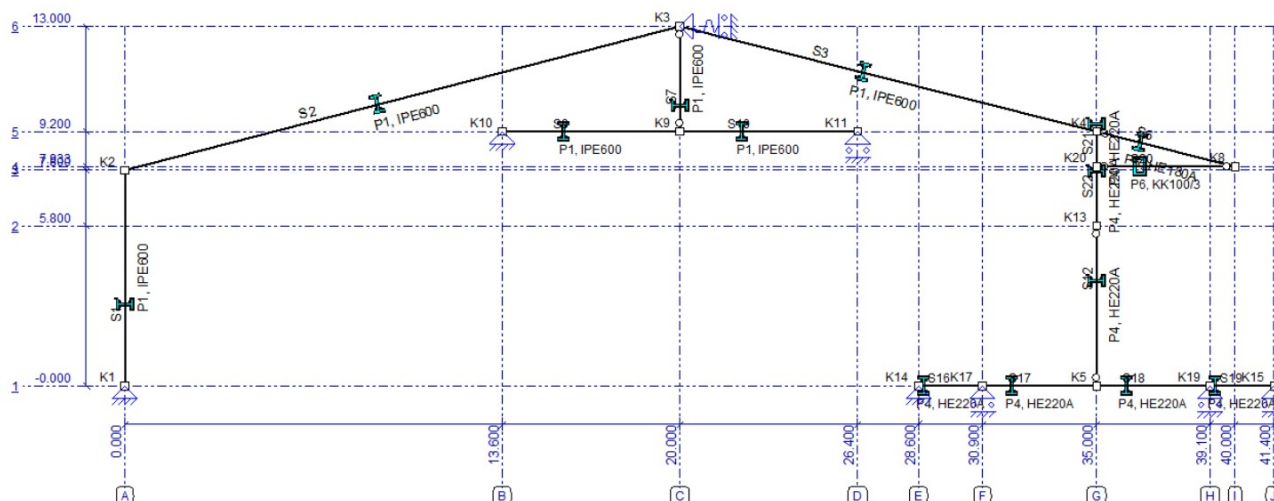
| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------------|------------|-----------------------------|-------------|
| C1-V1 (0.000-7.550) | Doorbuigingstoetsing | Ka.C.43 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.99 |
| C2-V1 (0.000-20.665) | Buiging & Druk | Fu.C.45 | NEN-EN1993-1-1(6.61&6.62) | 0.95 |
| C3-V1 (0.000-15.474) | Buiging & Druk | Fu.C.7 | NEN-EN1993-1-1(6.61&6.62) | 0.91 |
| C6-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.89 |
| C7-V1 (0.000-5.000) | Stabiliteit | Fu.C.51 | NEN-EN1993-1-1(6.46) | 1.00 |
| C8-V1 (0.000-1.267) | Doorsnede | Fu.C.7 | NEN-EN1993-1-1(6.12) | 0.74 |
| C9-V1 (0.000-7.933) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.96 |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving
 Bestand

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knoten | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 15 | 15 | 8 | 6 | 31 | 148 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -7.80 | 7.80 | P1 | 0.00 - 7.80 (L) |
| S2 | K2 | K3 | 0.00 | 20.00 | -7.80 | -13.00 | 20.66 | P1 | 0.00 - 20.66 (L) |
| S3 | K3 | K4 | 20.00 | 35.00 | -13.00 | -9.20 | 15.47 | P1 | 0.00 - 15.47 (L) |
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.93 | 5.16 | P5 | 0.00 - 5.16 (L) |
| S7 | K9 | K3 | 20.00 | 20.00 | -9.20 | -13.00 | 3.80 | P1 | 0.00 - 3.80 (L) |
| S9 | K10 | K9 | 13.60 | 20.00 | -9.20 | -9.20 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S10 | K9 | K11 | 20.00 | 26.40 | -9.20 | -9.20 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S12 | K13 | K5 | 35.00 | 35.00 | -5.80 | 0.00 | 5.80 | P4 | 0.00 - 5.80 (L) |
| S16 | K14 | K17 | 28.60 | 30.90 | 0.00 | 0.00 | 2.30 | P4 | 0.00 - 2.30 (L) |
| S17 | K17 | K5 | 30.90 | 35.00 | 0.00 | 0.00 | 4.10 | P4 | 0.00 - 4.10 (L) |
| S18 | K5 | K19 | 35.00 | 39.10 | 0.00 | 0.00 | 4.10 | P4 | 0.00 - 4.10 (L) |
| S19 | K19 | K15 | 39.10 | 41.40 | 0.00 | 0.00 | 2.30 | P4 | 0.00 - 2.30 (L) |
| S20 | K20 | K8 | 35.00 | 40.00 | -7.93 | -7.93 | 5.00 | P6 | 0.00 - 5.00 (L) |
| S21 | K4 | K20 | 35.00 | 35.00 | -9.20 | -7.93 | 1.27 | P4 | 0.00 - 1.27 (L) |
| S22 | K20 | K13 | 35.00 | 35.00 | -7.93 | -5.80 | 2.13 | P4 | 0.00 - 2.13 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | IPE600 | 15598 | 9.2083e+08 | S355 | 0 |
| P4 | HE220A | 6434 | 5.4097e+07 | S355 | 0 |
| P5 | HE180A | 4525 | 2.5103e+07 | S235 | 0 |
| P6 | KK100/3 | 1149 | 1.7896e+06 | S235H(EN10219-1) | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|------------------|--------|-------------------|-------------------|------------------|
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °C ⁻¹ |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm

**SCHARNIEREN**

| Staaf | Positie | Scharnier | X | Z | Yr |
|----------|----------|-----------|-------------|-------------|----------------|
| S6 | 0.00 | A3 | Vast | Vast | 500.0 |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A2 | Vast | Vast | Vrij |
| | 3.80 (L) | A2 | Vast | Vast | Vrij |
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.40 (L) | A1 | Vast | Vast | Vast |
| S10 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.40 (L) | A1 | Vast | Vast | Vast |
| S12 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.80 (L) | A2 | Vast | Vast | Vrij |
| S16 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.30 (L) | A1 | Vast | Vast | Vast |
| S17 | 0.00 | A1 | Vast | Vast | Vast |
| | 4.10 | A1 | Vast | Vast | Vast |
| S18 | 0.00 | A1 | Vast | Vast | Vast |
| | 4.10 (L) | A1 | Vast | Vast | Vast |
| S19 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.30 | A1 | Vast | Vast | Vast |
| S20 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S21 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.27 (L) | A1 | Vast | Vast | Vast |
| S22 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.13 | A1 | Vast | Vast | Vast |
| m | | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|-------------|-------------|----------------|------|----------|
| O1 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O3 | K10 | K10 | Vast | Vast | Vrij | 0 | |
| O4 | K11 | K11 | Vrij | Vast | Vrij | 0 | |
| O5 | K14 | K14 | Vast | Vast | Vrij | 0 | |
| O6 | K15 | K15 | Vrij | Vast | Vrij | 0 | |
| O7 | K3 | K3 | 400.0 | Vrij | Vrij | 0 | |
| O8 | K17 | K17 | Vrij | Vast | Vrij | 0 | |
| O9 | K19 | K19 | Vrij | Vast | Vrij | 0 | |
| m | | | kN/m | kN/m | kNm/rad | | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--------------------------|--------------------------------|------------|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 6.40 | 6.40 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 41.40 | 41.40 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |

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Eenheden: m, mm, kN, kNm



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|---|--|--|--------|----------------------|
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S2,S3,S6) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.4 | 0.40 | [kN/m ²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 2.56 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=6.40)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S2 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m ²] |
| q2 | Opgelegde belastingen (q) (Lsys=6.40) | qk1 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| | S3,S6 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m ²] |
| q3 | Opgelegde belastingen (q) (Lsys=6.40) | qk2 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S11,S12) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A1 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q4 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 1.19 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -4.87 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.87 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe6 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q9 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp1*Cpe7*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

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Eenheden: m, mm, kN, kNm



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|---|---|--|--------|----------------------|
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A2 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe9 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q11 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe9*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 1.19 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe13 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q16 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe13*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q17 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp2*Cpe14*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| LR6 (Vertikale wand; Verdeelde element belasting (q): S11,S12) | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A3 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe16 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q18 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp3*Cpe16*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -1.79 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp3*Cpe17*CsCd1) * Lsys1 | -4.87 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp3*Cpe18*CsCd1) * Lsys1 | -1.87 | [kN/m] |

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Eenheden: m, mm, kN, kNm



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|-------|--|--|--------|----------|
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp3*Cpe19*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe20 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q23 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp3*Cpe20*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp3*Cpe21*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A4 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe23 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q25 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp4*Cpe23*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -1.79 | [kN/m] |
| Cpe24 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp4*Cpe24*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q28 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp4*Cpe25*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe26 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe26*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe27 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q30 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe27*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp4*Cpe28*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A5 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q32 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp5 \cdot Cpe30 \cdot CsCd1) \cdot Lsys1$ | -2.98 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | $(Cpi5 \cdot Qp5) \cdot Lsys1$ | 1.19 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp5 \cdot Cpe31 \cdot CsCd1) \cdot Lsys1$ | -2.44 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp5 \cdot Cpe32 \cdot CsCd1) \cdot Lsys1$ | -5.65 | [kN/m] |
| Cpe33 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q36 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp5 \cdot Cpe33 \cdot CsCd1) \cdot Lsys1$ | -1.93 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | $(Qp5 \cdot Cpe34 \cdot CsCd1) \cdot Lsys1$ | 4.77 | [kN/m] |

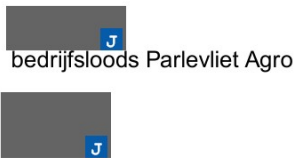
LR9 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A6 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q38 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp6 \cdot Cpe36 \cdot CsCd1) \cdot Lsys1$ | -2.98 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | $(Cpi6 \cdot Qp6) \cdot Lsys1$ | 1.19 | [kN/m] |
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q40 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 \cdot Cpe37 \cdot CsCd1) \cdot Lsys1$ | 0.00 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 \cdot Cpe38 \cdot CsCd1) \cdot Lsys1$ | 0.05 | [kN/m] |
| Cpe39 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q42 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp6 \cdot Cpe39 \cdot CsCd1) \cdot Lsys1$ | 1.10 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | $(Qp6 \cdot Cpe40 \cdot CsCd1) \cdot Lsys1$ | 4.77 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S11,S12)

| | | | | |
|--------|---|---|-------|------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A7 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=0.00,Over=False) | -0.30 | |

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|--|--|--|--------|----------------------|
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q44 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp7*Cpe42*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1.79 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp7*Cpe43*CsCd1) * Lsys1 | -2.44 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp7*Cpe44*CsCd1) * Lsys1 | -5.65 | [kN/m] |
| Cpe45 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q48 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp7*Cpe45*CsCd1) * Lsys1 | -1.93 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp7*Cpe46*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| LR11 (Vertikale wand; Verdeelde element belasting (q): S11,S12) | | | | |
| Windbelasting van Rechts + Onderdruk (2e Cpe) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A8 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp8*Cpe48*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp8) * Lsys1 | -1.79 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp8*Cpe49*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp8*Cpe50*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe51 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q54 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp8*Cpe51*CsCd1) * Lsys1 | 1.10 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S11,S12 | (Qp8*Cpe52*CsCd1) * Lsys1 | 4.77 | [kN/m] |

LR12 (Zadeldak; Verdeelde element belasting (q): S3)

Windbelasting van Voren + Overdruk NEN-EN1991-1-4:2011/NB:2019

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|---------|---|--|--------|----------|
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Vertikale wand; Druk coefficient (Cpe): S1,S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S1,S11,S12 | (Qp9*Cpe54*CsCd1) * Lsys1 | -4.77 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | (Cpi9*Qp9) * Lsys1 | 1.19 | [kN/m] |
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Richting=90) | -0.60 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp9*Cpe55*CsCd1) * Lsys1 | -3.60 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Richting=90) | -0.61 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp9*Cpe56*CsCd1) * Lsys1 | -3.62 | [kN/m] |

LR13 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|-------------------------------------|---|--|--------|---------|
| Windbelasting van Voren + Onderdruk | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe57 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe57,Openingen=0.00,Over=False) | -0.30 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S1,S11,S12 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S11,S12 | (Qp10*Cpe58*CsCd1) * Lsys1 | -4.77 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | (Cpi10*Qp10) * Lsys1 | -1.79 | [kN/m] |
| Cpe59 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Richting=90) | -0.60 | |
| q62 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp10*Cpe59*CsCd1) * Lsys1 | -3.60 | [kN/m] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Richting=90) | -0.61 | |
| q63 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp10*Cpe60*CsCd1) * Lsys1 | -3.62 | [kN/m] |

LR14 (Geconcentreerde element belasting (F))

| | | | | |
|-------------------------------|--|---|--------|---------|
| Windbelasting (enkele luifel) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K9,K10,K11,K13,K14,K15 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) Eenzijdige overkappingen S6 | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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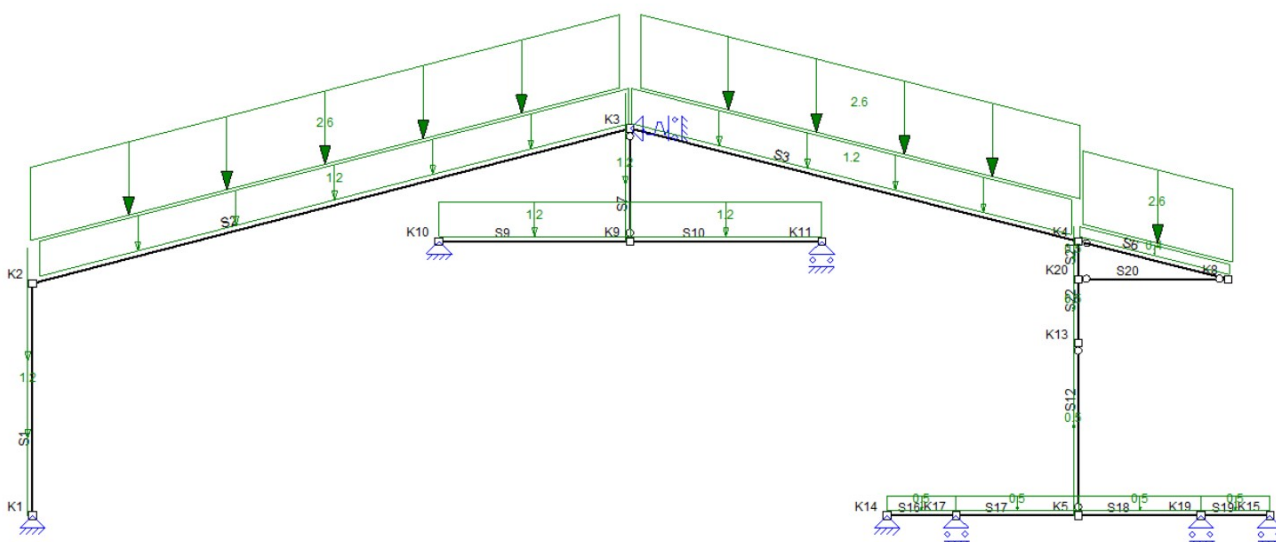
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Eenheden: m, mm, kN, kNm



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|---|--|--|--------|----------------------|
| Cpnet1 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappinggen,Zone=CF,Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | $(Q_{p11} \cdot C_{pnet1} \cdot C_{sCd1}) \cdot L_{sys1} \cdot 5.16$ | 20.58 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappinggen,Zone=CF,Hoek=14.22,Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | $(Q_{p11} \cdot C_{pnet2} \cdot C_{sCd1}) \cdot L_{sys1} \cdot 5.16$ | -43.07 | [kN] |
| LR15 (Verdeelde element belasting (q)) | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0.70 | [kN/m ²] |
| 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: 14.57; S2 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q64 | Verdeelde element belasting (q) | $(Sk1 \cdot Ce1 \cdot Ct1 \cdot Mu1) \cdot L_{sys1}$ | 3.58 | [kN/m] |
| q65 | Verdeelde element belasting (q) | $q64 \cdot 0.50$ | 1.79 | [kN/m] |
| | Zadeldak, Mu1 Hoek: 14.22; S3,S6 | | | |
| Mu2 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q66 | Verdeelde element belasting (q) | $(Sk1 \cdot Ce1 \cdot Ct1 \cdot Mu2) \cdot L_{sys1}$ | 3.58 | [kN/m] |
| q67 | Verdeelde element belasting (q) | $q66 \cdot 0.50$ | 1.79 | [kN/m] |
| LR16 (Horizontale druk bewaring) | | | | |
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m ³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q68 | Horizontale druk bewaring | $Ka1 \cdot Height4 \cdot D1 \cdot L_{sys1}$ | 59.10 | [kN/m] |

B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|---------------|--------------|
| | | | m | m | | | |

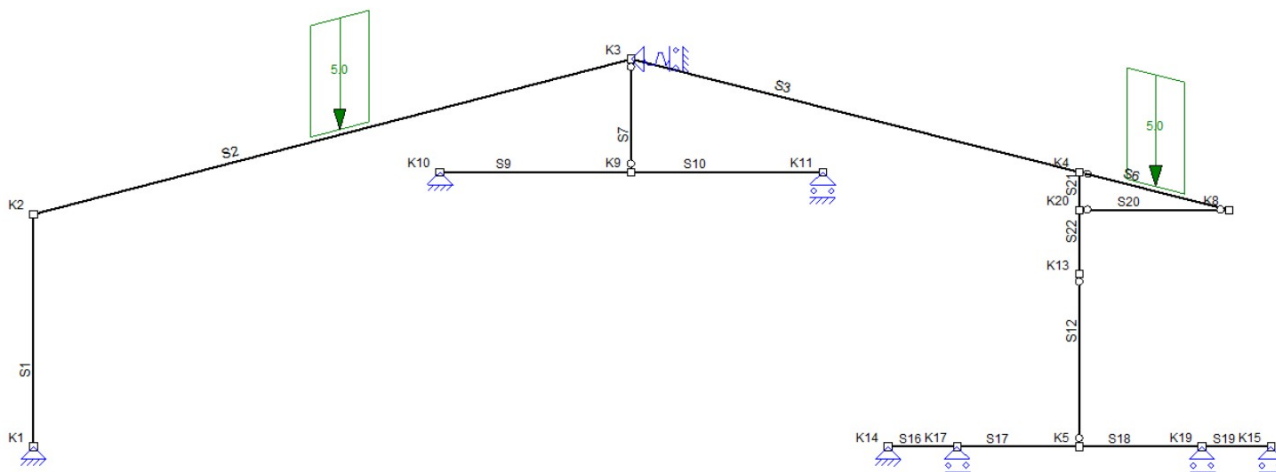
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| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1-S3,S6-S7,S9-S10,S12,S16-S19,S21-S22 | |
| q | 2.6 (q1) | 2.6 (q1) | 0.00 | L | Z" | S2-S3,S6 | |
| Som lasten | | Z: 190.5 Yr: 0.0 | | | | | |
| | | | m | m | | | |

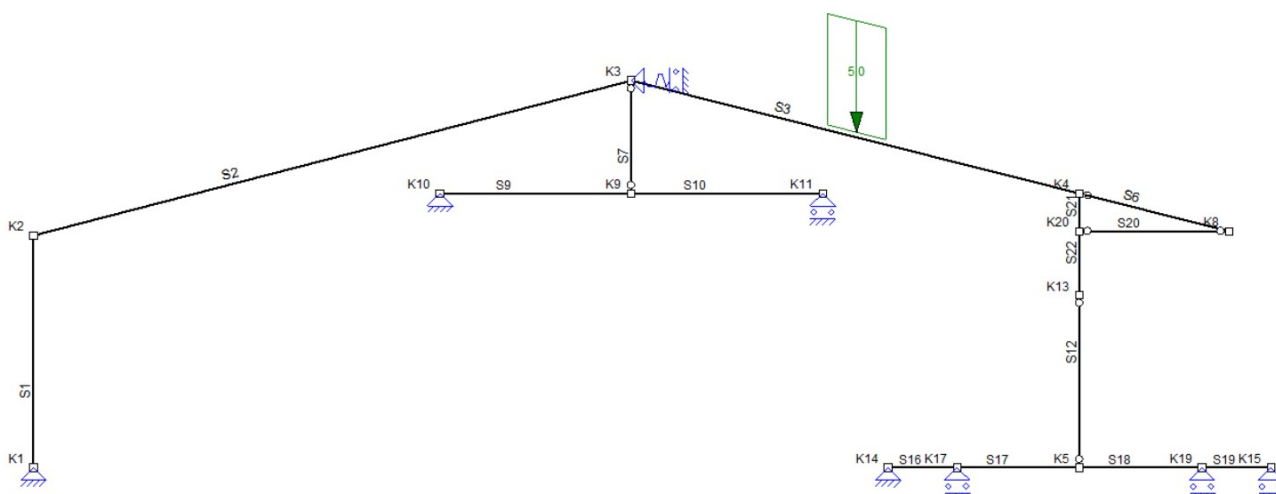
B.G.2: Opgelegde belastingen. Vloer 1, Veld 1



B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q2) | 5.0 (q2) | 9.33 | 11.33 | Z" | S2 | |
| q | 5.0 (q3) | 5.0 (q3) | 1.58 | 3.58 | Z" | S6 | |
| Som lasten | | X: 0.0 Z: 20.0 Yr: 0.7 | | | | | |
| | | | m | m | | | |

B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

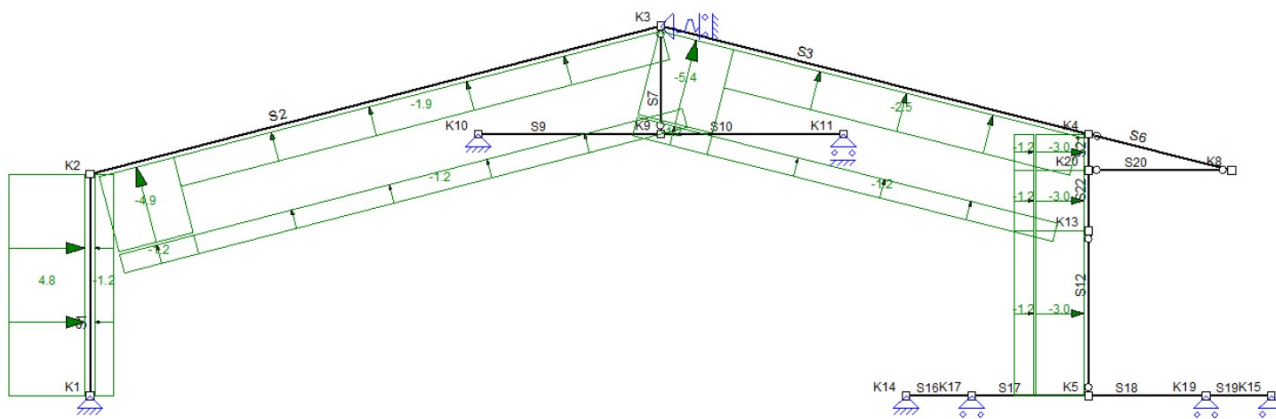
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q3) | 5.0 (q3) | 6.74 | 8.74 | Z" | S3 | |
| Som lasten | | Z: 10.0 Yr: 0.6 | | | | | |
| | | | m | m | | | |

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B.G.4: Windbelasting van Links + Overdruk



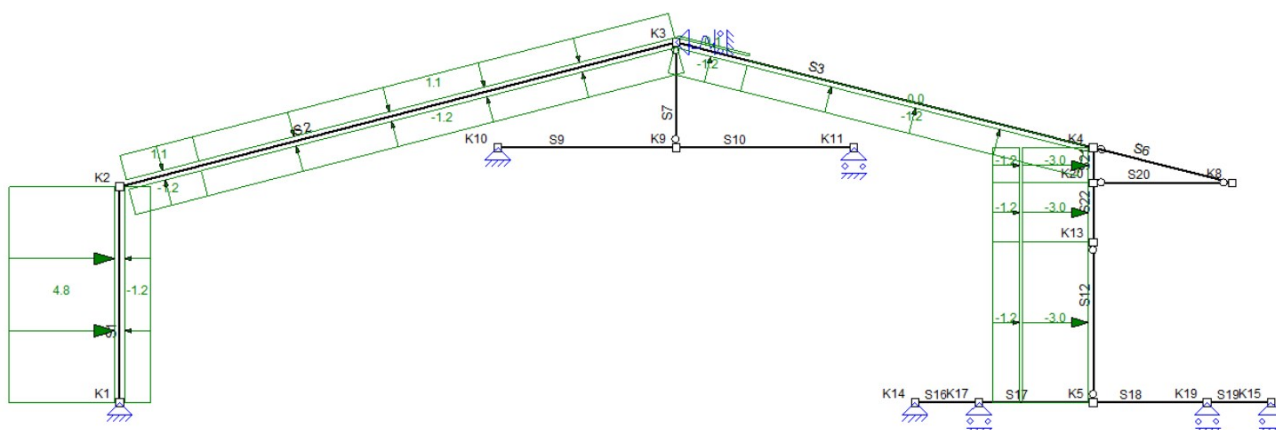
B.G.4: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 64.2 Z: -129.7 Yr: 8.2 | | | | | |

m

m

B.G.5: Windbelasting van Links + Overdruk (2e Cpe)



B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q11) | 4.8 (q11) | 0.00 | 7.80 (L) | Z | S1 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.69 | Z | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.69 | 20.66 (L) | Z | S2 | |

m

m

Projectnummer  

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever  

Constructeur

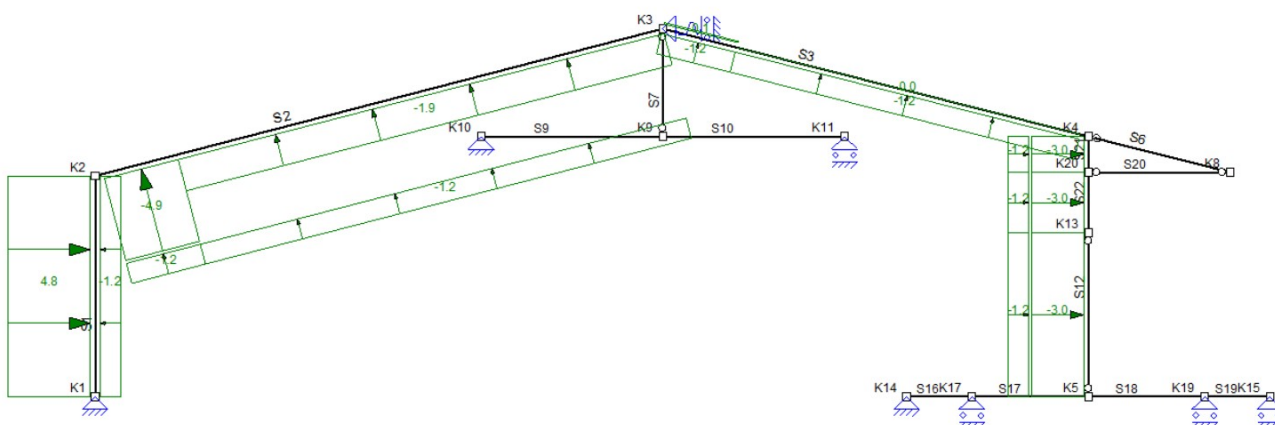
Omschrijving

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoep | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q17) | -3.0 (q17) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 70.4 Z: -18.3 Yr: 1.9 | | | | | |
| | | | m | m | | | |

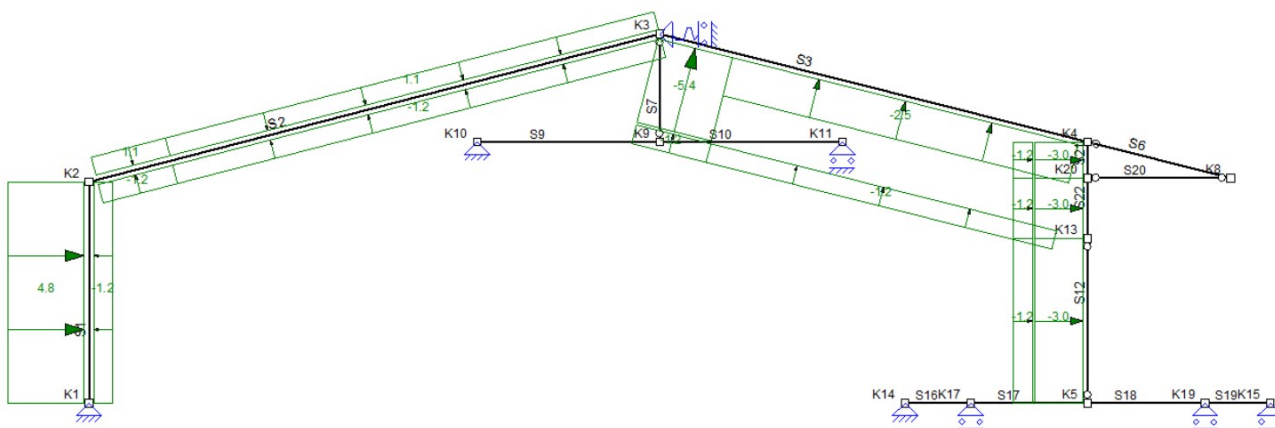
B.G.6: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoep | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 53.0 Z: -85.4 Yr: 5.8 | | | | | |
| | | | m | m | | | |

B.G.7: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



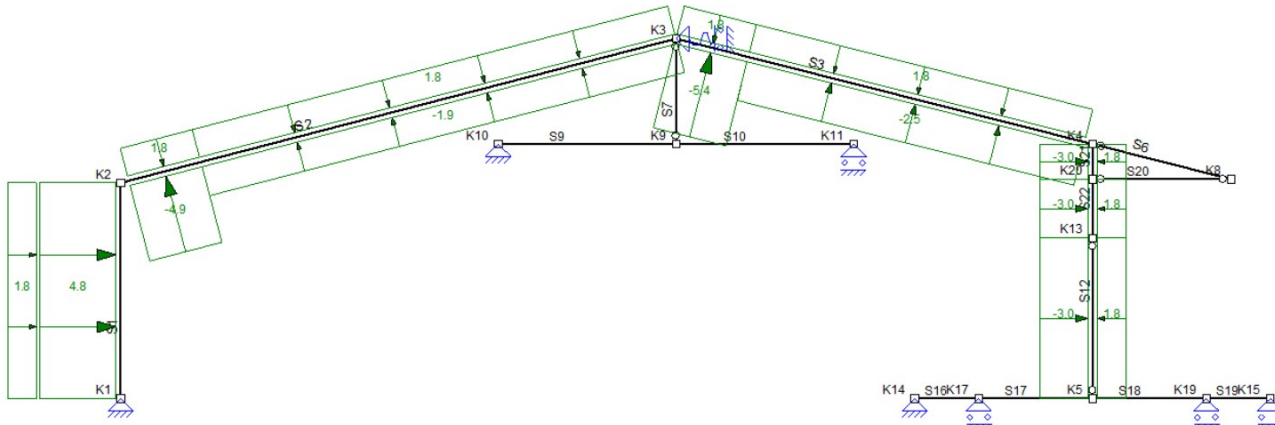
B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 81.6 Z: -62.6 Yr: 4.3 | | | | | |

m

m

B.G.8: Windbelasting van Links + Onderdruk



B.G.8: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 64.2 Z: -27.1 Yr: 6.8 | | | | | |

m

m

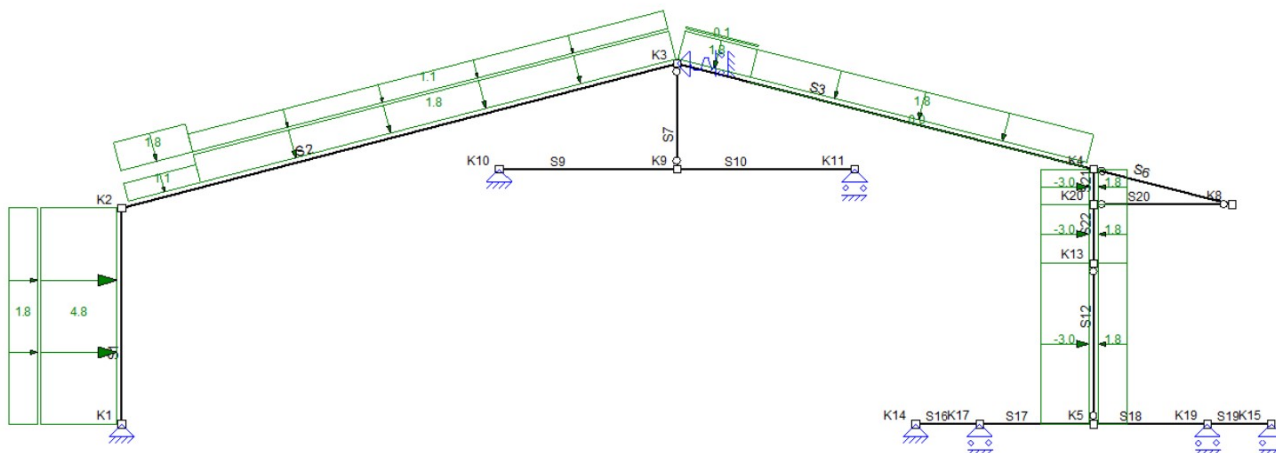
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



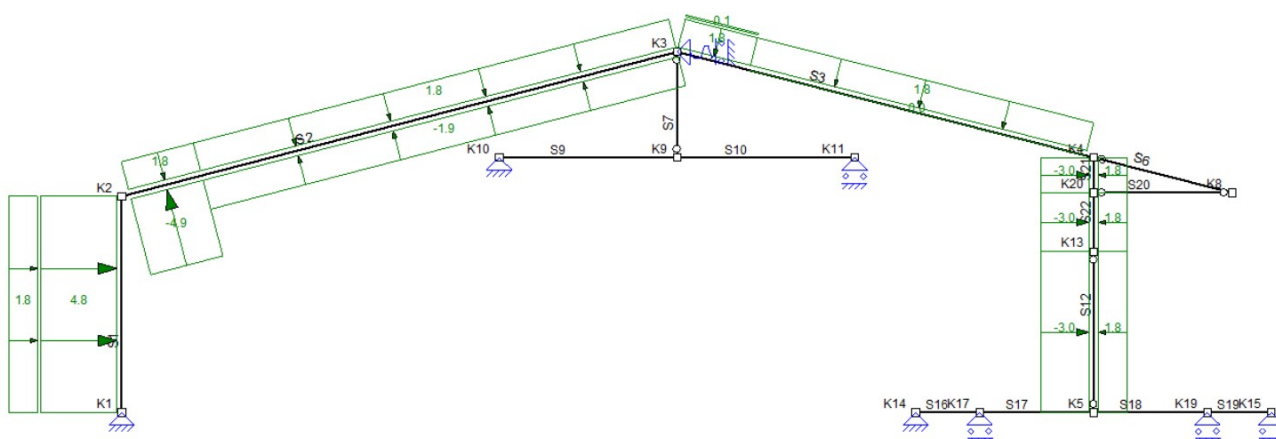
B.G.9: Windbelasting van Links + Onderdruk (2e Cpe)



B.G.9: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q25) | 4.8 (q25) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.69 | Z | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.69 | 20.66 (L) | Z | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.68 | 15.47 (L) | Z | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.68 | Z | S3 | |
| q | -3.0 (q31) | -3.0 (q31) | 0.00 | L | Z | S12,S21-S22 | |
| Som lasten | | X: 70.4 Z: 84.3 Yr: 0.5 | | | | | |
| | | | m | m | | | |

B.G.10: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z | S1,S12,S21-S22 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z | S2 | |
| | | | m | m | | | |

Projectnummer
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 Omschrijving

Eenheden: m, mm, kN, kNm

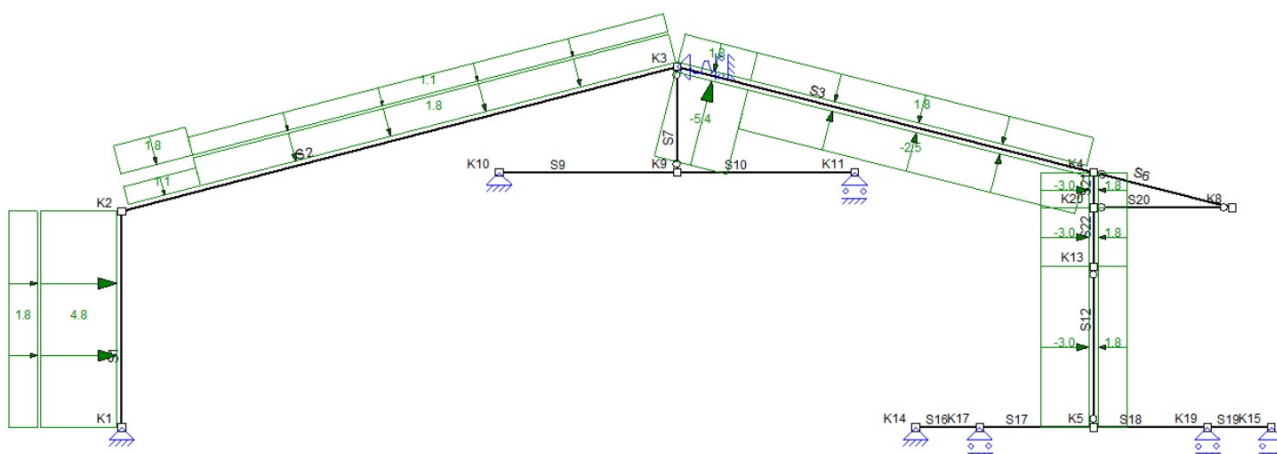


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: 53.0 Z: 17.2 Yr: 4.4 | | | | | |

m

m

B.G.11: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: 81.6 Z: 40.0 Yr: 2.9

m

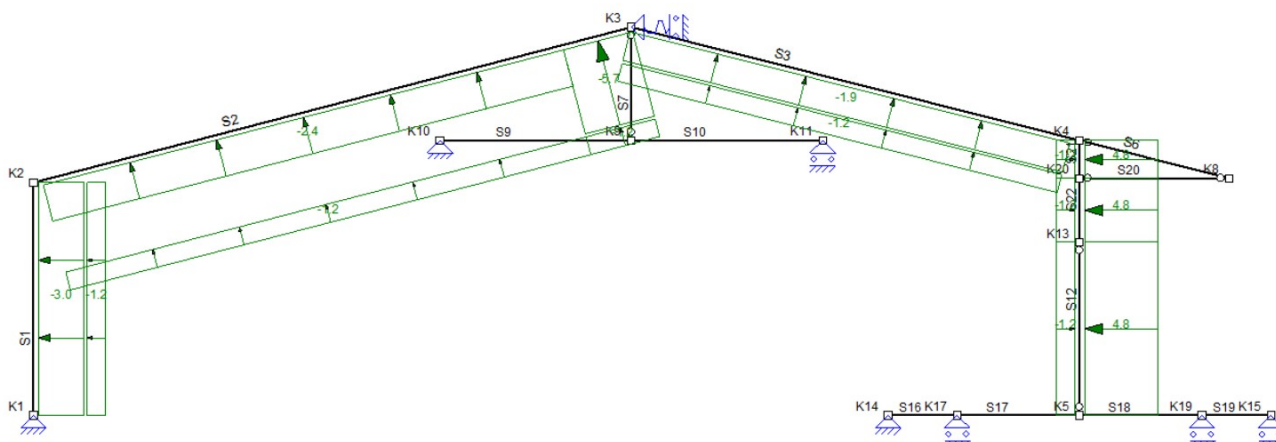
m

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



B.G.12: Windbelasting van Rechts + Overdruk



B.G.12: WINDBELASTING VAN RECHTS + OVERDRUK

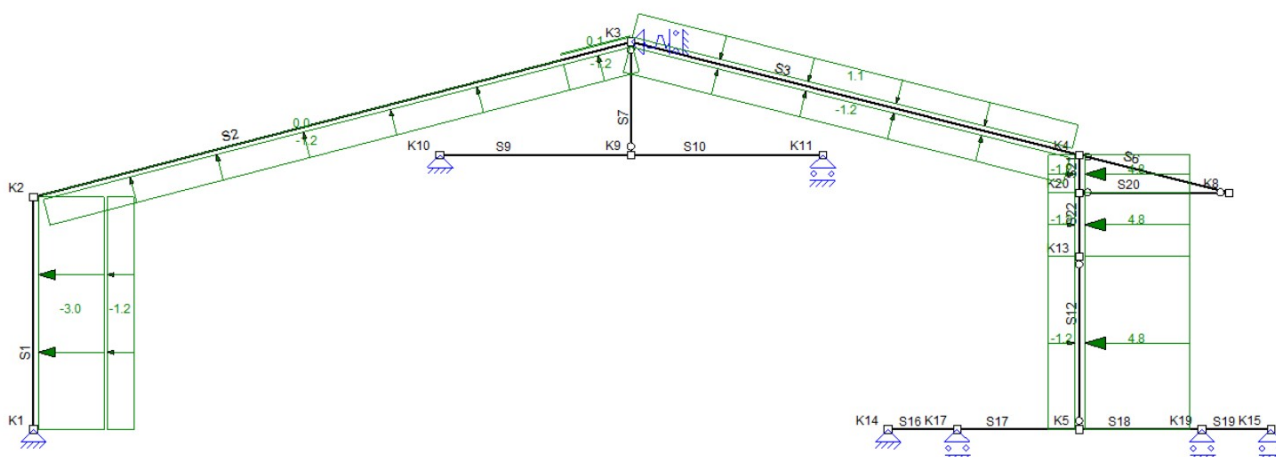
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -74.4 Z: -124.8 Yr: -5.5

m

m

B.G.13: Windbelasting van Rechts + Overdruk (2e Cpe)



B.G.13: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q38) | -3.0 (q38) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |

m

m

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

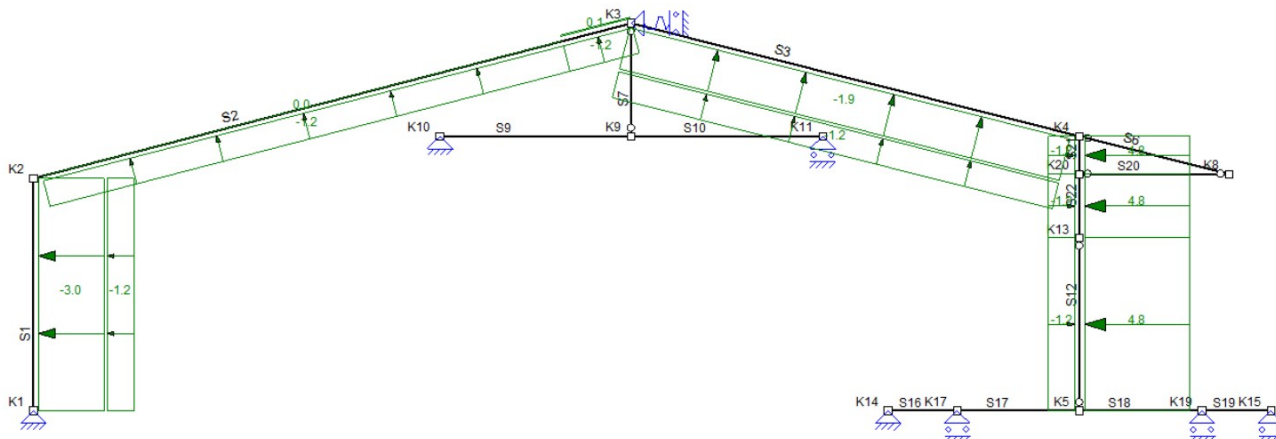


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q43) | 4.8 (q43) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -71.2 Z: -24.8 Yr: -1.6 | | | | | |

m

m

B.G.14: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



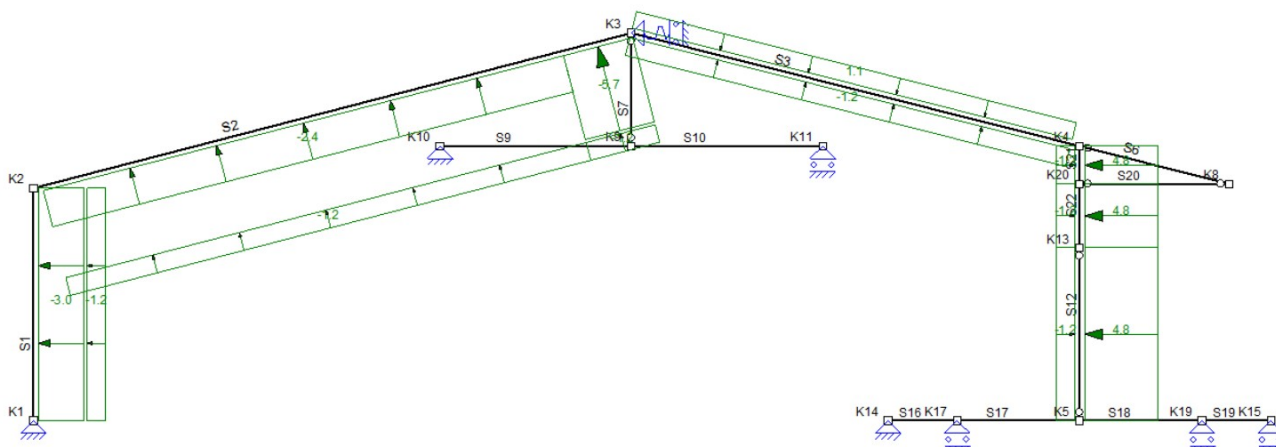
B.G.14: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -59.9 Z: -69.3 Yr: -1.6 | | | | | |

m

m

B.G.15: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.15: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |

m

m

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



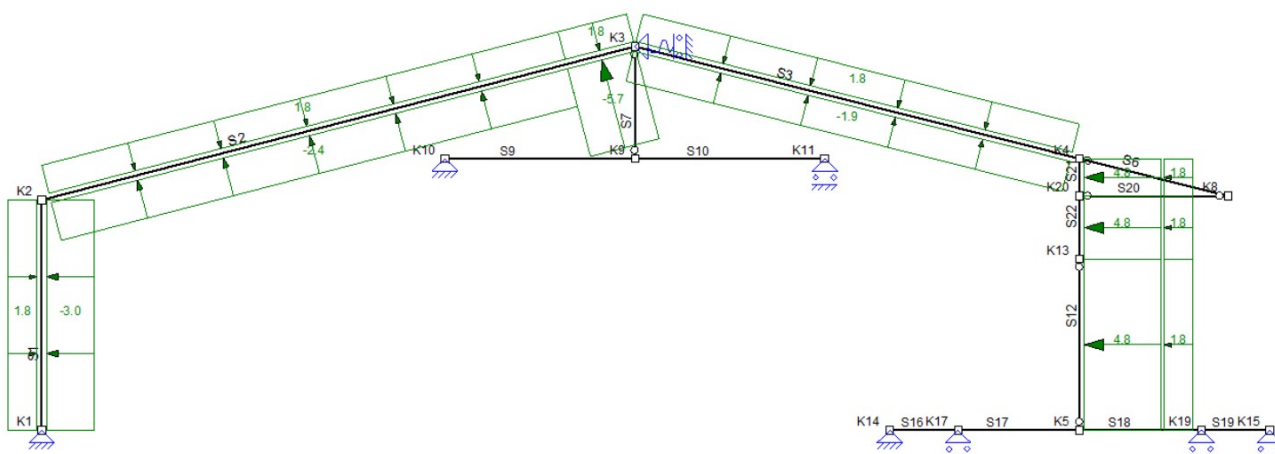
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -85.6 Z: -80.3 Yr: -5.5

m

m

B.G.16: Windbelasting van Rechts + Onderdruk



B.G.16: WINDBELASTING VAN RECHTS + ONDERDRUK

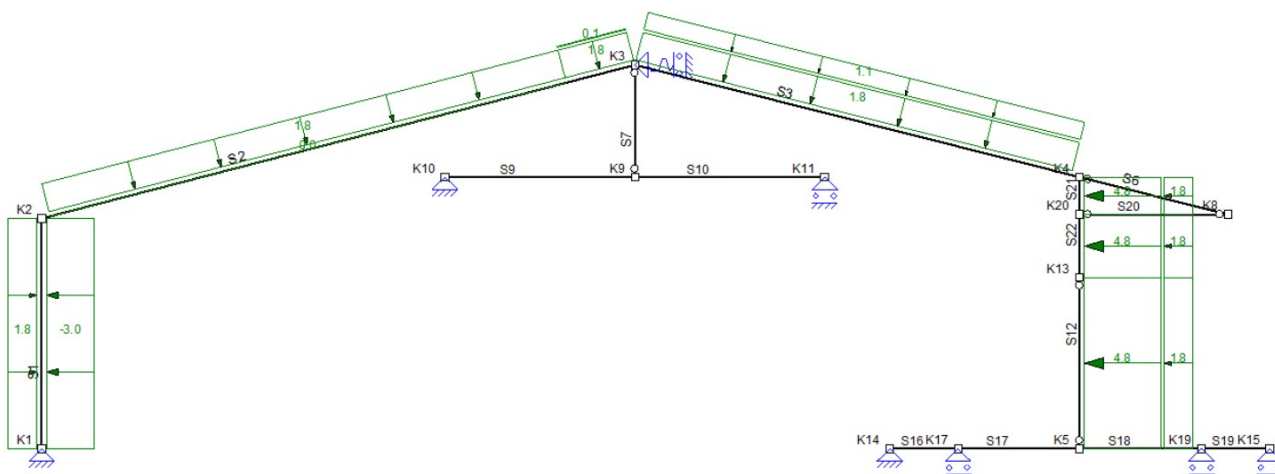
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -74.4 Z: -22.2 Yr: -6.9

m

m

B.G.17: Windbelasting van Rechts + Onderdruk (2e Cpe)



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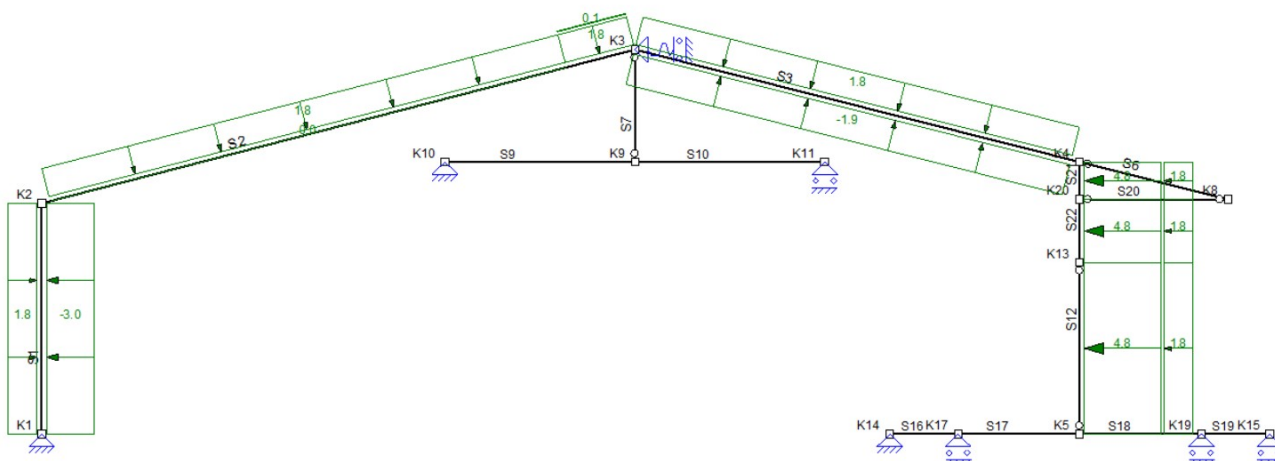
Eenheden: m, mm, kN, kNm

**B.G.17: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q50) | -3.0 (q50) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q55) | 4.8 (q55) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -71.2 Z: 77.9 Yr: -3.0 | | | | | |

m

m

B.G.18: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)**B.G.18: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S12,S21-S22 | |
| Som lasten | | X: -59.9 Z: 33.3 Yr: -3.0 | | | | | |

m

m

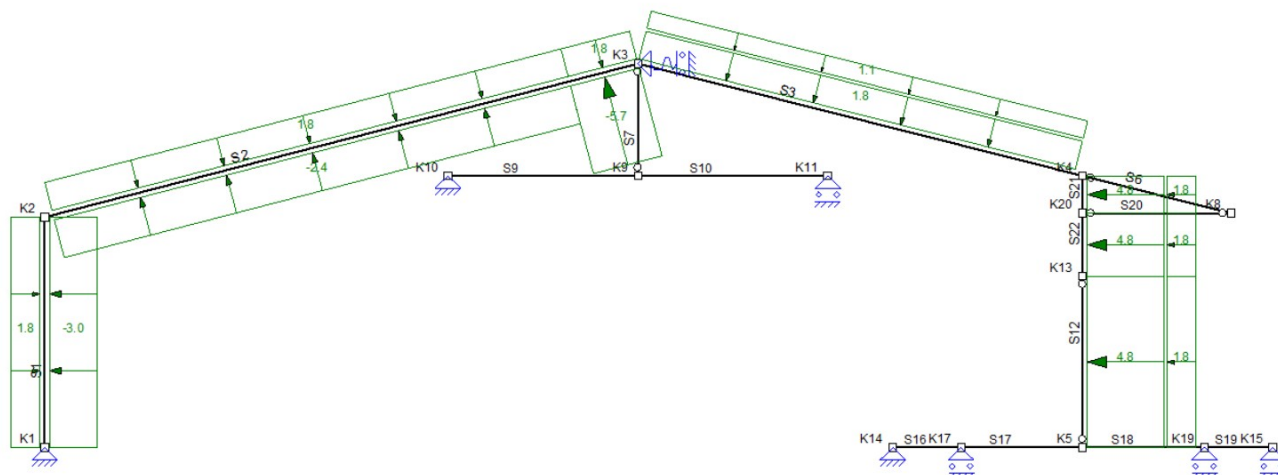
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



B.G.19: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.19: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

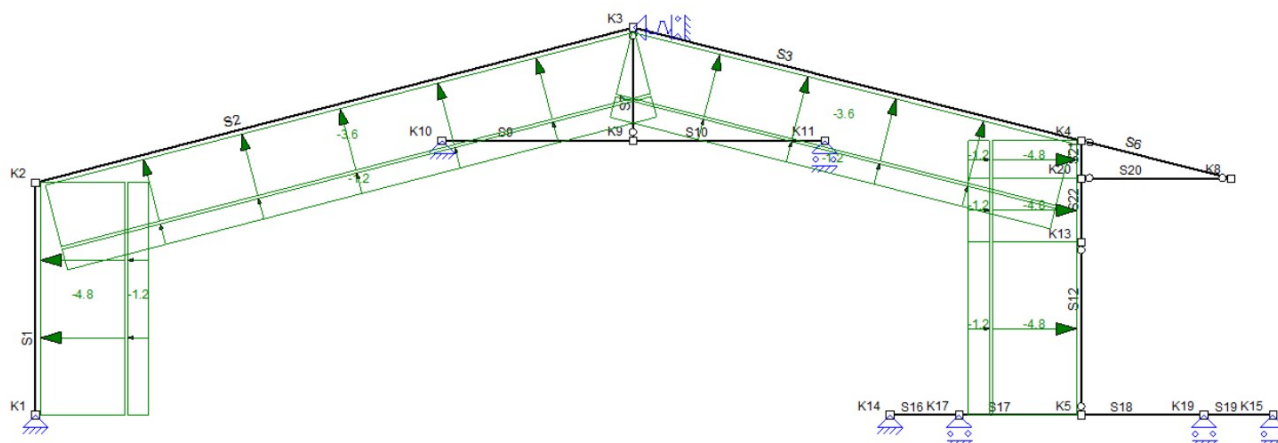
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S12,S21-S22 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S12,S21-S22 | |

Som lasten X: -85.6 Z: 22.3 Yr: -6.9

m

m

B.G.20: Windbelasting van Voren + Overdruk



B.G.20: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------|--------------|
| q | -4.8 (q56) | -4.8 (q56) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | -1.2 (-q57) | -1.2 (-q57) | 0.00 | L | Z' | S1-S3,S12,S21-S22 | |
| q | -3.6 (q58) | -3.6 (q58) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.6 (q59) | -3.6 (q59) | 0.00 | 15.47 (L) | Z' | S3 | |

Som lasten X: 1.7 Z: -165.4 Yr: 2.8

m

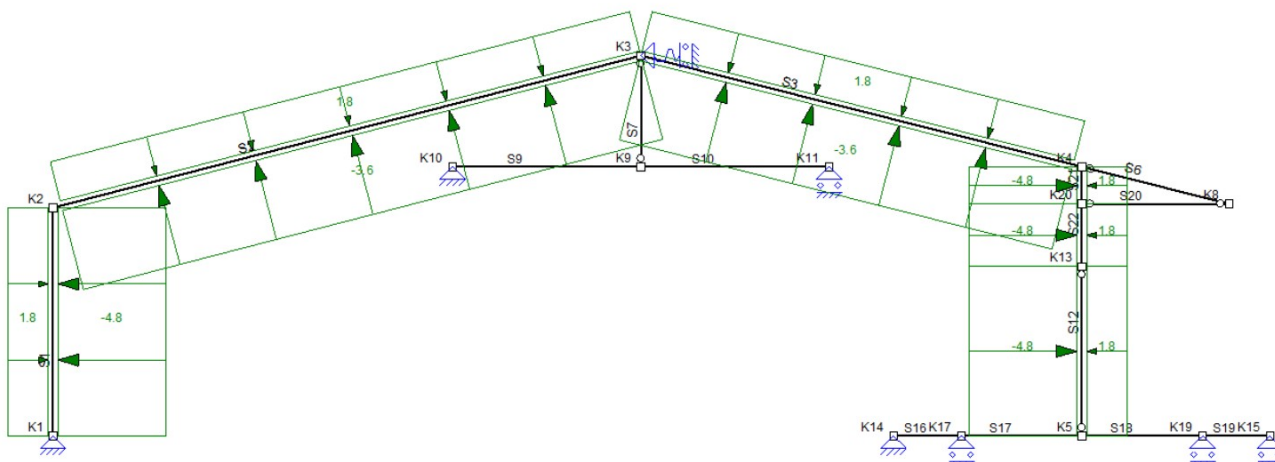
m

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Eenheden: m, mm, kN, kNm



B.G.21: Windbelasting van Voren + Onderdruk



B.G.21: WINDBELASTING VAN VOREN + ONDERDRUK

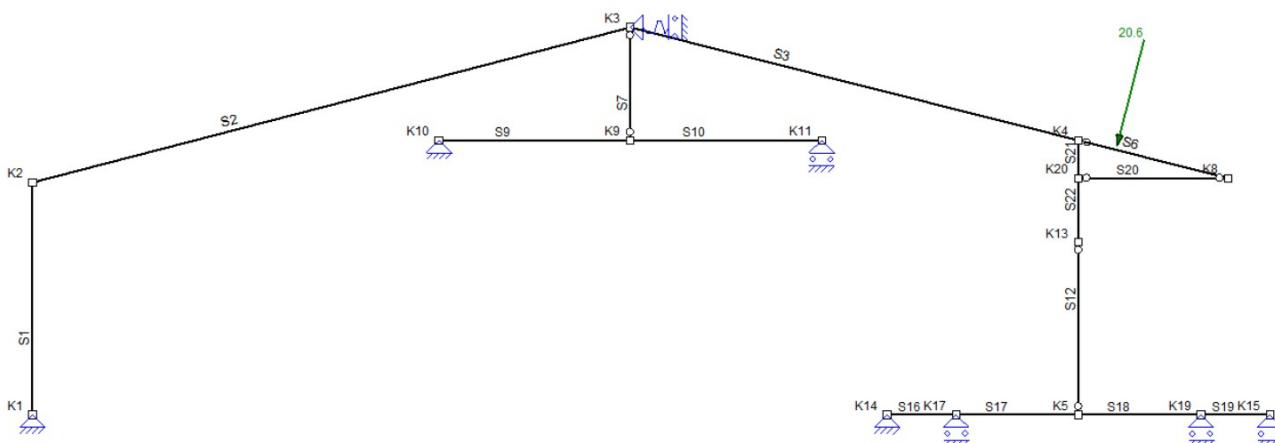
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------|--------------|
| q | -4.8 (q60) | -4.8 (q60) | 0.00 | L | Z' | S1,S12,S21-S22 | |
| q | 1.8 (-q61) | 1.8 (-q61) | 0.00 | L | Z' | S1-S3,S12,S21-S22 | |
| q | -3.6 (q62) | -3.6 (q62) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.6 (q63) | -3.6 (q63) | 0.00 | 15.47 (L) | Z' | S3 | |

Som lasten X: 1.7 Z: -62.8 Yr: 1.4

m

m

B.G.22: Windbelasting (enkele luifel) [1/4]



B.G.22: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 1.29 | | Z' | S6 | |

Som lasten X: -5.1 Z: 19.9

m

m

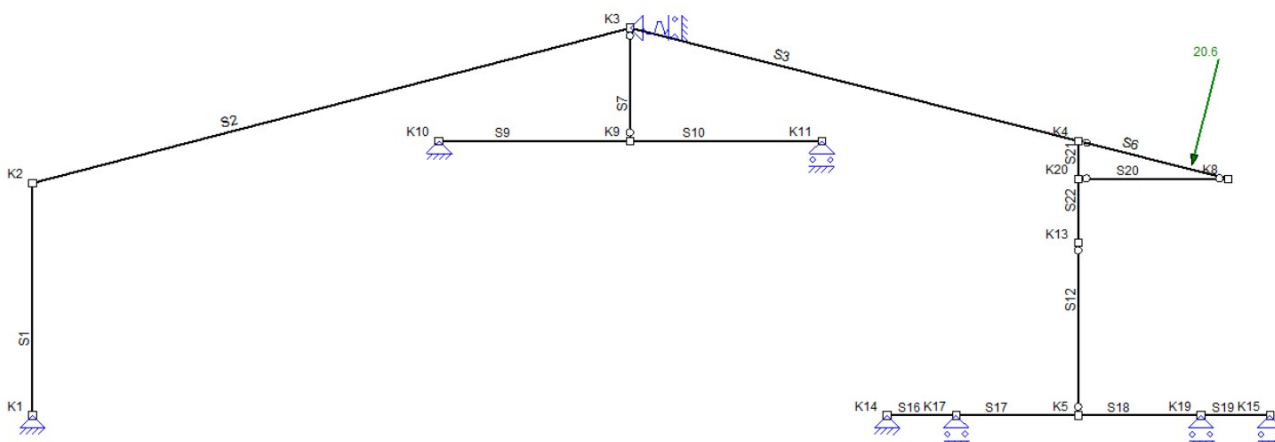
Projectnummer
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Eenheden: m, mm, kN, kNm



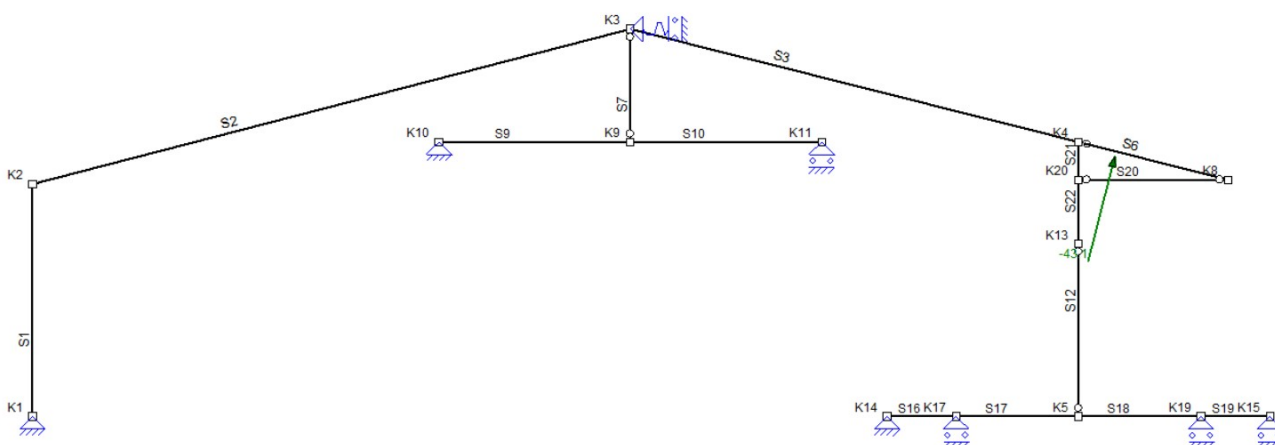
B.G.23: Windbelasting (enkele luifel) [2/4]



B.G.23: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: -5.1 Z: 19.9 | | | | | |
| | | | m | m | | | |

B.G.24: Windbelasting (enkele luifel) [3/4]



B.G.24: WINDBELASTING (ENKELE LUIFEL) [3/4]

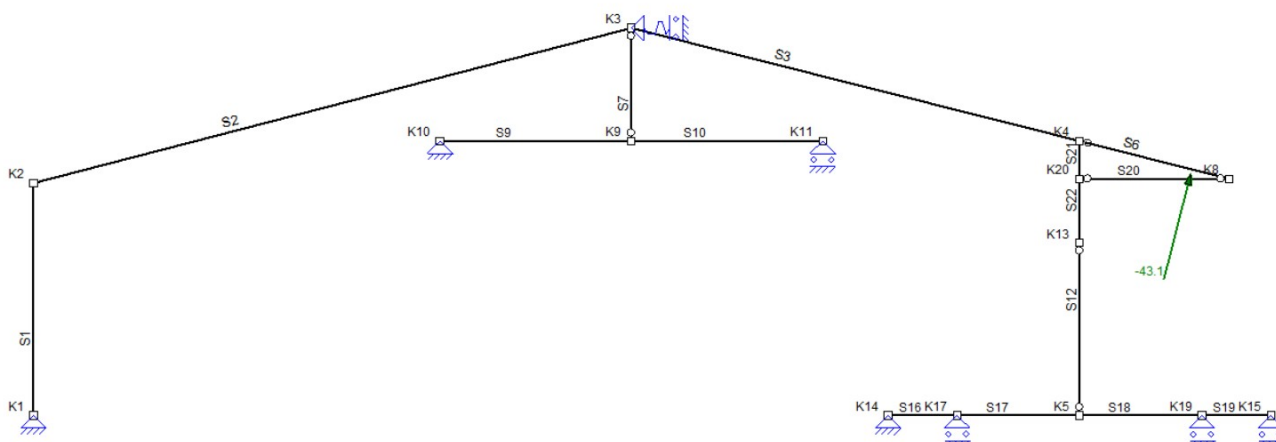
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 1.29 | | Z' | S6 | |
| Som lasten | | X: 10.6 Z: -41.8 | | | | | |
| | | | m | m | | | |

Projectnummer J
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 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



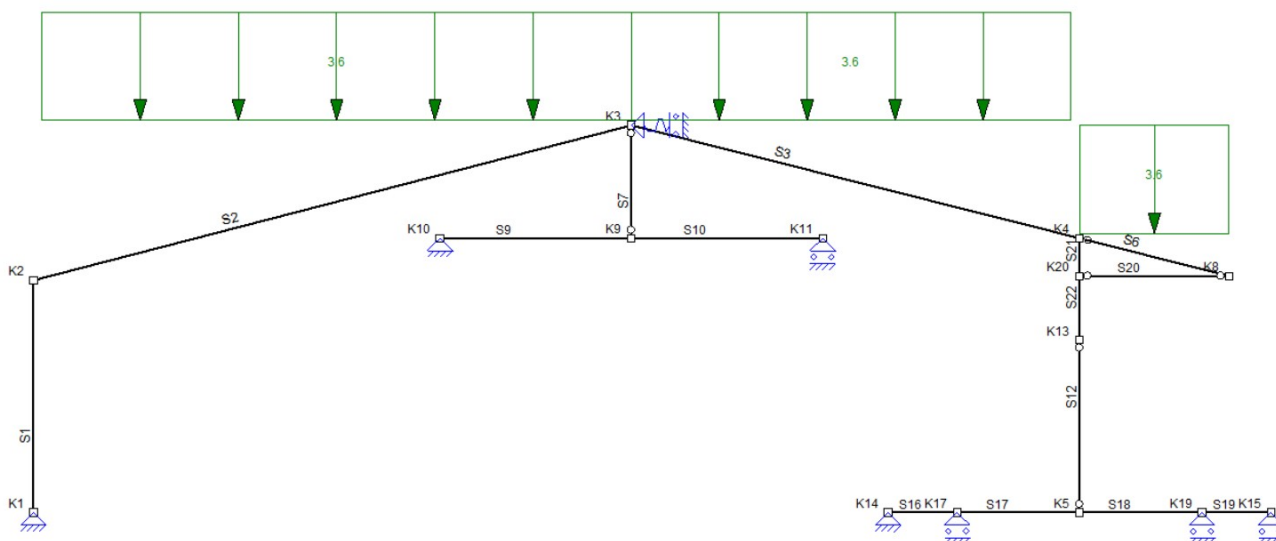
B.G.25: Windbelasting (enkele luifel) [4/4]



B.G.25: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: 10.6 Z: -41.8 | | | | | |
| | | | m | m | | | |

B.G.26: Sneeuwbelasting 1



B.G.26: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 141.3 Yr: 0.0 | | | | | |
| | | | m | m | | | |

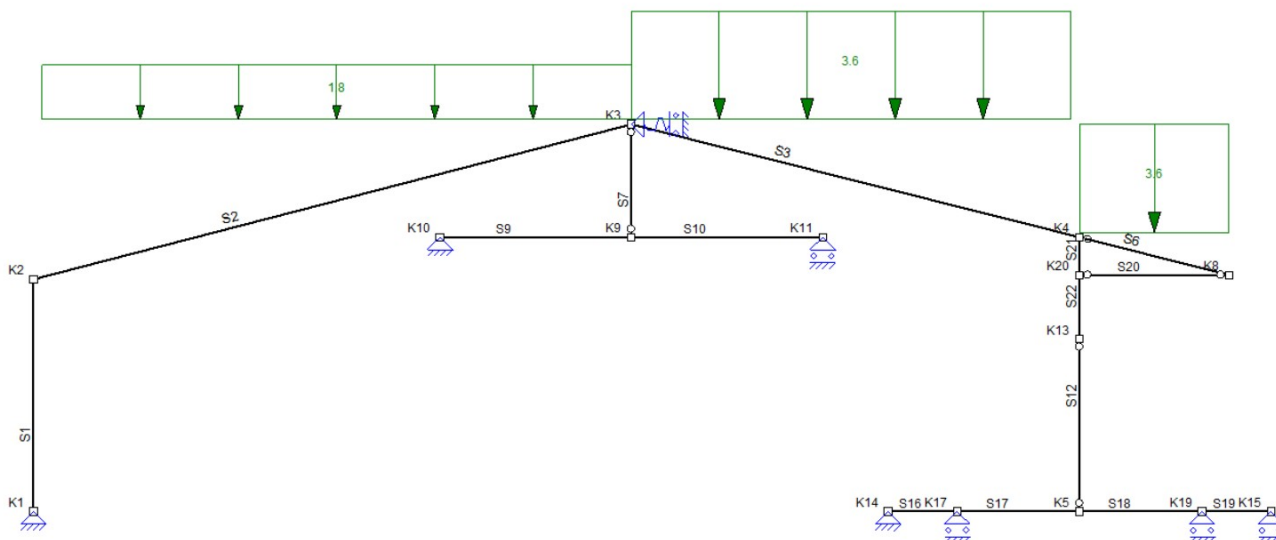
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



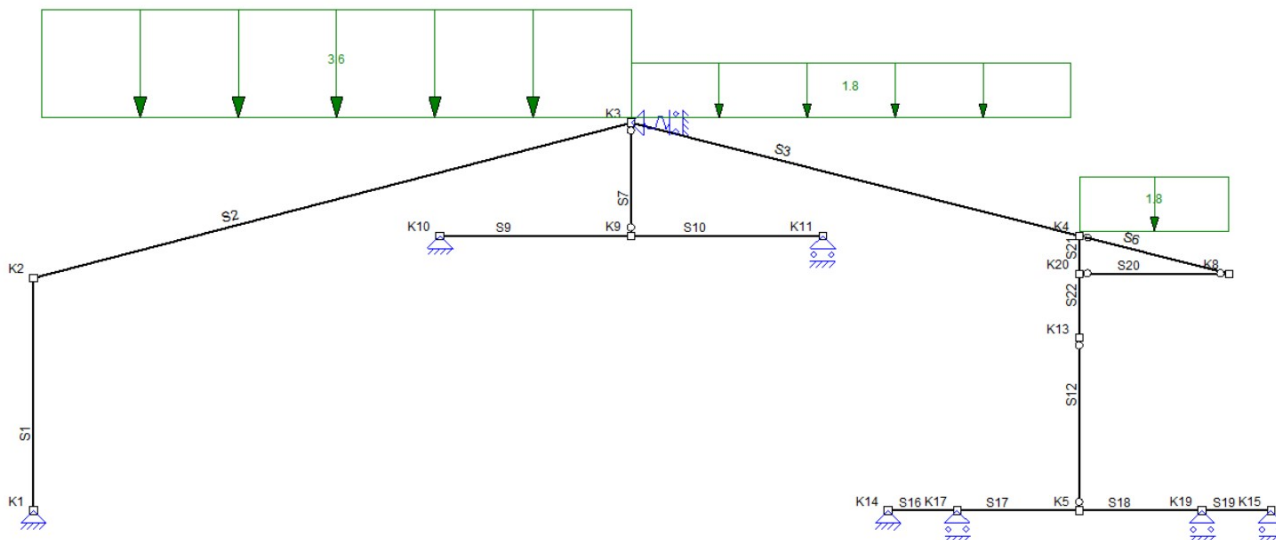
B.G.27: Sneeuwbelasting 2



B.G.27: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q65) | 1.8 (q65) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 106.0 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.28: Sneeuwbelasting 3



B.G.28: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 1.8 (q67) | 1.8 (q67) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 106.0 Yr: 0.0 | | | | | |
| | | | m | m | | | |

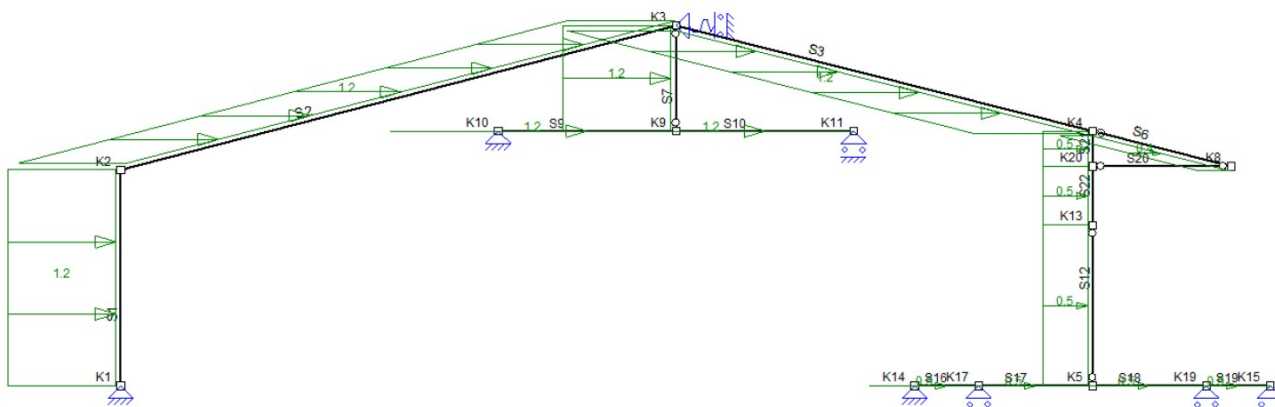
Projectnummer
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 Constructeur
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Eenheden: m, mm, kN, kNm



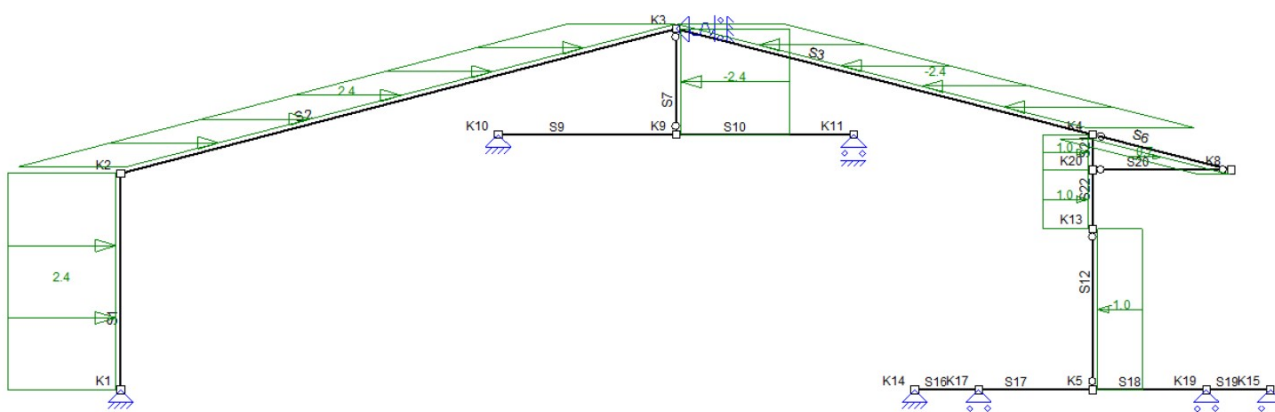
B.G.29: Kniklengte (Asymmetrisch)



B.G.29: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3,S6-S7,S9-S10,S12,S16-S19,S21-S22 | |
| Som lasten | | X: 86.3 Yr: -0.0 | | | | | |
| | | | m | m | | | |

B.G.30: Kniklengte (Symmetrisch)



B.G.30: KNIKLENGTE (SYMMETRISCH)

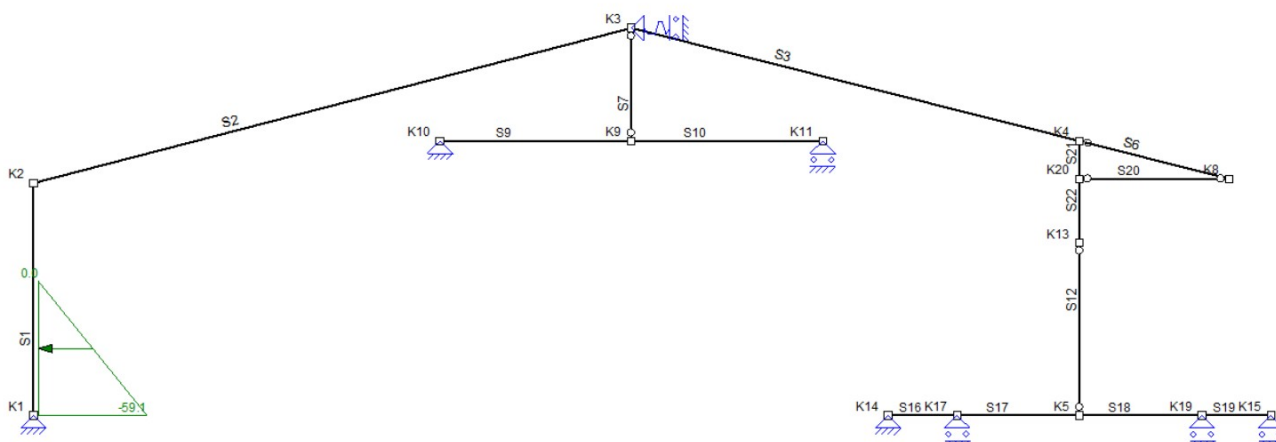
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|------------------|--------------|
| qG | 2.0 | 2.0 | 0.00 | L | X" | S1-S2,S6,S21-S22 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S3,S7,S12 | |
| Som lasten | | X: 23.7 Yr: 0.0 | | | | | |
| | | | m | m | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



B.G.31: Verdeelde veranderlijke belasting



B.G.31: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staa of knoop | Omschrijving |
|-------------------|--------------|--------------------------|--------------|-------------|----------|---------------|--------------|
| q | -59.1 (-q68) | 0.0 | 0.00 | 4.50 | Z' | S1 | |
| Som lasten | | X: -133.0 Yr: 7.2 | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | 1.15 | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | 1.15 | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | 1.15 | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | 1.15 | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | 1.15 | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | 1.15 | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | 1.15 | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | 1.15 | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | 1.15 | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | 1.15 | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.21 | Fu.C.22 | Fu.C.23 | Fu.C.24 | Fu.C.25 | Fu.C.26 | Fu.C.27 | Fu.C.28 | Fu.C.29 | Fu.C.30 | |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | 1.17 | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | 1.17 | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | 1.15 | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | 1.15 | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | 1.15 | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | 1.01 | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | 1.01 | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | 1.01 | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.31 | Fu.C.32 | Fu.C.33 | Fu.C.34 | Fu.C.35 | Fu.C.36 | Fu.C.37 | Fu.C.38 | Fu.C.39 | Fu.C.40 | |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

[illegible]

Projectnummer [REDACTED] J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED] J

Eenheden: m, mm, kN, kNm

[illegible]

Karakteristiek

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.30 | Kniklengte (Symmetrisch) | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 | Ka.C.13 | Ka.C.14 | Ka.C.15 | Ka.C.16 | Ka.C.17 | Ka.C.18 | Ka.C.19 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastingen | | | | | | | | | | |
| B.G.3 | Opgelegde belastingen | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | 0.85 | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | 0.85 | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | 0.85 | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | 0.85 | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | 0.85 | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | 0.85 | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | 0.85 | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | 0.85 | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | 0.85 |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetrisch) | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetrisch) | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.20 | Ka.C.21 | Ka.C.22 | Ka.C.23 | Ka.C.24 | Ka.C.25 | Ka.C.26 | Ka.C.27 | Ka.C.28 | Ka.C.29 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastingen | | | | | | | | | | |
| B.G.3 | Opgelegde belastingen | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | 0.85 | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | 0.85 | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | 0.85 | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | 0.85 | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | 0.85 | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | 0.85 | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | 0.75 | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | 0.75 | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | 0.75 | |

Projectnummer 
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever 
 Constructeur 
 Omschrijving 

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|-------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | 1.00 |
| B.G. | Omschrijving | Ka.C.30 | Ka.C.31 | Ka.C.32 | Ka.C.33 | Ka.C.34 | Ka.C.35 | Ka.C.36 | Ka.C.37 | Ka.C.38 | Ka.C.39 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | 0.87 | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | 0.87 | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | 0.85 | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | 0.85 | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | 0.85 | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | 0.85 | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | 0.85 | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | 0.85 | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | 0.85 | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | 0.85 |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.40 | Ka.C.41 | Ka.C.42 | Ka.C.43 | Ka.C.44 | Ka.C.45 | Ka.C.46 | Ka.C.47 | Ka.C.48 | Ka.C.49 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | 0.85 | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | 0.85 | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | 0.85 | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | 0.85 | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | 0.85 | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | 0.85 | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | 0.85 | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | 0.85 | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | 0.85 |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

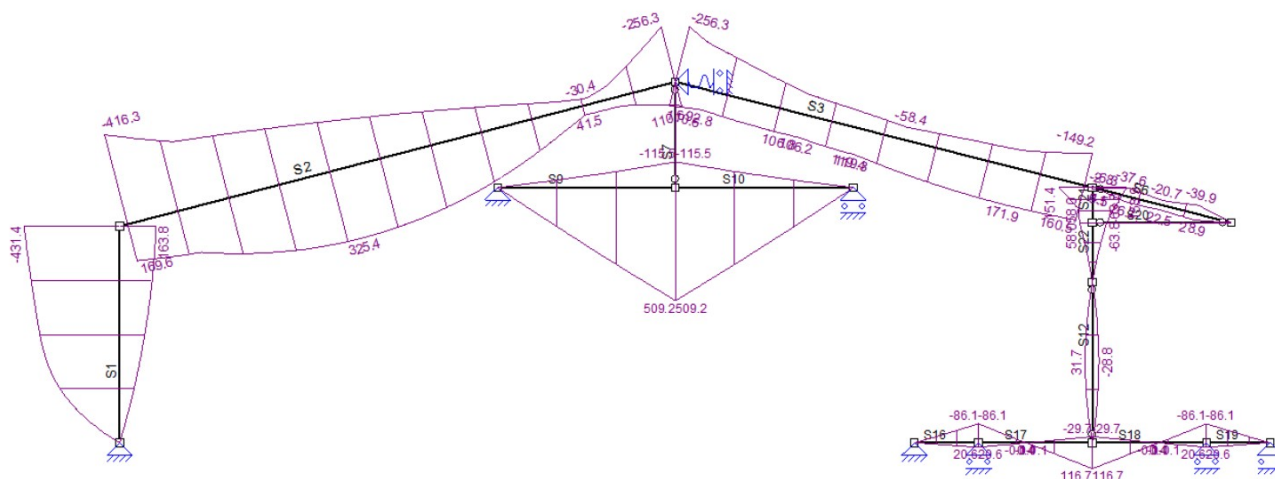
Eenheden: m, mm, kN, kNm

[illegible]

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My)



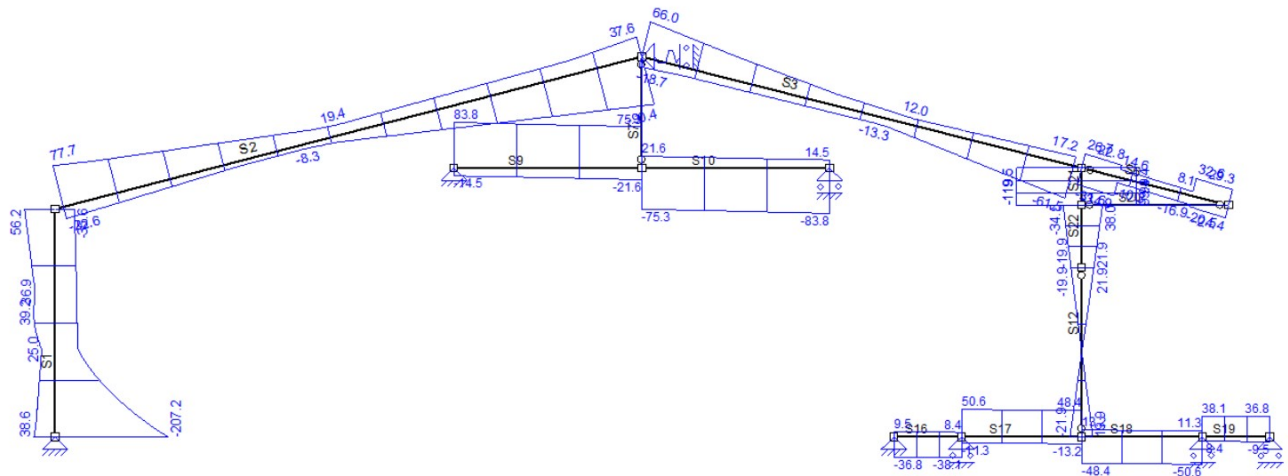
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

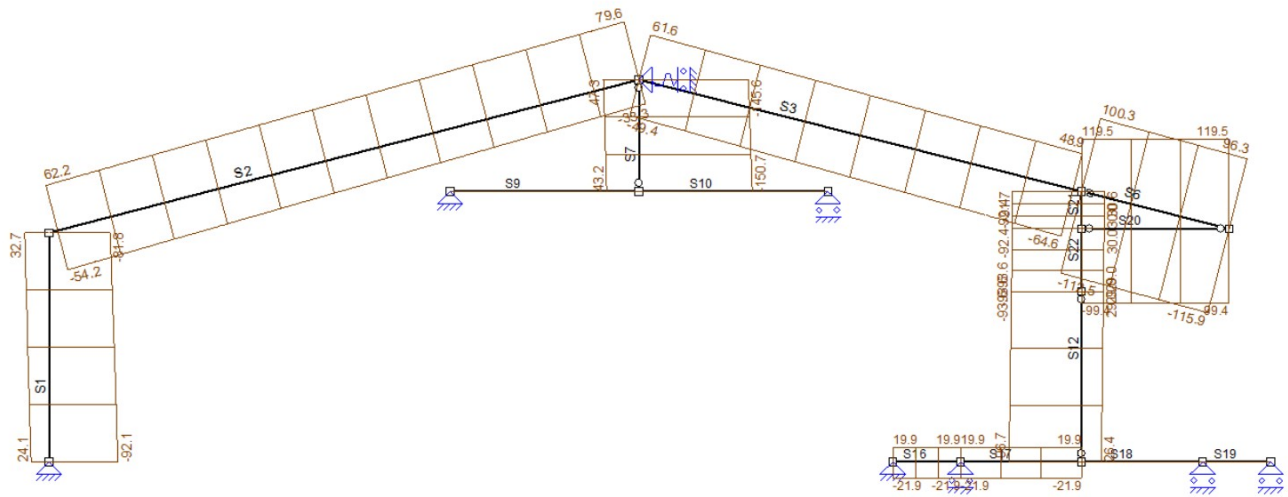
Eenheden: m, mm, kN, kNm



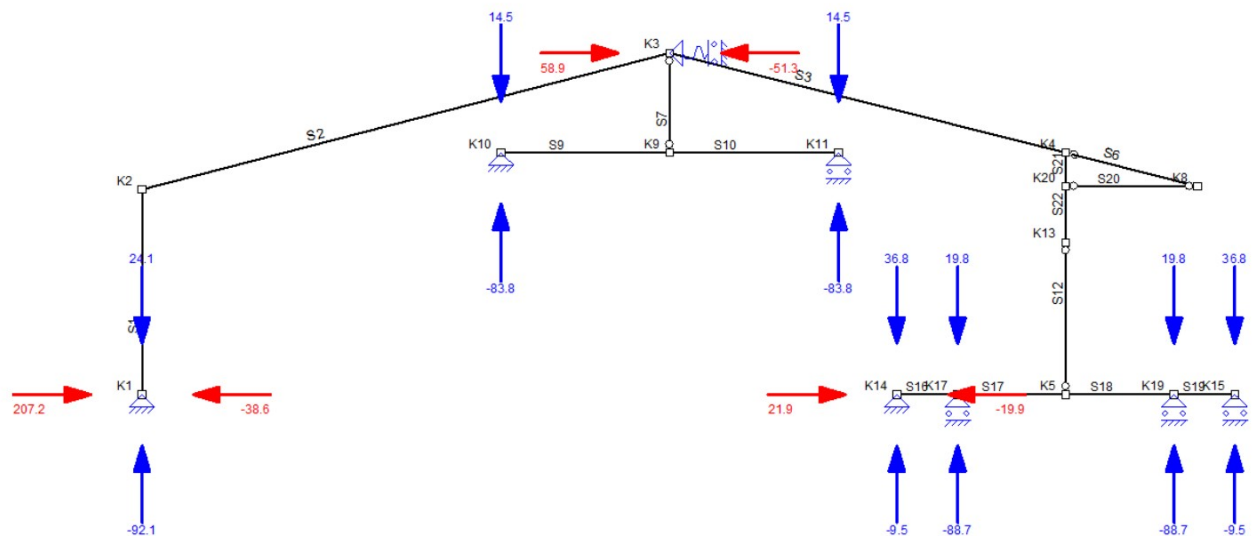
Fu.C. Omhullende Dwarskracht (Vz)



Fu.C. Omhullende Normaalkracht (Nx)



Fu.C. Omhullende Oplegreacties



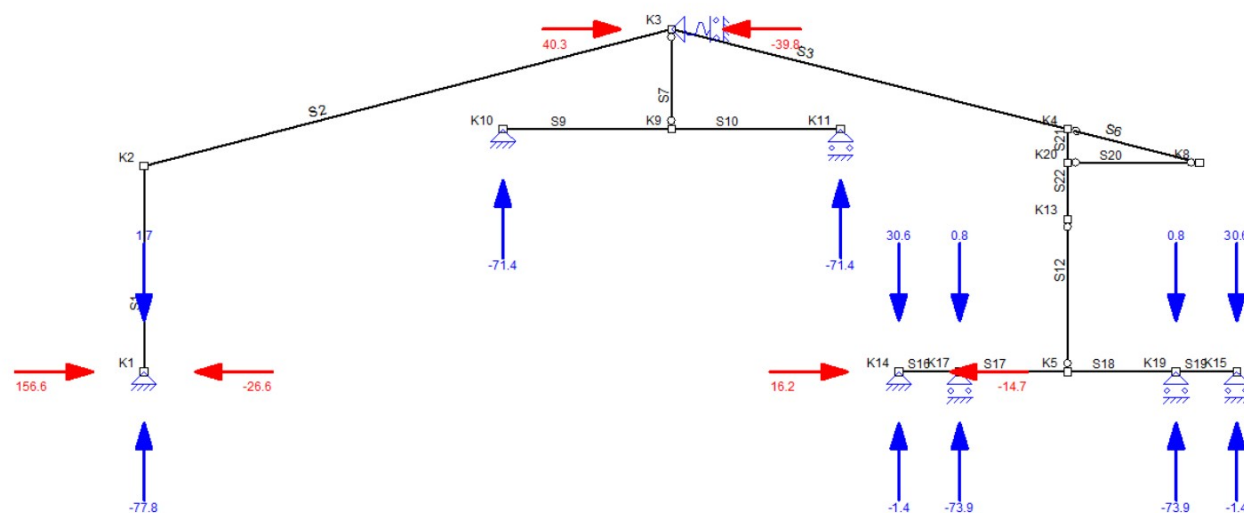
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

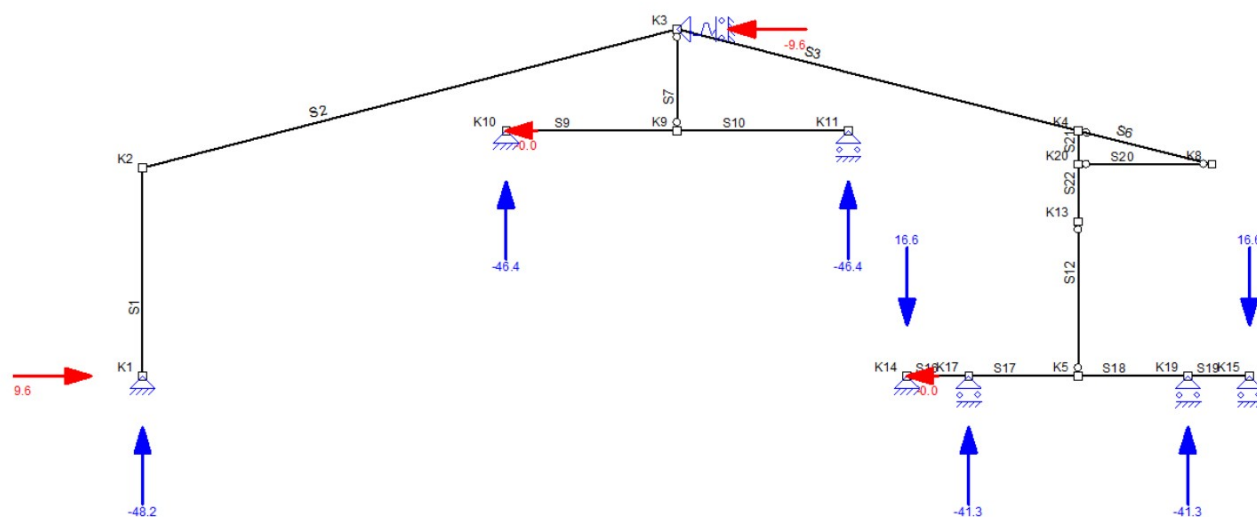
Eenheden: m, mm, kN, kNm



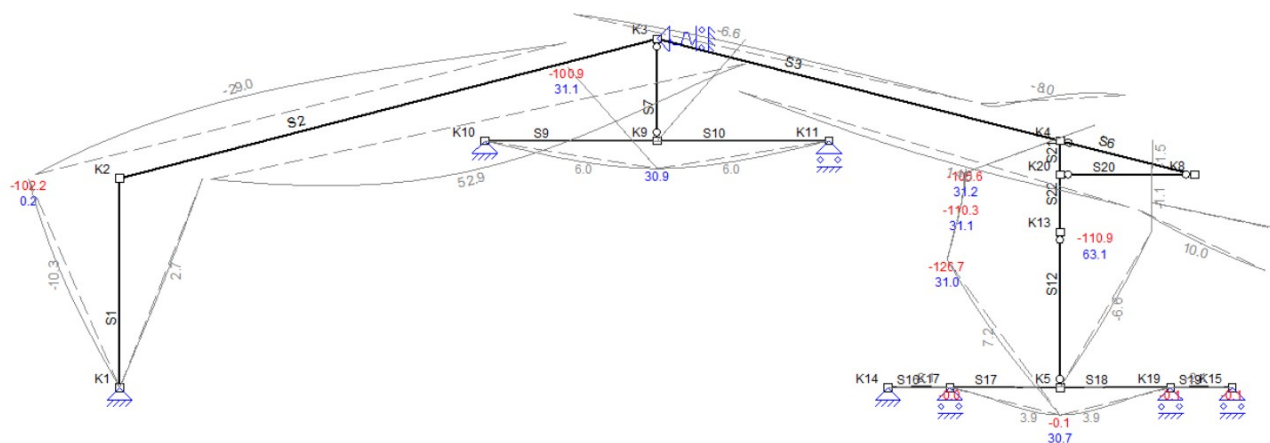
Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



Ka.C. Omhullende Doorbuigingen

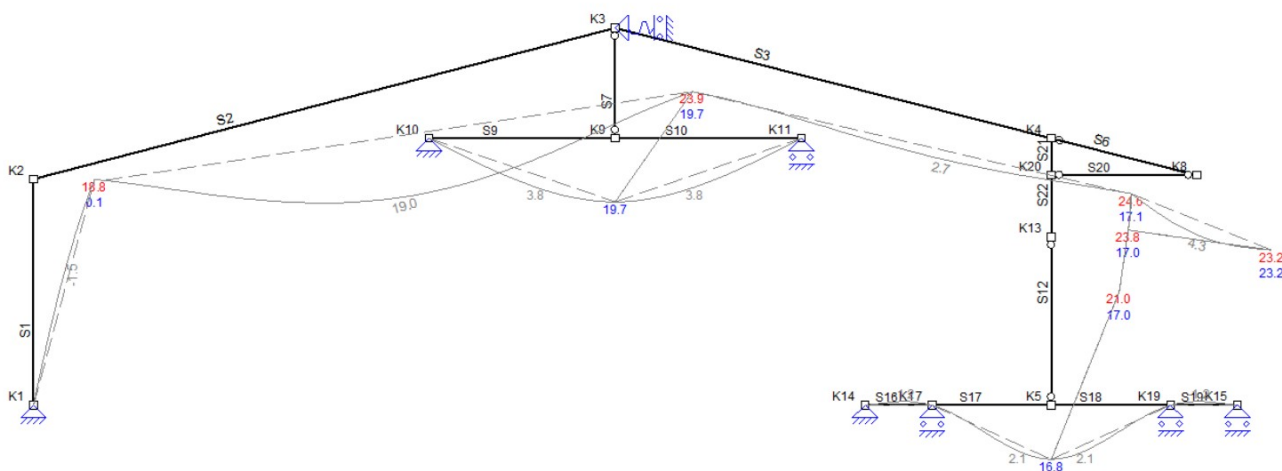


Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

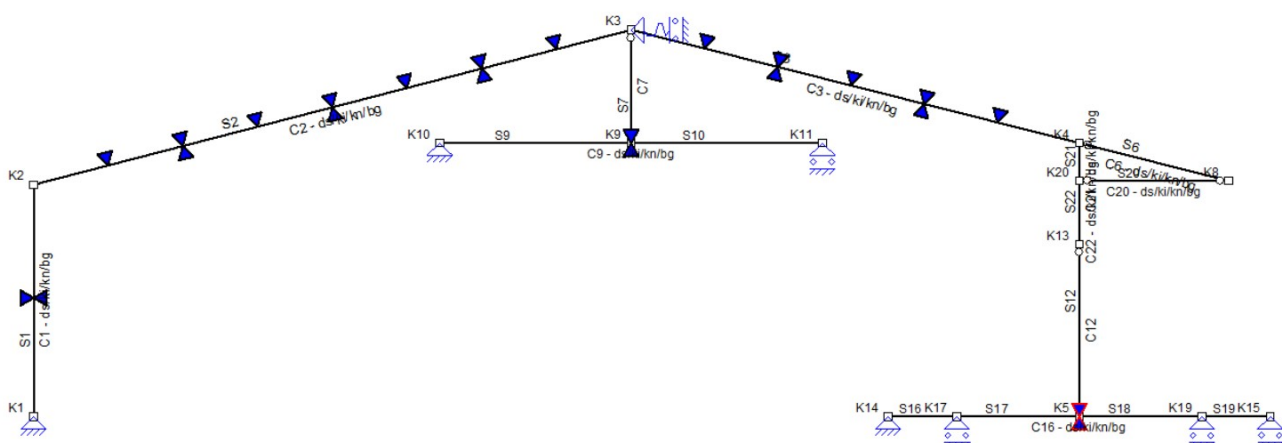
Eenheden: m, mm, kN, kNm



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staal/staven |
|-----------------|--------------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |
| C6 | S6 |
| C7 | S7 |
| C9 | S9; S10 |
| C12 | S12 |
| C16 | S16; S17; S18; S19 |
| C20 | S20 |
| C21 | S21 |
| C22 | S22 |

INVOER GEGEVENS

KNIKLENGTEGEGEVENS

| Staal | Profiel | Lsys | Lokale Y-as Methode | Lokale Z-as | | | |
|----------------------|---------|-------|------------------------|-------------|-----------|-----------------------|------|
| | | | | Lbuc | Lbuc/Lsys | Methode | Lbuc |
| C1-V1 (0.000-7.800) | P1 | 7.80 | Ongeschoord | 24.39 | 3.1 | handmatig ongeschoord | 4.00 |
| C2-V1 (0.000-20.365) | P1 | 20.36 | Cons. gesch. | 20.36 | 1.0 | handmatig ongeschoord | 5.20 |

m

m

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staaf | Profiel | Lsys | Lokale Y-as | | Lokale Z-as | | Lbuc | Lbuc/Lsys |
|-----------------------|---------|-------|--------------|-------|---------------------------|------|------|-----------|
| | | | Methode | Lbuc | Methode | Lbuc | | |
| C3-V1 (0.000-15.174) | P1 | 15.17 | Cons. gesch. | 15.17 | 1.0 handmatig ongeschoord | 5.20 | | 0.3 |
| C6-V1 (0.000-5.158) | P5 | 5.16 | Cons. gesch. | 5.16 | 1.0 Cons. gesch. | 5.16 | | 1.0 |
| C9-V1 (0.000-12.800) | P1 | 12.80 | Cons. gesch. | 12.80 | 1.0 handmatig geschoord | 6.40 | | 0.5 |
| C16-V1 (0.000-12.800) | P4 | 12.80 | Cons. gesch. | 12.80 | 1.0 handmatig geschoord | 6.40 | | 0.5 |
| C20-V1 (0.000-5.000) | P6 | 5.00 | Cons. gesch. | 5.00 | 1.0 Cons. gesch. | 5.00 | | 1.0 |
| C21-V1 (0.000-1.267) | P4 | 1.27 | Cons. gesch. | 1.27 | 1.0 Cons. gesch. | 1.27 | | 1.0 |
| C22-V1 (0.000-2.133) | P4 | 2.13 | Cons. gesch. | 2.13 | 1.0 Cons. gesch. | 2.13 | | 1.0 |
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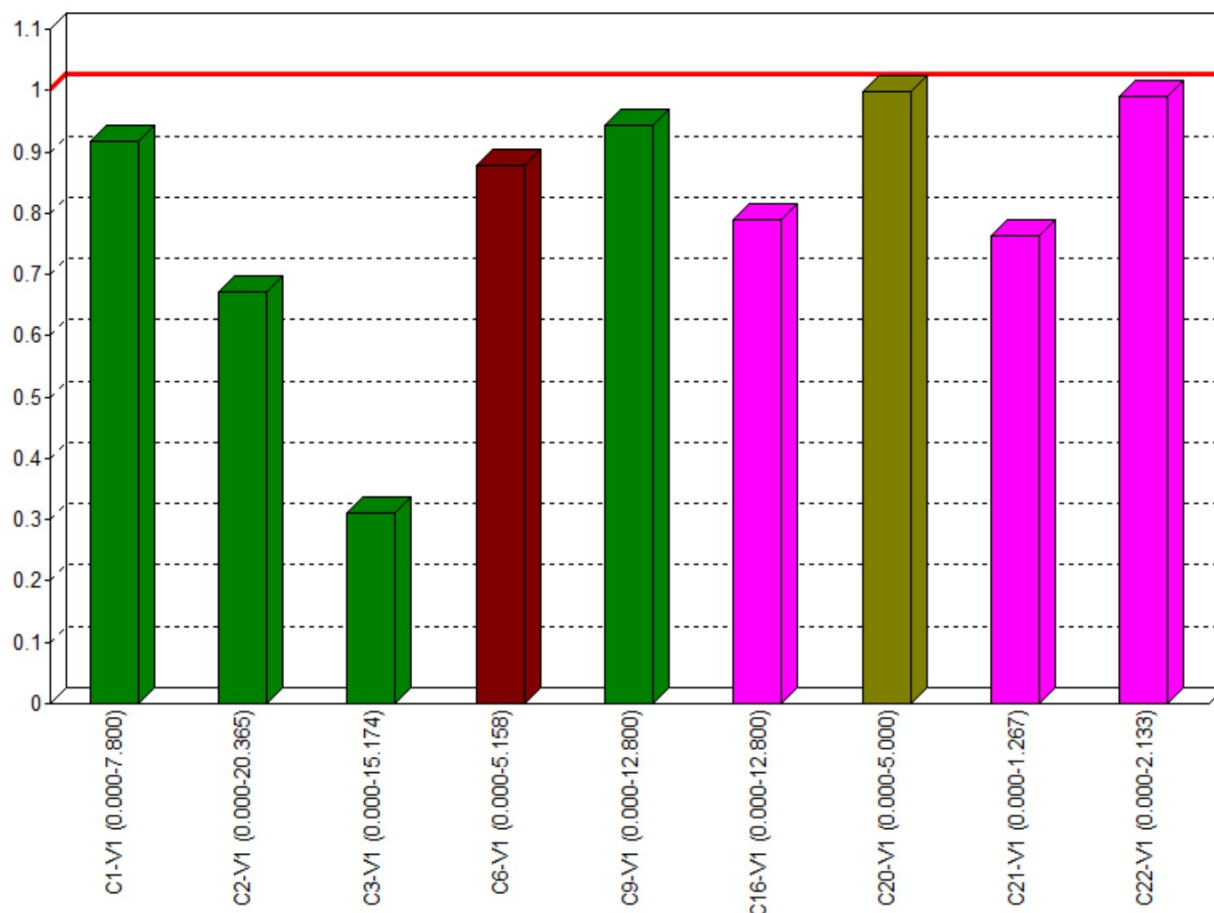
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



Afb. Staal UC Diagram



EXTREME UNITY CHECK

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|-----------------------|----------------------|------------|-----------------------------|-------------|
| C1-V1 (0.000-7.800) | Doorbuigingstoetsing | Ka.C.43 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.92 |
| C16-V1 (0.000-12.800) | Buiging & Druk | Fu.C.47 | NEN-EN1993-1-1(6.61&6.62) | 0.79 |
| C2-V1 (0.000-20.365) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.67 |
| C20-V1 (0.000-5.000) | Stabiliteit | Fu.C.21 | NEN-EN1993-1-1(6.46) | 1.00 |
| C21-V1 (0.000-1.267) | Doorsnede | Fu.C.44 | NEN-EN1993-1-1(6.12) | 0.76 |
| C22-V1 (0.000-2.133) | Doorbuigingstoetsing | Ka.C.18 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.99 |
| C3-V1 (0.000-15.174) | Kiptoetsing | Fu.C.9 | NEN-EN1993-1-1(6.54) | 0.31 |
| C6-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.88 |
| C9-V1 (0.000-12.800) | Kiptoetsing | Fu.C.24 | NEN-EN1993-1-1(6.54) | 0.94 |

EXTREME UC'S PER CONSTRUCTIEDEEL

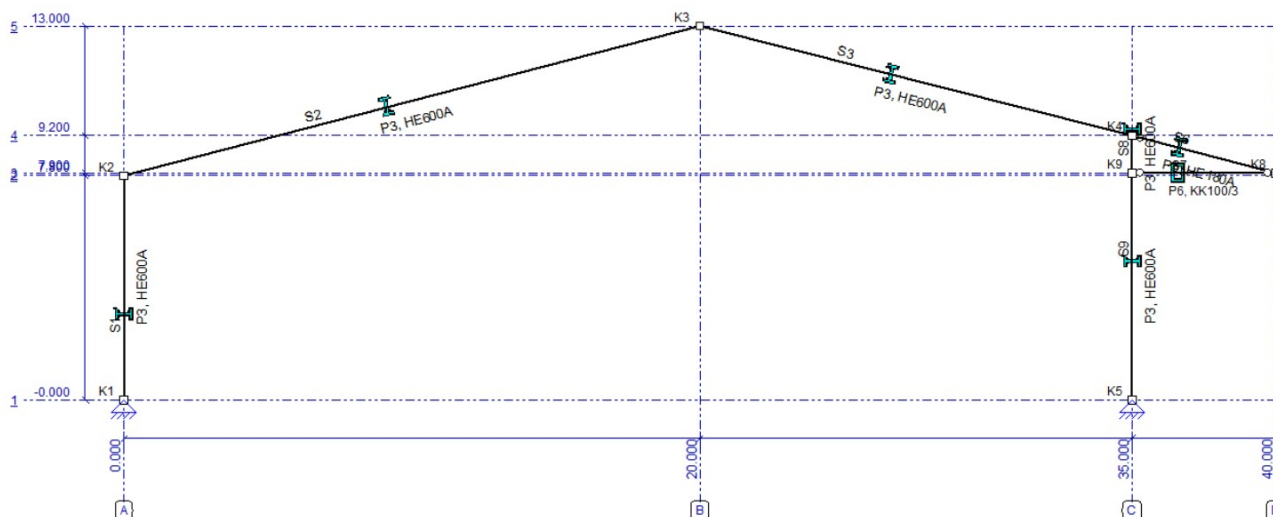
| Label | Toetsing | Combinatie | Artikel | Unity Check |
|-------|----------------------|------------|-----------------------------|-------------|
| C1 | Doorbuigingstoetsing | Ka.C.43 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.92 |
| C16 | Buiging & Druk | Fu.C.47 | NEN-EN1993-1-1(6.61&6.62) | 0.79 |
| C2 | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.67 |
| C20 | Stabiliteit | Fu.C.21 | NEN-EN1993-1-1(6.46) | 1.00 |
| C21 | Doorsnede | Fu.C.44 | NEN-EN1993-1-1(6.12) | 0.76 |
| C22 | Doorbuigingstoetsing | Ka.C.18 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.99 |
| C3 | Kiptoetsing | Fu.C.9 | NEN-EN1993-1-1(6.54) | 0.31 |
| C6 | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.88 |
| C9 | Kiptoetsing | Fu.C.24 | NEN-EN1993-1-1(6.54) | 0.94 |

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 Constructeur
 Omschrijving
 Bestand P:\Projecten van 18800-141798\berek\41798-1 Staal as 6, 8 en 9.mxf

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 7 | 7 | 2 | 6 | 31 | 148 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -7.80 | 7.80 | P3 | 0.00 - 7.80 (L) |
| S2 | K2 | K3 | 0.00 | 20.00 | -7.80 | -13.00 | 20.66 | P3 | 0.00 - 20.66 (L) |
| S3 | K3 | K4 | 20.00 | 35.00 | -13.00 | -9.20 | 15.47 | P3 | 0.00 - 15.47 (L) |
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.90 | 5.17 | P5 | 0.00 - 5.17 (L) |
| S7 | K9 | K8 | 35.00 | 40.00 | -7.90 | -7.90 | 5.00 | P6 | 0.00 - 5.00 (L) |
| S8 | K4 | K9 | 35.00 | 35.00 | -9.20 | -7.90 | 1.30 | P3 | 0.00 - 1.30 (L) |
| S9 | K9 | K5 | 35.00 | 35.00 | -7.90 | 0.00 | 7.90 | P3 | 0.00 - 7.90 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P3 | HE600A | 22646 | 1.4121e+09 | S355 | 0 |
| P5 | HE180A | 4525 | 2.5103e+07 | S355 | 0 |
| P6 | KK100/3 | 1149 | 1.7896e+06 | S235H(EN10219-1) | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoeff |
|------------------|--------|-------------------|-------------------|-----------------|
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | C°m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S6 | 0.00 | A3 | Vast | Vast | 500.0 |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S8 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.30 (L) | A1 | Vast | Vast | Vast |
| | m | | kN/m | kN/m | kNm/rad |

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 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 7.90 (L) | A1 | Vast | Vast | Vast |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | | 0 |
| O2 | K5 | K5 | Vast | Vast | Vrij | | 0 |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|--|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 6.40 | 6.40 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 40.00 | 40.00 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S2,S3,S6) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.40 | 0.40 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 2.56 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=6.40)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S2 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m²] |
| q2 | Opgelegde belastingen (q) (Lsys=6.40) | qk1 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| | S3,S6 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m²] |
| q3 | Opgelegde belastingen (q) (Lsys=6.40) | qk2 * Min(5.0, Lsys1) | 5.00 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S4) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A1 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |

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|-------|--|--|--------|----------------------|
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q4 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 1.19 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -4.87 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.87 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.48 | [kN/m] |
| Cpe6 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q9 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -5.40 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp1*Cpe7*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|--|--|-------|----------------------|
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A2 | Belast oppervlak (A) | 83.20 | 83.20 | [m ²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe9 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q11 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe9*CsCd1) * Lsys1 | 4.77 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 1.19 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | 1.14 | [kN/m] |
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe13 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q16 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp2*Cpe13*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |

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|-------|---|---------------------------------|--------|----------|
| q17 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp2 * Cpe14 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR6 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A3 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe16 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q18 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp3 * Cpe16 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | $(Cpi3 * Qp3) * Lsys1$ | -1.79 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57) | -0.82 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp3 * Cpe17 * CsCd1) * Lsys1$ | -4.87 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp3 * Cpe18 * CsCd1) * Lsys1$ | -1.87 | [kN/m] |
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp3 * Cpe19 * CsCd1) * Lsys1$ | -2.48 | [kN/m] |
| Cpe20 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q23 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp3 * Cpe20 * CsCd1) * Lsys1$ | -5.40 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp3 * Cpe21 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A4 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe23 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q25 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp4 * Cpe23 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | $(Cpi4 * Qp4) * Lsys1$ | -1.79 | [kN/m] |
| Cpe24 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe24 * CsCd1) * Lsys1$ | 1.14 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q28 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe25 * CsCd1) * Lsys1$ | 1.14 | [kN/m] |

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|-------|---|--|--------|----------|
| Cpe26 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe26*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe27 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22,Eerst=False) | 0.02 | |
| q30 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp4*Cpe27*CsCd1) * Lsys1 | 0.09 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp4*Cpe28*CsCd1) * Lsys1 | -2.98 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A5 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q32 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp5*Cpe30*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 1.19 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp5*Cpe31*CsCd1) * Lsys1 | -2.44 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S2 | (Qp5*Cpe32*CsCd1) * Lsys1 | -5.65 | [kN/m] |
| Cpe33 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q36 | Zadeldak; Verdeelde element belasting (q): S3 | (Qp5*Cpe33*CsCd1) * Lsys1 | -1.93 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S4 | (Qp5*Cpe34*CsCd1) * Lsys1 | 4.77 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A6 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q38 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp6*Cpe36*CsCd1) * Lsys1 | -2.98 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 1.19 | [kN/m] |
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |

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| q40 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe37 * CsCd1) * Lsys1$ | 0.00 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe38 * CsCd1) * Lsys1$ | 0.05 | [kN/m] |
| Cpe39 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q42 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp6 * Cpe39 * CsCd1) * Lsys1$ | 1.10 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp6 * Cpe40 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A7 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q44 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp7 * Cpe42 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | $(Cpi7 * Qp7) * Lsys1$ | -1.79 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe43 * CsCd1) * Lsys1$ | -2.44 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe44 * CsCd1) * Lsys1$ | -5.65 | [kN/m] |
| Cpe45 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q48 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp7 * Cpe45 * CsCd1) * Lsys1$ | -1.93 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Qp7 * Cpe46 * CsCd1) * Lsys1$ | 4.77 | [kN/m] |

LR11 (Vertikale wand; Verdeelde element belasting (q): S4)

| | | | | |
|---------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 6.40 | 6.40 | [m] |
| A8 | Belast oppervlak (A) | 83.20 | 83.20 | [m²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe48 * CsCd1) * Lsys1$ | -2.98 | [kN/m] |

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| q51 | Interne druk; Verdeelde element belasting (q) | $(C_{pi}8 * Q_{p8}) * L_{sys1}$ | -1.79 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe49} * C_{sCd1}) * L_{sys1}$ | 0.00 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe50} * C_{sCd1}) * L_{sys1}$ | 0.05 | [kN/m] |
| Cpe51 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q54 | Zadeldak; Verdeelde element belasting (q): S3 | $(Q_{p8} * C_{pe51} * C_{sCd1}) * L_{sys1}$ | 1.10 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S4 | $(Q_{p8} * C_{pe52} * C_{sCd1}) * L_{sys1}$ | 4.77 | [kN/m] |

LR12 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|---------|--|--|--------|---------|
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Vertikale wand; Druk coefficient (Cpe): S1,S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S1,S4 | $(Q_{p9} * C_{pe54} * C_{sCd1}) * L_{sys1}$ | -4.77 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | $(C_{pi9} * Q_{p9}) * L_{sys1}$ | 1.19 | [kN/m] |
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Richting=90) | -0.50 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S2 | $(Q_{p9} * C_{pe55} * C_{sCd1}) * L_{sys1}$ | -3.01 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Richting=90) | -0.51 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S3 | $(Q_{p9} * C_{pe56} * C_{sCd1}) * L_{sys1}$ | -3.03 | [kN/m] |

LR13 (Zadeldak; Verdeelde element belasting (q): S3)

| | | | | |
|---------|--|--|--------|---------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe57 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe57,Openingen=0.00,Over=False) | -0.30 | |
| Z11 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S1,S4 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.20) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S4 | $(Q_{p10} * C_{pe58} * C_{sCd1}) * L_{sys1}$ | -4.77 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(C_{pi10} * Q_{p10}) * L_{sys1}$ | -1.79 | [kN/m] |
| Cpe59 | Zadeldak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Richting=90) | -0.50 | |

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| q62 | Zadeldak; Verdeelde element belasting (q): S2 | $(Qp10 * Cpe59 * CsCd1) * Lsys1$ | -3.01 | [kN/m] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Richting=90) | -0.51 | |
| q63 | Zadeldak; Verdeelde element belasting (q): S3 | $(Qp10 * Cpe60 * CsCd1) * Lsys1$ | -3.03 | [kN/m] |

LR14 (Geconcentreerde element belasting (F))

| | | | | |
|---------|---|---|--------|---------|
| | Windbelasting (enkele luifel) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpnet1 | Eenzijdige overkappingen S6 Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen,Zone=CF,Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | $(Qp11 * Cpnet1 * CsCd1) * Lsys1 * 5.16$ | 20.58 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappingen,Zone=CF,Hoek=14.22,Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | $(Qp11 * Cpnet2 * CsCd1) * Lsys1 * 5.16$ | -43.07 | [kN] |

LR15 (Verdeelde element belasting (q))

| | | | | |
|-----|--|--|------|---------|
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| 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 | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q64 | Verdeelde element belasting (q) | $(Sk1 * Ce1 * Ct1 * Mu1) * Lsys1$ | 3.58 | [kN/m] |
| q65 | Verdeelde element belasting (q) | $q64 * 0.50$ | 1.79 | [kN/m] |
| Mu2 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=Mu1,Sk=Sk1) | 0.80 | |
| q66 | Verdeelde element belasting (q) | $(Sk1 * Ce1 * Ct1 * Mu2) * Lsys1$ | 3.58 | [kN/m] |
| q67 | Verdeelde element belasting (q) | $q66 * 0.50$ | 1.79 | [kN/m] |

LR16 (Horizontale druk bewaring)

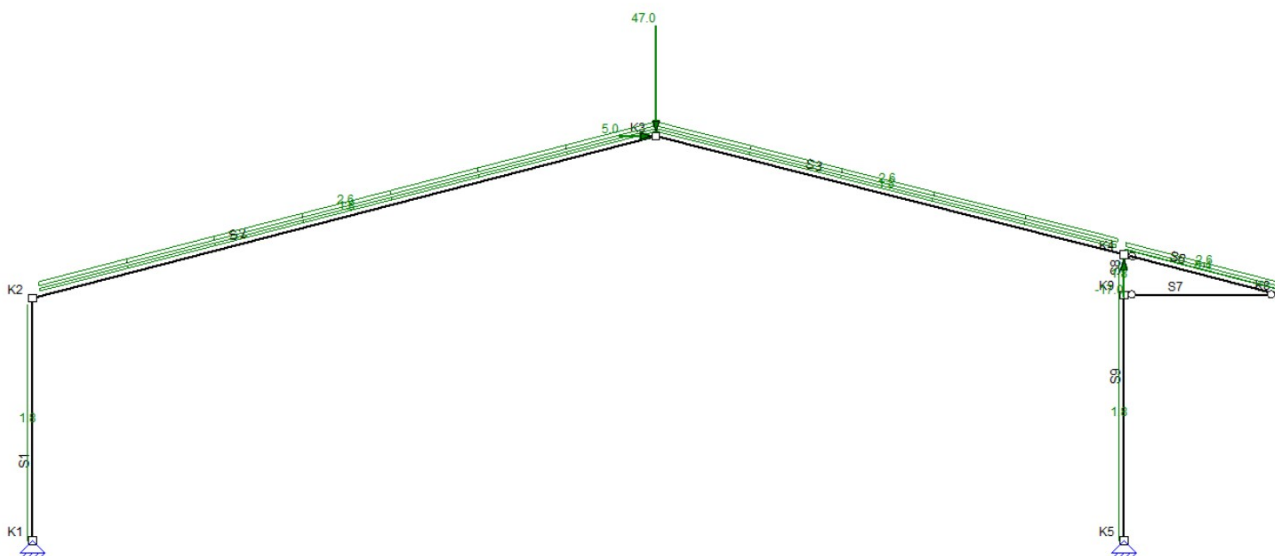
| | | | | |
|---------|--|------------------------------|-------|---------|
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q68 | Horizontale druk bewaring | $Ka1 * Height4 * D1 * Lsys1$ | 59.10 | [kN/m] |

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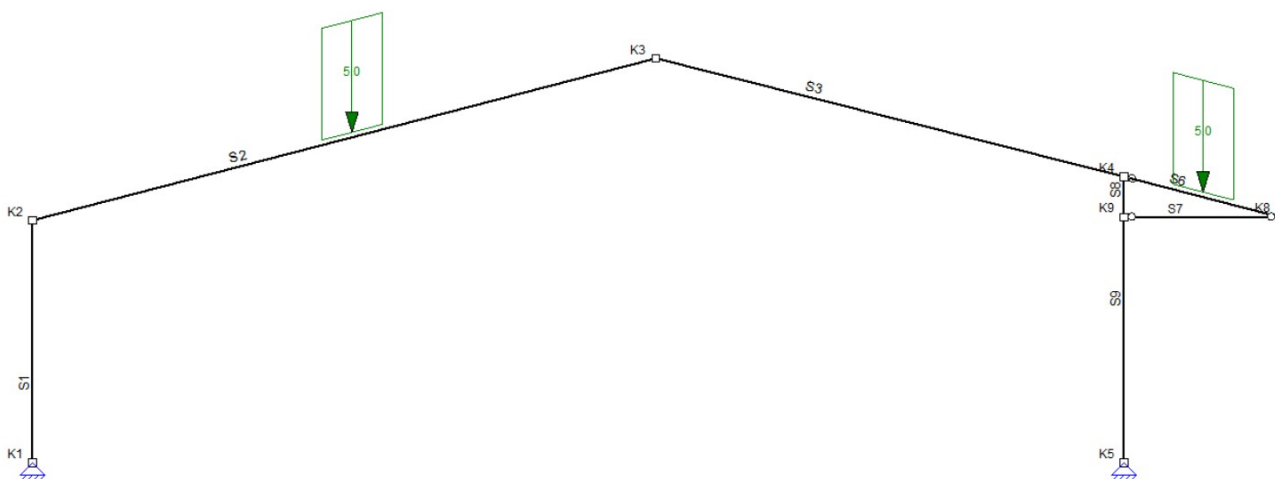
B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1-S3,S6,S8-S9 | |
| q | 2.6 (q1) | 2.6 (q1) | 0.00 | L | Z" | S2-S3,S6 | |
| N | 5.0 | | | | X | K3 | |
| N | 47.0 | | | | Z | K3 | |
| N | -17.0 | | | | Z | K4 | |
| Som lasten | | X: 5.0 Z: 228.4 Yr: 0.0 | | | | | |
| | | | m | m | | | |

B.G.2: Opgelegde belastingen. Vloer 1, Veld 1



B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

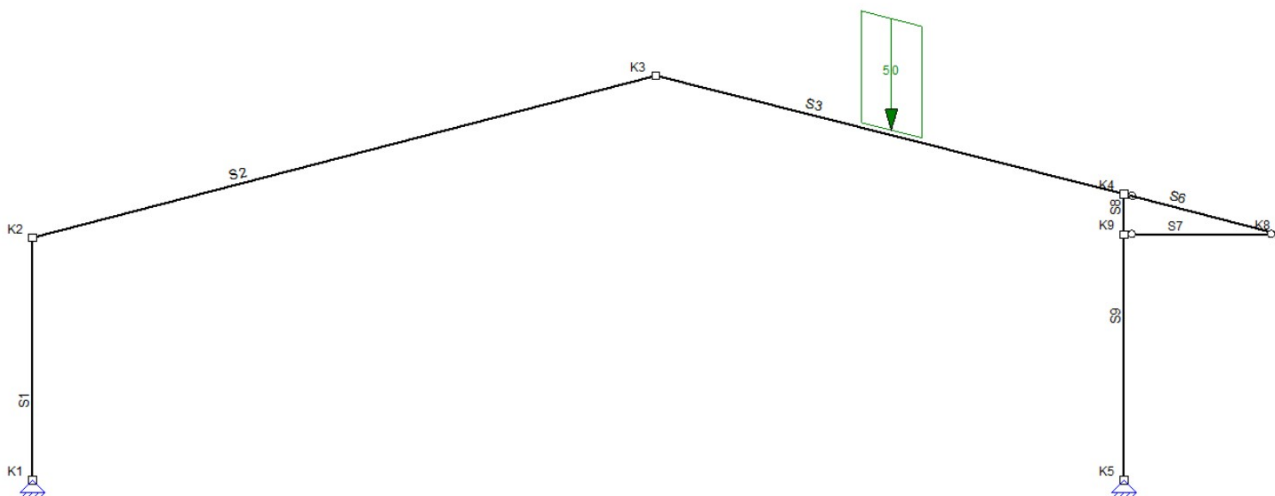
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q2) | 5.0 (q2) | 9.33 | 11.33 | Z" | S2 | |
| q | 5.0 (q3) | 5.0 (q3) | 1.58 | 3.58 | Z" | S6 | |
| Som lasten | | X: 0.0 Z: 20.0 Yr: 0.7 | | | | | |
| | | | m | m | | | |

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B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



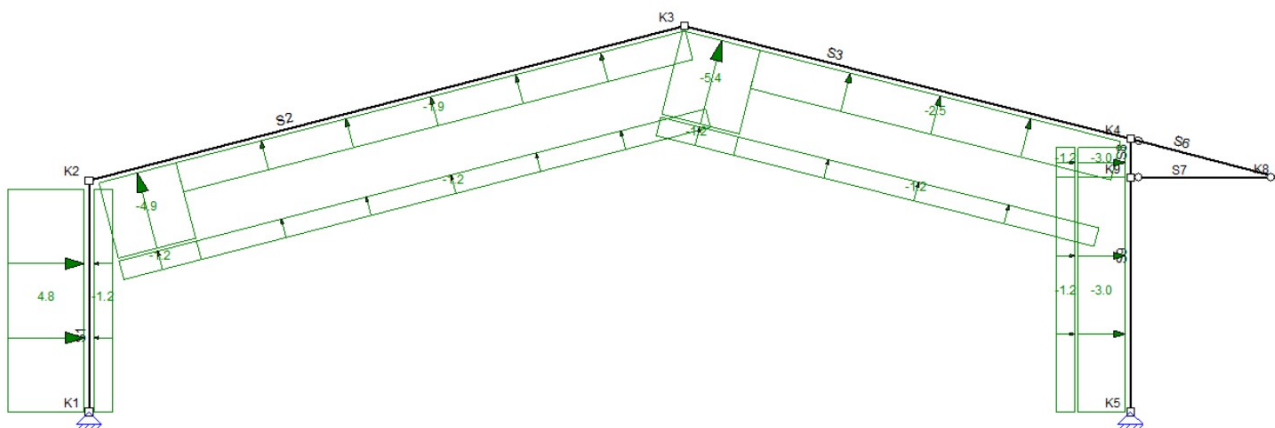
B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| q | 5.0 (q3) | 5.0 (q3) | 6.74 | 8.74 | Z" | S3 | |
| Som lasten | | Z: 10.0 Yr: 0.6 | | | | | |

m

m

B.G.4: Windbelasting van Links + Overdruk



B.G.4: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 61.9 Z: -129.7 Yr: 6.3 | | | | | |

m

m

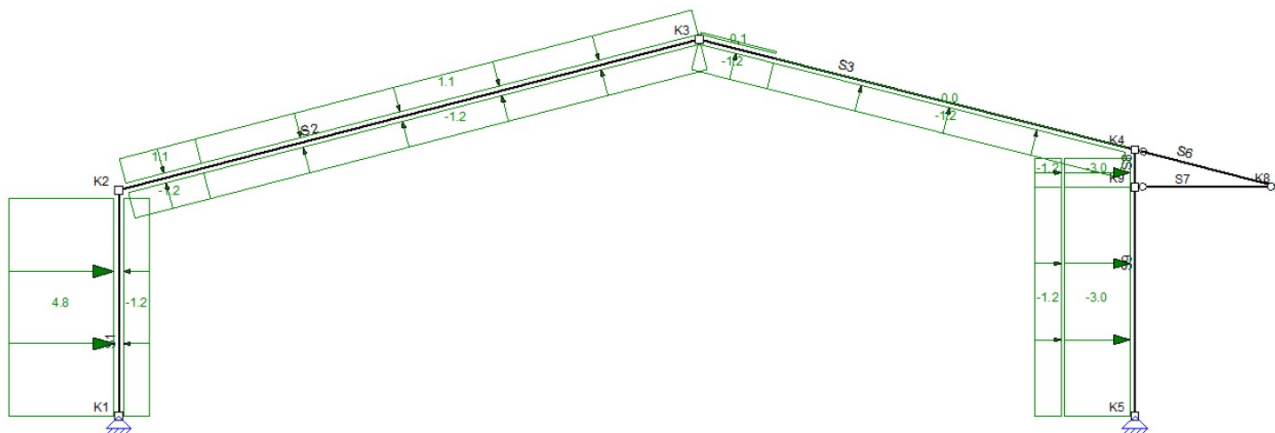
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



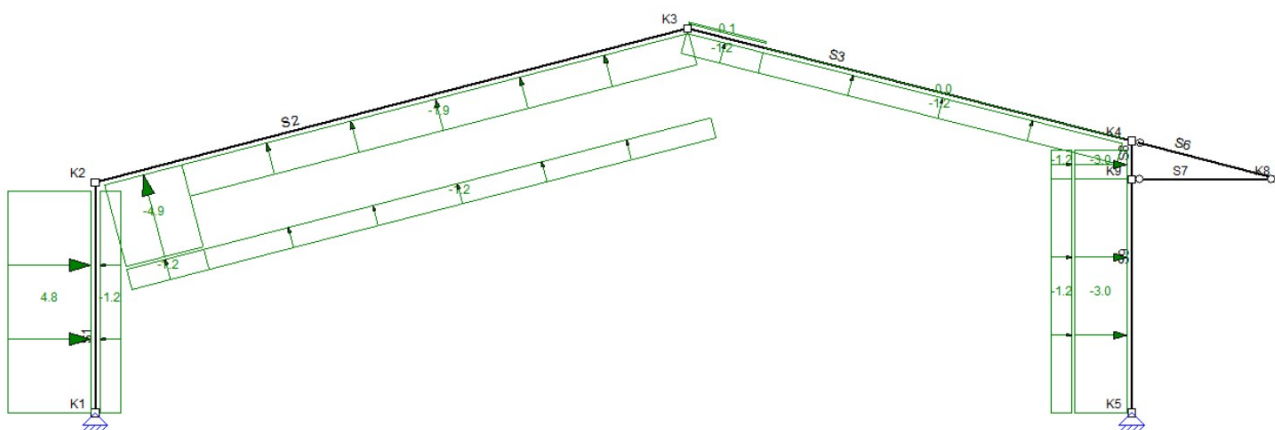
B.G.5: Windbelasting van Links + Overdruk (2e Cpe)



B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q11) | 4.8 (q11) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q12) | -1.2 (-q12) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q17) | -3.0 (q17) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 68.1 Z: -18.3 Yr: -0.1 | | | | | |
| | | | m | m | | | |

B.G.6: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q6) | -4.9 (q6) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q7) | -1.9 (q7) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

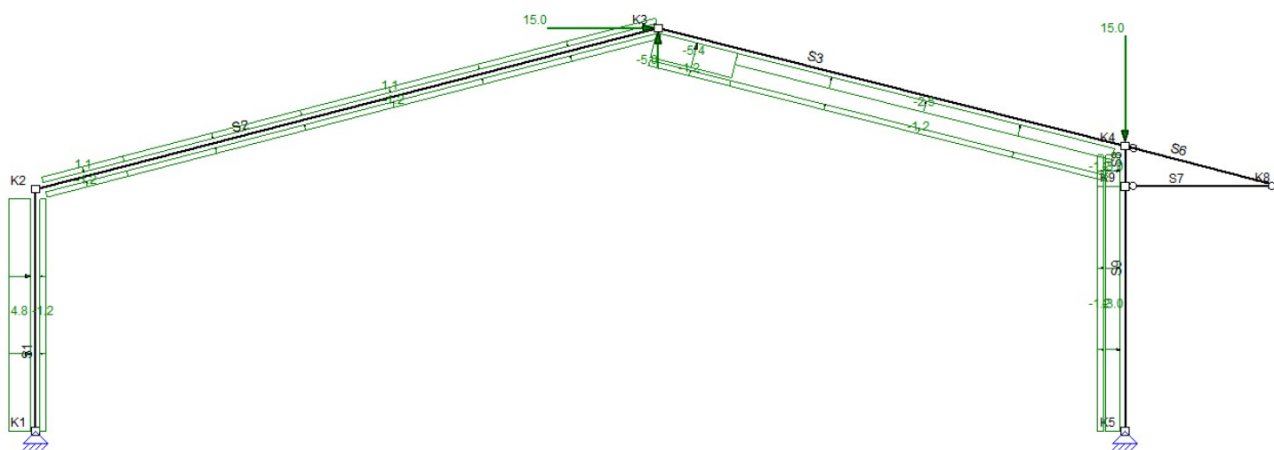
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 0.0 (q15) | 0.0 (q15) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q16) | 0.1 (q16) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 50.7 Z: -85.4 Yr: 3.9 | | | | | |
| | | | m | m | | | |

B.G.7: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q4) | 4.8 (q4) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q13) | 1.1 (q13) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q14) | 1.1 (q14) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q8) | -2.5 (q8) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q9) | -5.4 (q9) | 0.00 | 2.68 | Z' | S3 | |
| q | -1.2 (-q5) | -1.2 (-q5) | 0.00 | 2.68 | Z' | S3 | |
| N | -5.0 | | | | Z | K3 | |
| N | 15.0 | | | | Z | K4 | |
| N | 15.0 | | | | X | K3 | |
| q | -3.0 (q10) | -3.0 (q10) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 94.3 Z: -52.6 Yr: 2.3 | | | | | |
| | | | m | m | | | |

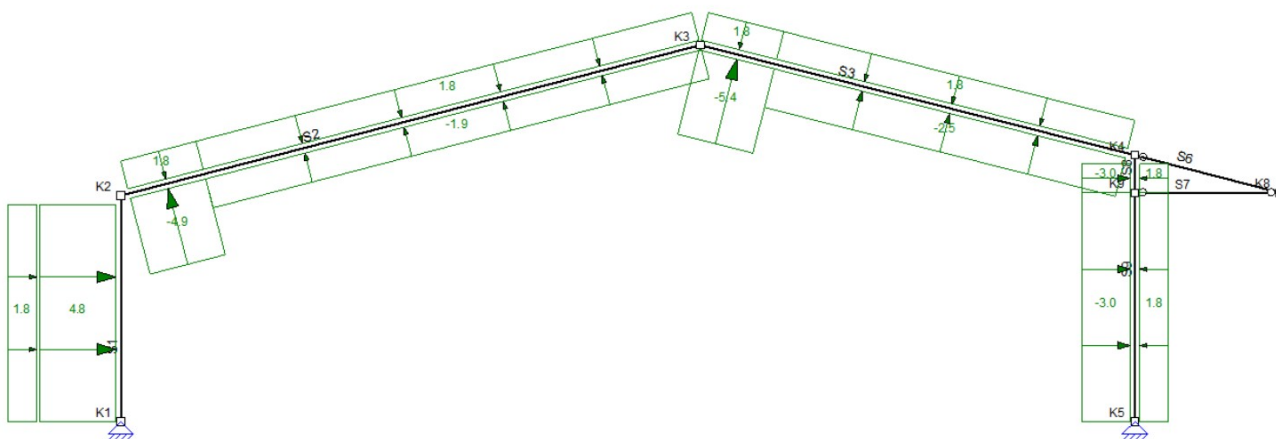
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



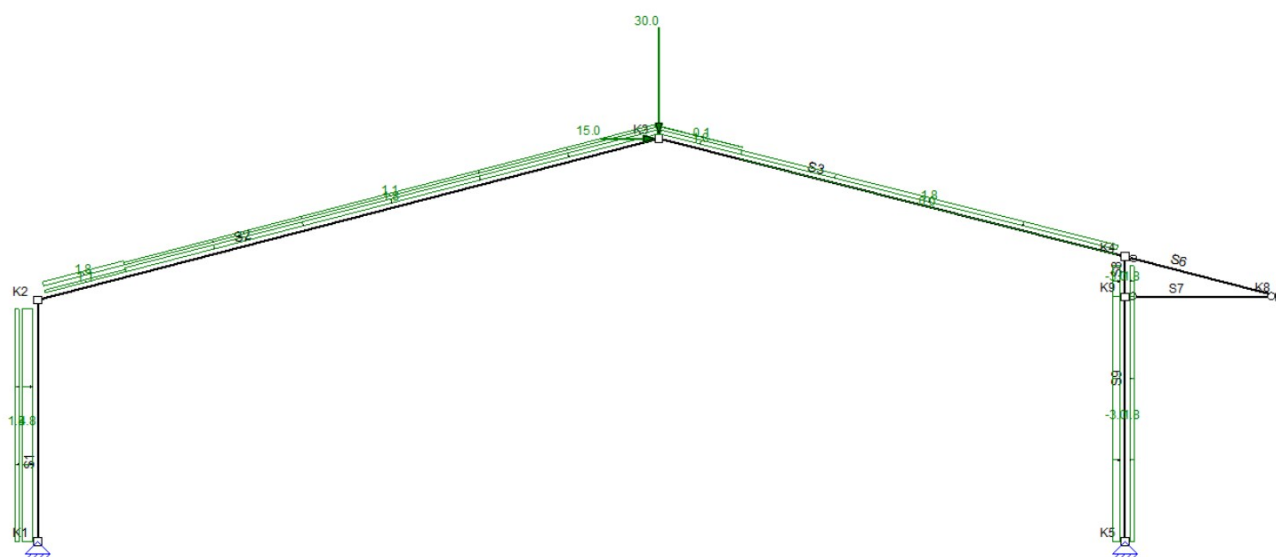
B.G.8: Windbelasting van Links + Onderdruk



B.G.8: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 61.9 Z: -27.1 Yr: 6.3 | | | | | |
| | | | m | m | | | |

B.G.9: Windbelasting van Links + Onderdruk (2e Cpe)



B.G.9: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q25) | 4.8 (q25) | 0.00 | 7.80 (L) | Z' | S1 | |
| | | | m | m | | | |

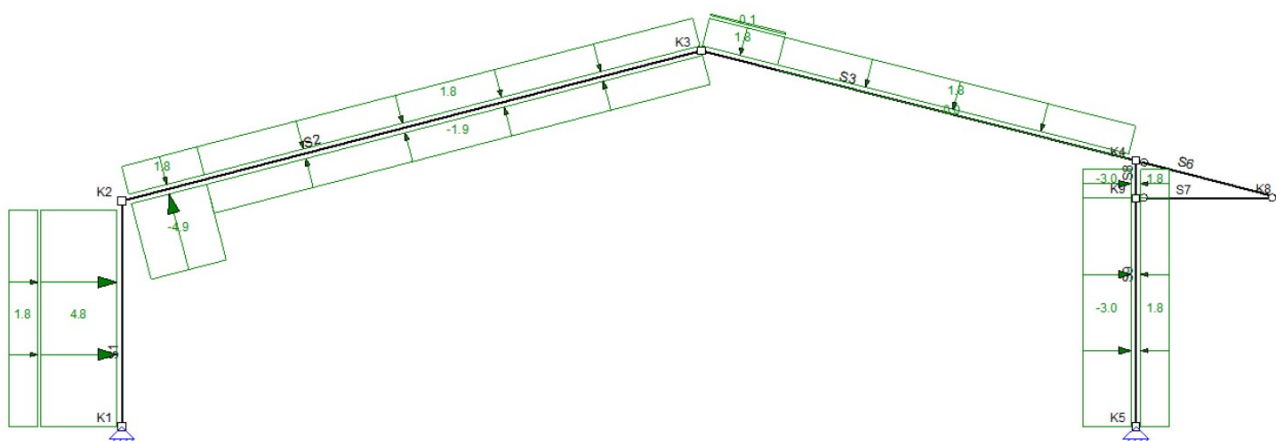
Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q26) | 1.8 (-q26) | 0.00 | 2.68 | Z' | S3 | |
| N | 30.0 | | | | Z | K3 | |
| N | 15.0 | | | | X | K3 | |
| q | -3.0 (q31) | -3.0 (q31) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 83.1 Z: 114.3 Yr: -0.1 | | | | | |
| | | | m | m | | | |

B.G.10: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

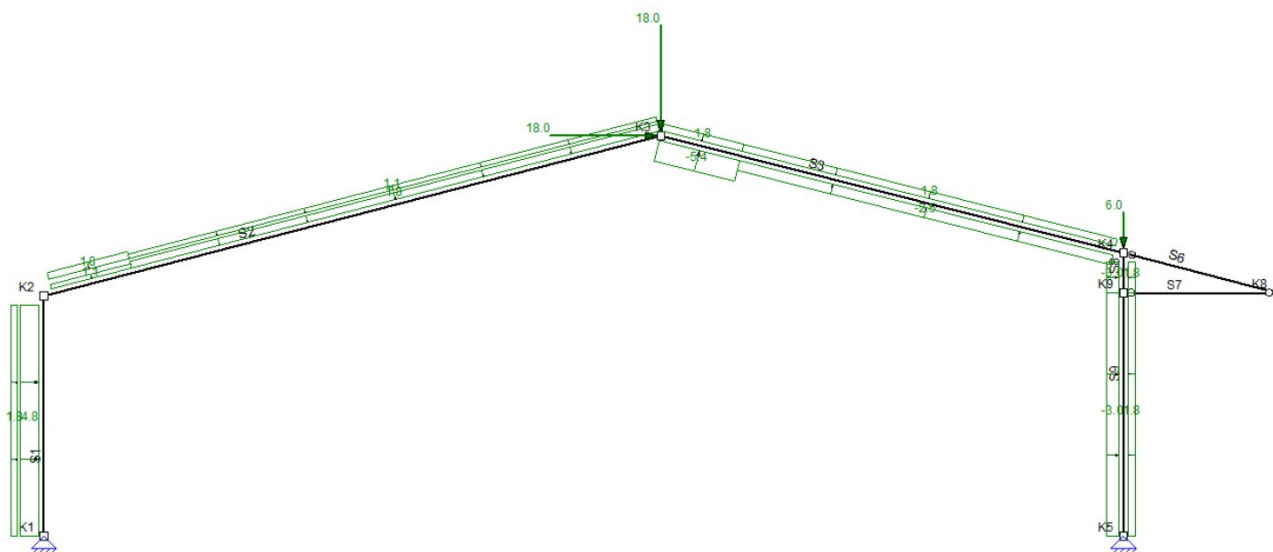
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|-----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -4.9 (q20) | -4.9 (q20) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | -1.9 (q21) | -1.9 (q21) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 0.0 (q29) | 0.0 (q29) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 0.1 (q30) | 0.1 (q30) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: 50.6 Z: 17.2 Yr: 3.9 | | | | | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



B.G.11: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

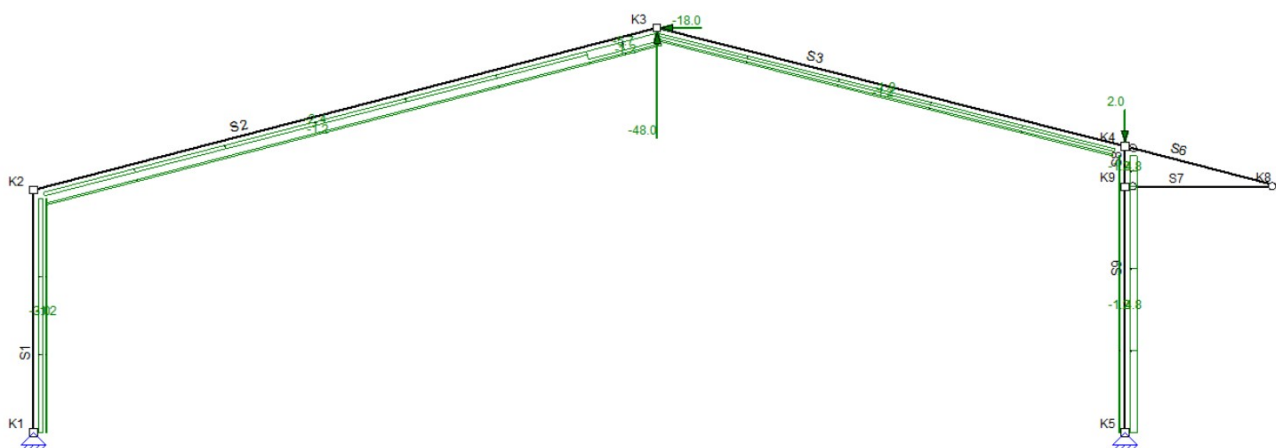
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 4.8 (q18) | 4.8 (q18) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.1 (q27) | 1.1 (q27) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.69 | Z' | S2 | |
| q | 1.1 (q28) | 1.1 (q28) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.69 | 20.66 (L) | Z' | S2 | |
| q | -2.5 (q22) | -2.5 (q22) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 2.68 | 15.47 (L) | Z' | S3 | |
| q | -5.4 (q23) | -5.4 (q23) | 0.00 | 2.68 | Z' | S3 | |
| q | 1.8 (-q19) | 1.8 (-q19) | 0.00 | 2.68 | Z' | S3 | |
| N | 18.0 | | | | Z | K3 | |
| N | 6.0 | | | | Z | K4 | |
| N | 18.0 | | | | X | K3 | |
| q | -3.0 (q24) | -3.0 (q24) | 0.00 | L | Z' | S8-S9 | |

Som lasten X: 97.3 Z: 64.0 Yr: 2.3

m

m

B.G.12: Windbelasting van Rechts + Overdruk

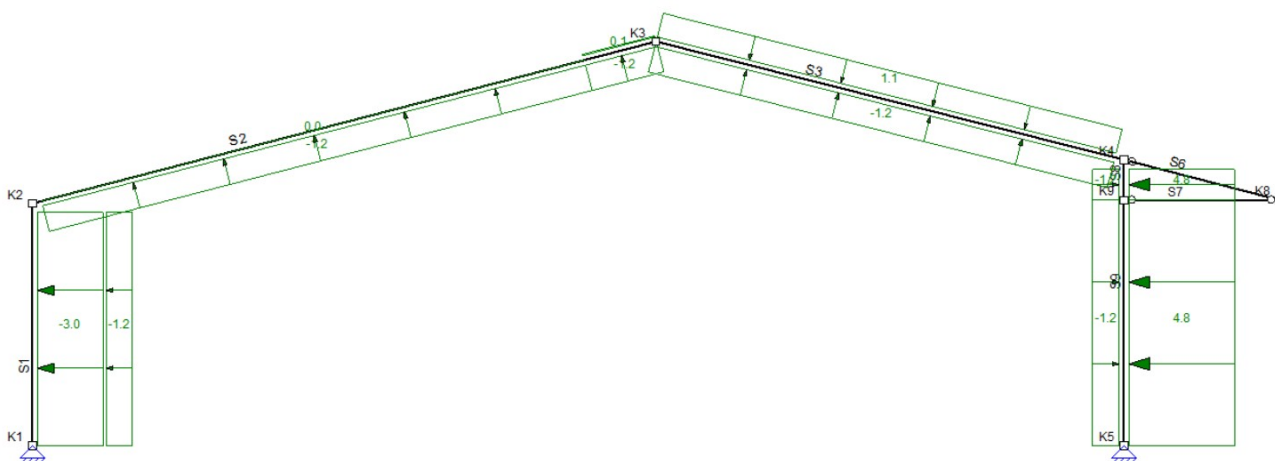


Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm

**B.G.12: WINDBELASTING VAN RECHTS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|------------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | -48.0 | | | | Z | K3 | |
| N | 2.0 | | | | Z | K4 | |
| N | -18.0 | | | | X | K3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -90.0 Z: -170.8 Yr: -3.9 | | | | | |
| | | | m | m | | | |

B.G.13: Windbelasting van Rechts + Overdruk (2e Cpe)**B.G.13: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)**

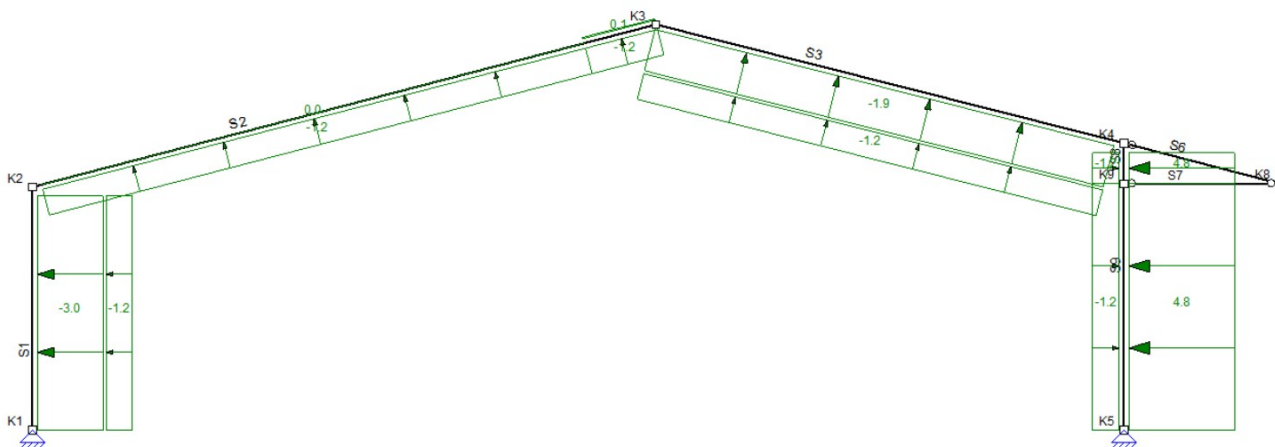
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q38) | -3.0 (q38) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q39) | -1.2 (-q39) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q43) | 4.8 (q43) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -68.9 Z: -24.8 Yr: 0.1 | | | | | |
| | | | m | m | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



B.G.14: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)

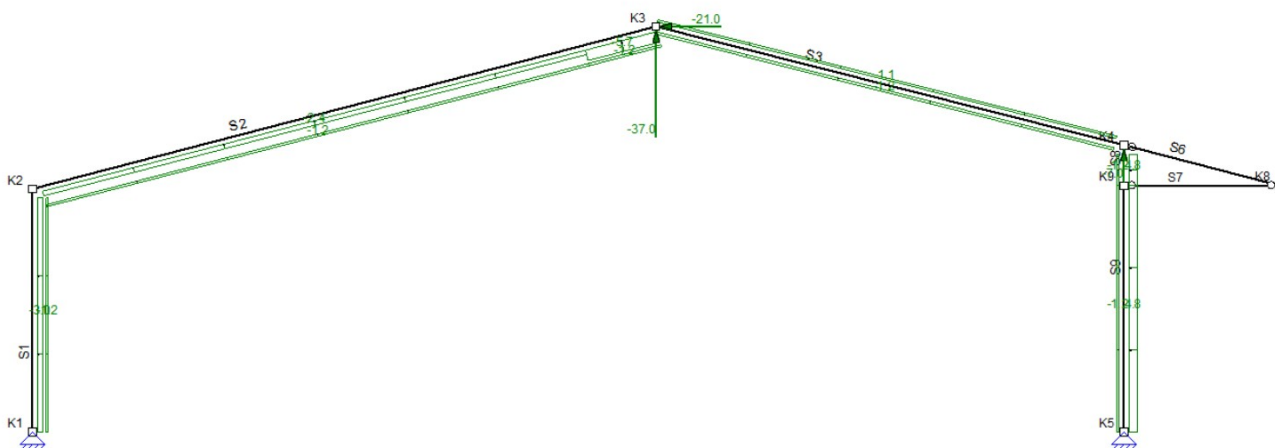


B.G.14: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | StAAF of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q40) | 0.0 (q40) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q41) | 0.1 (q41) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q36) | -1.9 (q36) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -57.6 Z: -69.3 Yr: 0.1 | | | | | |

m m

B.G.15: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.15: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|---------------|--------------|
| q | -3.0 (q32) | -3.0 (q32) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q34) | -2.4 (q34) | 0.00 | 17.98 | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q35) | -5.7 (q35) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.2 (-q33) | -1.2 (-q33) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q42) | 1.1 (q42) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | -37.0 | | | | Z | K3 | |

m m

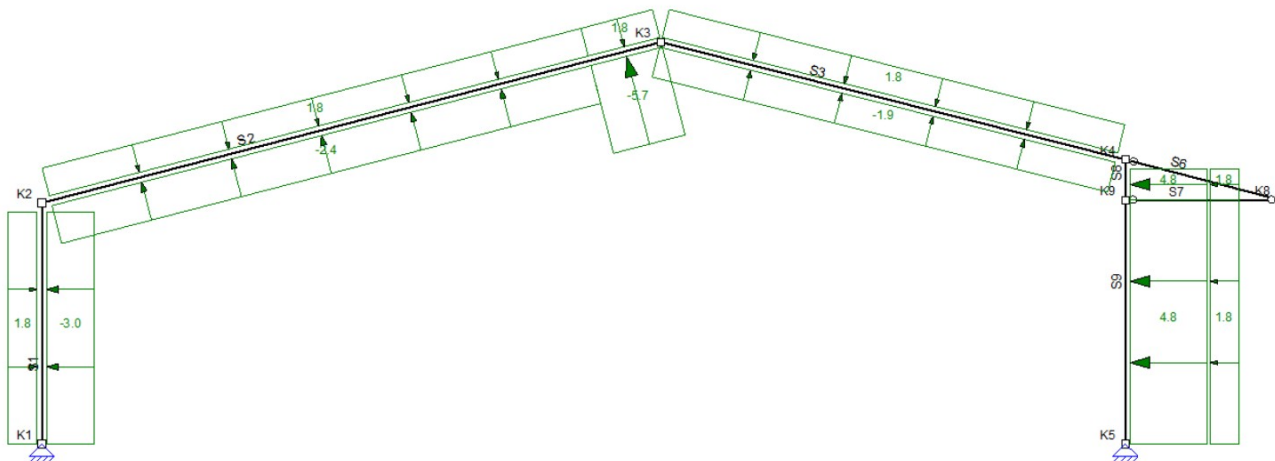
Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
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 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------------------|--------------|-------------|----------|----------------|--------------|
| N | -7.0 | | | | | Z K4 | |
| N | -21.0 | | | | | X K3 | |
| q | 4.8 (q37) | 4.8 (q37) | 0.00 | L | | Z' S8-S9 | |
| Som lasten | | X: -104.3 Z: -124.3 Yr: -3.9 | | | | | |
| | | | m | m | | | |

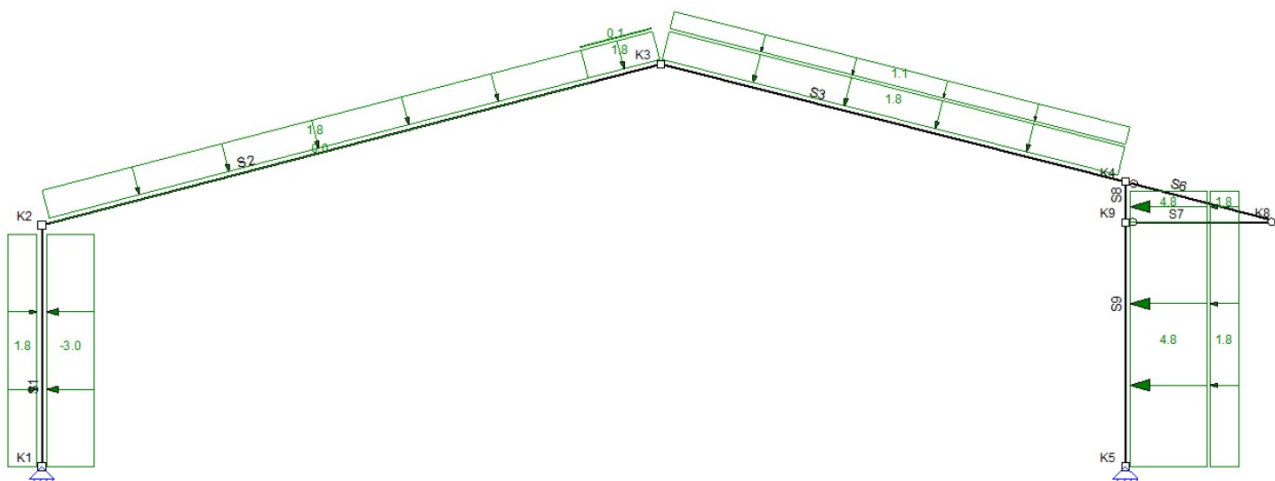
B.G.16: Windbelasting van Rechts + Onderdruk



B.G.16: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -72.0 Z: -22.2 Yr: -3.9 | | | | | |
| | | | m | m | | | |

B.G.17: Windbelasting van Rechts + Onderdruk (2e Cpe)



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 Opdrachtgever
 Constructeur
 Omschrijving

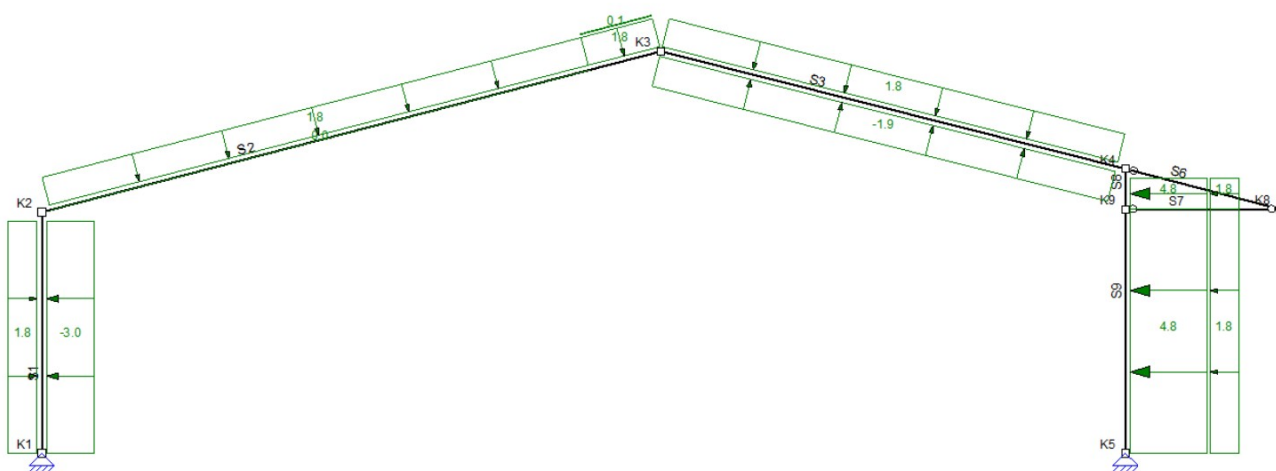
Eenheden: m, mm, kN, kNm

**B.G.17: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q50) | -3.0 (q50) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q51) | 1.8 (-q51) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q55) | 4.8 (q55) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -68.9 Z: 77.9 Yr: 0.1 | | | | | |

m

m

B.G.18: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)**B.G.18: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | 0.0 (q52) | 0.0 (q52) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | 0.1 (q53) | 0.1 (q53) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | -1.9 (q48) | -1.9 (q48) | 0.00 | 15.47 (L) | Z' | S3 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -57.6 Z: 33.3 Yr: 0.1 | | | | | |

m

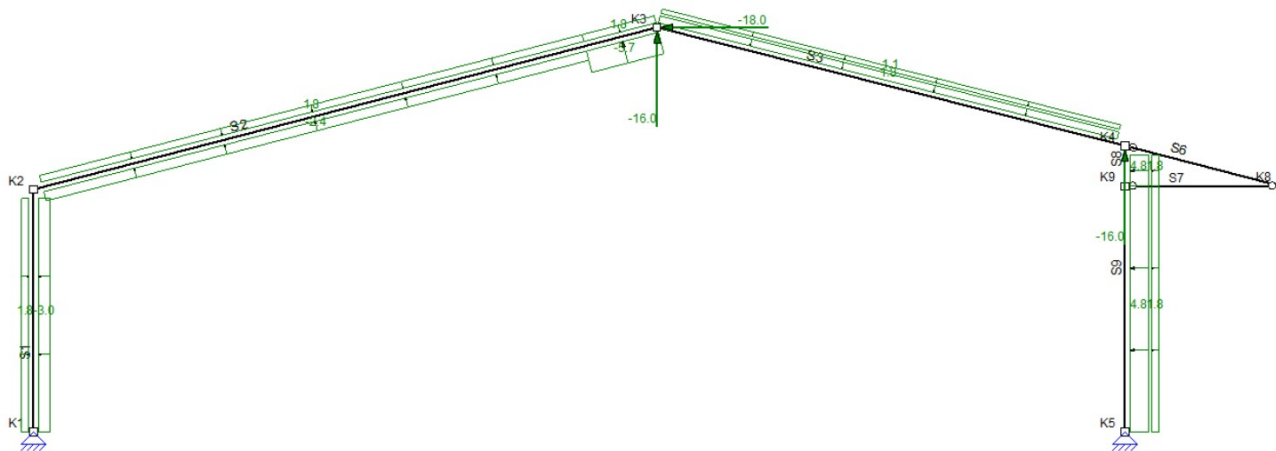
m

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 Omschrijving

Eenheden: m, mm, kN, kNm



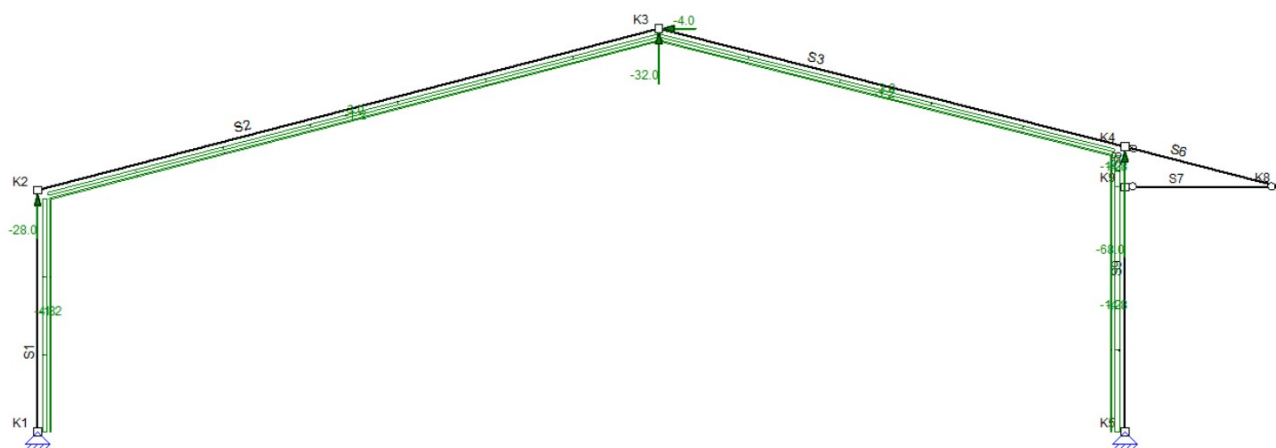
B.G.19: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



B.G.19: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|-------------------|-------------|-----------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -3.0 (q44) | -3.0 (q44) | 0.00 | 7.80 (L) | Z' | S1 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | L | Z' | S1,S3,S8-S9 | |
| q | -2.4 (q46) | -2.4 (q46) | 0.00 | 17.98 | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 0.00 | 17.98 | Z' | S2 | |
| q | -5.7 (q47) | -5.7 (q47) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.8 (-q45) | 1.8 (-q45) | 17.98 | 20.66 (L) | Z' | S2 | |
| q | 1.1 (q54) | 1.1 (q54) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | -18.0 | | | | X | K3 | |
| N | -16.0 | | | | Z | K3-K4 | |
| q | 4.8 (q49) | 4.8 (q49) | 0.00 | L | Z' | S8-S9 | |
| Som lasten | | X: -101.3 Z: -9.7 Yr: -3.9 | | | | | |
| | | | m | m | | | |

B.G.20: Windbelasting van Voren + Overdruk



B.G.20: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoep | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -4.8 (q56) | -4.8 (q56) | 0.00 | L | Z' | S1,S8-S9 | |
| q | -1.2 (-q57) | -1.2 (-q57) | 0.00 | L | Z' | S1-S3,S8-S9 | |
| q | -3.0 (q58) | -3.0 (q58) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.0 (q59) | -3.0 (q59) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | -32.0 | | | | Z | K3 | |
| N | -4.0 | | | | X | K3 | |
| | | | m | m | | | |

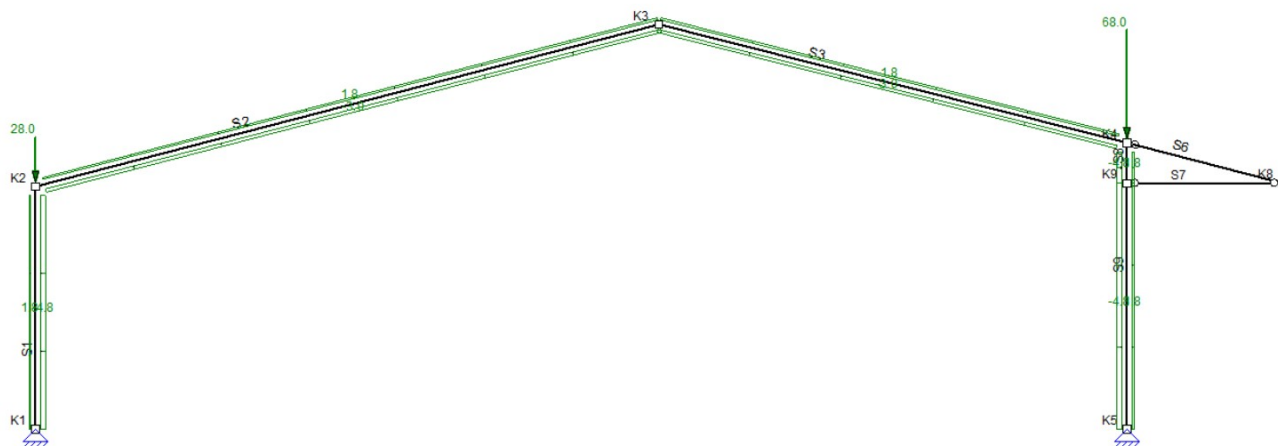
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 Constructeur
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Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------------------------|--------------|-------------|----------|----------------|--------------|
| N | -68.0 | | | | Z | K4 | |
| N | -28.0 | | | | Z | K2 | |
| Som lasten | | X: -1.4 Z: -272.8 Yr: 0.0 | | | | | |
| | | | m | m | | | |

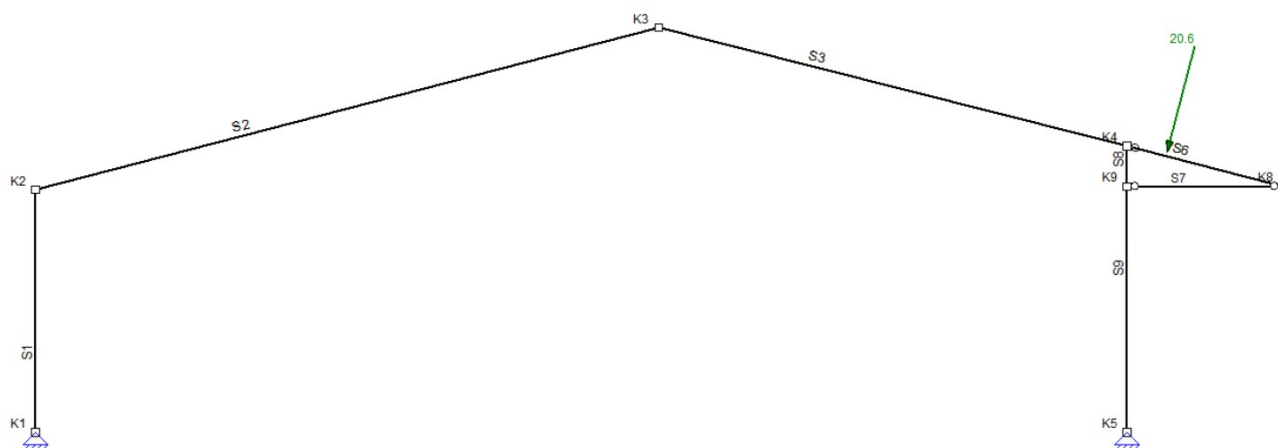
B.G.21: Windbelasting van Voren + Onderdruk



B.G.21: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | -4.8 (q60) | -4.8 (q60) | 0.00 | L | Z' | S1,S8-S9 | |
| q | 1.8 (-q61) | 1.8 (-q61) | 0.00 | L | Z' | S1-S3,S8-S9 | |
| q | -3.0 (q62) | -3.0 (q62) | 0.00 | 20.66 (L) | Z' | S2 | |
| q | -3.0 (q63) | -3.0 (q63) | 0.00 | 15.47 (L) | Z' | S3 | |
| N | 68.0 | | | | Z | K4 | |
| N | 28.0 | | | | Z | K2 | |
| Som lasten | | X: 2.5 Z: 53.8 Yr: -0.0 | | | | | |
| | | | m | m | | | |

B.G.22: Windbelasting (enkele luifel) [1/4]



B.G.22: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 1.29 | | Z' | S6 | |
| Som lasten | | X: -5.2 Z: 19.9 | | | | | |
| | | | m | m | | | |

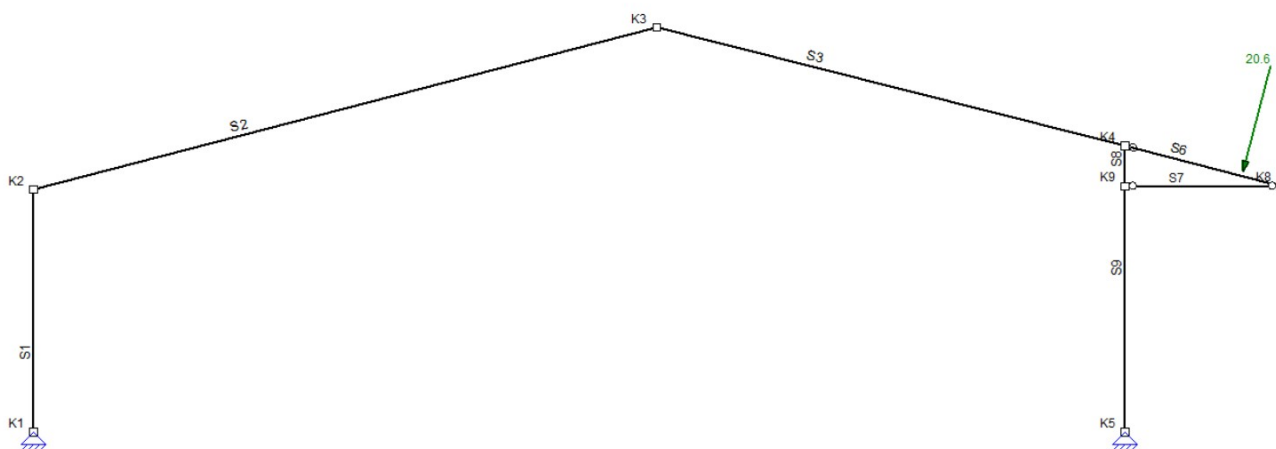
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



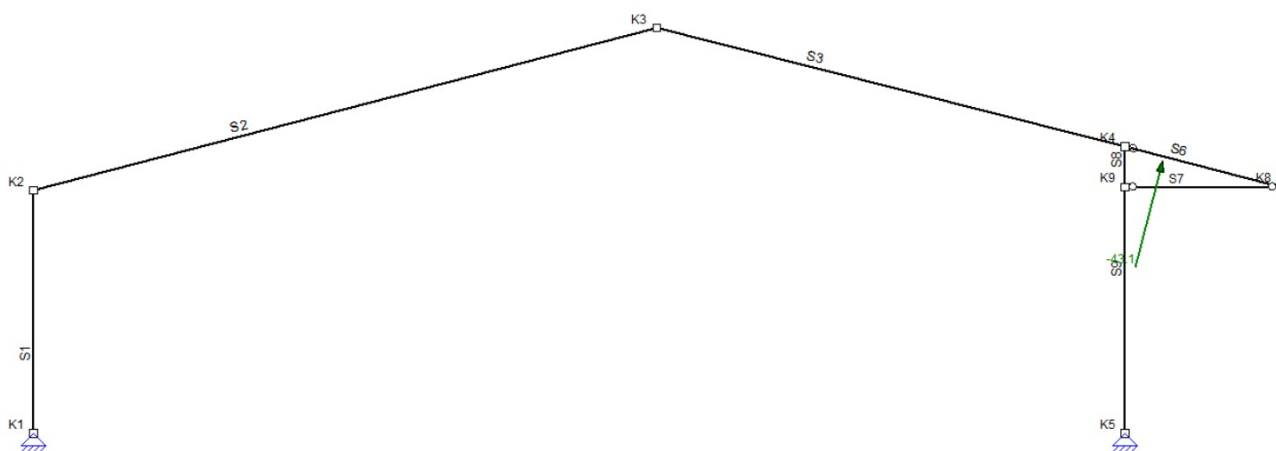
B.G.23: Windbelasting (enkele luifel) [2/4]



B.G.23: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| F | 20.6 (F1) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: -5.2 Z: 19.9 | | | | | |
| | | | m | m | | | |

B.G.24: Windbelasting (enkele luifel) [3/4]



B.G.24: WINDBELASTING (ENKELE LUIFEL) [3/4]

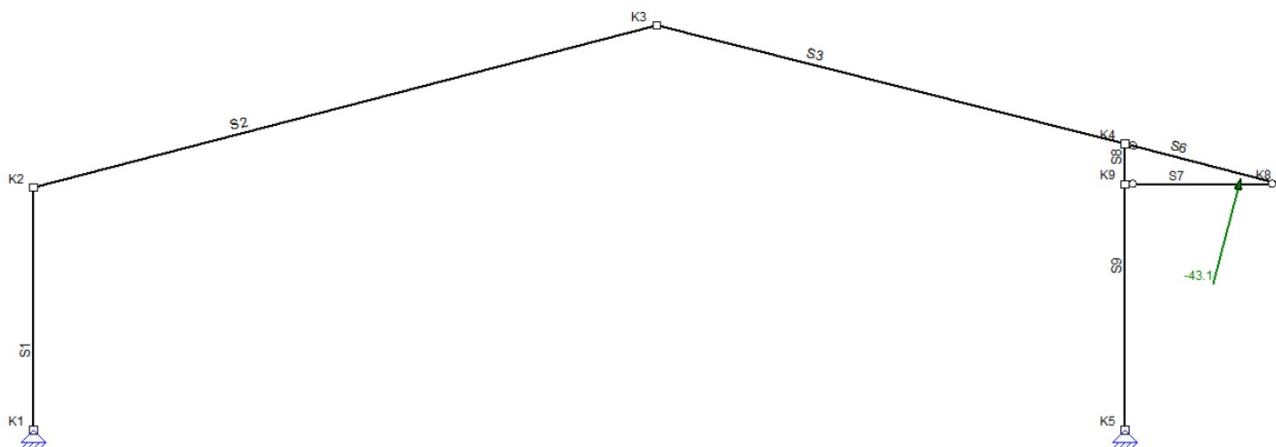
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 1.29 | | Z' | S6 | |
| Som lasten | | X: 10.8 Z: -41.7 | | | | | |
| | | | m | m | | | |

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 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



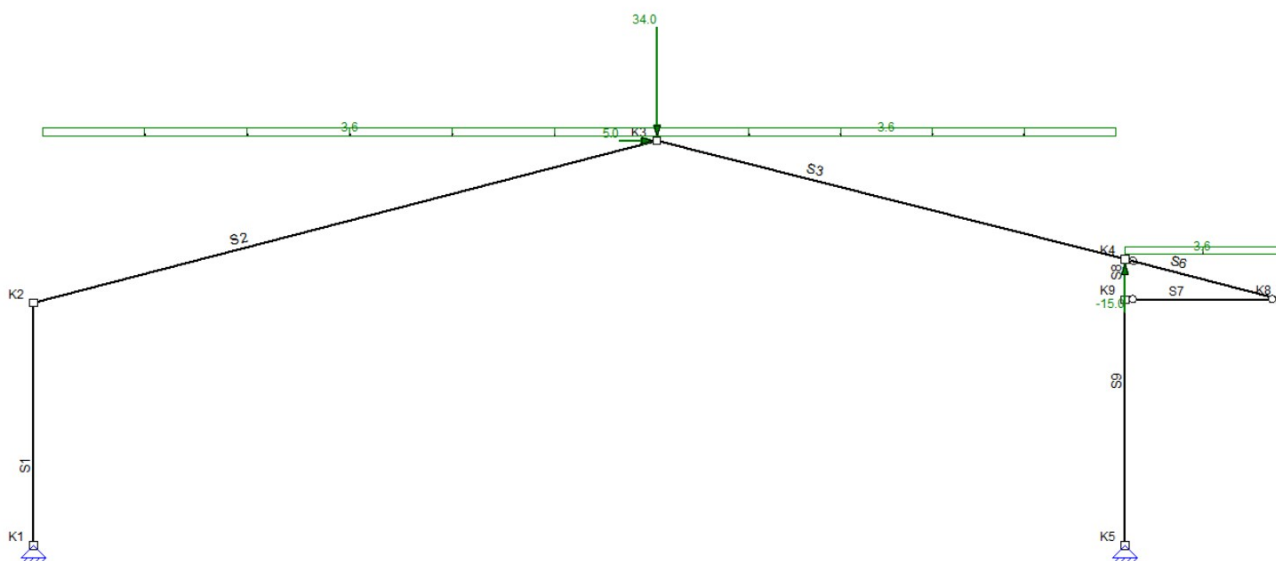
B.G.25: Windbelasting (enkele luifel) [4/4]



B.G.25: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| F | -43.1 (F2) | | 3.87 | | Z' | S6 | |
| Som lasten | | X: 10.8 Z: -41.7 | | | | | |
| | | | m | m | | | |

B.G.26: Sneeuwbelasting 1



B.G.26: SNEEUWBELASTING 1

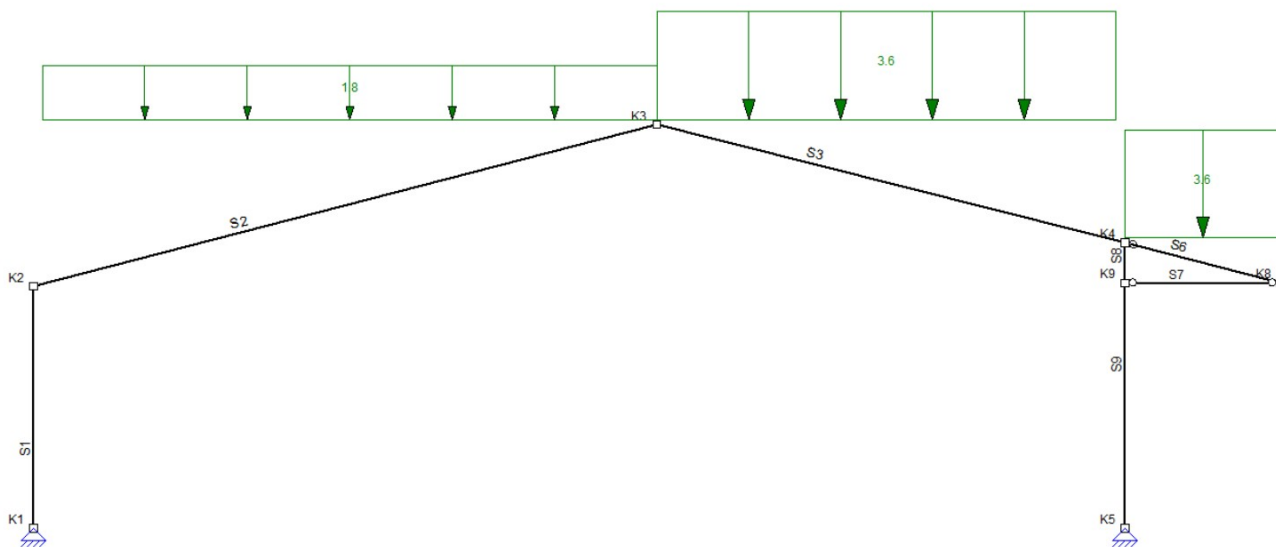
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3, S6 | |
| N | 34.0 | | | | Z | K3 | |
| N | -15.0 | | | | Z | K4 | |
| N | 5.0 | | | | X | K3 | |
| Som lasten | | X: 5.0 Z: 160.3 Yr: 0.0 | | | | | |
| | | | m | m | | | |

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 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



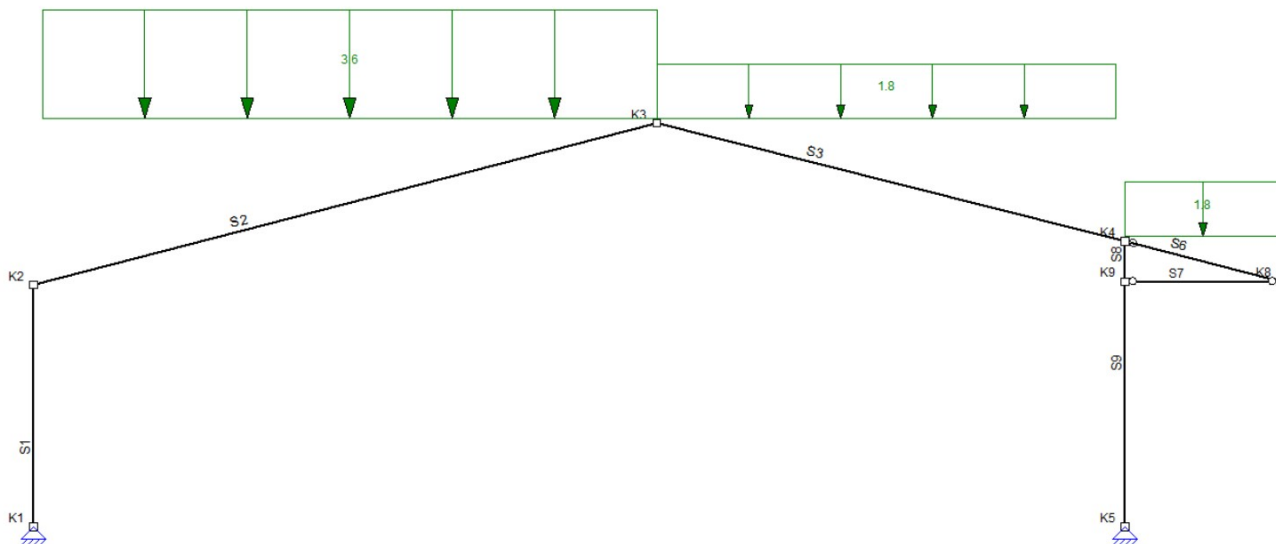
B.G.27: Sneeuwbelasting 2



B.G.27: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q65) | 1.8 (q65) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 3.6 (q66) | 3.6 (q66) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 106.0 Yr: 0.0 | | | | | |
| | | | m | m | | | |

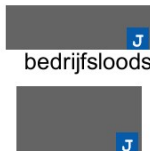
B.G.28: Sneeuwbelasting 3



B.G.28: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.6 (q64) | 3.6 (q64) | 0.00 | 20.66 (L) | Z | S2 | |
| q | 1.8 (q67) | 1.8 (q67) | 0.00 | L | Z | S3,S6 | |
| Som lasten | | Z: 106.0 Yr: 0.0 | | | | | |
| | | | m | m | | | |

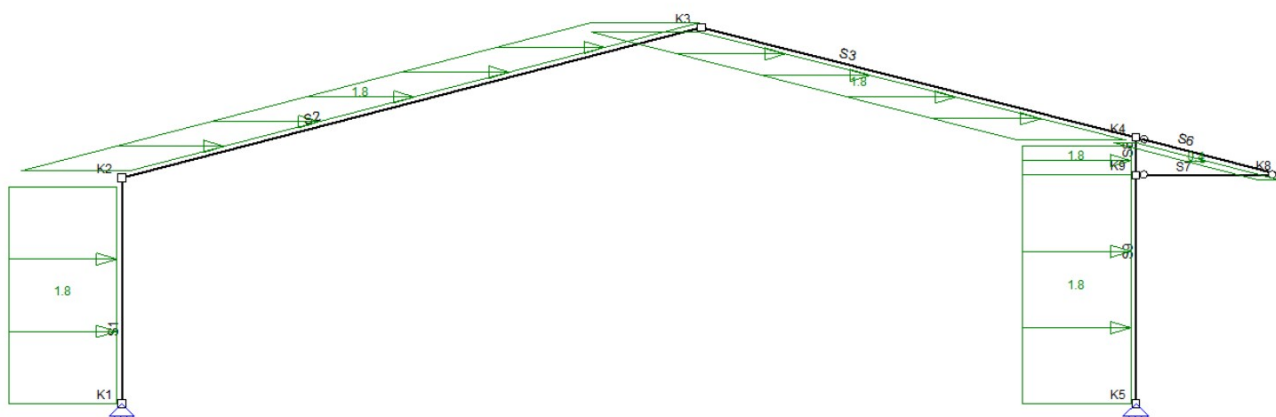
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 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



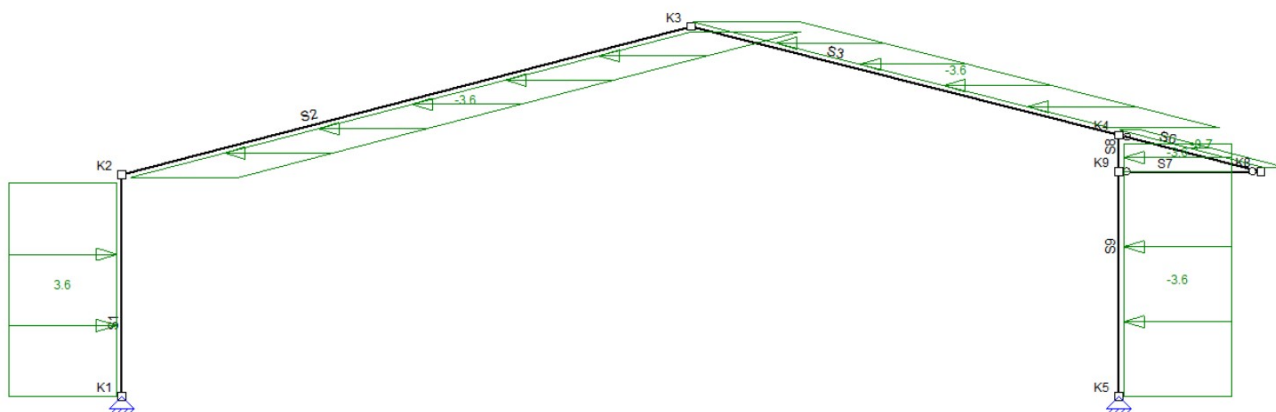
B.G.29: Kniklengte (Asymmetrisch)



B.G.29: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|------------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3,S6,S8-S9 | |
| Som lasten | X: 94.2 Yr: -0.0 | | | | | | |
| | | | m | m | | | |

B.G.30: Kniklengte (Symmetrisch)



B.G.30: KNIKLENGTE (SYMMETRISCH)

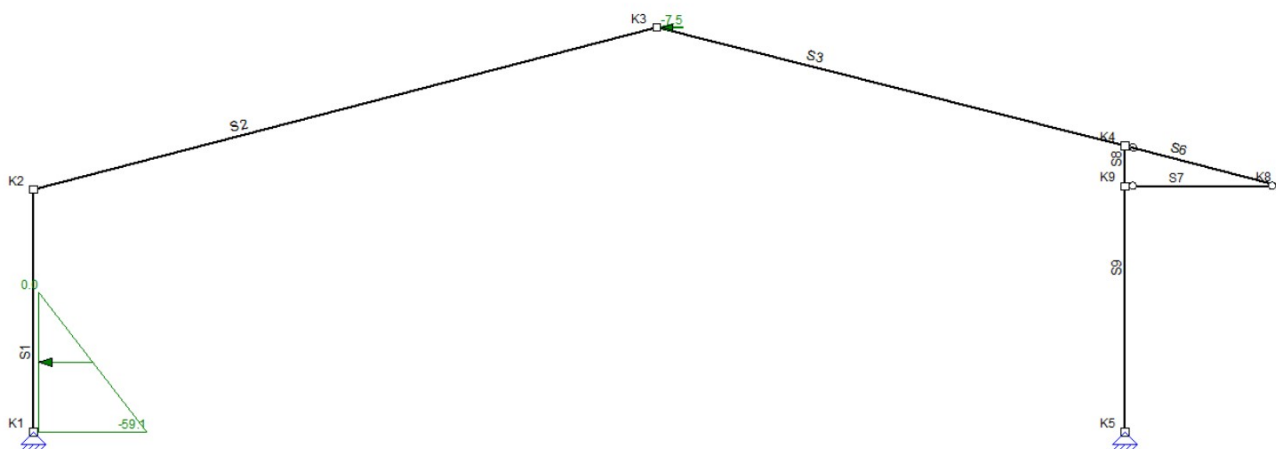
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------------|-------------|--------------|-------------|----------|----------------|--------------|
| qG | 2.00 (3.56) | 2.00 (3.56) | 0.00 | 7.80 (L) | X" | S1 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S2-S3,S6,S8-S9 | |
| Som lasten | X: -135.0 Yr: 0.0 | | | | | | |
| | | | m | m | | | |

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 Omschrijving

Eenheden: m, mm, kN, kNm



B.G.31: Verdeelde veranderlijke belasting



B.G.31: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|--------------|--------------------------|--------------|-------------|----------|----------------|--------------|
| q | -59.1 (-q68) | 0.0 | 0.00 | 4.50 | Z' | S1 | |
| N | -7.5 | | | | X | K3 | |
| Som lasten | | X: -140.5 Yr: 6.6 | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

Fundamenteel

| 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 | Fu.C.9 | Fu.C.10 |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 |
| B.G.2 | Opgelegde belastinge... | 1.17 | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | 1.17 | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | 1.15 | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | 1.15 | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | 1.15 | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | 1.15 | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | 1.15 | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | 1.15 | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | 1.15 | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | 1.15 | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | 1.15 |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
|--------|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... 1.15 | | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... 1.15 | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... 1.15 | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.21 | Fu.C.22 | Fu.C.23 | Fu.C.24 | Fu.C.25 | Fu.C.26 | Fu.C.27 | Fu.C.28 | Fu.C.29 | Fu.C.30 | |
| B.G.1 | Permanente Belasting | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | 1.17 | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | 1.17 | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... 1.15 | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | 1.01 | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | 1.01 | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | 1.01 | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.31 | Fu.C.32 | Fu.C.33 | Fu.C.34 | Fu.C.35 | Fu.C.36 | Fu.C.37 | Fu.C.38 | Fu.C.39 | Fu.C.40 | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

[illegible]

Karakteristiek

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|-------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 | Ka.C.13 | Ka.C.14 | Ka.C.15 | Ka.C.16 | Ka.C.17 | Ka.C.18 | Ka.C.19 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | 0.85 | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | 0.85 | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | 0.85 | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | 0.85 | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | 0.85 | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | 0.85 | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | 0.85 | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | 0.85 | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | 0.85 | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | 0.85 | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.20 | Ka.C.21 | Ka.C.22 | Ka.C.23 | Ka.C.24 | Ka.C.25 | Ka.C.26 | Ka.C.27 | Ka.C.28 | Ka.C.29 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | 0.85 | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | 0.85 | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | 0.85 | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | 0.85 | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | 0.85 | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | 0.85 | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | 0.75 | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | 0.75 | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | 0.75 |
| B.G.29 | Kniklengte (Asymmetrisch) | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetrisch) | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk | | | | | | | | | | 1.00 |
| B.G. | Omschrijving | Ka.C.30 | Ka.C.31 | Ka.C.32 | Ka.C.33 | Ka.C.34 | Ka.C.35 | Ka.C.36 | Ka.C.37 | Ka.C.38 | Ka.C.39 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastingen | 0.87 | | | | | | | | | |
| B.G.3 | Opgelegde belastingen | | 0.87 | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | 0.85 | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | 0.85 | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | 0.85 | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | 0.85 | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | 0.85 | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | 0.85 | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | 0.85 | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | 0.85 |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetrisch) | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetrisch) | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.40 | Ka.C.41 | Ka.C.42 | Ka.C.43 | Ka.C.44 | Ka.C.45 | Ka.C.46 | Ka.C.47 | Ka.C.48 | Ka.C.49 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastingen | | | | | | | | | | |
| B.G.3 | Opgelegde belastingen | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | 0.85 | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | 0.85 | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | 0.85 | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | 0.85 | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | 0.85 | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | 0.85 | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | 0.85 | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | 0.85 | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | 0.85 |
| B.G.22 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | | | | | | |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm

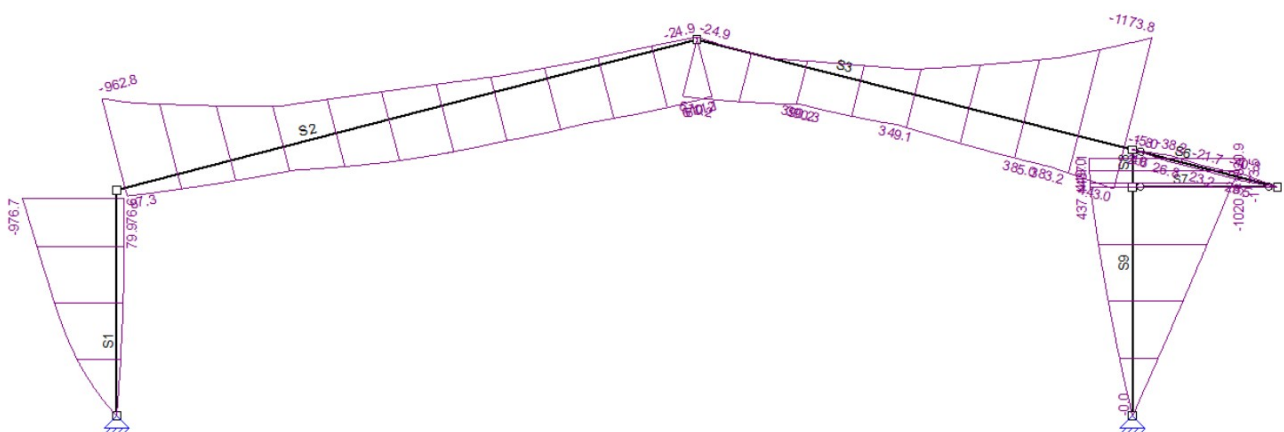


| | | | | | | | | | | | |
|-------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|------|------|
| B.G.27 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.50 | Ka.C.51 | Ka.C.52 | Ka.C.53 | Ka.C.54 | Ka.C.55 | Ka.C.56 | | | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.5 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.6 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.7 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.8 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Re... | | | | | | | | | | |
| B.G.13 | Windbelasting van Re... | | | | | | | | | | |
| B.G.14 | Windbelasting van Re... | | | | | | | | | | |
| B.G.15 | Windbelasting van Re... | | | | | | | | | | |
| B.G.16 | Windbelasting van Re... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.21 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.22 | Windbelasting (enkele... 0.85 | | | | | | | | | | |
| B.G.23 | Windbelasting (enkele... | | 0.85 | | | | | | | | |
| B.G.24 | Windbelasting (enkele... | | | 0.85 | | | | | | | |
| B.G.25 | Windbelasting (enkele... | | | | 0.85 | | | | | | |
| B.G.26 | Sneeuwbelasting 1 | | | | | 0.75 | | | | | |
| B.G.27 | Sneeuwbelasting 2 | | | | | | 0.75 | | | | |
| B.G.28 | Sneeuwbelasting 3 | | | | | | | 0.75 | | | |
| B.G.29 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.30 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.31 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My)



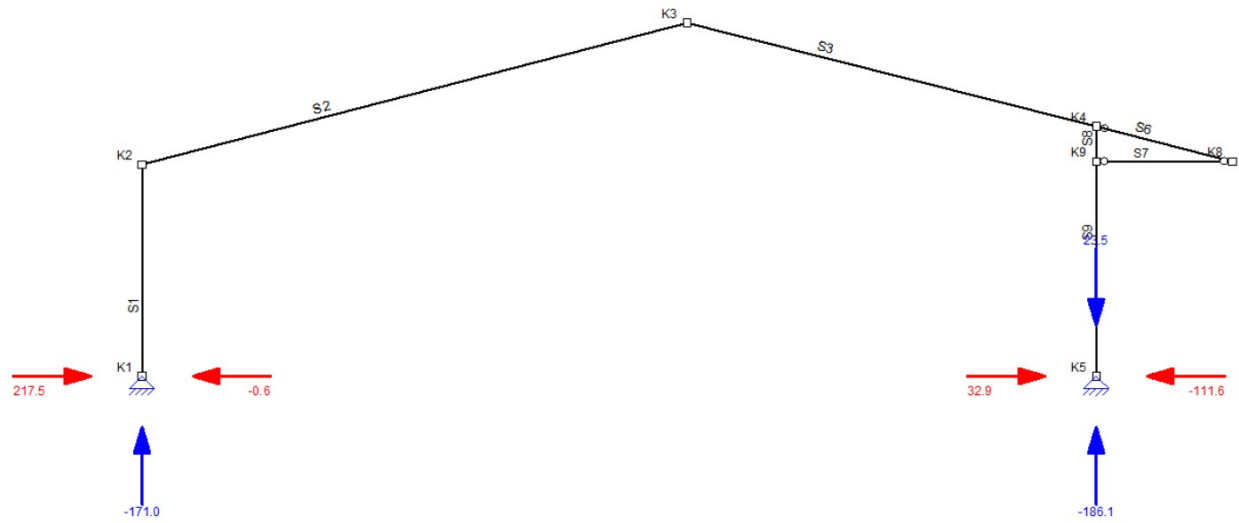
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

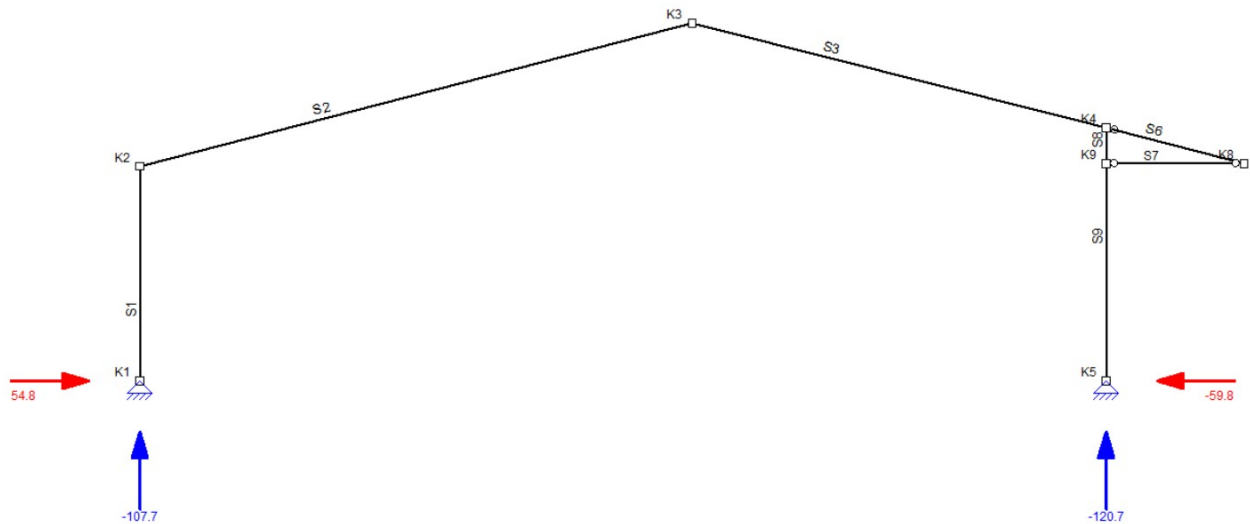
Eenheden: m, mm, kN, kNm



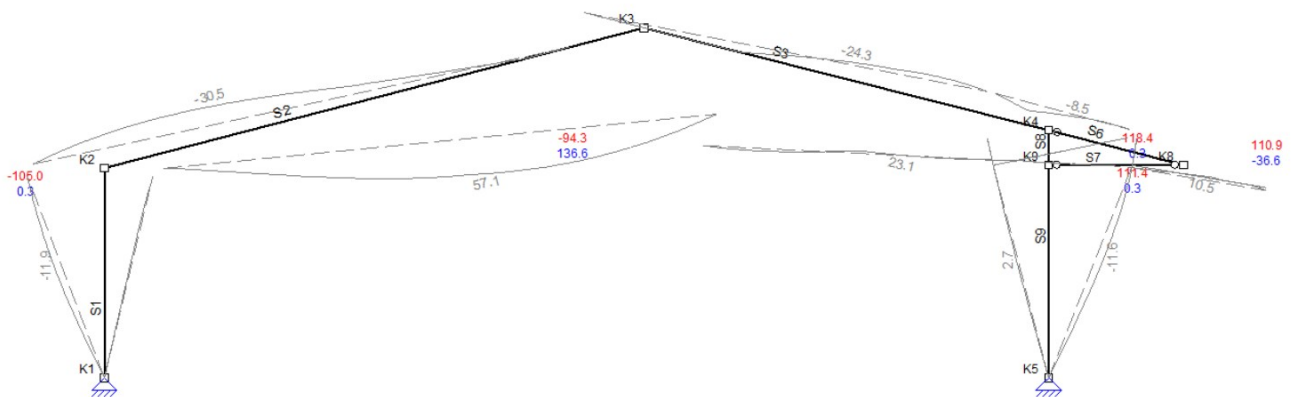
Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



Ka.C. Omhullende Doorbuigingen

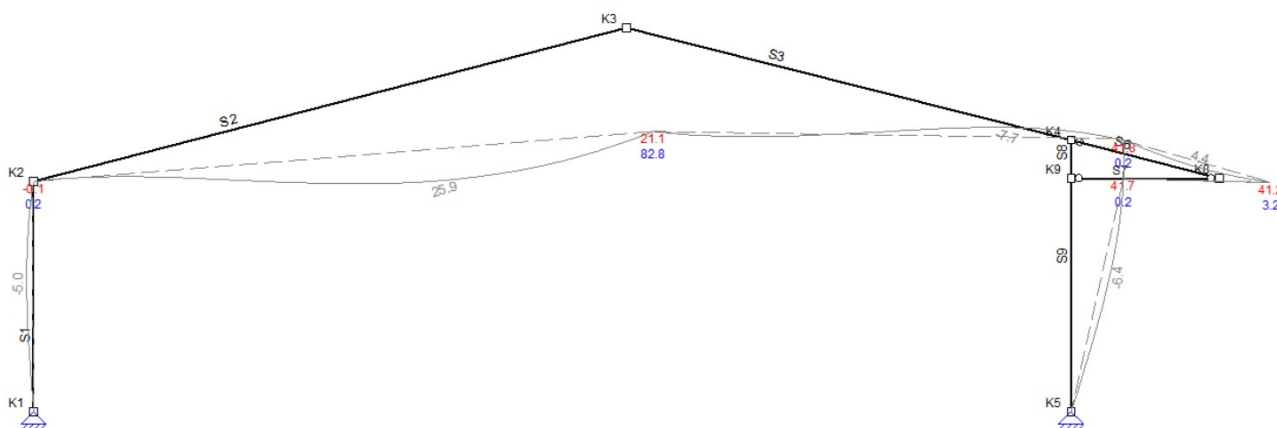


Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

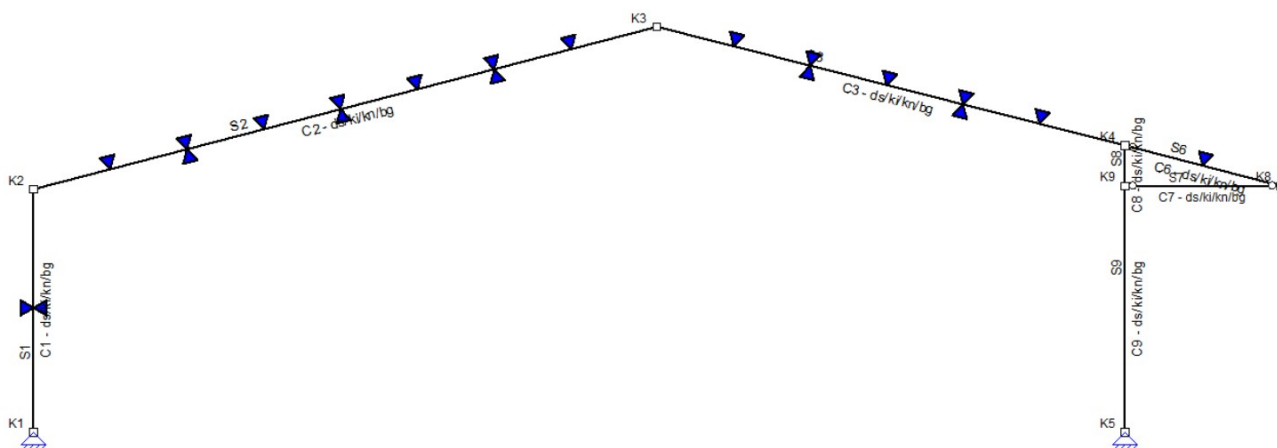
Eenheden: m, mm, kN, kNm



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staal/staven |
|-----------------|--------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |
| C6 | S6 |
| C7 | S7 |
| C8 | S8 |
| C9 | S9 |

INVOER GEGEVENS

KNIKLENGTEGEGEVENS

| Staal | Profiel | Lsys | Lokale Y-as | | Lokale Z-as | | Lbuc | Lbuc/Lsys |
|----------------------|---------|-------|--------------|-------|---------------------------|------|------|-----------|
| | | | Methode | Lbuc | Methode | Lbuc | | |
| C1-V1 (0.000-7.500) | P3 | 7.50 | Ongeschoord | 23.92 | 3.2 handmatig geschoord | 4.00 | | 0.5 |
| C2-V1 (0.000-20.365) | P3 | 20.36 | Cons. gesch. | 20.36 | 1.0 handmatig geschoord | 5.20 | | 0.3 |
| C3-V1 (0.000-15.174) | P3 | 15.17 | Cons. gesch. | 15.17 | 1.0 handmatig geschoord | 5.20 | | 0.3 |
| C6-V1 (0.000-5.166) | P5 | 5.17 | Cons. gesch. | 5.17 | 1.0 Cons. gesch. | 5.17 | | 1.0 |
| C7-V1 (0.000-5.000) | P6 | 5.00 | Cons. gesch. | 5.00 | 1.0 Cons. gesch. | 5.00 | | 1.0 |
| C8-V1 (0.000-1.000) | P3 | 1.00 | Ongeschoord | 5.05 | 5.0 handmatig ongeschoord | 5.00 | | 5.0 |
| C9-V1 (0.000-7.900) | P3 | 7.90 | Ongeschoord | 24.10 | 3.1 handmatig ongeschoord | 5.00 | | 0.6 |

m

m

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm

**KIPSTEUNENGEGEVENS**

| Staal | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|--|------------------|----------------|
| C1-V1 (0.000-7.500) | P3 | Gesteund | Gesteund | 4 | 4 | Centrum |
| C2-V1 (0.000-20.365) | P3 | Gesteund | Gesteund | 2.55,5.09,7.64,10.18,12.73,15.27,17.82 | 5.09,10.18,15.27 | Centrum |
| C3-V1 (0.000-15.174) | P3 | Gesteund | Gesteund | 2.53,5.06,7.59,10.12,12.64 | 5.06,10.12 | Centrum |
| C6-V1 (0.000-5.166) | P5 | Gesteund | Gesteund | 2.58 | | Centrum |
| C7-V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C8-V1 (0.000-1.000) | P3 | Gesteund | Gesteund | | | Centrum |
| C9-V1 (0.000-7.900) | P3 | Gesteund | Gesteund | | | Centrum |

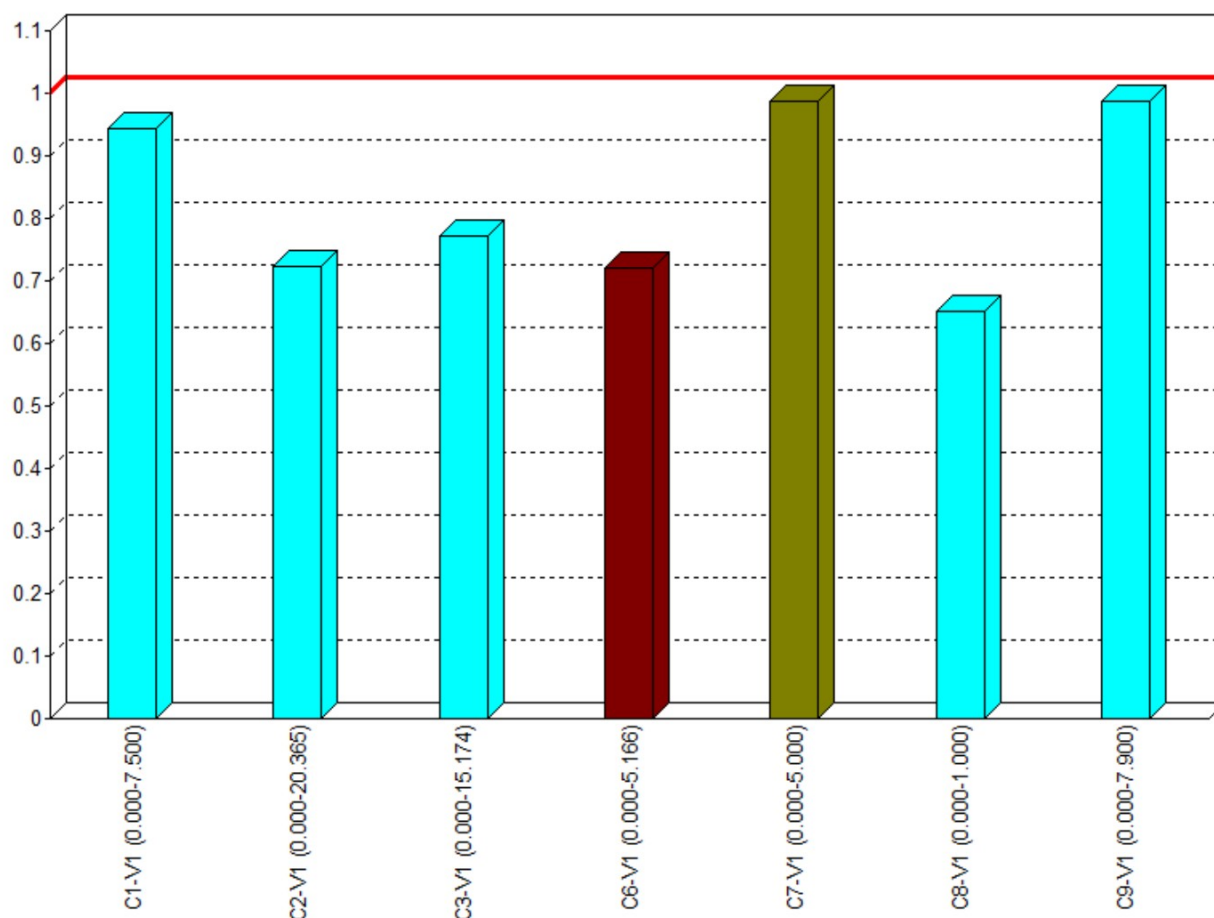
DOORBUIGINGSGEGEVENS

| Staal | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-7.500) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | H _{tot} /0 | |
| C2-V1 (0.000-20.365) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C3-V1 (0.000-15.174) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C6-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C7-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C8-V1 (0.000-1.000) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | H _{tot} /0 | |
| C9-V1 (0.000-7.900) | Kolom | Handmatig/h | 0 | Parabolisch | H/70 | H _{tot} /0 | |

mm

mm

Afb. Staal UC Diagram



Projectnummer 
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 Opdrachtgever 
 Constructeur 
 Omschrijving

Eenheden: m, mm, kN, kNm

**EXTREME UNITY CHECK**

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------------|------------|-----------------------------|-------------|
| C1-V1 (0.000-7.500) | Doorbuigingstoetsing | Ka.C.43 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.94 |
| C2-V1 (0.000-20.365) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.72 |
| C3-V1 (0.000-15.174) | Buiging & Druk | Fu.C.7 | NEN-EN1993-1-1(6.61&6.62) | 0.77 |
| C6-V1 (0.000-5.166) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.72 |
| C7-V1 (0.000-5.000) | Stabiliteit | Fu.C.51 | NEN-EN1993-1-1(6.46) | 0.99 |
| C8-V1 (0.000-1.000) | Buiging & Druk | Fu.C.7 | NEN-EN1993-1-1(6.61&6.62) | 0.65 |
| C9-V1 (0.000-7.900) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.99 |

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 Constructeur
 Omschrijving
 Bestand

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

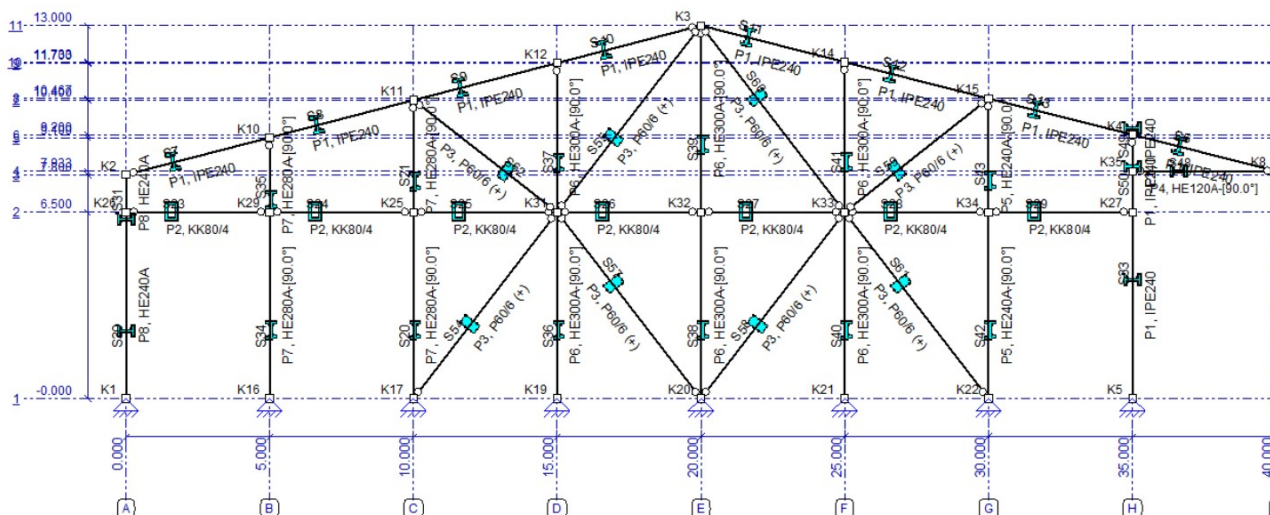


P:\Projecten van 18800-141798\berek\41798-1 Staal as 11.mxf

CONSTRUCTIEGEGEVENS

| Projecttype | Knoten | Staven | Opleggingsen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|--------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 26 | 41 | 8 | 8 | 36 | 172 |

Constructie



STAVEN

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|-----------------|
| S6 | K4 | K8 | 35.00 | 40.00 | -9.20 | -7.93 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S7 | K2 | K10 | 0.00 | 5.00 | -7.80 | -9.10 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S8 | K10 | K11 | 5.00 | 10.00 | -9.10 | -10.40 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S9 | K11 | K12 | 10.00 | 15.00 | -10.40 | -11.70 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S10 | K12 | K3 | 15.00 | 20.00 | -11.70 | -13.00 | 5.17 | P1 | 0.00 - 5.17 (L) |
| S11 | K3 | K14 | 20.00 | 25.00 | -13.00 | -11.73 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S12 | K14 | K15 | 25.00 | 30.00 | -11.73 | -10.47 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S13 | K15 | K4 | 30.00 | 35.00 | -10.47 | -9.20 | 5.16 | P1 | 0.00 - 5.16 (L) |
| S20 | K17 | K25 | 10.00 | 10.00 | 0.00 | -6.50 | 6.50 | P7 | 0.00 - 6.50 (L) |
| S21 | K25 | K11 | 10.00 | 10.00 | -6.50 | -10.40 | 3.90 | P7 | 0.00 - 3.90 (L) |
| S23 | K26 | K29 | 0.00 | 5.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S24 | K29 | K25 | 5.00 | 10.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S25 | K25 | K31 | 10.00 | 15.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S26 | K31 | K32 | 15.00 | 20.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S27 | K32 | K33 | 20.00 | 25.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S28 | K33 | K34 | 25.00 | 30.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S29 | K34 | K27 | 30.00 | 35.00 | -6.50 | -6.50 | 5.00 | P2 | 0.00 - 5.00 (L) |
| S30 | K1 | K26 | 0.00 | 0.00 | 0.00 | -6.50 | 6.50 | P8 | 0.00 - 6.50 (L) |
| S31 | K26 | K2 | 0.00 | 0.00 | -6.50 | -7.80 | 1.30 | P8 | 0.00 - 1.30 (L) |
| S33 | K27 | K5 | 35.00 | 35.00 | -6.50 | 0.00 | 6.50 | P1 | 0.00 - 6.50 (L) |
| S34 | K16 | K29 | 5.00 | 5.00 | 0.00 | -6.50 | 6.50 | P7 | 0.00 - 6.50 (L) |
| S35 | K29 | K10 | 5.00 | 5.00 | -6.50 | -9.10 | 2.60 | P7 | 0.00 - 2.60 (L) |
| S36 | K19 | K31 | 15.00 | 15.00 | 0.00 | -6.50 | 6.50 | P6 | 0.00 - 6.50 (L) |
| S37 | K31 | K12 | 15.00 | 15.00 | -6.50 | -11.70 | 5.20 | P6 | 0.00 - 5.20 (L) |
| S38 | K20 | K32 | 20.00 | 20.00 | 0.00 | -6.50 | 6.50 | P6 | 0.00 - 6.50 (L) |
| S39 | K32 | K3 | 20.00 | 20.00 | -6.50 | -13.00 | 6.50 | P6 | 0.00 - 6.50 (L) |
| S40 | K21 | K33 | 25.00 | 25.00 | 0.00 | -6.50 | 6.50 | P6 | 0.00 - 6.50 (L) |
| S41 | K33 | K14 | 25.00 | 25.00 | -6.50 | -11.73 | 5.23 | P6 | 0.00 - 5.23 (L) |
| S42 | K22 | K34 | 30.00 | 30.00 | 0.00 | -6.50 | 6.50 | P5 | 0.00 - 6.50 (L) |
| S43 | K34 | K15 | 30.00 | 30.00 | -6.50 | -10.47 | 3.97 | P5 | 0.00 - 3.97 (L) |
| S48 | K35 | K8 | 35.00 | 40.00 | -7.93 | -7.93 | 5.00 | P4 | 0.00 - 5.00 (L) |
| S49 | K4 | K35 | 35.00 | 35.00 | -9.20 | -7.93 | 1.27 | P1 | 0.00 - 1.27 (L) |
| S50 | K35 | K27 | 35.00 | 35.00 | -7.93 | -6.50 | 1.43 | P1 | 0.00 - 1.43 (L) |

m

m

m

m

m

m

Projectnummer
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Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staafl | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|--------|---------|---------|-------|-------|--------|--------|--------|---------|-----------------|
| S54 | K17 | K31 | 10.00 | 15.00 | 0.00 | -6.50 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S55 | K31 | K3 | 15.00 | 20.00 | -6.50 | -13.00 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S57 | K31 | K20 | 15.00 | 20.00 | -6.50 | 0.00 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S58 | K20 | K33 | 20.00 | 25.00 | 0.00 | -6.50 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S59 | K33 | K15 | 25.00 | 30.00 | -6.50 | -10.47 | 6.38 | P3 | 0.00 - 6.38 (L) |
| S60 | K3 | K33 | 20.00 | 25.00 | -13.00 | -6.50 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S61 | K33 | K22 | 25.00 | 30.00 | -6.50 | 0.00 | 8.20 | P3 | 0.00 - 8.20 (L) |
| S62 | K31 | K11 | 15.00 | 10.00 | -6.50 | -10.40 | 6.34 | P3 | 0.00 - 6.34 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | IPE240 | 3912 | 3.8916e+07 | S235 | 0 |
| P2 | KK80/4 | 1175 | 1.1104e+06 | S235H(EN10219-1) | 0 |
| P3 | P60/6 | 360 | 1.0800e+05 | S235 | 0 |
| P4 | HE120A | 2534 | 2.3090e+06 | S235 | 90 |
| P5 | HE240A | 7684 | 2.7688e+07 | S235 | 90 |
| P6 | HE300A | 11253 | 6.3096e+07 | S355 | 90 |
| P7 | HE280A | 9726 | 4.7626e+07 | S355 | 90 |
| P8 | HE240A | 7684 | 7.7632e+07 | S235 | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|------------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °m |

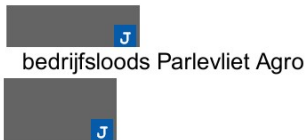
PROFIELEN (GEAVANCEERD)

| Profiel | Ivv | Avz | Trek | Druk | Kabelelement | Voorspanning |
|---------|----------------|----------------|------|------|--------------|--------------|
| P3 | 1.0800e-09 | 3.0000e-04 | Ja | Nee | Nee | Nee |
| | m ⁴ | m ⁴ | | | | |

SCHARNIEREN

| Staafl | Positie | Scharnier | X | Z | Yr |
|--------|----------|-----------|------|------|---------|
| S6 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S8 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S9 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.17 (L) | A1 | Vast | Vast | Vast |
| S10 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.17 (L) | A2 | Vast | Vast | Vrij |
| S11 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S12 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S13 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.16 (L) | A1 | Vast | Vast | Vast |
| S20 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S21 | 0.00 | A1 | Vast | Vast | Vast |
| | 3.90 (L) | A2 | Vast | Vast | Vrij |
| S23 | 0.00 | A2 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

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Eenheden: m, mm, kN, kNm



| Staaf | Positie | Scharnier | X | Z | Yr |
|----------|----------|-----------|-------------|-------------|----------------|
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S24 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S25 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S26 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S27 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S28 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S29 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S30 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S31 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.30 (L) | A1 | Vast | Vast | Vast |
| S33 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S34 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S35 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.60 (L) | A2 | Vast | Vast | Vrij |
| S36 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S37 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.20 (L) | A2 | Vast | Vast | Vrij |
| S38 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S39 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A2 | Vast | Vast | Vrij |
| S40 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S41 | 0.00 | A1 | Vast | Vast | Vast |
| | 5.23 (L) | A2 | Vast | Vast | Vrij |
| S42 | 0.00 | A1 | Vast | Vast | Vast |
| | 6.50 (L) | A1 | Vast | Vast | Vast |
| S43 | 0.00 | A1 | Vast | Vast | Vast |
| | 3.97 (L) | A2 | Vast | Vast | Vrij |
| S48 | 0.00 | A2 | Vast | Vast | Vrij |
| | 5.00 (L) | A2 | Vast | Vast | Vrij |
| S49 | 0.00 | A2 | Vast | Vast | Vrij |
| | 1.27 (L) | A1 | Vast | Vast | Vast |
| S50 | 0.00 | A1 | Vast | Vast | Vast |
| | 1.42 | A1 | Vast | Vast | Vast |
| S54 | 0.00 | A2 | Vast | Vast | Vrij |
| | 8.20 (L) | A2 | Vast | Vast | Vrij |
| S55 | 0.00 | A2 | Vast | Vast | Vrij |
| | 8.20 (L) | A2 | Vast | Vast | Vrij |
| S57 | 0.00 | A2 | Vast | Vast | Vrij |
| | 8.20 (L) | A2 | Vast | Vast | Vrij |
| S58 | 0.00 | A2 | Vast | Vast | Vrij |
| | 8.20 (L) | A2 | Vast | Vast | Vrij |
| S59 | 0.00 | A2 | Vast | Vast | Vrij |
| | 6.38 (L) | A2 | Vast | Vast | Vrij |
| S60 | 0.00 | A2 | Vast | Vast | Vrij |
| | 8.20 (L) | A2 | Vast | Vast | Vrij |
| S61 | 0.00 | A2 | Vast | Vast | Vrij |
| | 8.20 (L) | A2 | Vast | Vast | Vrij |
| S62 | 0.00 | A2 | Vast | Vast | Vrij |
| | 6.34 (L) | A2 | Vast | Vast | Vrij |
| m | | | kN/m | kN/m | kNm/rad |

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 Opdrachtgever 
 Constructeur 
 Omschrijving 

Eenheden: m, mm, kN, kNm

**OPLEGGINGEN**

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | | 0 |
| O2 | K5 | K5 | Vast | Vast | Vrij | | 0 |
| O3 | K16 | K16 | Vast | Vast | Vrij | | 0 |
| O4 | K17 | K17 | Vast | Vast | Vrij | | 0 |
| O5 | K19 | K19 | Vast | Vast | Vrij | | 0 |
| O6 | K20 | K20 | Vast | Vast | Vrij | | 0 |
| O7 | K21 | K21 | Vast | Vast | Vrij | | 0 |
| O8 | K22 | K22 | Vast | Vast | Vrij | | 0 |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

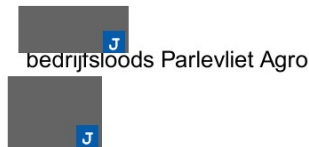
NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|---|---|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 3.20 | 3.20 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 40.00 | 40.00 | [m] |
| Width2 | Totale breedte van constructie | 64.00 | 64.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S7,S11,S6,S8,S9,S10,S12,S13) | | | |
| Pp1 | sandwichpanelen + zonnepanelen | 0.40 | 0.40 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1.28 | [kN/m] |
| LR2 (Opgelegde belastingen (q) (Lsys=3.20)) | | | | |
| | Opgelegde belastingen | NEN-EN1991-1-1:2011/NB:2019 | | |
| | S7-S10 | | | |
| qk1 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=15) | 1.00 | [kN/m²] |
| q2 | Opgelegde belastingen (q) (Lsys=3.20) | qk1 * Min(5.0, Lsys1) | 3.20 | [kN/m] |
| | S6,S11-S13 | | | |
| qk2 | Opgelegde belastingen (qk) | NEN-EN1991-1-1#6.3(Cat=H, SubCat=1, Hoek=14) | 1.00 | [kN/m²] |
| q3 | Opgelegde belastingen (q) (Lsys=3.20) | qk2 * Min(5.0, Lsys1) | 3.20 | [kN/m] |
| LR3 (Constructie factor (CsCd)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A1 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |

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Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|---|---|--|--------|----------------------|
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe2 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57) | -0.93 | |
| q4 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp1*Cpe2*CsCd1) * Lsys1 | -2.79 | [kN/m] |
| q5 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.60 | [kN/m] |
| Cpe3 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q6 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp1*Cpe3*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe4 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q7 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp1*Cpe4*CsCd1) * Lsys1 | -1.24 | [kN/m] |
| Cpe5 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q8 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp1*Cpe5*CsCd1) * Lsys1 | -2.70 | [kN/m] |
| Cpe6 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q9 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp1*Cpe6*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe7 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp1*Cpe7*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR5 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| Windbelasting van Links + Overdruk (2e Cpe) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A2 | Belast oppervlak (A) | 41.60 | 41.60 | [m ²] |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe9 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Eerst=False) | 0.19 | |
| q11 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp2*Cpe9*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0.60 | [kN/m] |
| Cpe10 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57,Eerst=False) | 0.19 | |
| q13 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp2*Cpe10*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| Cpe11 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22,Eerst=False) | 0.00 | |
| q14 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp2*Cpe11*CsCd1) * Lsys1 | 0.00 | [kN/m] |

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Eenheden: m, mm, kN, kNm



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|---|---|--|--------|----------|
| Cpe12 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.2, Eerst=False) | 0.02 | |
| q15 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp2*Cpe12*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe13 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q16 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp2*Cpe13*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q17 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp2*Cpe14*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR6 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A3 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,O ver=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe16 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57) | -0.93 | |
| q18 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp3*Cpe16*CsCd1) * Lsys1 | -2.79 | [kN/m] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -0.89 | [kN/m] |
| Cpe17 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.57) | -0.31 | |
| q20 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp3*Cpe17*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe18 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.22) | -0.42 | |
| q21 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp3*Cpe18*CsCd1) * Lsys1 | -1.24 | [kN/m] |
| Cpe19 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.22) | -0.91 | |
| q22 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp3*Cpe19*CsCd1) * Lsys1 | -2.70 | [kN/m] |
| Cpe20 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q23 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp3*Cpe20*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe21 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q24 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp3*Cpe21*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR7 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A4 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,O ver=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |

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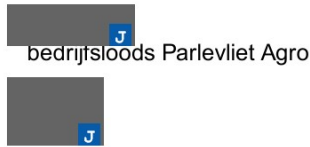
Eenheden: m, mm, kN, kNm



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|---|---|--|--------|----------------------|
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5, Terrein=Cat1, Regio=Region1, C0=Co1) | 0.93 | [kN/m ²] |
| Cpe23 | Zadeldak; Druk coefficient (Cpe): S7 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=F, Hoek=14.5, Eerst=False) | 0.19 | |
| q25 | Zadeldak; Verdeelde element belasting (q): S7 | (Qp4*Cpe23*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| q26 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -0.89 | [kN/m] |
| Cpe24 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=H, Hoek=14.5, Eerst=False) | 0.19 | |
| q27 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp4*Cpe24*CsCd1) * Lsys1 | 0.57 | [kN/m] |
| Cpe25 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=I, Hoek=14.2, Eerst=False) | 0.00 | |
| q28 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp4*Cpe25*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| Cpe26 | Zadeldak; Druk coefficient (Cpe): S11 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=J, Hoek=14.2, Eerst=False) | 0.02 | |
| q29 | Zadeldak; Verdeelde element belasting (q): S11 | (Qp4*Cpe26*CsCd1) * Lsys1 | 0.05 | [kN/m] |
| Cpe27 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=D, hd=0.33, Eerst=False) | 0.80 | |
| q30 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp4*Cpe27*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| Cpe28 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=E, hd=0.33, Eerst=False) | -0.50 | |
| q31 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp4*Cpe28*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| LR8 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A5 | Belast oppervlak (A) | 41.60 | 41.60 | [m ²] |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=D, hd=0.33) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29, Openingen=0.00, Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6, Terrein=Cat1, Regio=Region1, C0=Co1) | 0.93 | [kN/m ²] |
| Cpe30 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=I, Hoek=14.5, Eerst=False) | -0.41 | |
| q32 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp5*Cpe30*CsCd1) * Lsys1 | -1.22 | [kN/m] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 0.60 | [kN/m] |
| Cpe31 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=J, Hoek=14.5, Eerst=False) | -0.95 | |
| q34 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp5*Cpe31*CsCd1) * Lsys1 | -2.83 | [kN/m] |
| Cpe32 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak, Zone=H, Hoek=14.2, Eerst=False) | -0.32 | |
| q35 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp5*Cpe32*CsCd1) * Lsys1 | -0.96 | [kN/m] |
| Cpe33 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=E, hd=0.33) | -0.50 | |
| q36 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp5*Cpe33*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe34 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=D, hd=0.33) | 0.80 | |
| q37 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp5*Cpe34*CsCd1) * Lsys1 | 2.38 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S32,S33)

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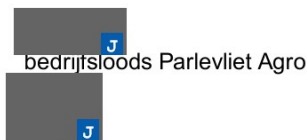


Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|---|--|--------|----------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A6 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe35 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe35,Openingen=0.00,O ver=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe36 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q38 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp6*Cpe36*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| q39 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 0.60 | [kN/m] |
| Cpe37 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q40 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp6*Cpe37*CsCd1) * Lsys1 | 0.03 | [kN/m] |
| Cpe38 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q41 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp6*Cpe38*CsCd1) * Lsys1 | 0.55 | [kN/m] |
| Cpe39 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q42 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp6*Cpe39*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe40 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp6*Cpe40*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR10 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A7 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=0.00,O ver=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe42 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57) | -0.41 | |
| q44 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp7*Cpe42*CsCd1) * Lsys1 | -1.22 | [kN/m] |
| q45 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -0.89 | [kN/m] |
| Cpe43 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57) | -0.95 | |
| q46 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp7*Cpe43*CsCd1) * Lsys1 | -2.83 | [kN/m] |
| Cpe44 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22) | -0.32 | |
| q47 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp7*Cpe44*CsCd1) * Lsys1 | -0.96 | [kN/m] |

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|--|---|--|--------|----------|
| Cpe45 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| q48 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp7*Cpe45*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe46 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp7*Cpe46*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR11 (Vertikale wand; Verdeelde element belasting (q): S32,S33) | | | | |
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 3.20 | 3.20 | [m] |
| A8 | Belast oppervlak (A) | 41.60 | 41.60 | [m²] |
| Cpe47 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe47,Openingen=0.00,O ver=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe48 | Zadeldak; Druk coefficient (Cpe): S7,S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=14.57,Eerst=False) | 0.00 | |
| q50 | Zadeldak; Verdeelde element belasting (q): S7,S8,S9,S10 | (Qp8*Cpe48*CsCd1) * Lsys1 | 0.00 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp8) * Lsys1 | -0.89 | [kN/m] |
| Cpe49 | Zadeldak; Druk coefficient (Cpe): S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=14.57,Eerst=False) | 0.01 | |
| q52 | Zadeldak; Verdeelde element belasting (q): S10 | (Qp8*Cpe49*CsCd1) * Lsys1 | 0.03 | [kN/m] |
| Cpe50 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=14.22,Eerst=False) | 0.18 | |
| q53 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp8*Cpe50*CsCd1) * Lsys1 | 0.55 | [kN/m] |
| Cpe51 | Vertikale wand; Druk coefficient (Cpe): S30,S31 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.33,Eerst=False) | -0.50 | |
| q54 | Vertikale wand; Verdeelde element belasting (q): S30,S31 | (Qp8*Cpe51*CsCd1) * Lsys1 | -1.49 | [kN/m] |
| Cpe52 | Vertikale wand; Druk coefficient (Cpe): S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.33,Eerst=False) | 0.80 | |
| q55 | Vertikale wand; Verdeelde element belasting (q): S32,S33 | (Qp8*Cpe52*CsCd1) * Lsys1 | 2.38 | [kN/m] |
| LR12 (Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33) | | | | |
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe53 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe53,Openingen=0.00,O ver=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe54 | Zadeldak; Druk coefficient (Cpe): S7,S8 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Richting=90) | -1.31 | |
| q56 | Zadeldak; Verdeelde element belasting (q): S7,S8 | (Qp9*Cpe54*CsCd1) * Lsys1 | -3.91 | [kN/m] |
| q57 | Interne druk; Verdeelde element belasting (q) | (Cpi9*Qp9) * Lsys1 | 0.60 | [kN/m] |

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|-------|--|--|--------|----------|
| Cpe55 | Zadeldak; Druk coefficient (Cpe): S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Richting=90) | -1.30 | |
| q58 | Zadeldak; Verdeelde element belasting (q): S8,S9,S10 | (Qp9*Cpe55*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe56 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.22,Richting=90) | -1.30 | |
| q59 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp9*Cpe56*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe57 | Zadeldak; Druk coefficient (Cpe): S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.22,Richting=90) | -1.32 | |
| q60 | Zadeldak; Verdeelde element belasting (q): S13 | (Qp9*Cpe57*CsCd1) * Lsys1 | -3.95 | [kN/m] |
| Cpe58 | Vertikale wand; Druk coefficient (Cpe): S30,S31,S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| q61 | Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33 | (Qp9*Cpe58*CsCd1) * Lsys1 | -3.58 | [kN/m] |

LR13 (Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33)

| | | | | |
|---------|--|--|--------|---------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe59 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe59,Openingen=0.00,O ver=False) | -0.30 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region 1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe60 | Zadeldak; Druk coefficient (Cpe): S7,S8 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.57,Richting=90) | -1.31 | |
| q62 | Zadeldak; Verdeelde element belasting (q): S7,S8 | (Qp10*Cpe60*CsCd1) * Lsys1 | -3.91 | [kN/m] |
| q63 | Interne druk; Verdeelde element belasting (q) | (Cpi10*Qp10) * Lsys1 | -0.89 | [kN/m] |
| Cpe61 | Zadeldak; Druk coefficient (Cpe): S8,S9,S10 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.57,Richting=90) | -1.30 | |
| q64 | Zadeldak; Verdeelde element belasting (q): S8,S9,S10 | (Qp10*Cpe61*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe62 | Zadeldak; Druk coefficient (Cpe): S11,S12,S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=14.22,Richting=90) | -1.30 | |
| q65 | Zadeldak; Verdeelde element belasting (q): S11,S12,S13 | (Qp10*Cpe62*CsCd1) * Lsys1 | -3.88 | [kN/m] |
| Cpe63 | Zadeldak; Druk coefficient (Cpe): S13 | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=14.22,Richting=90) | -1.32 | |
| q66 | Zadeldak; Verdeelde element belasting (q): S13 | (Qp10*Cpe63*CsCd1) * Lsys1 | -3.95 | [kN/m] |
| Cpe64 | Vertikale wand; Druk coefficient (Cpe): S30,S31,S32,S33 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=A,hd=0.20) | -1.20 | |
| q67 | Vertikale wand; Verdeelde element belasting (q): S30,S31,S32,S33 | (Qp10*Cpe64*CsCd1) * Lsys1 | -3.58 | [kN/m] |

LR14 (Geconcentreerde element belasting (F))

| | | | | |
|---------|--|--|--------|---------|
| | Windbelasting (enkele luifel) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 64.00 | 64.00 | [m] |
| A11 | Belast oppervlak (A) | 832.00 | 832.00 | [m²] |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K8,K10,K11,K12,K14,K15,K16,K17,K19,K20,K21,K22,K25,K26,K27,K29,K31,K32,K33,K34 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region 1,C0=Co1) | 0.93 | [kN/m²] |

Eenzijdige overkappingen S6

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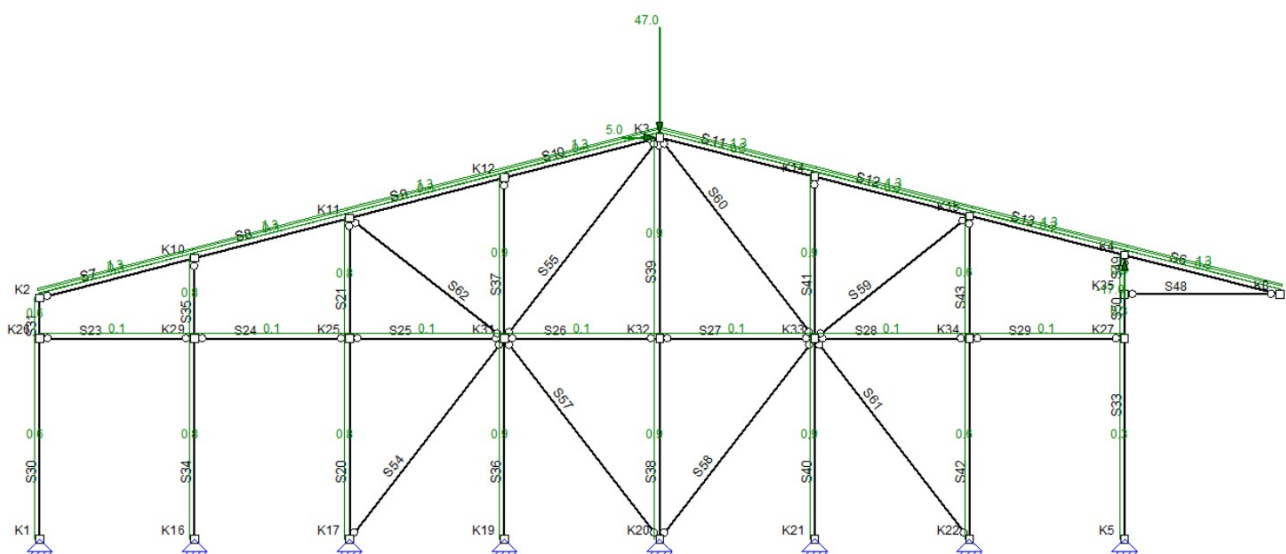
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Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|---|--|--|--------|----------------------|
| Cpnet1 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappinggen,Zone=CF,Hoek=14.22) | 0.67 | |
| F1 | Geconcentreerde element belasting (F) | $(Q_{p11} \cdot Cpnet1 \cdot CsCd1) \cdot L_{sys1} \cdot 5.16$ | 10.29 | [kN] |
| Cpnet2 | Druk coefficient (Cpnet) | NEN-EN1991-1-4#7.3(Dak=EenzijdigeOverkappinggen,Zone=CF,Hoek=14.22,Obstructie=2) | -1.40 | |
| F2 | Geconcentreerde element belasting (F) | $(Q_{p11} \cdot Cpnet2 \cdot CsCd1) \cdot L_{sys1} \cdot 5.16$ | -21.54 | [kN] |
| LR15 (Verdeelde element belasting (q)) | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2019 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0.70 | [kN/m ²] |
| 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 | |
| Mu1 | Zadeldak, Mu1 Hoek: 14.22; S6,S11,S12,S13 Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.22,Mu=M1,Sk=Sk1) | 0.80 | |
| q68 | Verdeelde element belasting (q) | $(Sk1 \cdot Ce1 \cdot Ct1 \cdot Mu1) \cdot L_{sys1}$ | 1.79 | [kN/m] |
| q69 | Verdeelde element belasting (q) | $q68 \cdot 0.50$ | 0.90 | [kN/m] |
| Mu2 | Zadeldak, Mu1 Hoek: 14.57; S7,S8,S9,S10 Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=14.57,Mu=M1,Sk=Sk1) | 0.80 | |
| q70 | Verdeelde element belasting (q) | $(Sk1 \cdot Ce1 \cdot Ct1 \cdot Mu2) \cdot L_{sys1}$ | 1.79 | [kN/m] |
| q71 | Verdeelde element belasting (q) | $q70 \cdot 0.50$ | 0.90 | [kN/m] |
| LR16 (Horizontale druk bewaring) | | | | |
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m ³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q72 | Horizontale druk bewaring | $Ka1 \cdot Height4 \cdot D1 \cdot L_{sys1}$ | 29.55 | [kN/m] |

B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|---------------|--------------|
| | | | m | m | | | |

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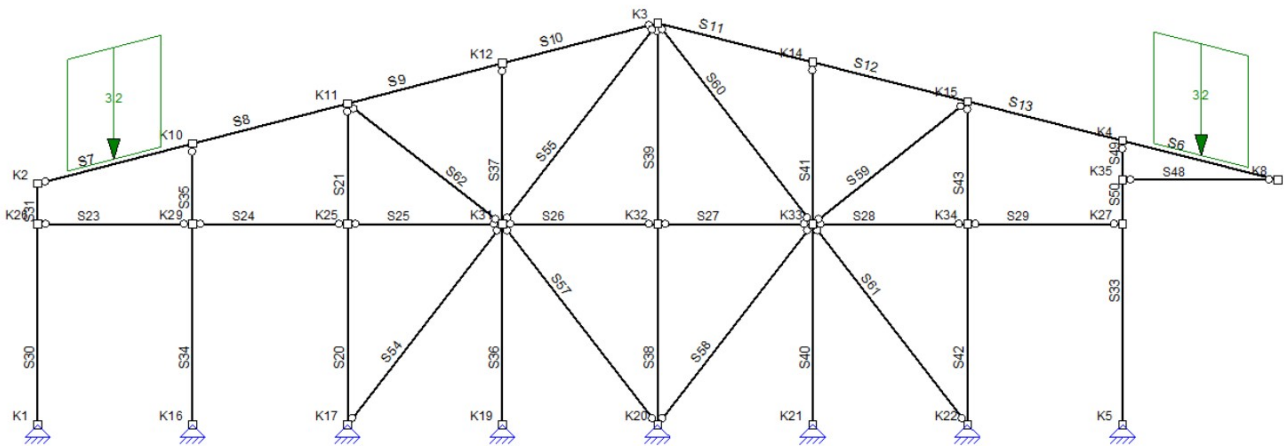
Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S6-S13,S20-S21, S23-S31,S33-S43,S49-S50 | |
| q | 1.3 (q1) | 1.3 (q1) | 0.00 | L | Z" | S6-S13 | |
| N | 47.0 | | | | Z | K3 | |
| N | 5.0 | | | | X | K3 | |
| N | -17.0 | | | | Z | K4 | |

m m

B.G.2: Opgelegde belastingen. Vloer 1, Veld 1

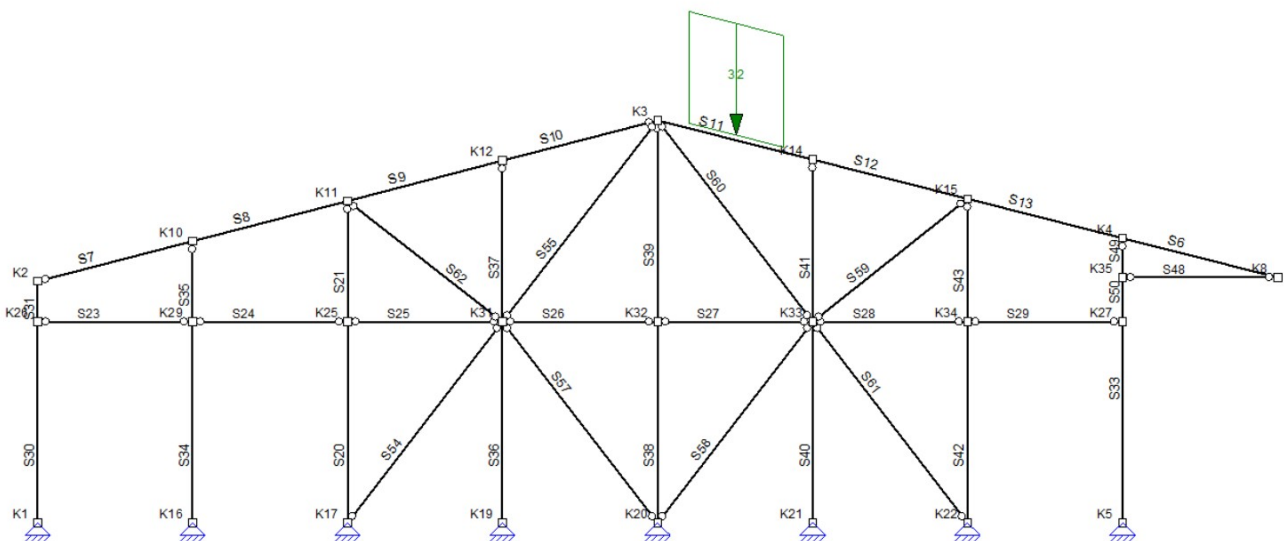


B.G.2: OPGELEGDE BELASTINGEN. VLOER 1, VELD 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q2) | 3.2 (q2) | 1.02 | 4.15 | Z" | S7 | |
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S6 | |

m m

B.G.3: Opgelegde belastingen. Vloer 2, Veld 2



B.G.3: OPGELEGDE BELASTINGEN. VLOER 2, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S11 | |

m m

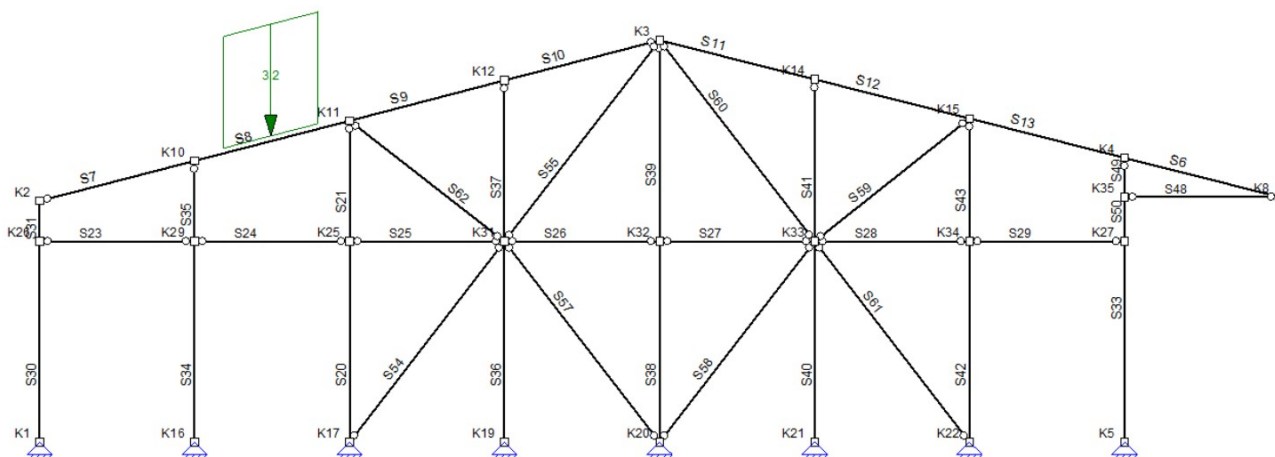
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Eenheden: m, mm, kN, kNm



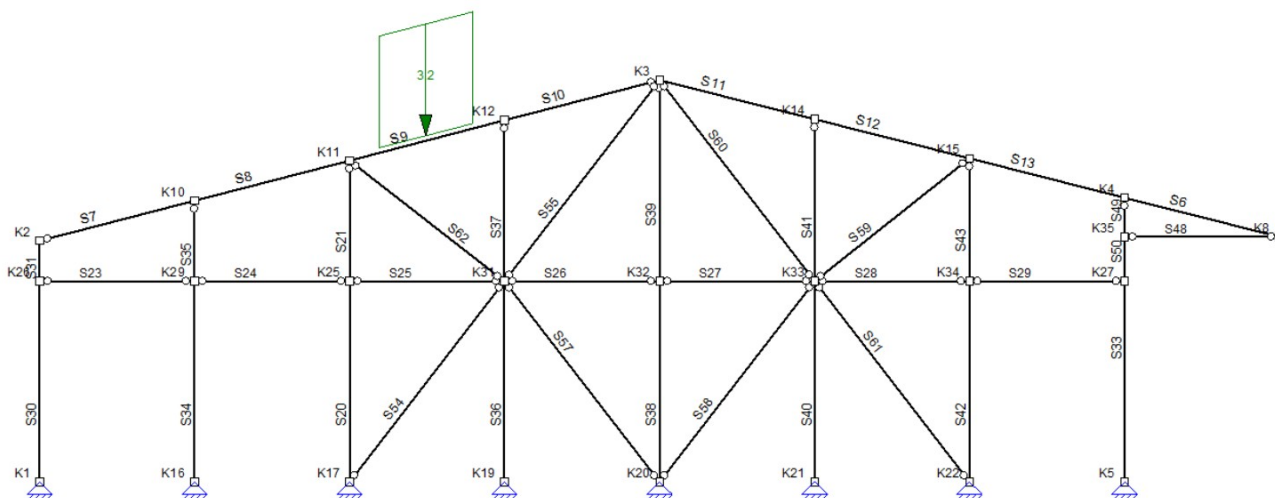
B.G.4: Opgelegde belastingen. Vloer 3, Veld 2



B.G.4: OPGELEGDE BELASTINGEN. VLOER 3, VELD 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-----------------------|-----------------------|--------------|-------------|----------|-----------------|--------------|
| q | 3.2 (q ₂) | 3.2 (q ₂) | 1.02 | 4.15 | Z" | S8 | |
| | | | m | m | | | |

B.G.5: Opgelegde belastingen. Vloer 4, Veld 3



B.G.5: OPGELEGDE BELASTINGEN. VLOER 4, VELD 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-----------------------|-----------------------|--------------|-------------|----------|-----------------|--------------|
| q | 3.2 (q ₂) | 3.2 (q ₂) | 1.02 | 4.15 | Z" | S9 | |
| | | | m | m | | | |

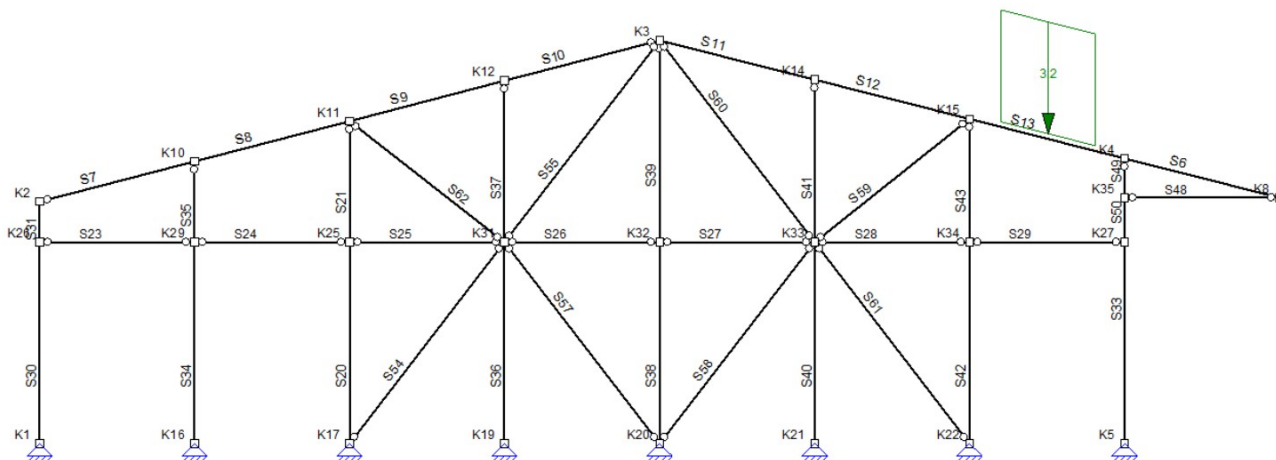
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Eenheden: m, mm, kN, kNm



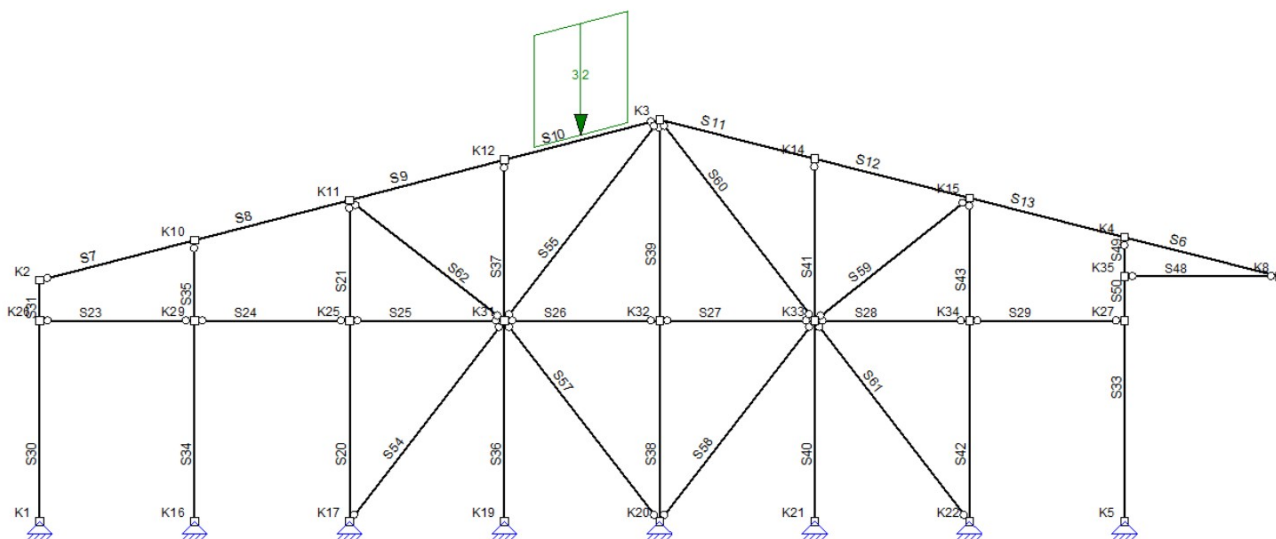
B.G.6: Opgelegde belastingen. Vloer 5, Veld 7



B.G.6: OPGELEGDE BELASTINGEN. VLOER 5, VELD 7

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S13 | |
| | | | m | m | | | |

B.G.7: Opgelegde belastingen. Vloer 6, Veld 4



B.G.7: OPGELEGDE BELASTINGEN. VLOER 6, VELD 4

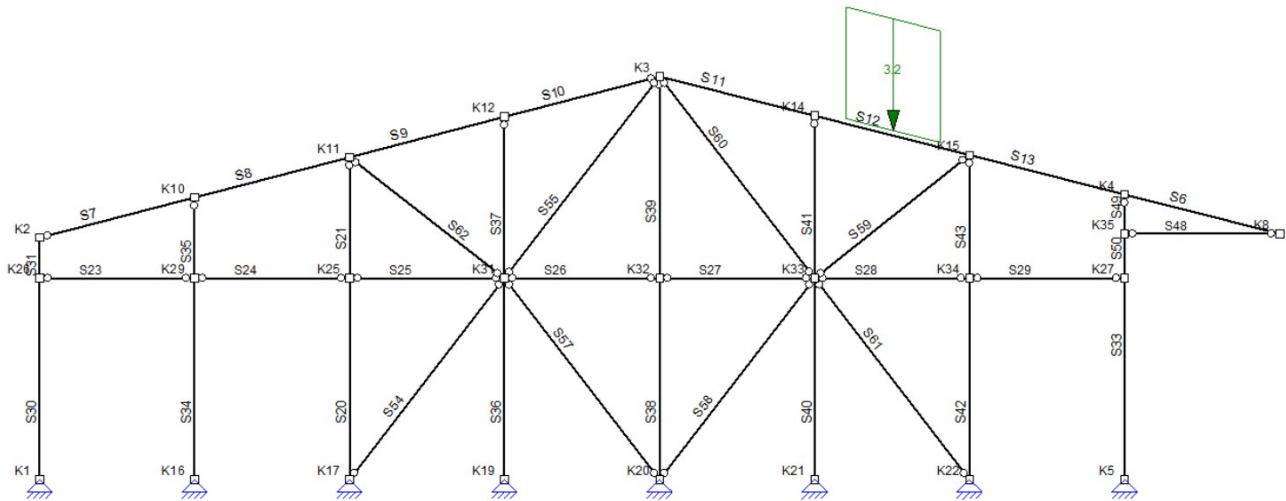
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.2 (q2) | 3.2 (q2) | 1.02 | 4.15 | Z" | S10 | |
| | | | m | m | | | |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



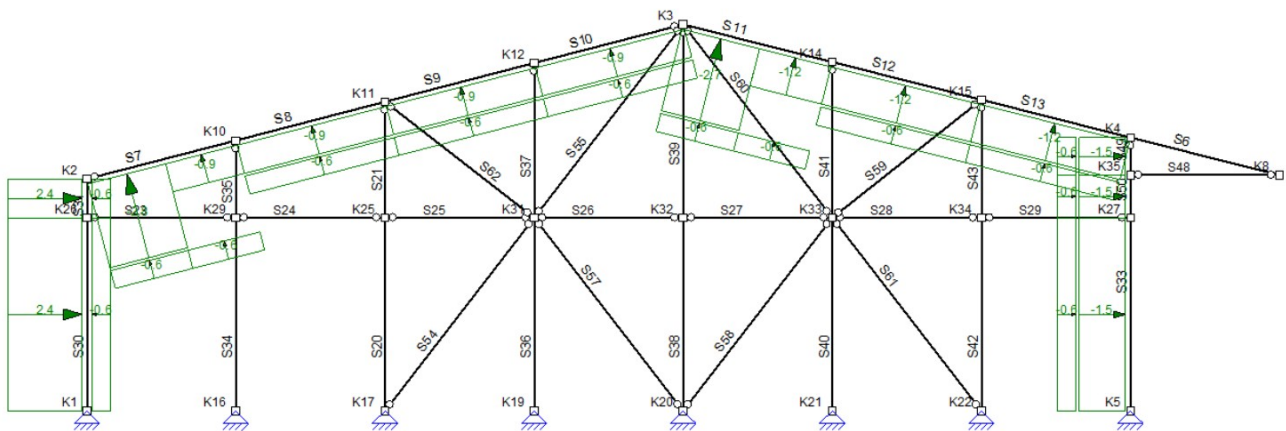
B.G.8: Opgelegde belastingen. Vloer 7, Veld 6



B.G.8: OPGELEGDE BELASTINGEN. VLOER 7, VELD 6

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| q | 3.2 (q3) | 3.2 (q3) | 1.02 | 4.14 | Z" | S12 | |
| | | | m | m | | | |

B.G.9: Windbelasting van Links + Overdruk



B.G.9: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -2.8 (q4) | -2.8 (q4) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q6) | -0.9 (q6) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.9 (q6) | -0.9 (q6) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q7) | -1.2 (q7) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q8) | -2.7 (q8) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q7) | -1.2 (q7) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q9) | 2.4 (q9) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q10) | -1.5 (q10) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

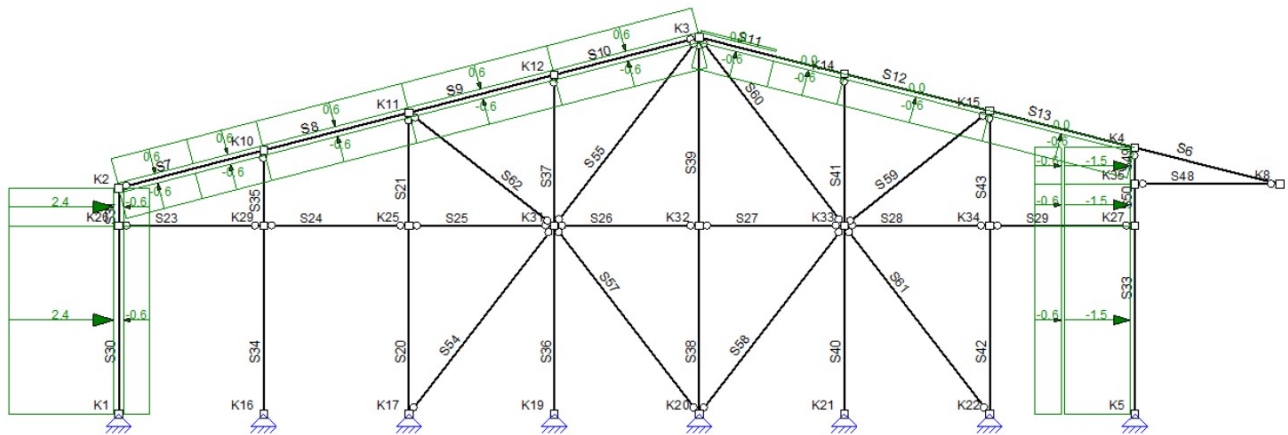
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



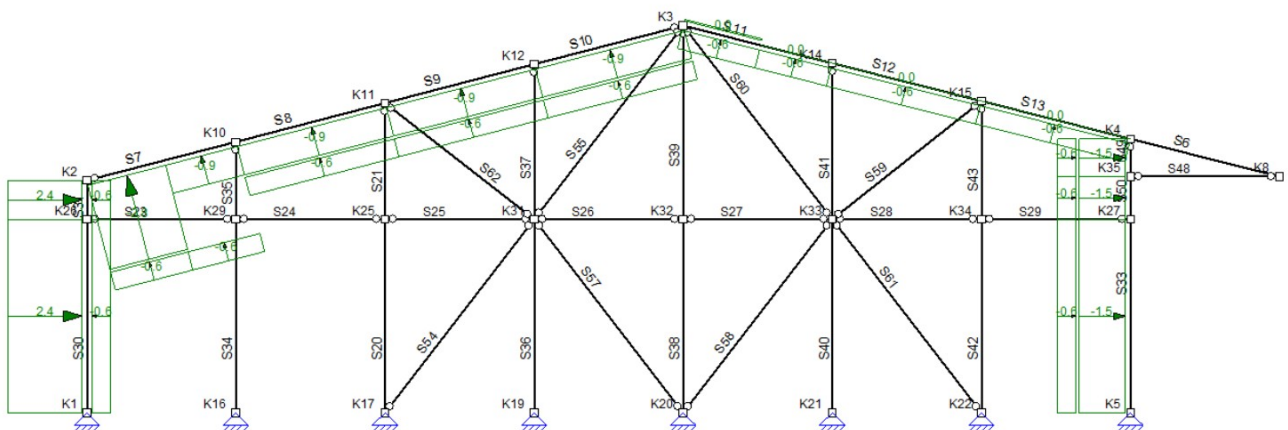
B.G.10: Windbelasting van Links + Overdruk (2e Cpe)



B.G.10: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|--|--------------|
| q | 0.6 (q11) | 0.6 (q11) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 0.00 | L | Z' | S8-S10, S12-S13, S30-S31, S33, S49-S50 | |
| q | 0.0 (q14) | 0.0 (q14) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q15) | 0.0 (q15) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q12) | -0.6 (-q12) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q14) | 0.0 (q14) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q16) | 2.4 (q16) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q17) | -1.5 (q17) | 0.00 | L | Z' | S33, S49-S50 | |
| | | | m | m | | | |

B.G.11: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.11: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -2.8 (q4) | -2.8 (q4) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q6) | -0.9 (q6) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.69 | 5.17 (L) | Z' | S7 | |
| | | | m | m | | | |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

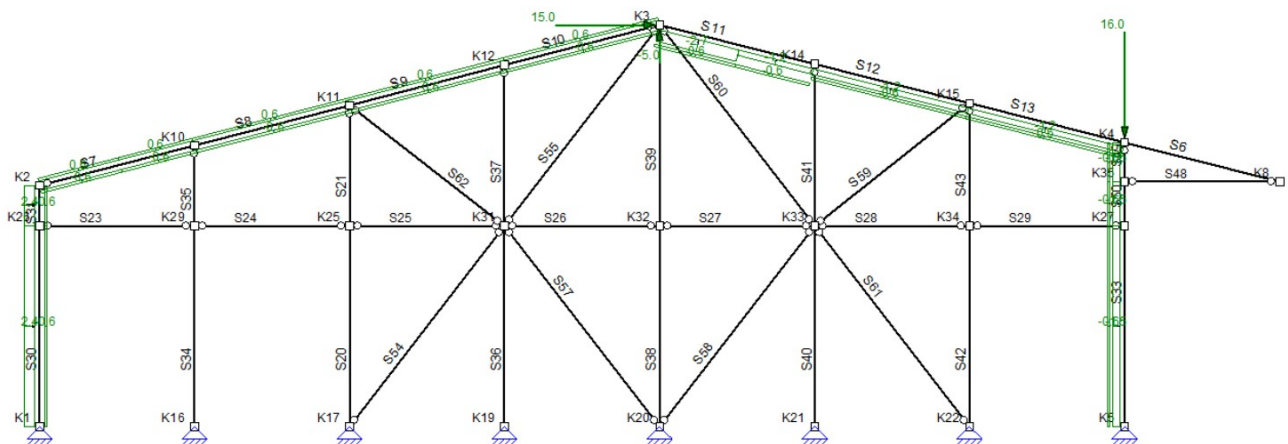


Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -0.9 (q6) | -0.9 (q6) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q14) | 0.0 (q14) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q15) | 0.0 (q15) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q14) | 0.0 (q14) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q9) | 2.4 (q9) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q10) | -1.5 (q10) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

B.G.12: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



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

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | 0.6 (q11) | 0.6 (q11) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q13) | 0.6 (q13) | 0.00 | L | Z' | S8-S10 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q7) | -1.2 (q7) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q8) | -2.7 (q8) | 0.00 | 2.68 | Z' | S11 | |
| q | -0.6 (-q5) | -0.6 (-q5) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q7) | -1.2 (q7) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q9) | 2.4 (q9) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q10) | -1.5 (q10) | 0.00 | L | Z' | S33,S49-S50 | |
| N | 15.0 | | | | X | K3 | |
| N | -5.0 | | | | Z | K3 | |
| N | 16.0 | | | | Z | K4 | |
| | | | m | m | | | |

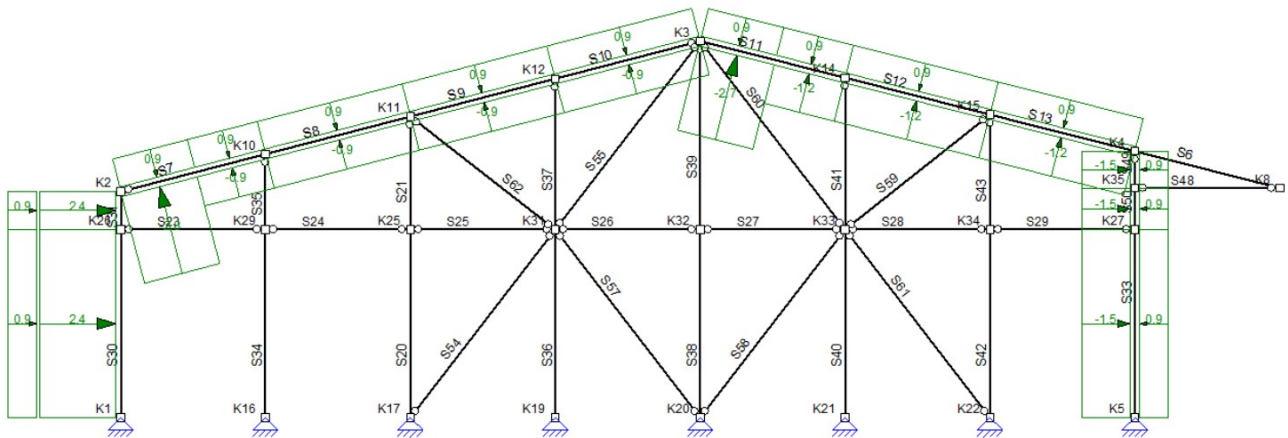
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



B.G.13: Windbelasting van Links + Onderdruk

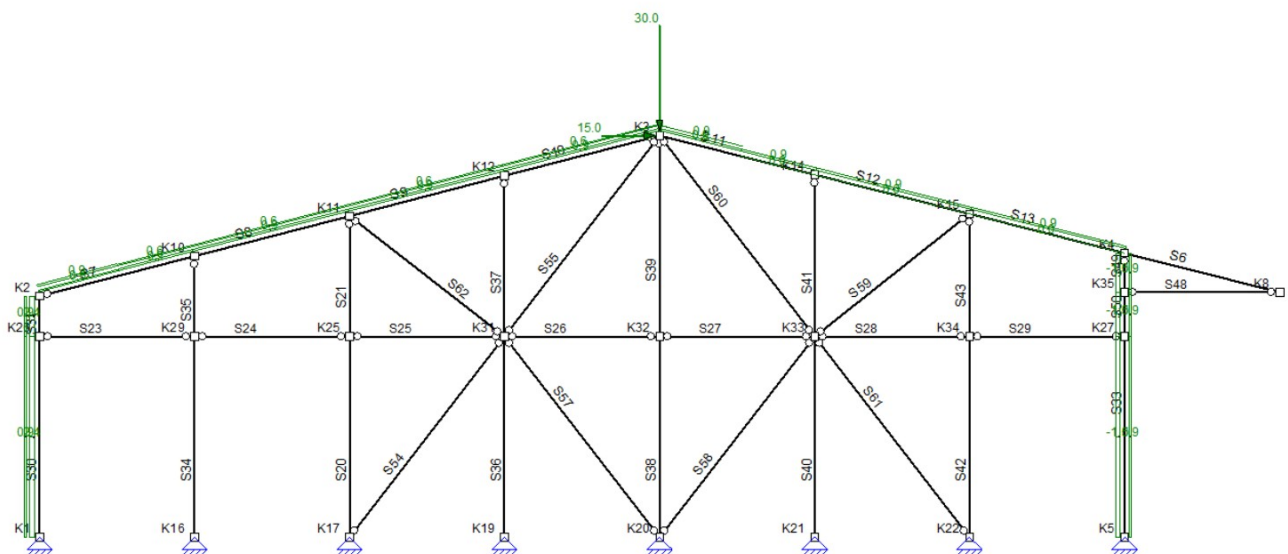


B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -2.8 (q18) | -2.8 (q18) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q21) | -1.2 (q21) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q22) | -2.7 (q22) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q21) | -1.2 (q21) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q23) | 2.4 (q23) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q24) | -1.5 (q24) | 0.00 | L | Z' | S33,S49-S50 | |

m m

B.G.14: Windbelasting van Links + Onderdruk (2e Cpe)

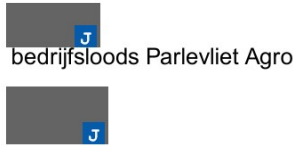


B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|

m m

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

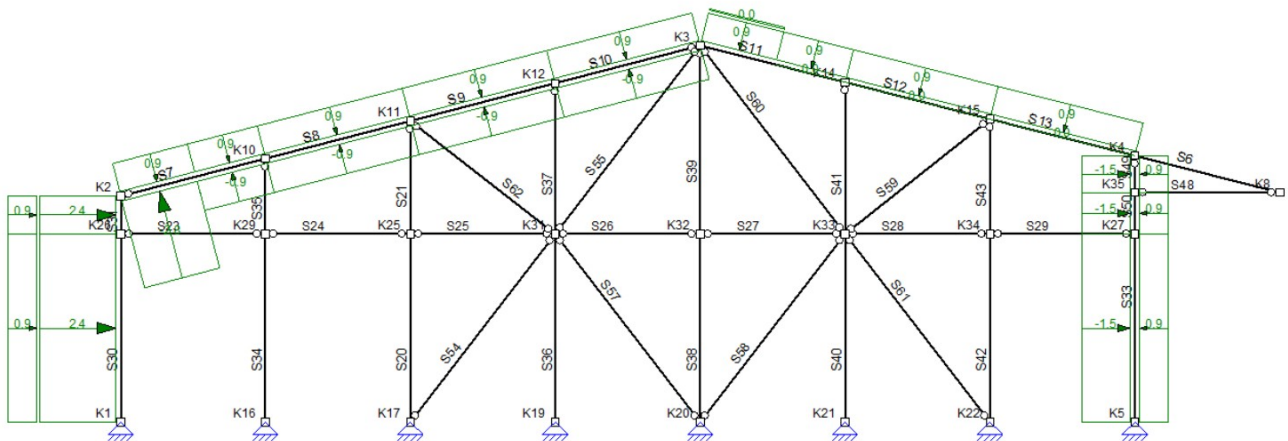


Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | 0.6 (q25) | 0.6 (q25) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q28) | 0.0 (q28) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q29) | 0.0 (q29) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q26) | 0.9 (-q26) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q28) | 0.0 (q28) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q30) | 2.4 (q30) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q31) | -1.5 (q31) | 0.00 | L | Z' | S33,S49-S50 | |
| N | 30.0 | | | | Z | K3 | |
| N | 15.0 | | | | X | K3 | |
| | | | m | m | | | |

B.G.15: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | -2.8 (q18) | -2.8 (q18) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.69 | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | -0.9 (q20) | -0.9 (q20) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q28) | 0.0 (q28) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.0 (q29) | 0.0 (q29) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.0 (q28) | 0.0 (q28) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q23) | 2.4 (q23) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q24) | -1.5 (q24) | 0.00 | L | Z' | S33,S49-S50 | |
| | | | m | m | | | |

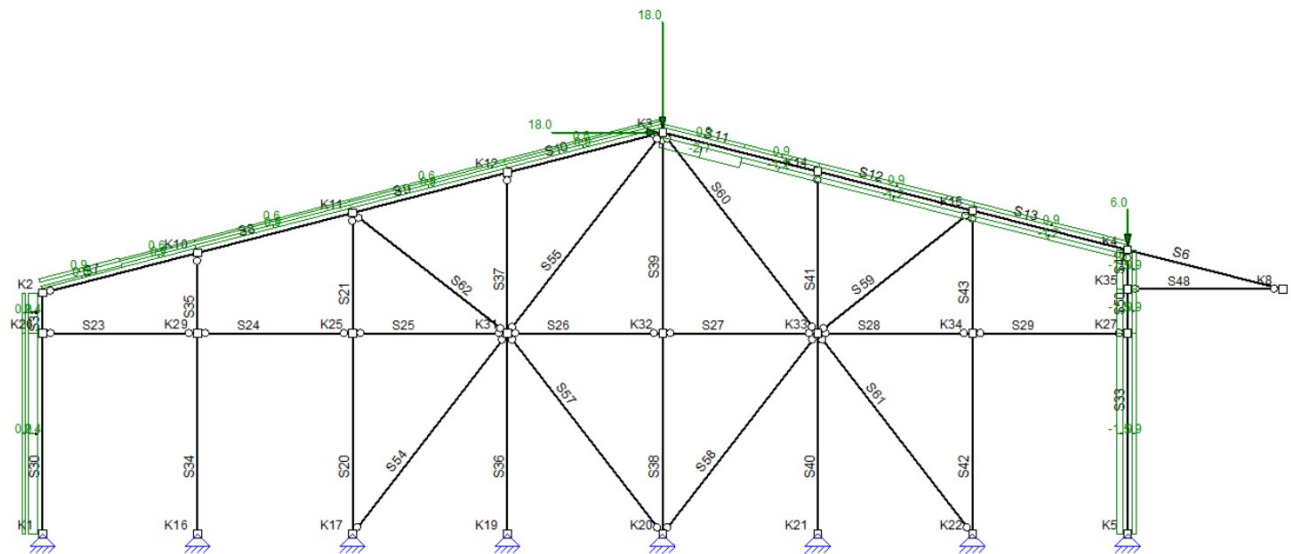
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)

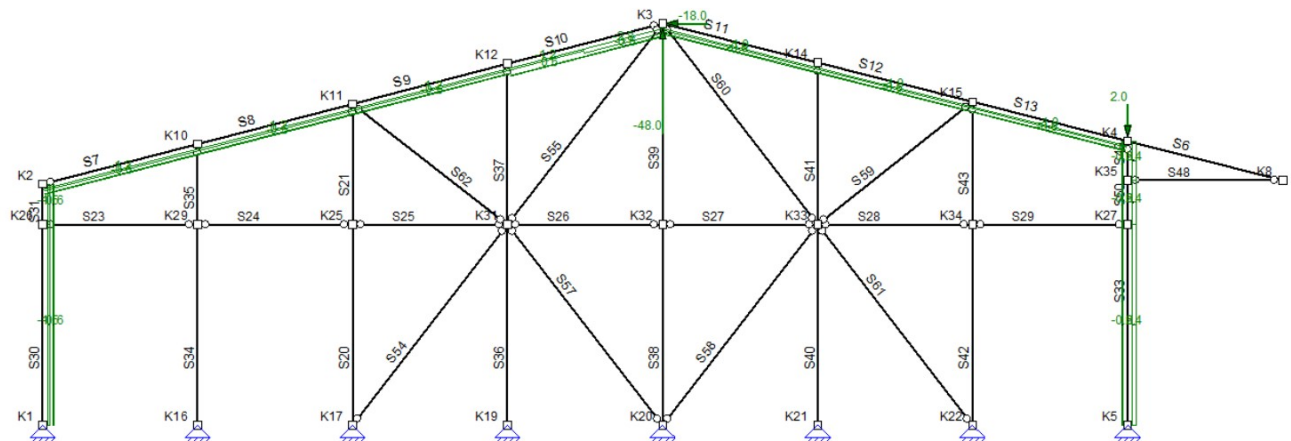


B.G.16: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|------------------------------------|--------------|
| q | 0.6 (q25) | 0.6 (q25) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.69 | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.69 | 5.17 (L) | Z' | S7 | |
| q | 0.6 (q27) | 0.6 (q27) | 0.00 | L | Z' | S8-S10 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | L | Z' | S8-S10,S12-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q21) | -1.2 (q21) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 2.68 | 5.16 (L) | Z' | S11 | |
| q | -2.7 (q22) | -2.7 (q22) | 0.00 | 2.68 | Z' | S11 | |
| q | 0.9 (-q19) | 0.9 (-q19) | 0.00 | 2.68 | Z' | S11 | |
| q | -1.2 (q21) | -1.2 (q21) | 0.00 | L | Z' | S12-S13 | |
| q | 2.4 (q23) | 2.4 (q23) | 0.00 | L | Z' | S30-S31 | |
| q | -1.5 (q24) | -1.5 (q24) | 0.00 | L | Z' | S33,S49-S50 | |
| N | 18.0 | | | | X | K3 | |
| N | 18.0 | | | | Z | K3 | |
| N | 6.0 | | | | Z | K4 | |

m m

B.G.17: Windbelasting van Rechts + Overdruk



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm

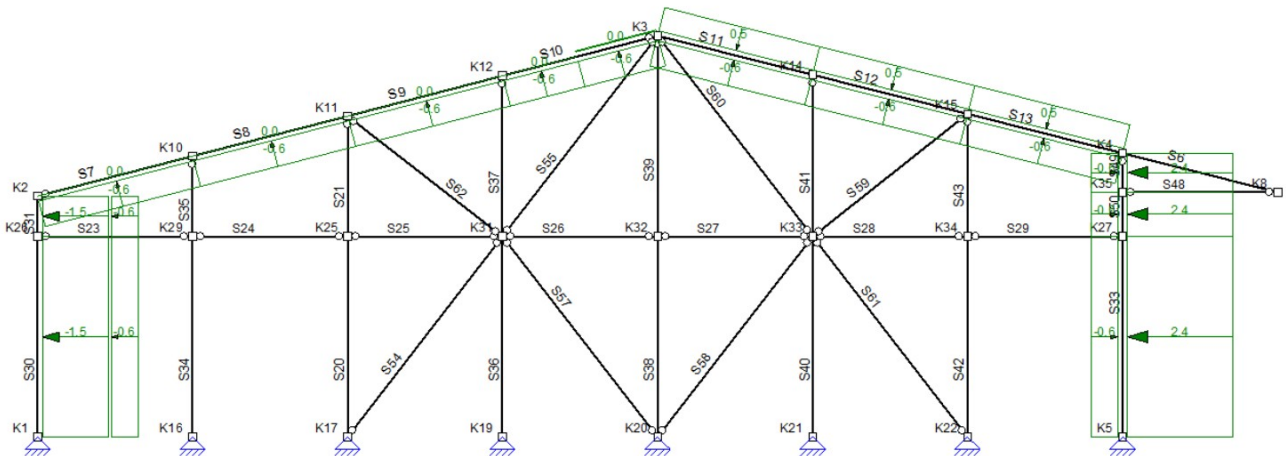


B.G.17: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | | L | Z' S7-S9 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q34) | -2.8 (q34) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q35) | -1.0 (q35) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q36) | -1.5 (q36) | 0.00 | | L | Z' S30-S31 | |
| q | 2.4 (q37) | 2.4 (q37) | 0.00 | | L | Z' S33,S49-S50 | |
| N | -48.0 | | | | | Z K3 | |
| N | 2.0 | | | | | Z K4 | |
| N | -18.0 | | | | | X K3 | |

m m

B.G.18: Windbelasting van Rechts + Overdruk (2e Cpe)



B.G.18: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | | L | Z' S7-S9 | |
| q | -0.6 (-q39) | -0.6 (-q39) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q39) | -0.6 (-q39) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q40) | 0.0 (q40) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q39) | -0.6 (-q39) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q41) | 0.5 (q41) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q42) | -1.5 (q42) | 0.00 | | L | Z' S30-S31 | |
| q | 2.4 (q43) | 2.4 (q43) | 0.00 | | L | Z' S33,S49-S50 | |

m m

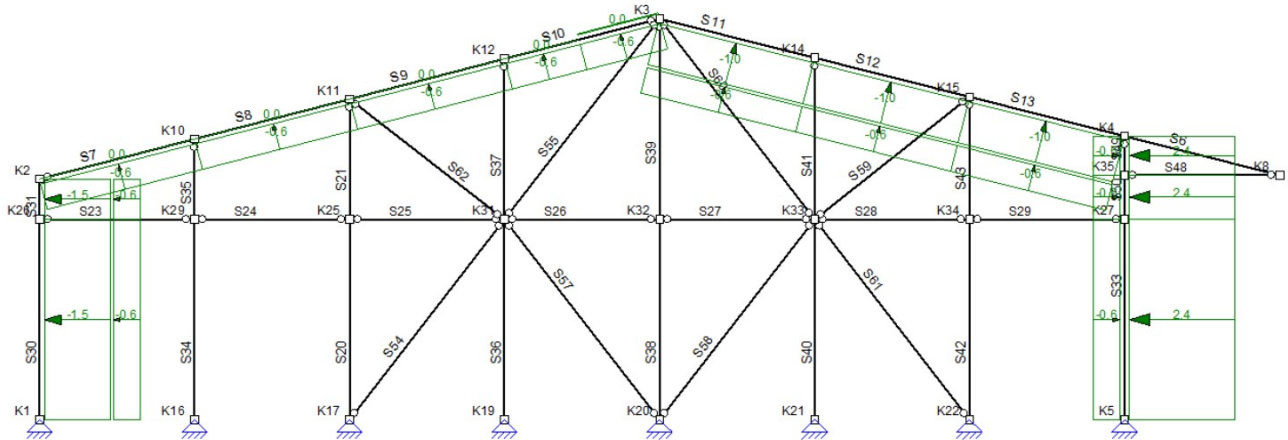
Projectnummer
Projectomschrijving
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Constructeur
Omschrijving



Eenheden: m, mm, kN, kNm



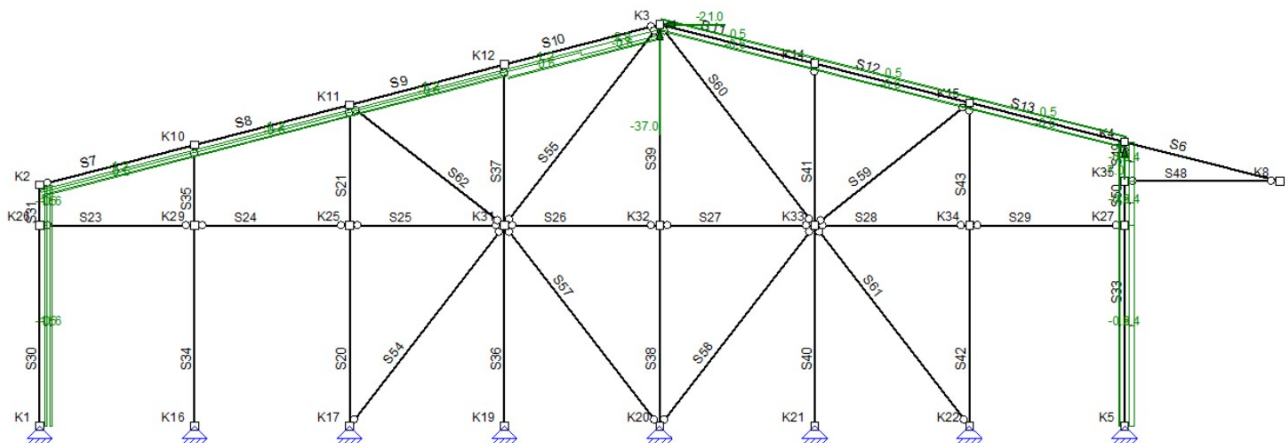
B.G.19: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.19: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | | L | Z' S7-S9 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q38) | 0.0 (q38) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q40) | 0.0 (q40) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q35) | -1.0 (q35) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q36) | -1.5 (q36) | 0.00 | | L | Z' S30-S31 | |
| q | 2.4 (q37) | 2.4 (q37) | 0.00 | | L | Z' S33,S49-S50 | |
| | | | m | m | | | |

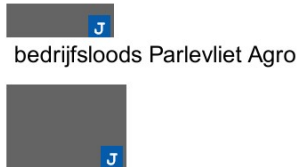
B.G.20: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)



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

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | | L | Z' S7-S9 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q32) | -1.2 (q32) | 0.00 | 2.48 | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q34) | -2.8 (q34) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -0.6 (-q33) | -0.6 (-q33) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q41) | 0.5 (q41) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q36) | -1.5 (q36) | 0.00 | | L | Z' S30-S31 | |
| | | | m | m | | | |

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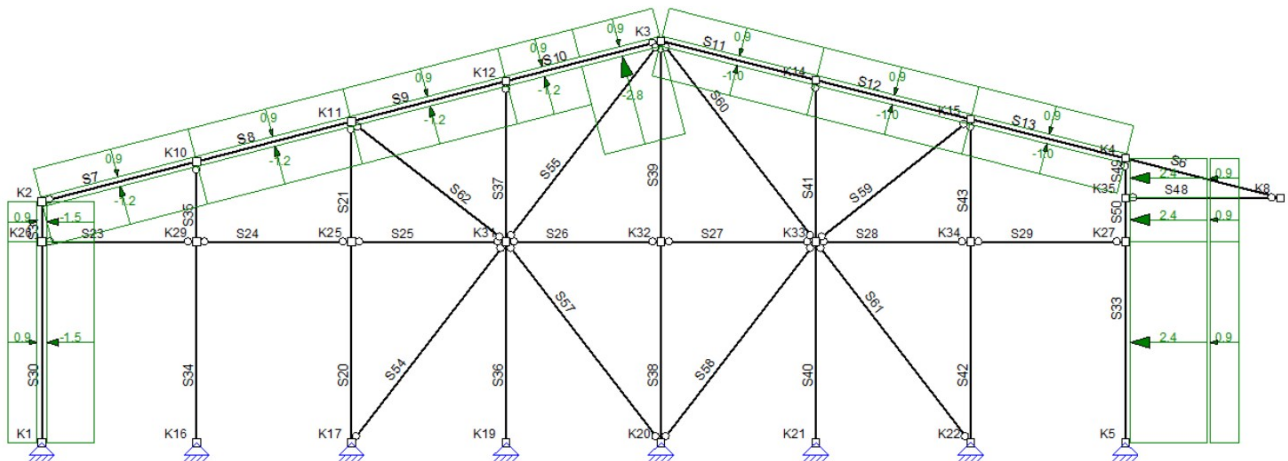
Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 2.4 (q37) | 2.4 (q37) | 0.00 | L | Z' | S33,S49-S50 | |
| N | -21.0 | | | | X | K3 | |
| N | -37.0 | | | | Z | K3 | |
| N | -7.0 | | | | Z | K4 | |

m m

B.G.21: Windbelasting van Rechts + Onderdruk

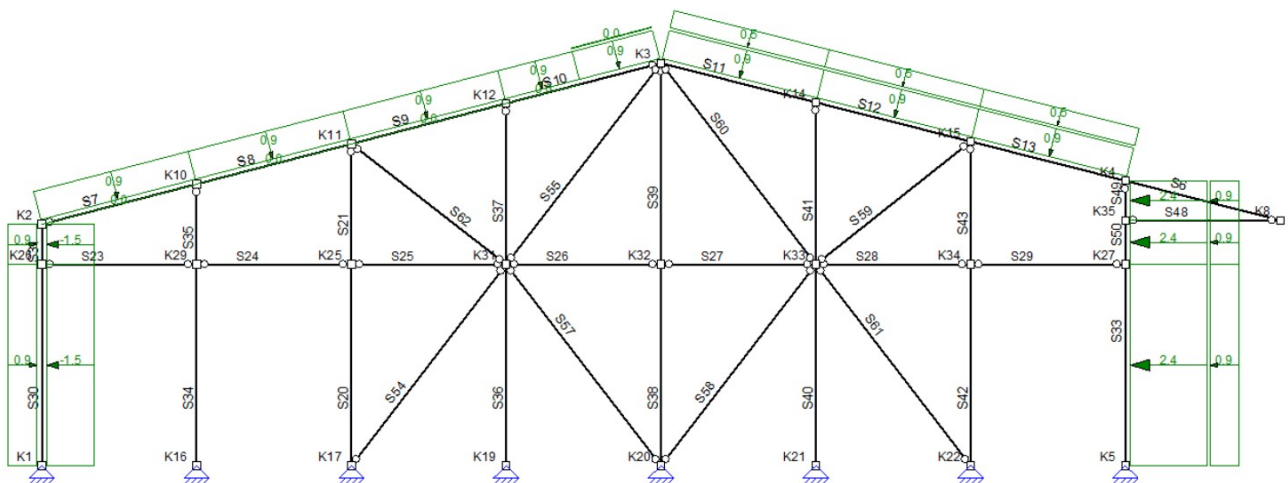


B.G.21: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | L | Z' | S7-S9 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q46) | -2.8 (q46) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q47) | -1.0 (q47) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q48) | -1.5 (q48) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q49) | 2.4 (q49) | 0.00 | L | Z' | S33,S49-S50 | |

m m

B.G.22: Windbelasting van Rechts + Onderdruk (2e Cpe)



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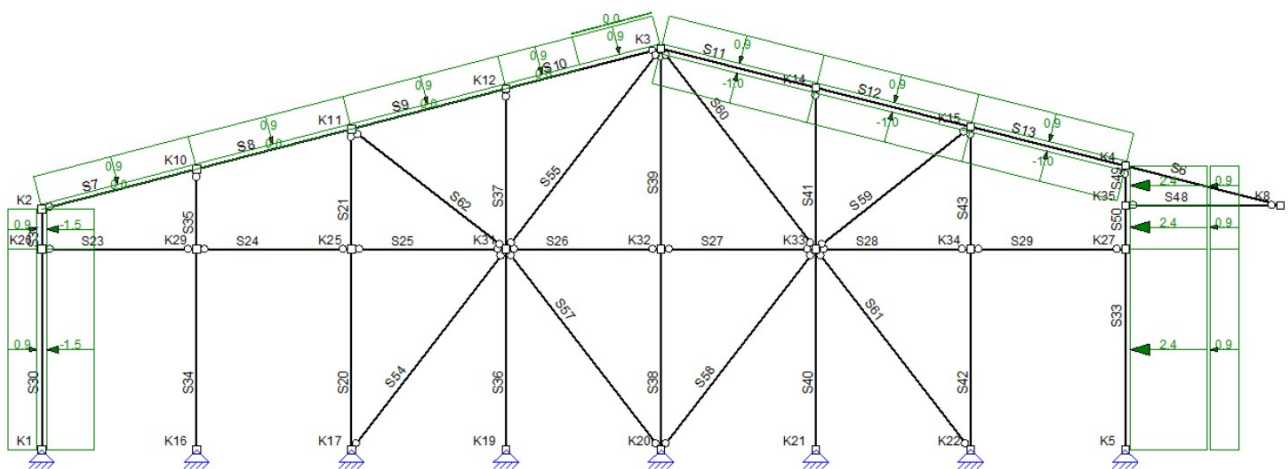
Eenheden: m, mm, kN, kNm



B.G.22: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | | L | Z' S7-S9 | |
| q | 0.9 (-q51) | 0.9 (-q51) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q51) | 0.9 (-q51) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q52) | 0.0 (q52) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q51) | 0.9 (-q51) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q53) | 0.5 (q53) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q54) | -1.5 (q54) | 0.00 | | L | Z' S30-S31 | |
| q | 2.4 (q55) | 2.4 (q55) | 0.00 | | L | Z' S33,S49-S50 | |
| | | | m | m | | | |

B.G.23: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)



B.G.23: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

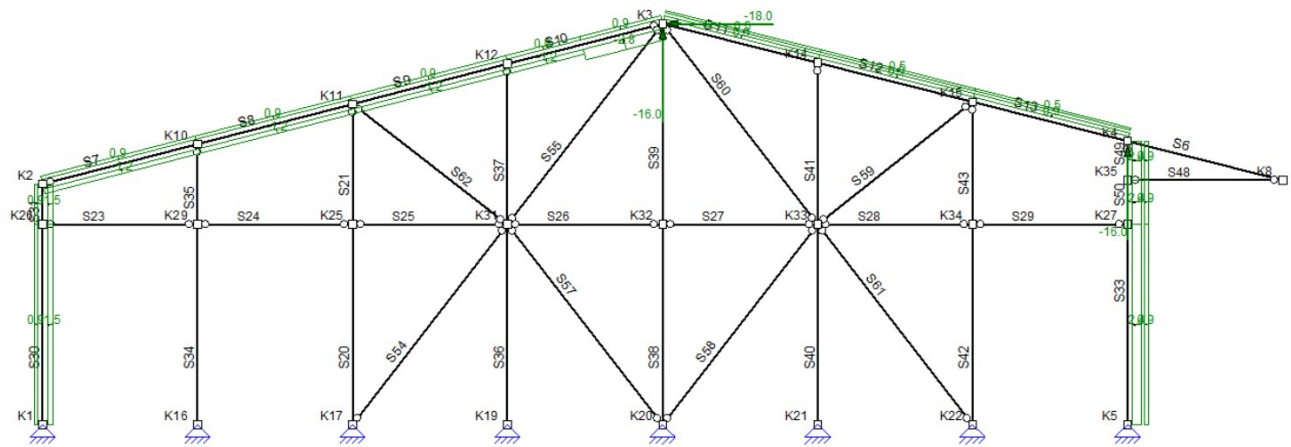
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--------------------------------------|--------------|
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | | L | Z' S7-S9 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | | L | Z' S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | 0.0 (q50) | 0.0 (q50) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.0 (q52) | 0.0 (q52) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | -1.0 (q47) | -1.0 (q47) | 0.00 | | L | Z' S11-S13 | |
| q | -1.5 (q48) | -1.5 (q48) | 0.00 | | L | Z' S30-S31 | |
| q | 2.4 (q49) | 2.4 (q49) | 0.00 | | L | Z' S33,S49-S50 | |
| | | | m | m | | | |

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Eenheden: m, mm, kN, kNm



B.G.24: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)

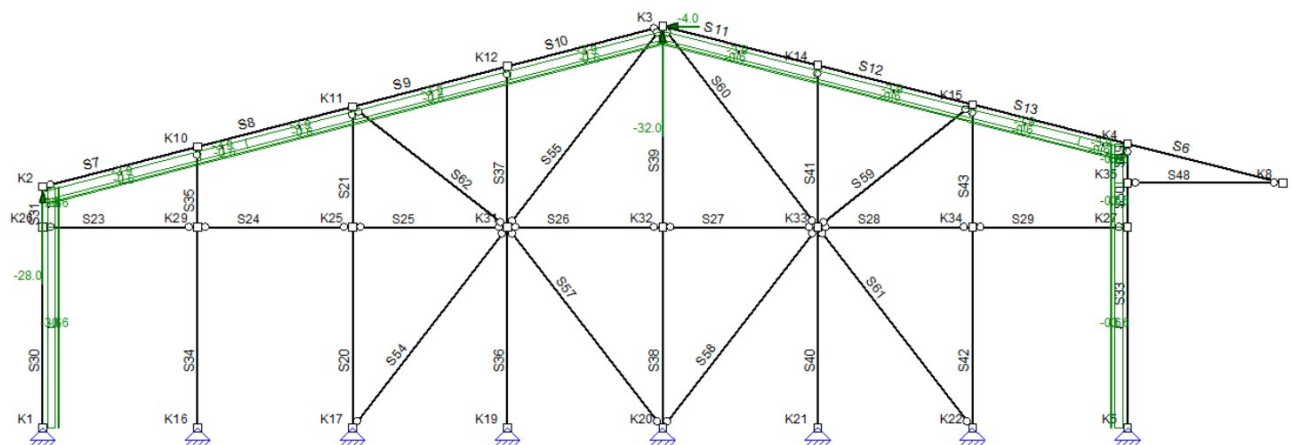


B.G.24: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------------------------|--------------|
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | L | Z' | S7-S9 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | L | Z' | S7-S9,S11-S13,S30-S31,S33,S49-S50 | |
| q | -1.2 (q44) | -1.2 (q44) | 0.00 | 2.48 | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 0.00 | 2.48 | Z' | S10 | |
| q | -2.8 (q46) | -2.8 (q46) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.9 (-q45) | 0.9 (-q45) | 2.48 | 5.17 (L) | Z' | S10 | |
| q | 0.5 (q53) | 0.5 (q53) | 0.00 | L | Z' | S11-S13 | |
| q | -1.5 (q48) | -1.5 (q48) | 0.00 | L | Z' | S30-S31 | |
| q | 2.4 (q49) | 2.4 (q49) | 0.00 | L | Z' | S33,S49-S50 | |
| N | -16.0 | | | | Z | K3-K4 | |
| N | -18.0 | | | | X | K3 | |

m m

B.G.25: Windbelasting van Voren + Overdruk



B.G.25: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|-------------------------------|--------------|
| q | -3.9 (q56) | -3.9 (q56) | 0.00 | 5.17 (L) | Z' | S7 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 0.00 | L | Z' | S7,S9-S12,S30-S31,S33,S49-S50 | |
| q | -3.9 (q56) | -3.9 (q56) | 0.00 | 1.55 | Z' | S8 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 0.00 | 1.55 | Z' | S8 | |
| q | -3.9 (q58) | -3.9 (q58) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 1.55 | 5.17 (L) | Z' | S8 | |

m m

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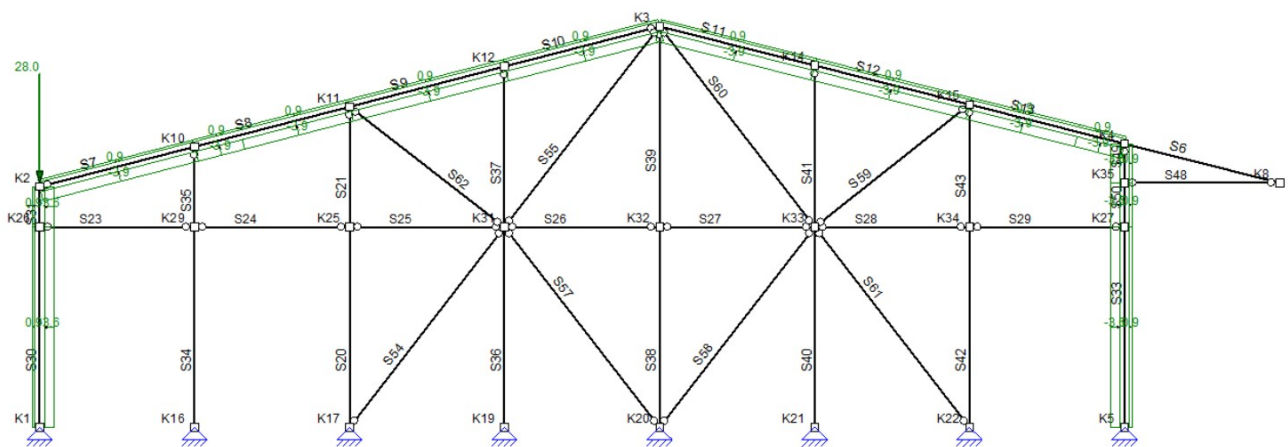
Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|---------------------|--------------|
| q | -3.9 (q58) | -3.9 (q58) | 0.00 | L | Z' | S9-S10 | |
| q | -3.9 (q59) | -3.9 (q59) | 0.00 | L | Z' | S11-S12 | |
| q | -3.9 (q60) | -3.9 (q60) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | -3.9 (q59) | -3.9 (q59) | 0.00 | 3.61 | Z' | S13 | |
| q | -0.6 (-q57) | -0.6 (-q57) | 0.00 | 3.61 | Z' | S13 | |
| q | -3.6 (q61) | -3.6 (q61) | 0.00 | L | Z' | S30-S31,S33,S49-S50 | |
| N | -32.0 | | | | Z | K3 | |
| N | -4.0 | | | | X | K3 | |
| N | -28.0 | | | | Z | K2 | |
| | | | m | m | | | |

m m

B.G.26: Windbelasting van Voren + Onderdruk



B.G.26: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-------------------------------|--------------|
| q | -3.9 (q62) | -3.9 (q62) | 0.00 | 5.17 (L) | Z' | S7 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 0.00 | L | Z' | S7,S9-S12,S30-S31,S33,S49-S50 | |
| q | -3.9 (q62) | -3.9 (q62) | 0.00 | 1.55 | Z' | S8 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 0.00 | 1.55 | Z' | S8 | |
| q | -3.9 (q64) | -3.9 (q64) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 1.55 | 5.17 (L) | Z' | S8 | |
| q | -3.9 (q64) | -3.9 (q64) | 0.00 | L | Z' | S9-S10 | |
| q | -3.9 (q65) | -3.9 (q65) | 0.00 | L | Z' | S11-S12 | |
| q | -3.9 (q66) | -3.9 (q66) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 3.61 | 5.16 (L) | Z' | S13 | |
| q | -3.9 (q65) | -3.9 (q65) | 0.00 | 3.61 | Z' | S13 | |
| q | 0.9 (-q63) | 0.9 (-q63) | 0.00 | 3.61 | Z' | S13 | |
| q | -3.6 (q67) | -3.6 (q67) | 0.00 | L | Z' | S30-S31,S33,S49-S50 | |
| N | 28.0 | | | | Z | K2 | |
| | | | m | m | | | |

m m

Projectnummer

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Constructeur

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bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Van Roekel

INGENIEURS IN CONSTRUCTIES



Van Roekel

INGENIEURS IN CONSTRUCTIES

B.G.27: Windbelasting (enkele luifel) [1/4]

B.G.27: WINDBELASTING (ENKELE LUIFEL) [1/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| F | 10.3 (F1) | | 1.29 | | Z' | S6 | |
| | | | m | m | | | |

B.G.28: Windbelasting (enkele luifel) [2/4]

B.G.28: WINDBELASTING (ENKELE LUIFEL) [2/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| F | 10.3 (F1) | | 3.87 | | Z' | S6 | |
| | | | m | m | | | |

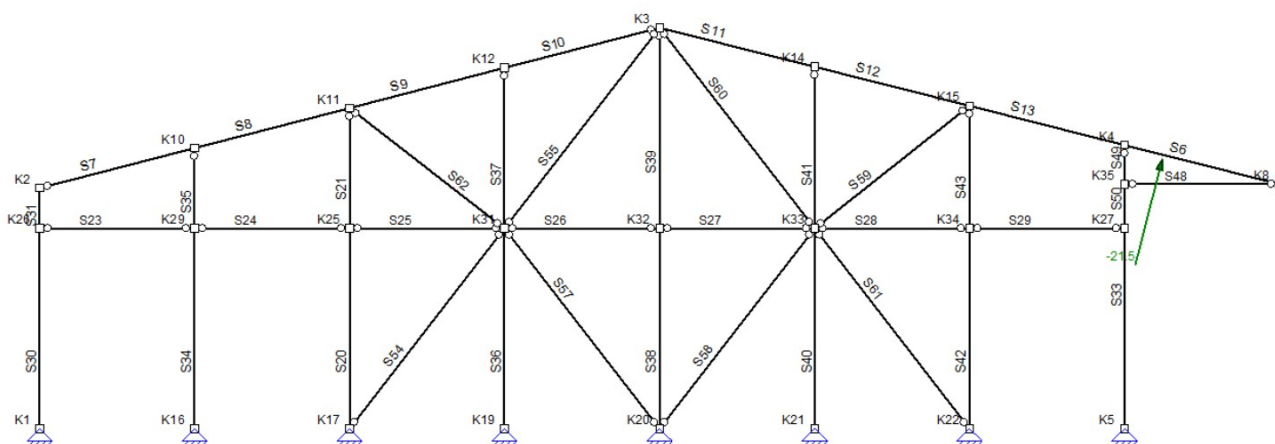
Projectnummer
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Eenheden: m, mm, kN, kNm



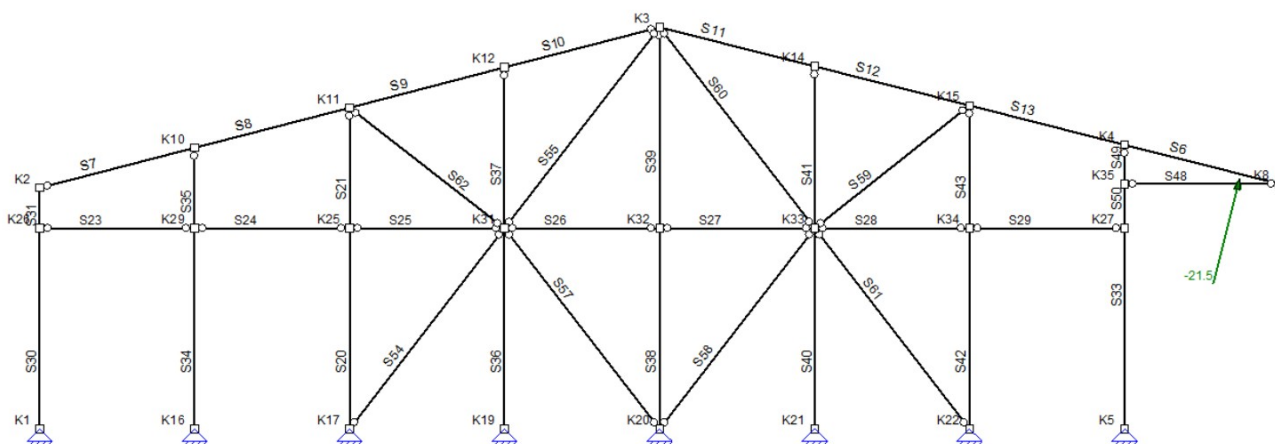
B.G.29: Windbelasting (enkele luifel) [3/4]



B.G.29: WINDBELASTING (ENKELE LUIFEL) [3/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | -21.5 (F2) | | 1.29 | | Z' | S6 | |
| | | | m | m | | | |

B.G.30: Windbelasting (enkele luifel) [4/4]



B.G.30: WINDBELASTING (ENKELE LUIFEL) [4/4]

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| F | -21.5 (F2) | | 3.87 | | Z' | S6 | |
| | | | m | m | | | |

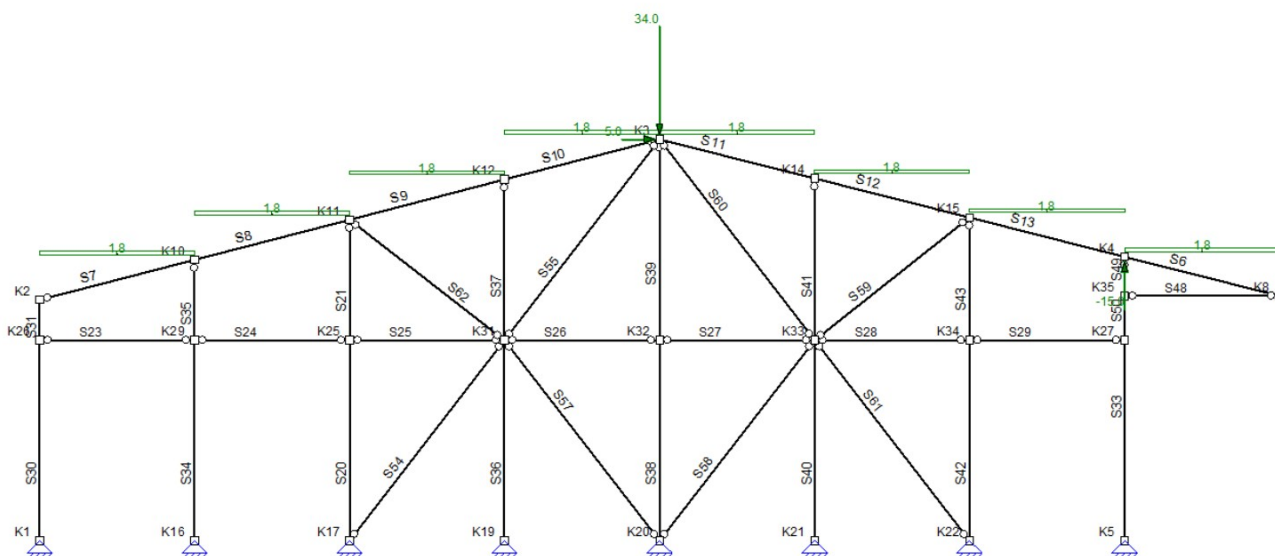
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



B.G.31: Sneeuwbelasting 1



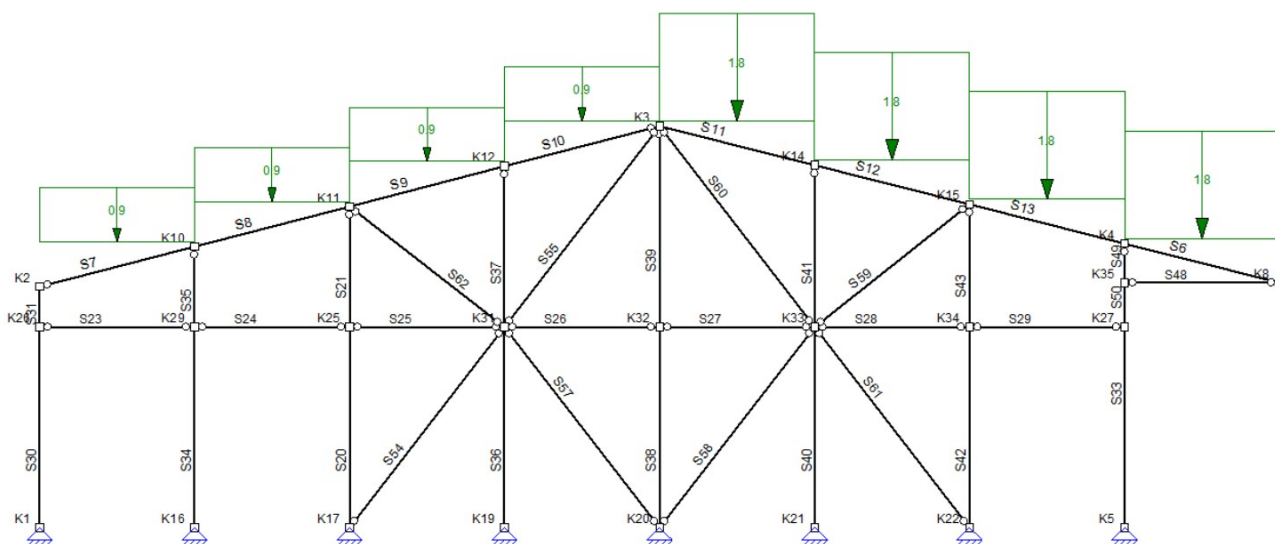
B.G.31: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q68) | 1.8 (q68) | 0.00 | L | Z | S6,S11-S13 | |
| q | 1.8 (q70) | 1.8 (q70) | 0.00 | L | Z | S7-S10 | |
| N | 5.0 | | | | X | K3 | |
| N | 34.0 | | | | Z | K3 | |
| N | -15.0 | | | | Z | K4 | |

m

m

B.G.32: Sneeuwbelasting 2



B.G.32: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 1.8 (q68) | 1.8 (q68) | 0.00 | L | Z | S6,S11-S13 | |
| q | 0.9 (q71) | 0.9 (q71) | 0.00 | L | Z | S7-S10 | |

m

m

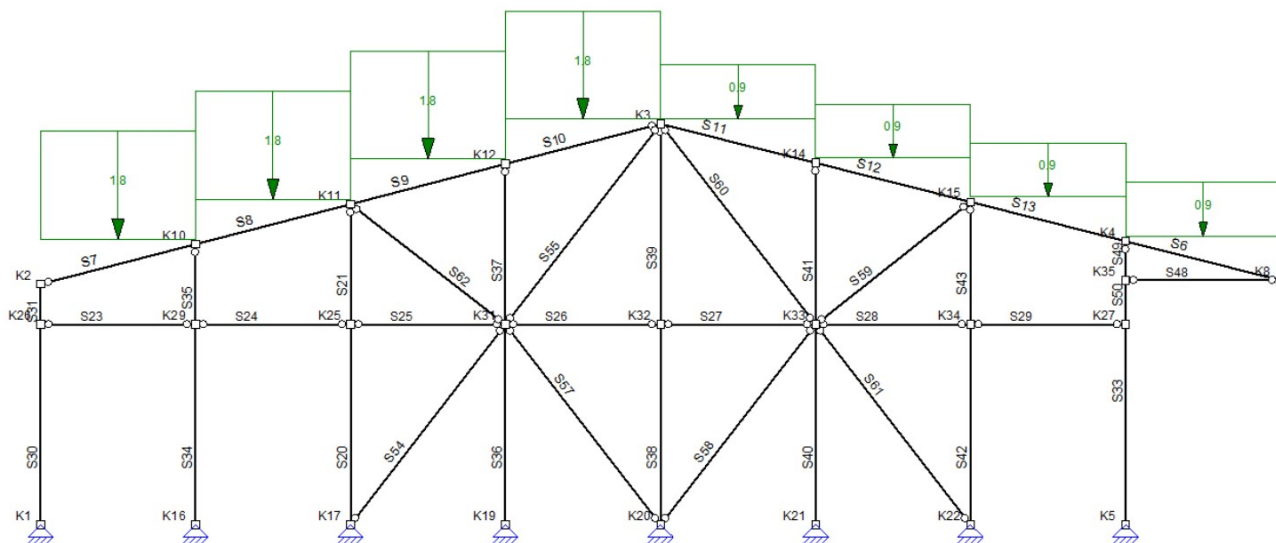
Projectnummer
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Eenheden: m, mm, kN, kNm



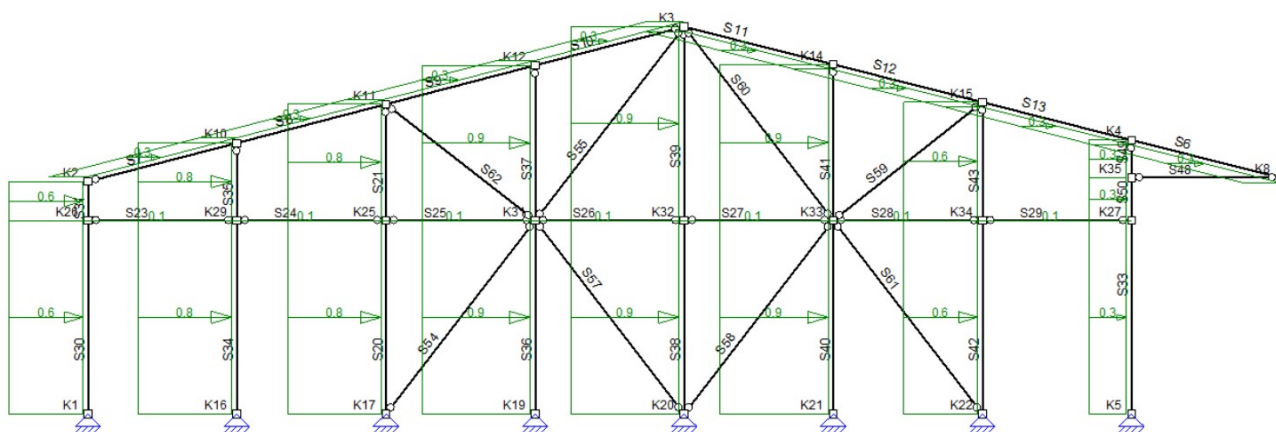
B.G.33: Sneeuwbelasting 3



B.G.33: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 0.9 (q69) | 0.9 (q69) | 0.00 | L | | Z S6,S11-S13 | |
| q | 1.8 (q70) | 1.8 (q70) | 0.00 | L | | Z S7-S10 | |
| | | | m | m | | | |

B.G.34: Kniklengte (Asymmetrisch)



B.G.34: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staal of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|--|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S6-S13,S20-S21, S23-S31,S33-S43,S49-S50 | |
| | | | m | m | | | |

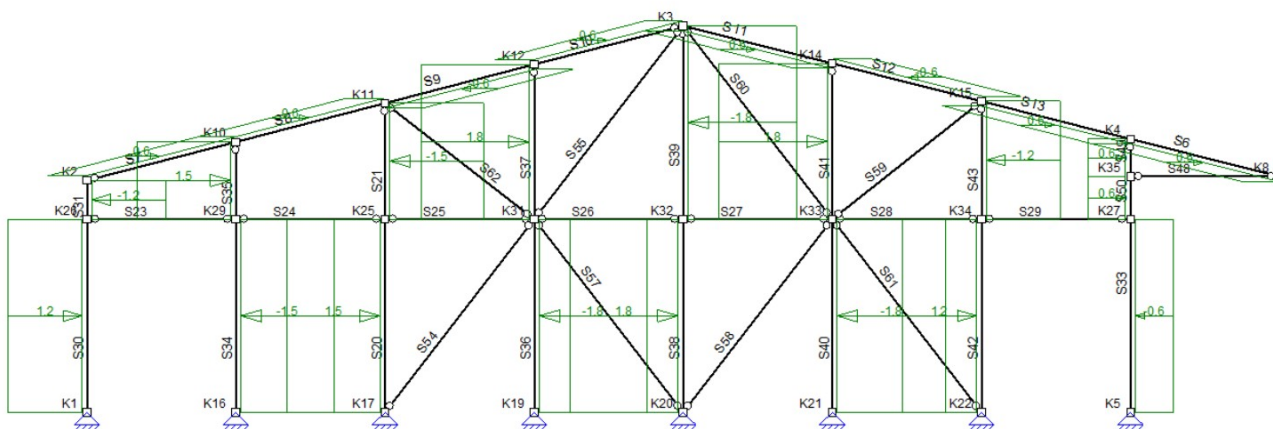
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

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Eenheden: m, mm, kN, kNm



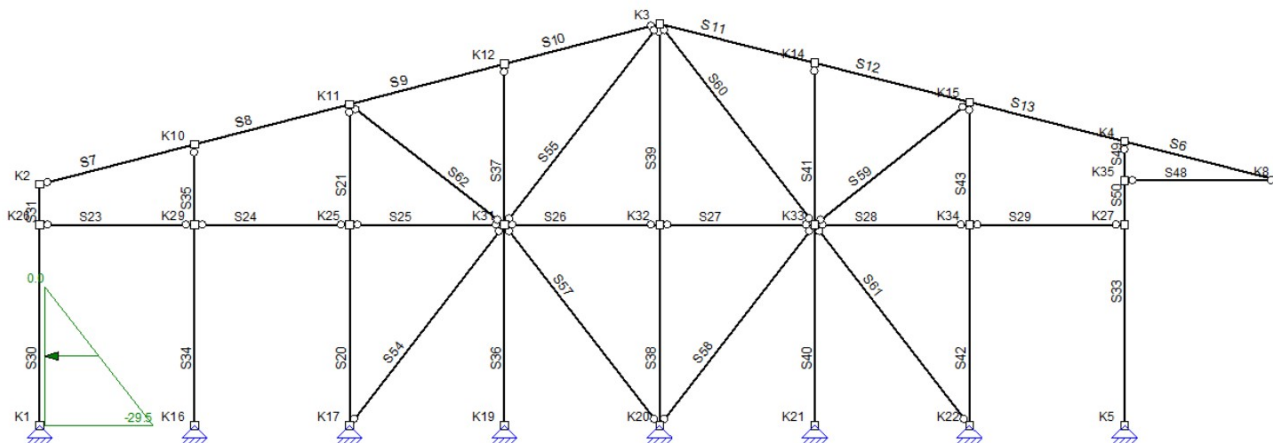
B.G.35: Kniklänge (Symmetrisch)



B.G.35: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|---|--------------|
| qG | 2.0 | 2.0 | 0.00 | L | X" | S6-S8,S10-S11, S13,S20,S30,S35, S37-S38,S41-S42,S49-S50 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S9,S12,S21,S31, S33-S34,S36,S39-S40,S43 | |
| | | | m | m | | | |

B.G.36: Verdeelde veranderlijke belasting



B.G.36: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoopp | Omschrijving |
|------|--------------|------------|--------------|-------------|----------|------------------|--------------|
| q | -29.5 (-q72) | 0.0 | 0.00 | 4.50 | Z' | S30 | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

Fundamenteel

[illegible]

Projectnummer [REDACTED] J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED] T

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|-------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| B.G.8 | Opgelegde belastinge... | 1.17 | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | 1.15 | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | 1.15 | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | 1.15 | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | 1.15 | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | 1.15 | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | 1.15 | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | 1.15 | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | 1.15 | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | 1.15 | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | 1.15 |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 | |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | 1.15 | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | 1.15 | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | 1.15 | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | 1.15 | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | 1.15 | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | 1.15 | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | 1.15 | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | 1.15 | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | 1.15 | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | 1.15 | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | 1.15 |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |

Projectnummer  J

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever 

Constructeur 

Omschrijving  J

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| B.G.23 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | | | | | | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | |
| B.G. | Omschrijving | Fu.C.41 | Fu.C.42 | Fu.C.43 | Fu.C.44 | Fu.C.45 | Fu.C.46 | Fu.C.47 | Fu.C.48 | Fu.C.49 | Fu.C.50 | |
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 0.90 | 0.90 | 0.90 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | 1.15 | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | 1.15 | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | 1.15 | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | 1.15 | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | 1.15 | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | 1.15 | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | 1.15 | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | 1.15 | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | 1.15 | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | 1.15 | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | |
| B.G. | Omschrijving | Fu.C.51 | Fu.C.52 | Fu.C.53 | Fu.C.54 | Fu.C.55 | Fu.C.56 | Fu.C.57 | Fu.C.58 | Fu.C.59 | Fu.C.60 | |
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 0.90 | 1.08 | 1.08 | 1.08 | 0.90 | 0.90 | 1.08 | 1.08 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



Karakteristiek

[illegible]

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | | |
|-------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.20 | Ka.C.21 | Ka.C.22 | Ka.C.23 | Ka.C.24 | Ka.C.25 | Ka.C.26 | Ka.C.27 | Ka.C.28 | Ka.C.29 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | 0.85 | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | 0.85 | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | 0.85 | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | 0.85 | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | 0.85 | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | 0.85 | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | 0.85 | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | 0.85 | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | 0.85 | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | 0.85 | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | 0.85 |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.30 | Ka.C.31 | Ka.C.32 | Ka.C.33 | Ka.C.34 | Ka.C.35 | Ka.C.36 | Ka.C.37 | Ka.C.38 | Ka.C.39 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| B.G.2 | Opgelegde belastinge... | | | | | | 0.87 | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | 0.87 | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | 0.87 | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | 0.87 | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | 0.87 | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm




| | | | | | | | | | | | | |
|-------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... 0.85 | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | 0.75 | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | 0.75 | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | 0.75 | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.40 | Ka.C.41 | Ka.C.42 | Ka.C.43 | Ka.C.44 | Ka.C.45 | Ka.C.46 | Ka.C.47 | Ka.C.48 | Ka.C.49 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... 0.87 | | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | 0.87 | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | 0.85 | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | 0.85 | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | 0.85 | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | 0.85 | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | 0.85 | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | 0.85 | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | 0.85 | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | 0.85 | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | | 0.85 |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.50 | Ka.C.51 | Ka.C.52 | Ka.C.53 | Ka.C.54 | Ka.C.55 | Ka.C.56 | Ka.C.57 | Ka.C.58 | Ka.C.59 | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]


Eenheden: m, mm, kN, kNm





| | | | | | | | | | | | |
|-------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|------|------|
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | 0.85 | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | 0.85 | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | 0.85 | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | 0.85 | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | 0.85 | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | 0.85 | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | 0.85 | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | 0.85 | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | 0.85 |
| B.G.27 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.29 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.30 | Windbelasting (enkele... | | | | | | | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | | | | | | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | | | | | | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | | | | | | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.36 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.60 | Ka.C.61 | Ka.C.62 | Ka.C.63 | Ka.C.64 | Ka.C.65 | Ka.C.66 | | | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| B.G.2 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.3 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.4 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.5 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.6 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.7 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.8 | Opgelegde belastinge... | | | | | | | | | | |
| B.G.9 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.10 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.11 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.12 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.13 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.14 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.15 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.16 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.17 | Windbelasting van Re... | | | | | | | | | | |
| B.G.18 | Windbelasting van Re... | | | | | | | | | | |
| B.G.19 | Windbelasting van Re... | | | | | | | | | | |
| B.G.20 | Windbelasting van Re... | | | | | | | | | | |
| B.G.21 | Windbelasting van Re... | | | | | | | | | | |
| B.G.22 | Windbelasting van Re... | | | | | | | | | | |
| B.G.23 | Windbelasting van Re... | | | | | | | | | | |
| B.G.24 | Windbelasting van Re... | | | | | | | | | | |
| B.G.25 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.26 | Windbelasting van Vo... | | | | | | | | | | |
| B.G.27 | Windbelasting (enkele... | 0.85 | | | | | | | | | |
| B.G.28 | Windbelasting (enkele... | | 0.85 | | | | | | | | |

Projectnummer  J

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever 

Constructeur 

Omschrijving  J

Eenheden: m, mm, kN, kNm

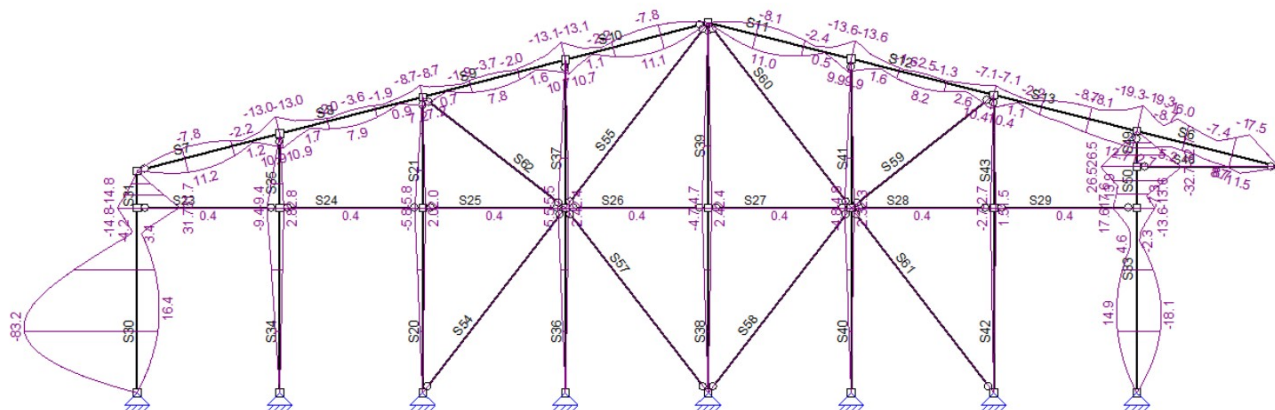
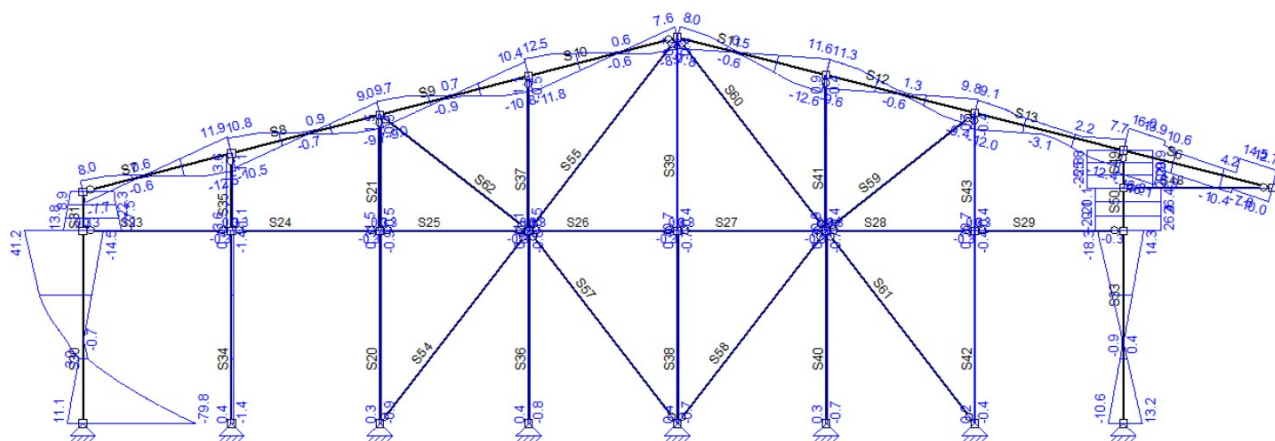


| | | | | | | | |
|--------|--------------------------------|------|------|------|------|------|------|
| B.G.29 | Windbelasting (enkele... | 0.85 | | | | | |
| B.G.30 | Windbelasting (enkele... | | 0.85 | | | | |
| B.G.31 | Sneeuwbelasting 1 | | | 0.75 | | | |
| B.G.32 | Sneeuwbelasting 2 | | | | 0.75 | | |
| B.G.33 | Sneeuwbelasting 3 | | | | | 0.75 | |
| B.G.34 | Kniklengte (Asymmetr... | | | | | | |
| B.G.35 | Kniklengte (Symmetris... | | | | | | |
| B.G.36 | Verdeelde veranderlijk... 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse
Trekelement(en) gebruikt

Fu.C. Omhullende Momenten (My)

Fu.C. Omhullende Dwarskracht (V_z)

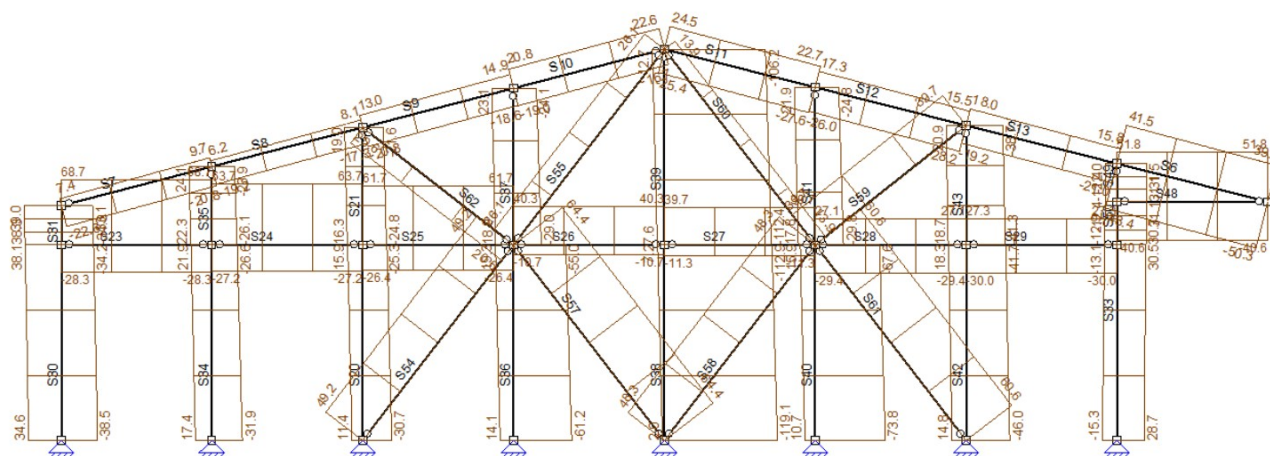
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

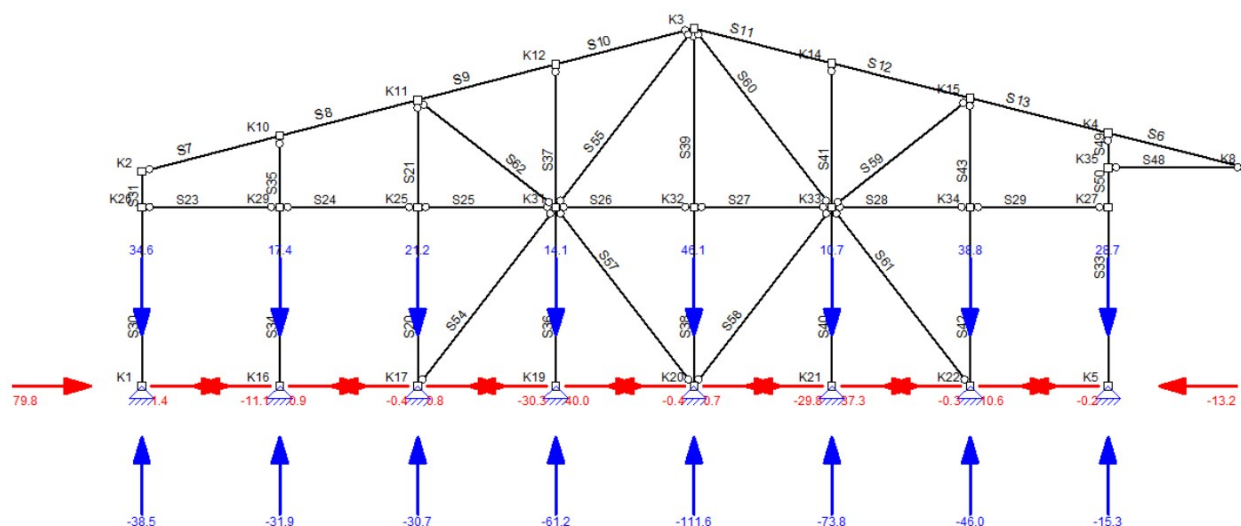
Eenheden: m, mm, kN, kNm



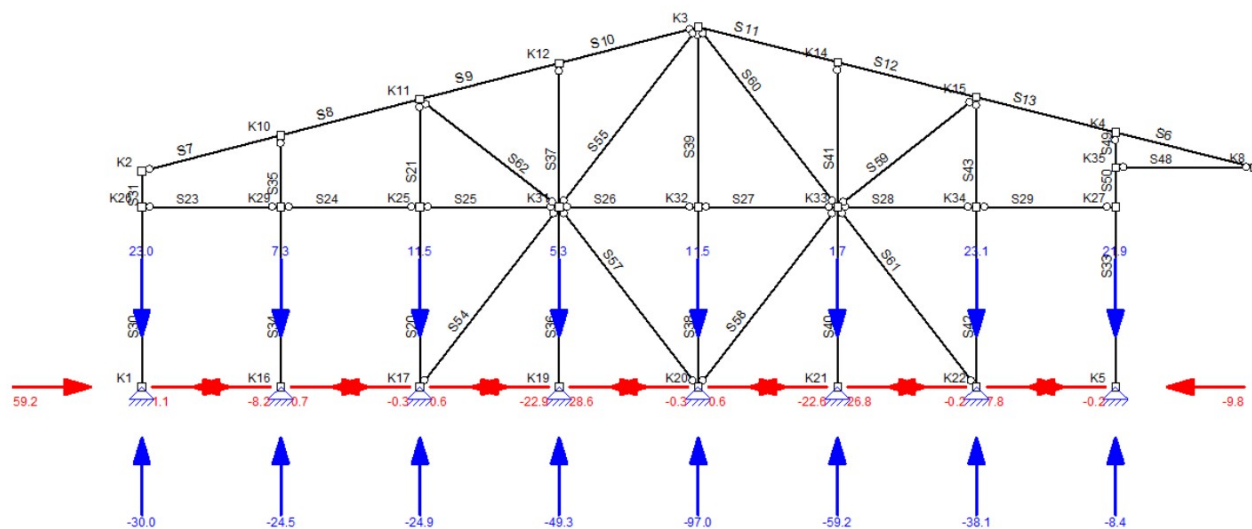
Fu.C. Omhullende Normaalkracht (Nx)



Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



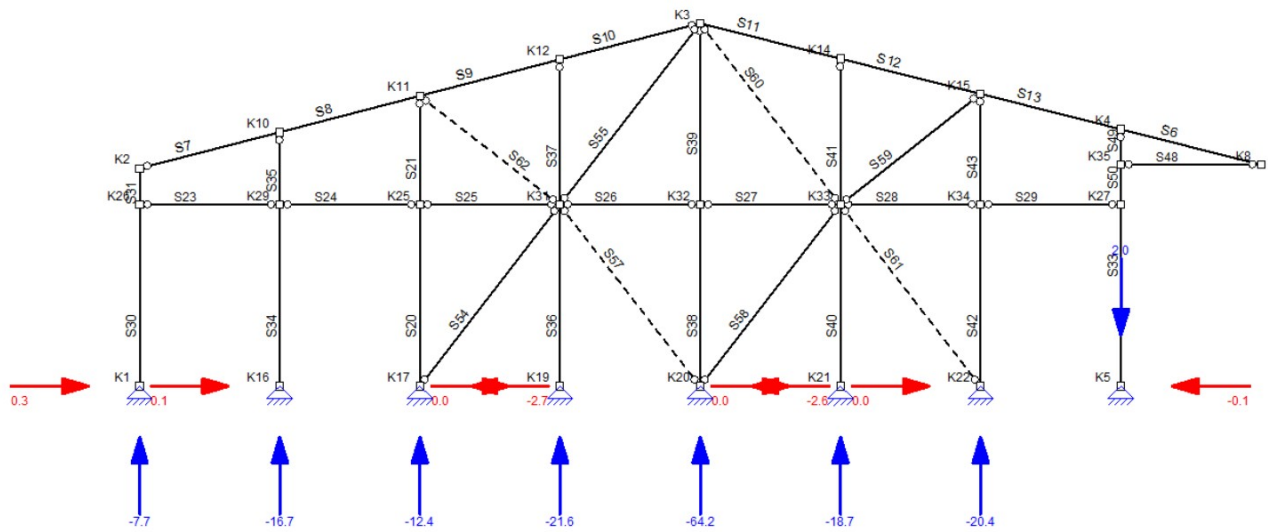
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

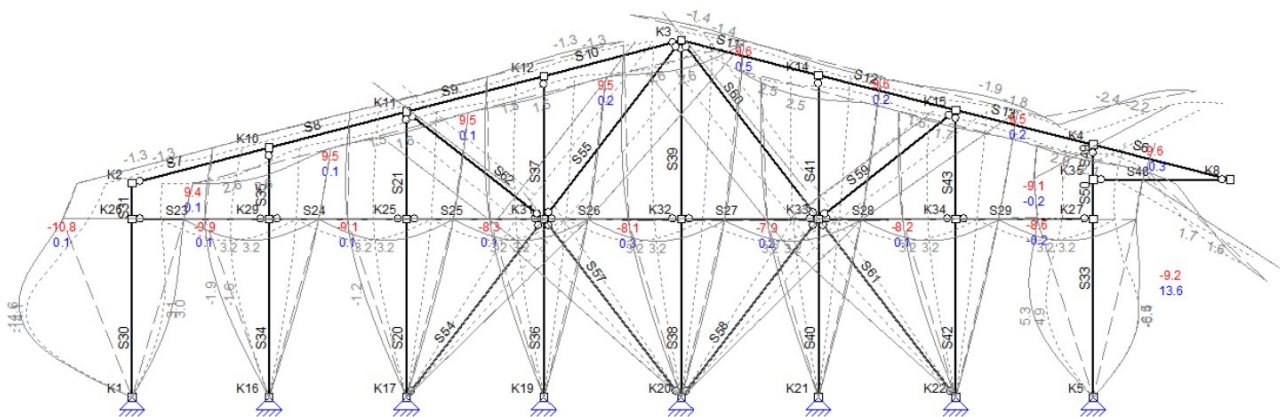
Eenheden: m, mm, kN, kNm



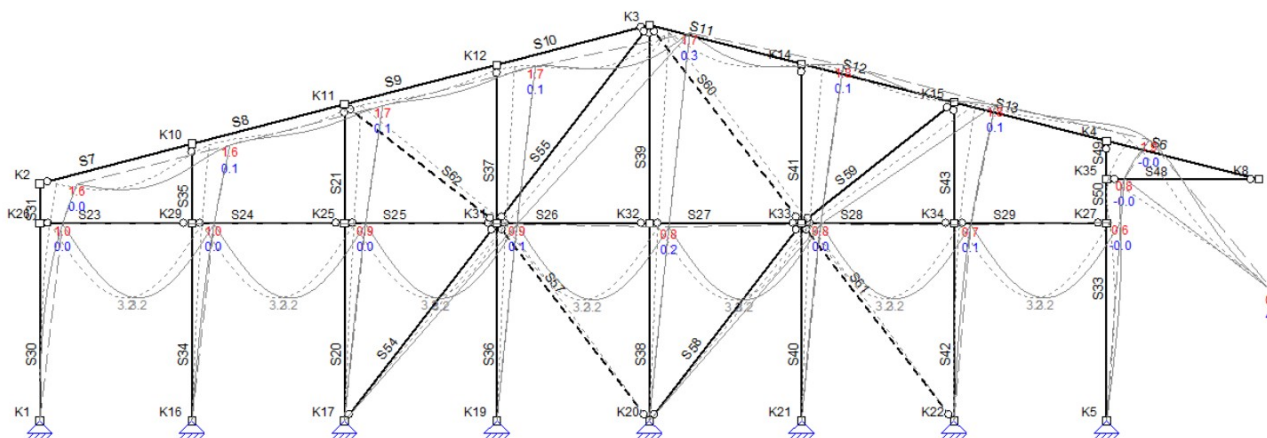
Ka.C.(w1) Oplegreacties



Ka.C. Omhullende Doorbuigingen



Ka.C.(w1) Doorbuigingen



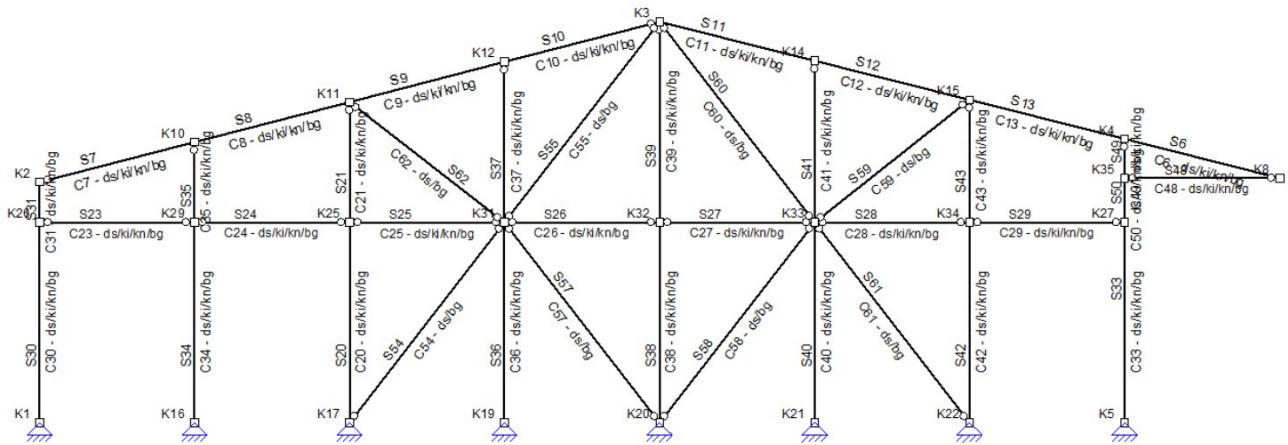
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staal/staven |
|-----------------|--------------|
| C6 | S6 |
| C7 | S7 |
| C8 | S8 |
| C9 | S9 |
| C10 | S10 |
| C11 | S11 |
| C12 | S12 |
| C13 | S13 |
| C20 | S20 |
| C21 | S21 |
| C23 | S23 |
| C24 | S24 |
| C25 | S25 |
| C26 | S26 |
| C27 | S27 |
| C28 | S28 |
| C29 | S29 |
| C30 | S30 |
| C31 | S31 |
| C33 | S33 |
| C34 | S34 |
| C35 | S35 |
| C36 | S36 |
| C37 | S37 |
| C38 | S38 |
| C39 | S39 |
| C40 | S40 |
| C41 | S41 |
| C42 | S42 |
| C43 | S43 |
| C48 | S48 |
| C49 | S49 |
| C50 | S50 |
| C54 | S54 |
| C55 | S55 |
| C57 | S57 |
| C58 | S58 |
| C59 | S59 |
| C60 | S60 |
| C61 | S61 |
| C62 | S62 |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



INVOER GEGEVENS

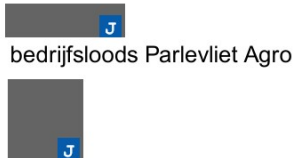
KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lsys | Lokale Y-as | | Lokale Z-as | | | |
|----------------------|---------|------|--------------|------|-------------|--------------|------|-----------|
| | | | Methode | Lbuc | Lbuc/Lsys | Methode | Lbuc | Lbuc/Lsys |
| C6-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C7-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C8-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C9-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C10-V1 (0.000-5.166) | P1 | 5.17 | Cons. gesch. | 5.17 | 1.0 | Cons. gesch. | 5.17 | 1.0 |
| C11-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C12-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C13-V1 (0.000-5.158) | P1 | 5.16 | Cons. gesch. | 5.16 | 1.0 | Cons. gesch. | 5.16 | 1.0 |
| C20-V1 (0.000-6.500) | P7 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C21-V1 (0.000-3.900) | P7 | 3.90 | Cons. gesch. | 3.90 | 1.0 | Cons. gesch. | 3.90 | 1.0 |
| C23-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C24-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C25-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C26-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C27-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C28-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C29-V1 (0.000-5.000) | P2 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C30-V1 (0.000-6.500) | P8 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C31-V1 (0.000-1.300) | P8 | 1.30 | Cons. gesch. | 1.30 | 1.0 | Cons. gesch. | 1.30 | 1.0 |
| C33-V1 (0.000-6.500) | P1 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C34-V1 (0.000-6.500) | P7 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C35-V1 (0.000-2.600) | P7 | 2.60 | Cons. gesch. | 2.60 | 1.0 | Cons. gesch. | 2.60 | 1.0 |
| C36-V1 (0.000-6.500) | P6 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C37-V1 (0.000-5.200) | P6 | 5.20 | Cons. gesch. | 5.20 | 1.0 | Cons. gesch. | 5.20 | 1.0 |
| C38-V1 (0.000-6.500) | P6 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C39-V1 (0.000-6.500) | P6 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C40-V1 (0.000-6.500) | P6 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C41-V1 (0.000-5.233) | P6 | 5.23 | Cons. gesch. | 5.23 | 1.0 | Cons. gesch. | 5.23 | 1.0 |
| C42-V1 (0.000-6.500) | P5 | 6.50 | Cons. gesch. | 6.50 | 1.0 | Cons. gesch. | 6.50 | 1.0 |
| C43-V1 (0.000-3.967) | P5 | 3.97 | Cons. gesch. | 3.97 | 1.0 | Cons. gesch. | 3.97 | 1.0 |
| C48-V1 (0.000-5.000) | P4 | 5.00 | Cons. gesch. | 5.00 | 1.0 | Cons. gesch. | 5.00 | 1.0 |
| C49-V1 (0.000-1.267) | P1 | 1.27 | Cons. gesch. | 1.27 | 1.0 | Cons. gesch. | 1.27 | 1.0 |
| C50-V1 (0.000-1.433) | P1 | 1.43 | Cons. gesch. | 1.43 | 1.0 | Cons. gesch. | 1.43 | 1.0 |
| | | | | m | | | | |
| | | | | | | | | m |

KIPSTEUNENGEDEVENS

| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C6-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C7-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C8-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C9-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C10-V1 (0.000-5.166) | P1 | Gesteund | Gesteund | | | Centrum |
| C11-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C12-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C13-V1 (0.000-5.158) | P1 | Gesteund | Gesteund | | | Centrum |
| C20-V1 (0.000-6.500) | P7 | Gesteund | Gesteund | | | Centrum |
| C21-V1 (0.000-3.900) | P7 | Gesteund | Gesteund | | | Centrum |
| C23-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C24-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C25-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C26-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C27-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C28-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C29-V1 (0.000-5.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C30-V1 (0.000-6.500) | P8 | Gesteund | Gesteund | | | Centrum |
| C31-V1 (0.000-1.300) | P8 | Gesteund | Gesteund | | | Centrum |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



| Staal | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C33-V1 (0.000-6.500) | P1 | Gesteund | Gesteund | | | Centrum |
| C34-V1 (0.000-6.500) | P7 | Gesteund | Gesteund | | | Centrum |
| C35-V1 (0.000-2.600) | P7 | Gesteund | Gesteund | | | Centrum |
| C36-V1 (0.000-6.500) | P6 | Gesteund | Gesteund | | | Centrum |
| C37-V1 (0.000-5.200) | P6 | Gesteund | Gesteund | | | Centrum |
| C38-V1 (0.000-6.500) | P6 | Gesteund | Gesteund | | | Centrum |
| C39-V1 (0.000-6.500) | P6 | Gesteund | Gesteund | | | Centrum |
| C40-V1 (0.000-6.500) | P6 | Gesteund | Gesteund | | | Centrum |
| C41-V1 (0.000-5.233) | P6 | Gesteund | Gesteund | | | Centrum |
| C42-V1 (0.000-6.500) | P5 | Gesteund | Gesteund | | | Centrum |
| C43-V1 (0.000-3.967) | P5 | Gesteund | Gesteund | | | Centrum |
| C48-V1 (0.000-5.000) | P4 | Gesteund | Gesteund | | | Centrum |
| C49-V1 (0.000-1.267) | P1 | Gesteund | Gesteund | | | Centrum |
| C50-V1 (0.000-1.433) | P1 | Gesteund | Gesteund | | | Centrum |

DOORBUIGINGGEGEVENS

| Staal | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|----------------------------------|---------|-------------|------------------|---------------------------------|---|
| C6-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C7-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C8-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C9-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C10-V1 (0.000-5.166) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C11-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C12-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C13-V1 (0.000-5.158) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C20-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C21-V1 (0.000-3.900) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C23-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C24-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C25-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C26-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C27-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C28-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C29-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C30-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C31-V1 (0.000-1.300) | Kolom | Eén bouwlaag, industrieel gebouw | 0 | Parabolisch | H/150 | N/B | |
| C33-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C34-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C35-V1 (0.000-2.600) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C36-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C37-V1 (0.000-5.200) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |

mm

mm

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving



Eenheden: m, mm, kN, kNm



| Staal | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|------------|---------|-------------|------------------|---------------------------------|---|
| C38-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C39-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C40-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C41-V1 (0.000-5.233) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C42-V1 (0.000-6.500) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C43-V1 (0.000-3.967) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C48-V1 (0.000-5.000) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C49-V1 (0.000-1.267) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C50-V1 (0.000-1.433) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C54-V1 (0.000-8.201) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C55-V1 (0.000-8.201) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C58-V1 (0.000-8.201) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| C59-V1 (0.000-6.382) | Dak | Algemeen | 0 | Parabolisch | L/250 | L/250 | |
| | | | mm | | mm | | |

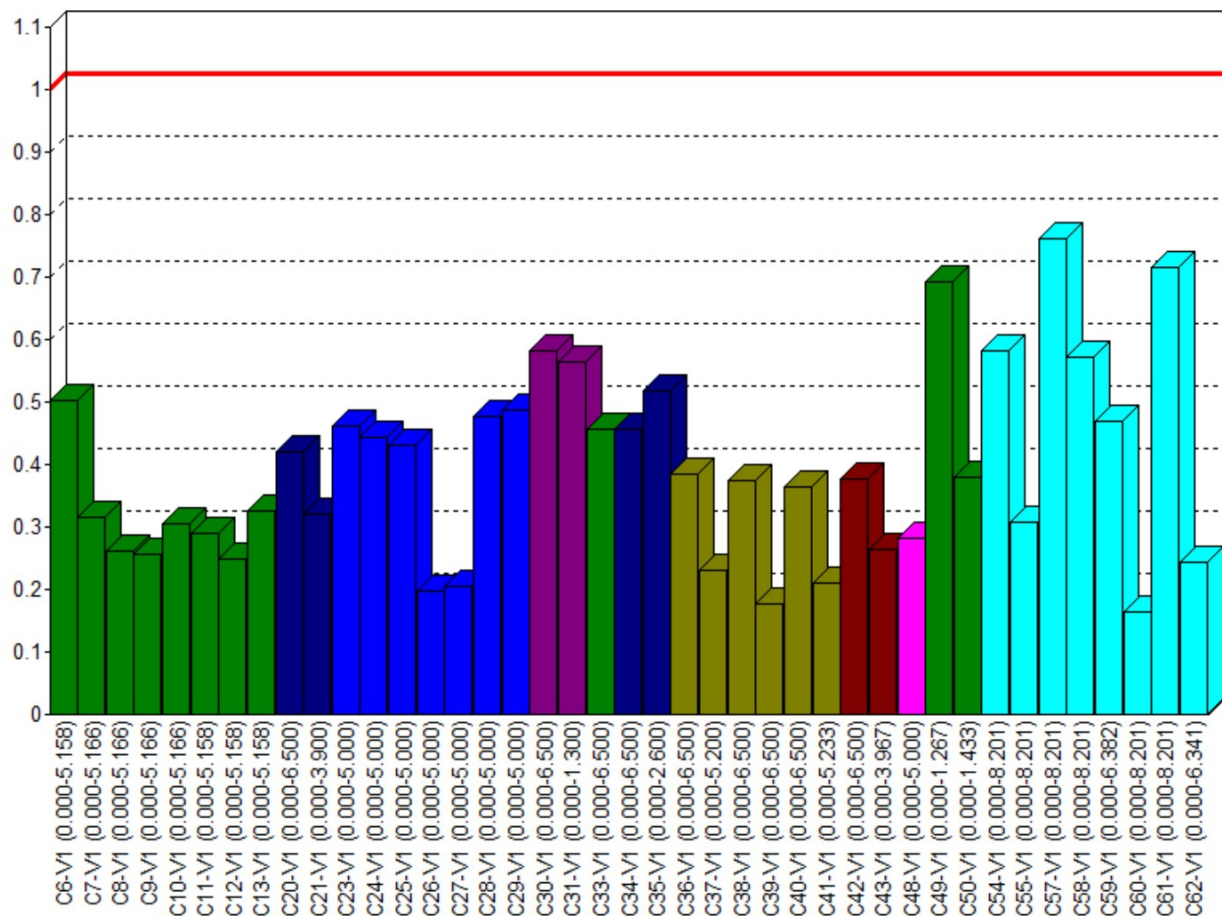
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Afb. Staal UC Diagram



EXTREME UNITY CHECK

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------------|------------|---------------------------|-------------|
| C10-V1 (0.000-5.166) | Buiging & Druk | Fu.C.69 | NEN-EN1993-1-1(6.61&6.62) | 0.30 |
| C11-V1 (0.000-5.166) | Buiging & Druk | Fu.C.65 | NEN-EN1993-1-1(6.61&6.62) | 0.29 |
| C12-V1 (0.000-5.166) | Buiging & Druk | Fu.C.42 | NEN-EN1993-1-1(6.61&6.62) | 0.25 |
| C13-V1 (0.000-5.158) | Buiging & Druk | Fu.C.23 | NEN-EN1993-1-1(6.61&6.62) | 0.33 |
| C20-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.53 | NEN-EN1990/NB A1.4.2 | 0.42 |
| C21-V1 (0.000-3.900) | Doorbuigingstoetsing | Ka.C.49 | NEN-EN1990/NB A1.4.2 | 0.32 |
| C23-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.46 |
| C24-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.44 |
| C25-V1 (0.000-5.000) | Buiging & Druk | Fu.C.9 | NEN-EN1993-1-1(6.61&6.62) | 0.43 |
| C26-V1 (0.000-5.000) | Buiging & Druk | Fu.C.14 | NEN-EN1993-1-1(6.61&6.62) | 0.20 |
| C27-V1 (0.000-5.000) | Buiging & Druk | Fu.C.14 | NEN-EN1993-1-1(6.61&6.62) | 0.21 |
| C28-V1 (0.000-5.000) | Buiging & Druk | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0.48 |
| C29-V1 (0.000-5.000) | Buiging & Druk | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0.49 |
| C30-V1 (0.000-6.500) | Kiptoetsing | Fu.C.53 | NEN-EN1993-1-1(6.54) | 0.58 |
| C31-V1 (0.000-1.300) | Doorbuigingstoetsing | Ka.C.45 | NEN-EN1990/NB A1.4.2 | 0.56 |
| C33-V1 (0.000-6.500) | Kiptoetsing | Fu.C.18 | NEN-EN1993-1-1(6.54) | 0.46 |
| C34-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.53 | NEN-EN1990/NB A1.4.2 | 0.46 |
| C35-V1 (0.000-2.600) | Doorbuigingstoetsing | Ka.C.45 | NEN-EN1990/NB A1.4.2 | 0.52 |
| C36-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.53 | NEN-EN1990/NB A1.4.2 | 0.39 |
| C37-V1 (0.000-5.200) | Doorbuigingstoetsing | Ka.C.49 | NEN-EN1990/NB A1.4.2 | 0.23 |
| C38-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.53 | NEN-EN1990/NB A1.4.2 | 0.37 |
| C39-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.49 | NEN-EN1990/NB A1.4.2 | 0.18 |
| C40-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.53 | NEN-EN1990/NB A1.4.2 | 0.36 |
| C41-V1 (0.000-5.233) | Doorbuigingstoetsing | Ka.C.49 | NEN-EN1990/NB A1.4.2 | 0.21 |
| C42-V1 (0.000-6.500) | Doorbuigingstoetsing | Ka.C.53 | NEN-EN1990/NB A1.4.2 | 0.38 |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

 bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



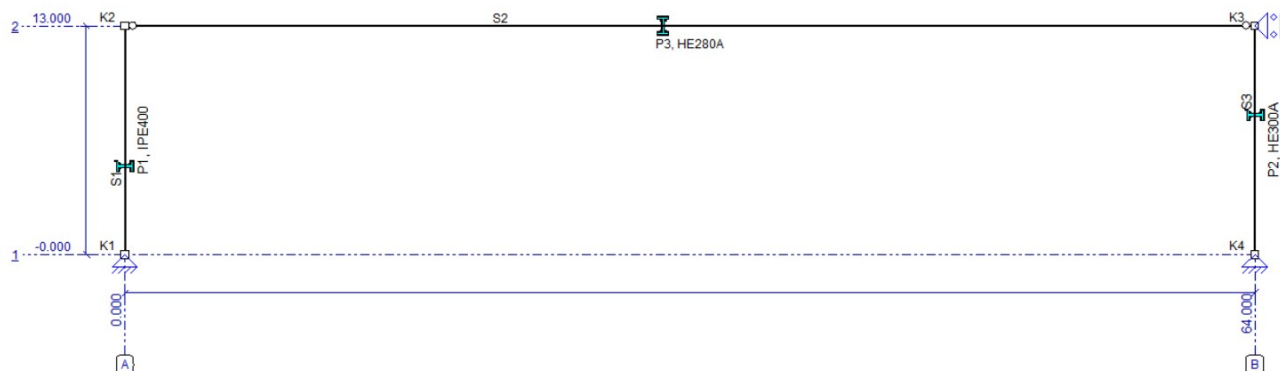
| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------------|------------|---------------------------|-------------|
| C43-V1 (0.000-3.967) | Doorbuigingstoetsing | Ka.C.49 | NEN-EN1990/NB A1.4.2 | 0.26 |
| C48-V1 (0.000-5.000) | Stabiliteit | Fu.C.21 | NEN-EN1993-1-1(6.46) | 0.28 |
| C49-V1 (0.000-1.267) | Doorbuigingstoetsing | Ka.C.61 | NEN-EN1990/NB A1.4.2 | 0.69 |
| C50-V1 (0.000-1.433) | Doorsnede | Fu.C.23 | NEN-EN1993-1-1(6.12) | 0.38 |
| C54-V1 (0.000-8.201) | Doorsnede | Fu.C.9 | NEN-EN1993-1-1(6.5) | 0.58 |
| C55-V1 (0.000-8.201) | Doorsnede | Fu.C.44 | NEN-EN1993-1-1(6.5) | 0.31 |
| C57-V1 (0.000-8.201) | Doorsnede | Fu.C.48 | NEN-EN1993-1-1(6.5) | 0.76 |
| C58-V1 (0.000-8.201) | Doorsnede | Fu.C.9 | NEN-EN1993-1-1(6.5) | 0.57 |
| C59-V1 (0.000-6.382) | Doorsnede | Fu.C.44 | NEN-EN1993-1-1(6.5) | 0.47 |
| C6-V1 (0.000-5.158) | Buiging & Druk | Fu.C.58 | NEN-EN1993-1-1(6.61&6.62) | 0.50 |
| C60-V1 (0.000-8.201) | Doorsnede | Fu.C.13 | NEN-EN1993-1-1(6.5) | 0.16 |
| C61-V1 (0.000-8.201) | Doorsnede | Fu.C.48 | NEN-EN1993-1-1(6.5) | 0.72 |
| C62-V1 (0.000-6.341) | Doorsnede | Fu.C.13 | NEN-EN1993-1-1(6.5) | 0.24 |
| C7-V1 (0.000-5.166) | Buiging & Druk | Fu.C.64 | NEN-EN1993-1-1(6.61&6.62) | 0.32 |
| C8-V1 (0.000-5.166) | Buiging & Druk | Fu.C.36 | NEN-EN1993-1-1(6.61&6.62) | 0.26 |
| C9-V1 (0.000-5.166) | Buiging & Druk | Fu.C.36 | NEN-EN1993-1-1(6.61&6.62) | 0.26 |

Projectnummer: J
 Projectomschrijving: bedrijfsloods Parlevliet Agro
 Opdrachtgever: J
 Constructeur: J
 Omschrijving: Gevelstijlen 13,0m
 Bestand: P:\Projecten van 18800-141798\berek\41798-1 Gevelstijlen 13,0m.mxf

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingsen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|--------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 4 | 3 | 3 | 3 | 11 | 50 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -13.00 | 13.00 | P1 | 0.00 - 13.00 (L) |
| S2 | K2 | K3 | 0.00 | 64.00 | -13.00 | -13.00 | 64.00 | P3 | 0.00 - 64.00 (L) |
| S3 | K3 | K4 | 64.00 | 64.00 | -13.00 | 0.00 | 13.00 | P2 | 0.00 - 13.00 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|-----------|------|
| P1 | IPE400 | 8446 | 2.3128e+08 | S235 | 0 |
| P2 | HE300A | 11253 | 1.8263e+08 | S355 | 0 |
| P3 | HE280A | 9726 | 1.3673e+08 | S235 | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|---------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °C/m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|-----------|-----------|------|------|---------|
| S2 | 0.00 | A1 | Vast | Vast | Vrij |
| | 64.00 (L) | A1 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | | 0 |
| O2 | K4 | K4 | Vast | Vast | Vrij | | 0 |
| O3 | K3 | K3 | Vast | Vrij | Vrij | | 0 |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen
 Referentieperiode (UG): 50
 Referentieperiode (GG): 50

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|---|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5.00 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 64.00 | 64.00 | [m] |
| Width2 | Totale breedte van constructie | 35.00 | 35.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| LR2 (Wrijvingscoëfficiënt (Cfr)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| Cfr1 | Wrijvingscoëfficiënt (Cfr) | EN1991-1-4#7.5(Oppervlak=Glad) | 0.01 | |
| LR3 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A1 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe1 | Uitwendige druk; Druk coëfficiënt (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi1 | Interne druk; Druk coëfficiënt (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Vertikale wand; Druk coëfficiënt (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q1 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.93 | [kN/m] |
| Cpe3 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q3 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe4 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q4 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe5 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q5 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe5*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q6 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp1) * Lsys1 | 0.05 | [kN/m] |
| Cpe6 | Vertikale wand; Druk coëfficiënt (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q7 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A2 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe7 | Uitwendige druk; Druk coëfficiënt (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |

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Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro
Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|---|--|--------|----------------------|
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe7,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe8 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q8 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe8*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q9 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0.93 | [kN/m] |
| Cpe9 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q10 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe9*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe10 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q11 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe11 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q12 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q13 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp2) * Lsys1 | 0.05 | [kN/m] |
| Cpe12 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q14 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| LR5 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A3 | Belast oppervlak (A) | 65.00 | 65.00 | [m ²] |
| Cpe13 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe13,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q15 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp3*Cpe14*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q16 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -1.40 | [kN/m] |
| Cpe15 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q17 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe15*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe16 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q18 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe16*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe17 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q19 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe17*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q20 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp3) * Lsys1 | 0.05 | [kN/m] |
| Cpe18 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q21 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp3*Cpe18*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| LR6 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A4 | Belast oppervlak (A) | 65.00 | 65.00 | [m ²] |
| Cpe19 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe19,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |

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|-------|---|--|--------|----------|
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe20 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q22 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp4*Cpe20*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q23 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -1.40 | [kN/m] |
| Cpe21 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q24 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe21*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe22 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q25 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe22*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe23 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q26 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe23*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q27 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp4) * Lsys1 | 0.05 | [kN/m] |
| Cpe24 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q28 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp4*Cpe24*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A5 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe25 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe25,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe26 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q29 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp5*Cpe26*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q30 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 0.93 | [kN/m] |
| Cpe27 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q31 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe27*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| Cpe28 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q32 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe28*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe29 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q33 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe29*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q34 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp5) * Lsys1 | 0.05 | [kN/m] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q35 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp5*Cpe30*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A6 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe31 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe31,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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|-------|---|---|--------|----------|
| Cpe32 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q36 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp6*Cpe32*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q37 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 0.93 | [kN/m] |
| Cpe33 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q38 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe33*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe34 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q39 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe34*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe35 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q40 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe35*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q41 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp6) * Lsys1 | 0.05 | [kN/m] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q42 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp6*Cpe36*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A7 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe37 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe37,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe38 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp7*Cpe38*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q44 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1.40 | [kN/m] |
| Cpe39 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q45 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe39*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| Cpe40 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q46 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe40*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe41 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q47 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe41*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q48 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp7) * Lsys1 | 0.05 | [kN/m] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp7*Cpe42*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|---------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A8 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe44 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |

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Eenheden: m, mm, kN, kNm



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|-------|---|---|--------|----------|
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe44 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | $(Cpi8 * Qp8) * Lsys1$ | -1.40 | [kN/m] |
| Cpe45 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q52 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe45 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |
| Cpe46 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q53 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe46 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe47 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q54 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe47 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| q55 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp8) * Lsys1$ | 0.05 | [kN/m] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp8 * Cpe48 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |

LR11 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe49 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe49,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe50 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q57 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Qp9 * Cpe50 * CsCd1) * Lsys1$ | -3.73 | [kN/m] |
| q58 | Interne druk; Verdeelde element belasting (q) | $(Cpi9 * Qp9) * Lsys1$ | 0.93 | [kN/m] |
| Cpe51 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q59 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp9 * Cpe51 * CsCd1) * Lsys1$ | 0.93 | [kN/m] |

LR12 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe52 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe52,Openingen=0.00,Over=True) | 0.20 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe53 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Qp10 * Cpe53 * CsCd1) * Lsys1$ | -3.73 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(Cpi10 * Qp10) * Lsys1$ | 0.93 | [kN/m] |
| Cpe54 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q62 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp10 * Cpe54 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |

LR13 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|---|---|--------|------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A11 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe55 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |

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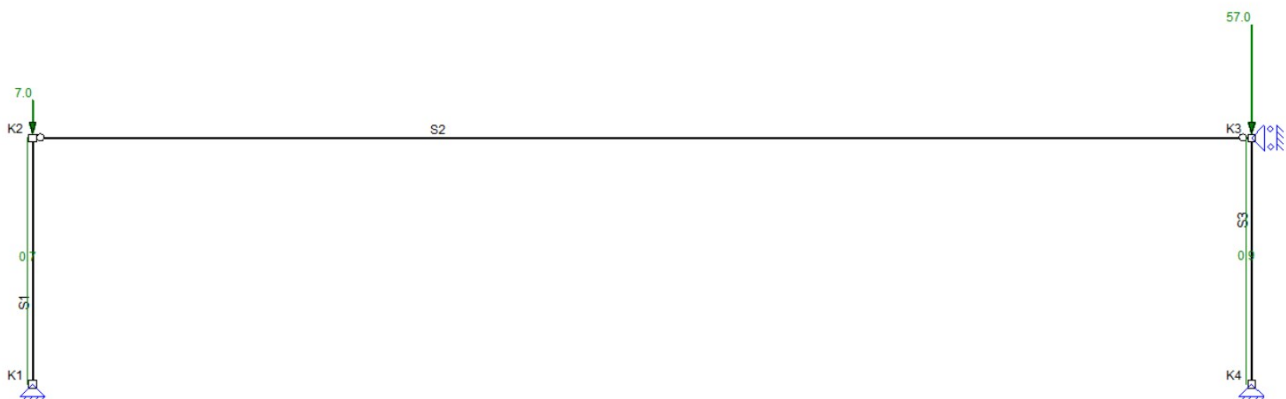
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|-------|--|---|--------|----------------------|
| Cpi11 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe55,Openingen=0.00,Over=False) | -0.30 | |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe56 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q63 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp11*Cpe56*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q64 | Interne druk; Verdeelde element belasting (q) | (Cpi11*Qp11) * Lsys1 | -1.40 | [kN/m] |
| Cpe57 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q65 | Plat dak; Verdeelde element belasting (q): S2 | (Qp11*Cpe57*CsCd1) * Lsys1 | 0.93 | [kN/m] |

LR14 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|----------------------|
| | Windbelasting van Voren + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width14 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A12 | Belast oppervlak (A) | 145.60 | 145.60 | [m ²] |
| Cpe58 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi12 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe58,Openingen=0.00,Over=False) | -0.30 | |
| Z13 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe59 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q66 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp12*Cpe59*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q67 | Interne druk; Verdeelde element belasting (q) | (Cpi12*Qp12) * Lsys1 | -1.40 | [kN/m] |
| Cpe60 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q68 | Plat dak; Verdeelde element belasting (q): S2 | (Qp12*Cpe60*CsCd1) * Lsys1 | -0.93 | [kN/m] |

LR15 (Horizontale druk bewaring)

| | | | | |
|---------|--|----------------------|-------|----------------------|
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m ³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q69 | Horizontale druk bewaring | Ka1*Height4*D1*Lsys1 | 46.17 | [kN/m] |

B.G.1: Permanente Belasting

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm

**B.G.1: PERMANENTE BELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1,S3 | |
| N | 7.0 | | | | Z | K2 | |
| N | 57.0 | | | | Z | K3 | |
| Som lasten | Z: 84.1 | | | | | | |
| | | | m | m | | | |

B.G.2: Windbelasting van Links + Overdruk**B.G.2: WINDBELASTING VAN LINKS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q1) | 3.7 (q1) | 0.00 | 13.00 (L) | Z' | S1 | |
| q | -0.9 (-q2) | -0.9 (-q2) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q6) | 0.0 (q6) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q7) | -2.3 (q7) | 0.00 | 13.00 (L) | Z' | S3 | |
| Som lasten | X: 81.7 | | | | | | |
| | | | m | m | | | |

B.G.3: Windbelasting van Links + Onderdruk**B.G.3: WINDBELASTING VAN LINKS + ONDERDRUK**

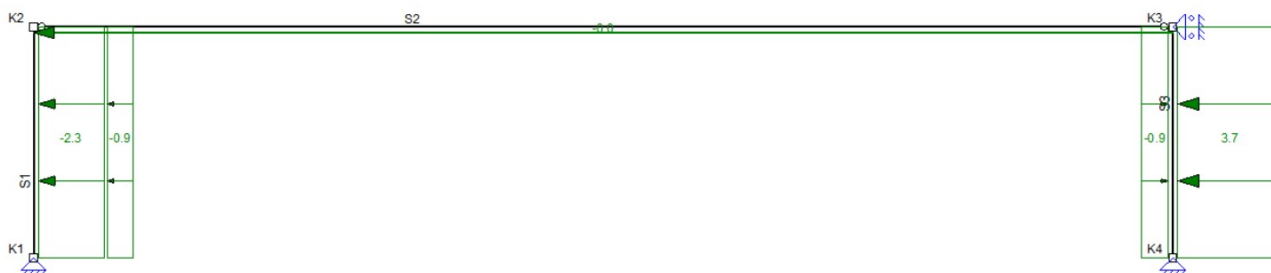
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q15) | 3.7 (q15) | 0.00 | 13.00 (L) | Z' | S1 | |
| q | 1.4 (-q16) | 1.4 (-q16) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q20) | 0.0 (q20) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q21) | -2.3 (q21) | 0.00 | 13.00 (L) | Z' | S3 | |
| Som lasten | X: 81.7 | | | | | | |
| | | | m | m | | | |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



B.G.4: Windbelasting van Rechts + Overdruk



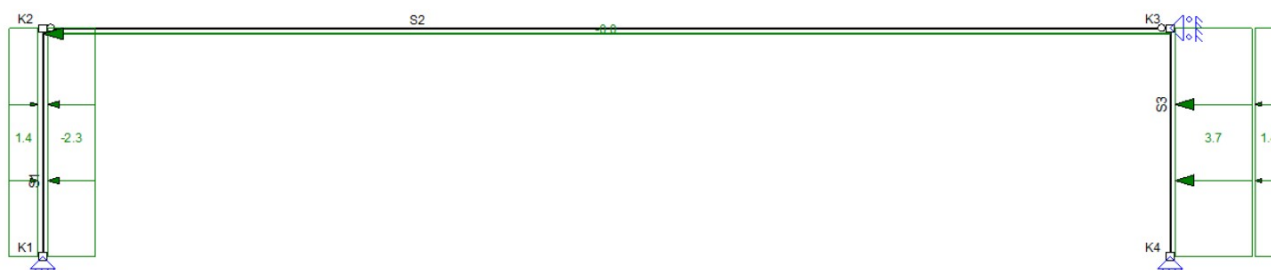
B.G.4: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q29) | -2.3 (q29) | 0.00 | 13.00 (L) | Z' | S1 | |
| q | -0.9 (-q30) | -0.9 (-q30) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q34) | -0.0 (-q34) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q35) | 3.7 (q35) | 0.00 | 13.00 (L) | Z' | S3 | |
| Som lasten | | X: -81.7 | | | | | |

m

m

B.G.5: Windbelasting van Rechts + Onderdruk



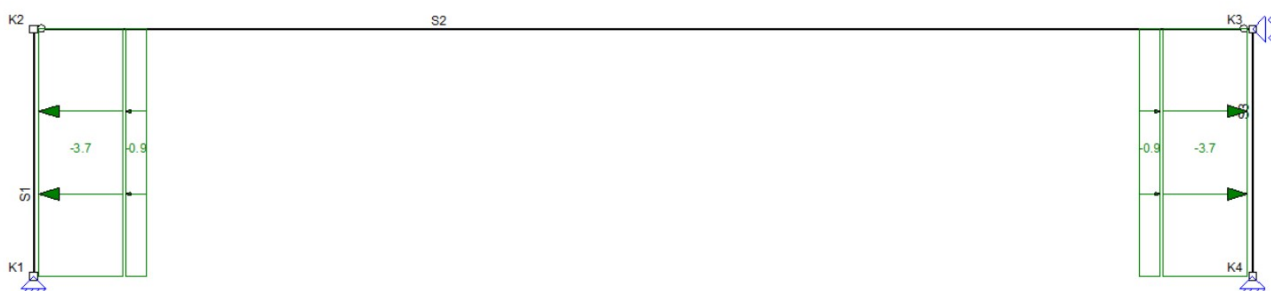
B.G.5: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q43) | -2.3 (q43) | 0.00 | 13.00 (L) | Z' | S1 | |
| q | 1.4 (-q44) | 1.4 (-q44) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q48) | -0.0 (-q48) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q49) | 3.7 (q49) | 0.00 | 13.00 (L) | Z' | S3 | |
| Som lasten | | X: -81.7 | | | | | |

m

m

B.G.6: Windbelasting van Voren + Overdruk



Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur J
 Omschrijving Gevelstijlen 13,0m

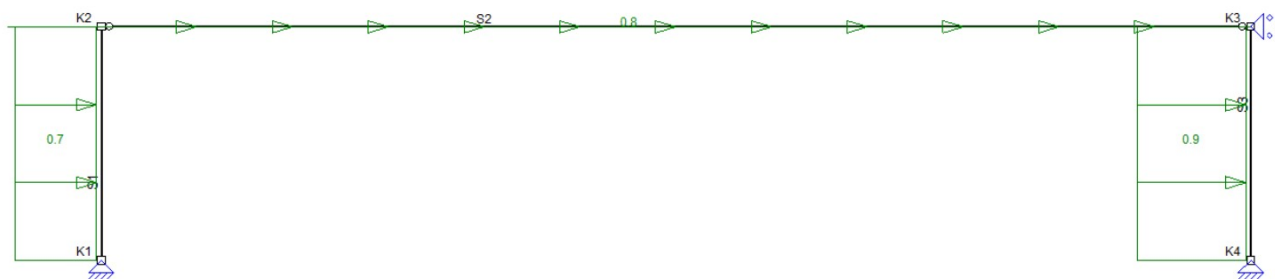
Eenheden: m, mm, kN, kNm

**B.G.6: WINDBELASTING VAN VOREN + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q57) | -3.7 (q57) | 0.00 | L | Z' | S1,S3 | |
| q | -0.9 (-q58) | -0.9 (-q58) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

B.G.7: Windbelasting van Voren + Onderdruk**B.G.7: WINDBELASTING VAN VOREN + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q63) | -3.7 (q63) | 0.00 | L | Z' | S1,S3 | |
| q | 1.4 (-q64) | 1.4 (-q64) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

B.G.8: Kniklengte (Asymmetrisch)**B.G.8: KNIKLENGTE (ASYMMETRISCH)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3 | |
| Som lasten | X: 69.0 | | | | | | |
| | | | m | m | | | |

B.G.9: Kniklengte (Symmetrisch)**B.G.9: KNIKLENGTE (SYMMETRISCH)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| | | | m | m | | | |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoopp | Omschrijving |
|-------------------|---------------|----------------|--------------|-------------|----------|------------------|--------------|
| qG | 2.00 (1.33) | 2.00 (1.33) | 0.00 | 13.00 (L) | X" | S1 | |
| qG | -2.00 (-1.77) | -2.00 (-1.77) | 0.00 | 13.00 (L) | X" | S3 | |
| Som lasten | | X: -5.7 | | | | | |

m m

B.G.10: Verdeelde veranderlijke belasting

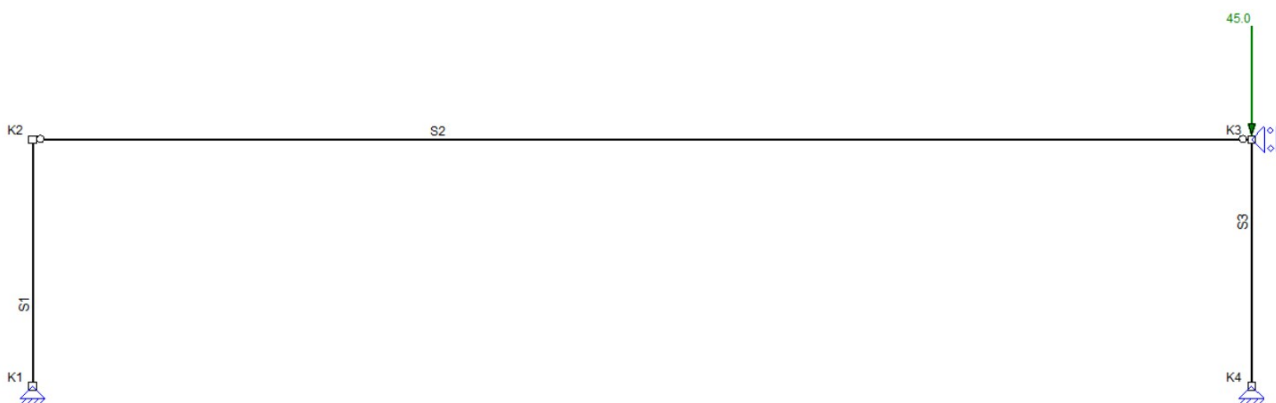


B.G.10: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staa of knoop | Omschrijving |
|-------------------|-------------|---------------------------|--------------|-------------|----------|---------------|--------------|
| q | 0.0 | -46.2 (-q69) | 8.50 | 13.00 (L) | Z' | S3 | |
| Som lasten | | X: 103.9 Yr: -13.9 | | | | | |

m m

B.G.11: Sneeuwbelasting



B.G.11: SNEEUWBELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoopp | Omschrijving |
|-------------------|-------------|----------------|--------------|-------------|----------|------------------|--------------|
| N | 45.0 | | | | Z | K3 | |
| Som lasten | | Z: 45.0 | | | | | |

m m

BELASTINGSCOMBINATIES

[illegible]

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | | 1.35 | 1.35 |
| B.G.11 | Sneeuwbelasting | | | | | | | | | | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | Fu.C.17 | Fu.C.18 | | |
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 | | |
| B.G.2 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.3 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.4 | Windbelasting van Re... | 1.15 | | | | | | | | | |
| B.G.5 | Windbelasting van Re... | | 1.15 | | | | | | | | |
| B.G.6 | Windbelasting van Vo... | | | 1.15 | | | | | | | |
| B.G.7 | Windbelasting van Vo... | | | | 1.15 | | | | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | | 1.35 | | |
| B.G.11 | Sneeuwbelasting | | | | | | | 1.10 | 1.10 | | |

Karakteristiek

| 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 | Ka.C.8 | Ka.C.9 |
|--------|---------------------------|-----------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | 0.85 | | | | | | 0.85 | | |
| B.G.3 | Windbelasting van Lin... | | | 0.85 | | | | | | 0.85 | |
| B.G.4 | Windbelasting van Re... | | | | 0.85 | | | | | | 0.85 |
| B.G.5 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | | 0.85 | | | | |
| B.G.7 | Windbelasting van Vo... | | | | | | | 0.85 | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | 1.00 | 1.00 | 1.00 |
| B.G.11 | Sneeuwbelasting | | | | | | | | | | |
| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 | Ka.C.13 | Ka.C.14 | | | | | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | | |
| B.G.2 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.3 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.4 | Windbelasting van Re... | | | | | | | | | | |
| B.G.5 | Windbelasting van Re... | 0.85 | | | | | | | | | |
| B.G.6 | Windbelasting van Vo... | | 0.85 | | | | | | | | |
| B.G.7 | Windbelasting van Vo... | | | 0.85 | | | | | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | | 1.00 | | | | | |
| B.G.11 | Sneeuwbelasting | | | | 0.85 | 0.85 | | | | | |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My)



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Gevelstijlen 13,0m

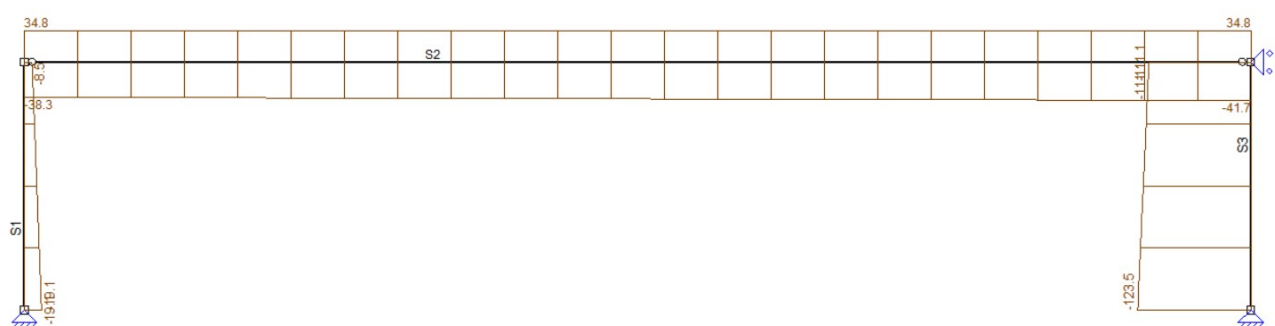
Eenheden: m, mm, kN, kNm



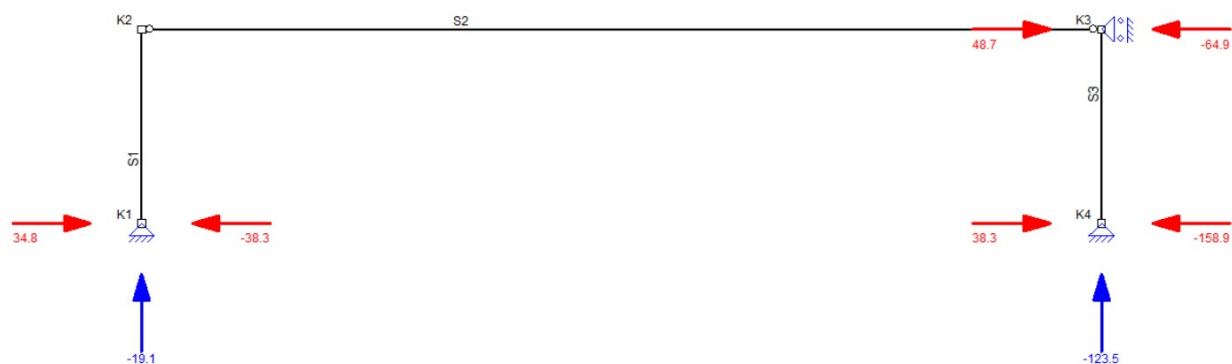
Fu.C. Omhullende Dwarskracht (Vz)



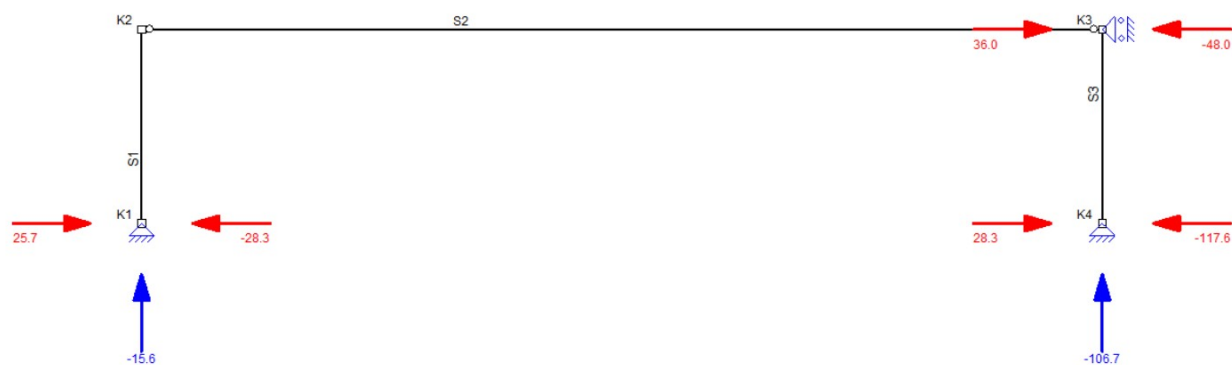
Fu.C. Omhullende Normaalkracht (Nx)



Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

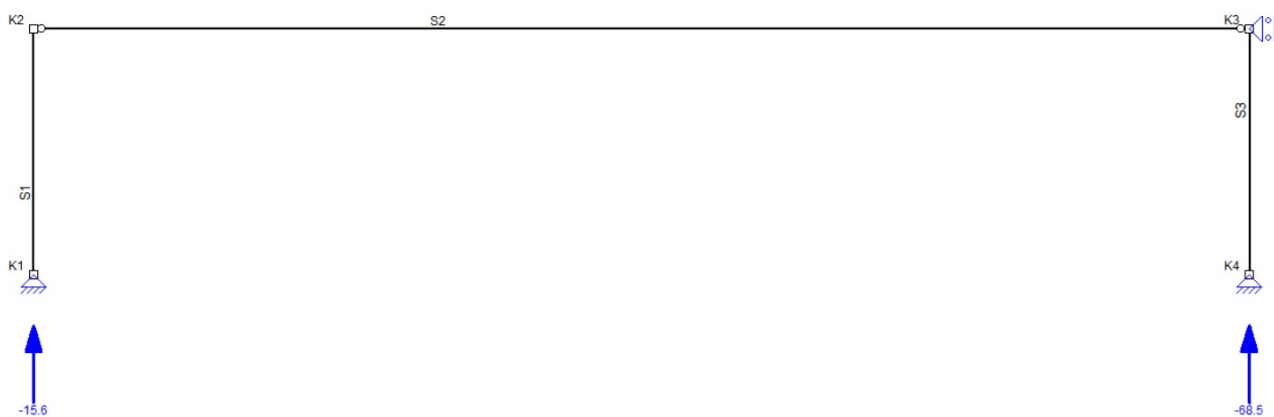

 bedrijfsloods Parlevliet Agro

 Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



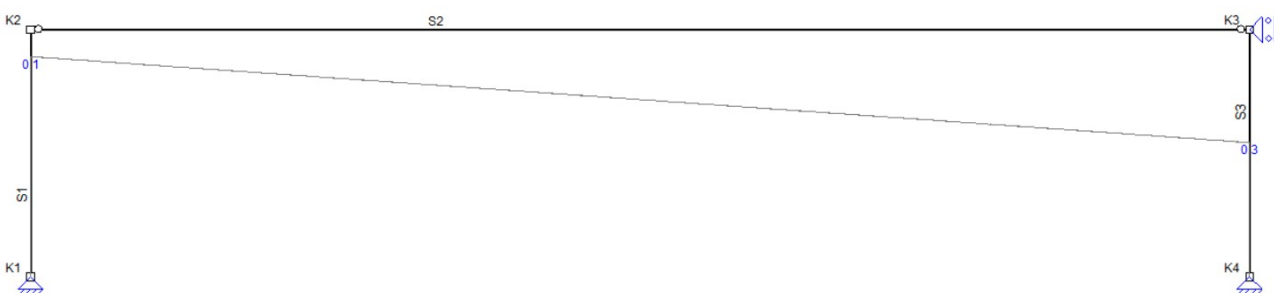
Ka.C.(w1) Oplegreacties



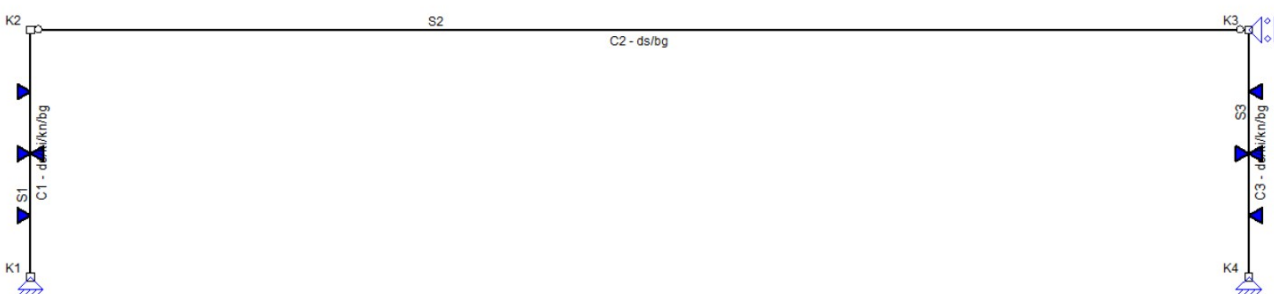
Ka.C. Omhullende Doorbuigingen



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staal/staven |
|-----------------|--------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm



INVOER GEGEVENS

KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lsys | Lokale Y-as Methode | Lbuc | Lbuc/Lsys | Lokale Z-as Methode | Lbuc | Lbuc/Lsys |
|----------------------|---------|-------|------------------------|-------|-----------|------------------------|-------|-----------|
| C1-V1 (0.000-13.000) | P1 | 13.00 | Cons. gesch. | 13.00 | 1.0 | handmatig geschoord | 6.50 | 0.5 |
| C3-V1 (0.000-13.000) | P2 | 13.00 | Cons. gesch. | 13.00 | 1.0 | Cons. gesch. | 13.00 | 1.0 |

m

KIPSTEUNENGEGEVENS

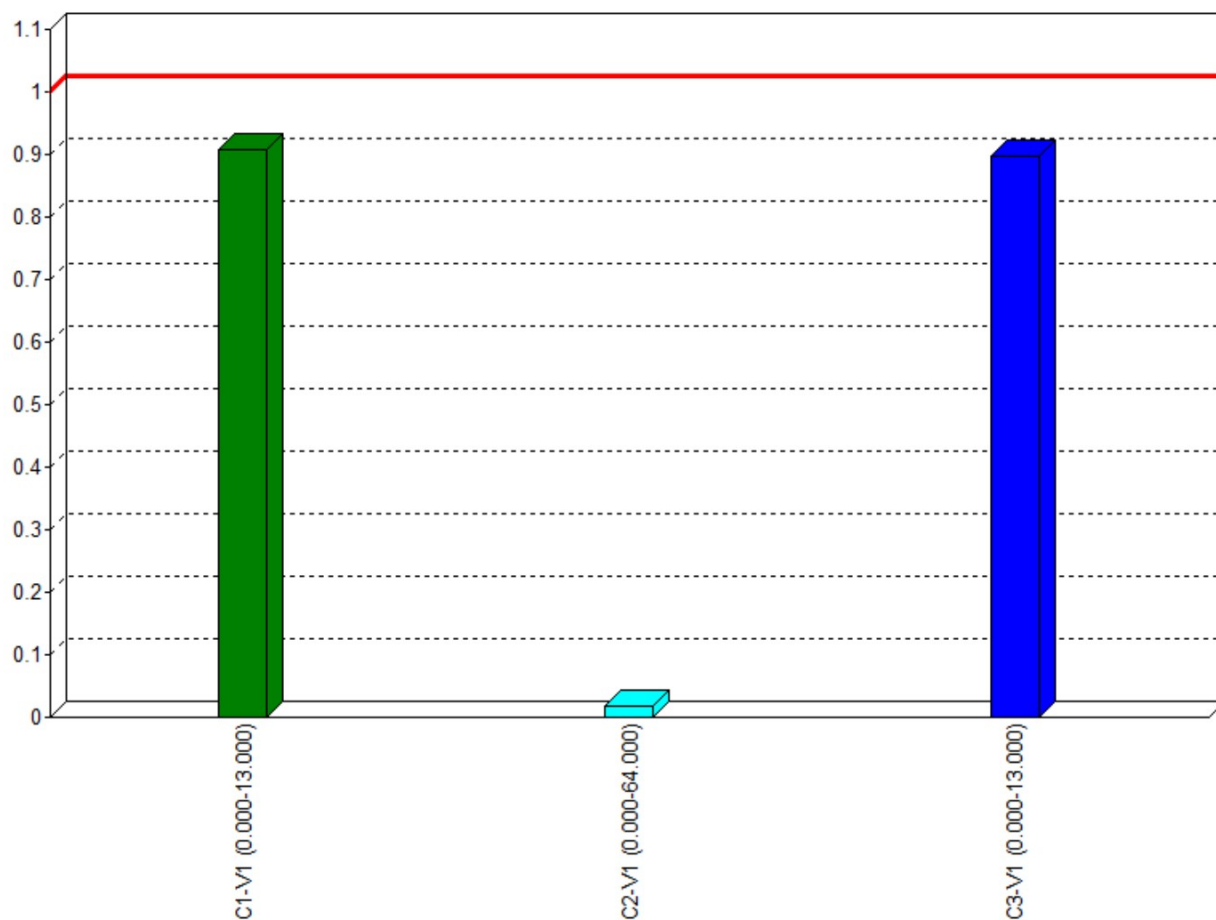
| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C1-V1 (0.000-13.000) | P1 | Gesteund | Gesteund | 3.25,6.5,9.75 | 6.5 | Centrum |
| C3-V1 (0.000-13.000) | P2 | Gesteund | Gesteund | 3.25,6.5,9.75 | 6.5 | Centrum |

DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-13.000) | Kolom | Handmatig/l | 0 | Parabolisch | L/300 | L/0 | |
| C2-V1 (0.000-64.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C3-V1 (0.000-13.000) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |

mm

Afb. Staal UC Diagram



Projectnummer [REDACTED]
Projectomschrijving bedrijfsloods Parlevliet Agro
Opdrachtgever [REDACTED]
Constructeur [REDACTED]
Omschrijving Gevelstijlen 13,0m

Eenheden: m, mm, kN, kNm

**EXTREME UNITY CHECK**

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------|------------|---------------------------|-------------|
| C1-V1 (0.000-13.000) | Buiging & Druk | Fu.C.13 | NEN-EN1993-1-1(6.61&6.62) | 0.91 |
| C2-V1 (0.000-64.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |
| C3-V1 (0.000-13.000) | Buiging & Druk | Fu.C.13 | NEN-EN1993-1-1(6.61&6.62) | 0.90 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving
 Bestand

bedrijfsloods Parlevliet Agro

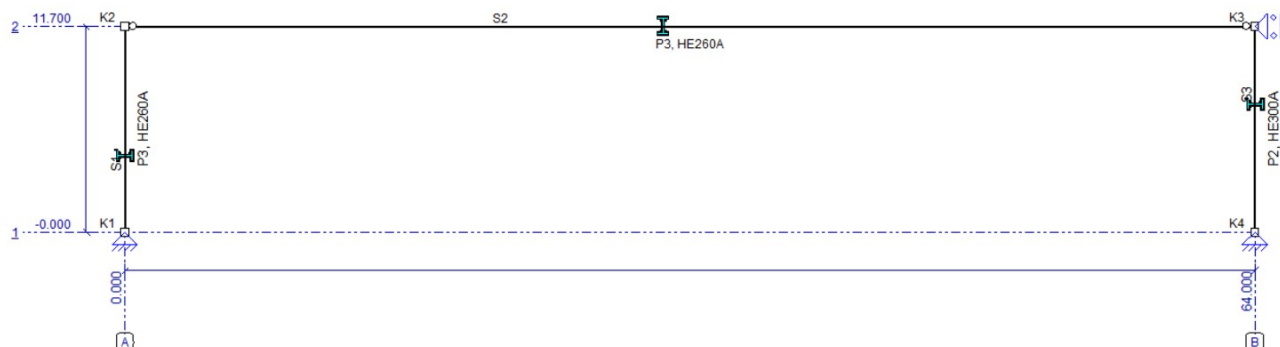
Gevelstijlen 11,7m

P:\Projecten van 18800-141798\berek\41798-1 Gevelstijlen 11,7m.mxf

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 4 | 3 | 3 | 3 | 10 | 46 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -11.70 | 11.70 | P3 | 0.00 - 11.70 (L) |
| S2 | K2 | K3 | 0.00 | 64.00 | -11.70 | -11.70 | 64.00 | P3 | 0.00 - 64.00 (L) |
| S3 | K3 | K4 | 64.00 | 64.00 | -11.70 | 0.00 | 11.70 | P2 | 0.00 - 11.70 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|-----------|------|
| P2 | HE300A | 11253 | 1.8263e+08 | S355 | 0 |
| P3 | HE260A | 8682 | 1.0455e+08 | S235 | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|---------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|-----------|-----------|------|------|---------|
| S2 | 0.00 | A1 | Vast | Vast | Vrij |
| | 64.00 (L) | A1 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O2 | K4 | K4 | Vast | Vast | Vrij | 0 | |
| O3 | K3 | K3 | Vast | Vrij | Vrij | 0 | |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen
 Referentieperiode (UG): 50
 Referentieperiode (GG): 50
 Betrouwbaarheidsklasse: 1

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Eenheden: m, mm, kN, kNm



Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)
 NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)
 NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|---|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5.00 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 64.00 | 64.00 | [m] |
| Width2 | Totale breedte van constructie | 35.00 | 35.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| LR2 (Wrijvingscoëfficiënt (Cfr)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| Cfr1 | Wrijvingscoëfficiënt (Cfr) | EN1991-1-4#7.5(Oppervlak=Glad) | 0.01 | |
| LR3 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A1 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe1 | Uitwendige druk; Druk coëfficiënt (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi1 | Interne druk; Druk coëfficiënt (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Vertikale wand; Druk coëfficiënt (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q1 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.93 | [kN/m] |
| Cpe3 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q3 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe4 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q4 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe5 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q5 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe5*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q6 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp1) * Lsys1 | 0.05 | [kN/m] |
| Cpe6 | Vertikale wand; Druk coëfficiënt (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q7 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A2 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe7 | Uitwendige druk; Druk coëfficiënt (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |

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|-------|---|--|--------|----------------------|
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe7,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe8 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q8 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe8*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q9 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0.93 | [kN/m] |
| Cpe9 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q10 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe9*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe10 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q11 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe11 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q12 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q13 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp2) * Lsys1 | 0.05 | [kN/m] |
| Cpe12 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q14 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|----------------------|
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A3 | Belast oppervlak (A) | 65.00 | 65.00 | [m ²] |
| Cpe13 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe13,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q15 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp3*Cpe14*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q16 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -1.40 | [kN/m] |
| Cpe15 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q17 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe15*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe16 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q18 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe16*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe17 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q19 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe17*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q20 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp3) * Lsys1 | 0.05 | [kN/m] |
| Cpe18 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q21 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp3*Cpe18*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR6 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|--|---|-------|-------------------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A4 | Belast oppervlak (A) | 65.00 | 65.00 | [m ²] |
| Cpe19 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe19,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |

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|-------|---|--|--------|----------|
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe20 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q22 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp4*Cpe20*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q23 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -1.40 | [kN/m] |
| Cpe21 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q24 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe21*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe22 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q25 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe22*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe23 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q26 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe23*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q27 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp4) * Lsys1 | 0.05 | [kN/m] |
| Cpe24 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q28 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp4*Cpe24*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A5 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe25 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe25,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe26 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q29 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp5*Cpe26*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q30 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 0.93 | [kN/m] |
| Cpe27 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q31 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe27*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| Cpe28 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q32 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe28*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe29 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q33 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe29*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q34 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp5) * Lsys1 | 0.05 | [kN/m] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q35 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp5*Cpe30*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A6 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe31 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe31,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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|-------|---|---|--------|----------|
| Cpe32 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q36 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp6*Cpe32*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q37 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 0.93 | [kN/m] |
| Cpe33 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q38 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe33*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe34 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q39 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe34*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe35 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q40 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe35*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q41 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp6) * Lsys1 | 0.05 | [kN/m] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q42 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp6*Cpe36*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A7 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe37 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe37,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe38 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp7*Cpe38*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q44 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1.40 | [kN/m] |
| Cpe39 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q45 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe39*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| Cpe40 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q46 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe40*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe41 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q47 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe41*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q48 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp7) * Lsys1 | 0.05 | [kN/m] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp7*Cpe42*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|---------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A8 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe44 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |

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Eenheden: m, mm, kN, kNm



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|-------|---|---|--------|----------|
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe44 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | $(Cpi8 * Qp8) * Lsys1$ | -1.40 | [kN/m] |
| Cpe45 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q52 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe45 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |
| Cpe46 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q53 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe46 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe47 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q54 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe47 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| q55 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp8) * Lsys1$ | 0.05 | [kN/m] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp8 * Cpe48 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |

LR11 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe49 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe49,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe50 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q57 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Qp9 * Cpe50 * CsCd1) * Lsys1$ | -3.73 | [kN/m] |
| q58 | Interne druk; Verdeelde element belasting (q) | $(Cpi9 * Qp9) * Lsys1$ | 0.93 | [kN/m] |
| Cpe51 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q59 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp9 * Cpe51 * CsCd1) * Lsys1$ | 0.93 | [kN/m] |

LR12 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe52 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe52,Openingen=0.00,Over=True) | 0.20 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe53 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Qp10 * Cpe53 * CsCd1) * Lsys1$ | -3.73 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(Cpi10 * Qp10) * Lsys1$ | 0.93 | [kN/m] |
| Cpe54 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q62 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp10 * Cpe54 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |

LR13 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|---|---|--------|------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A11 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe55 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |

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|-------|--|---|--------|----------------------|
| Cpi11 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe55,Openingen=0.00,Over=False) | -0.30 | |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe56 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q63 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp11*Cpe56*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q64 | Interne druk; Verdeelde element belasting (q) | (Cpi11*Qp11) * Lsys1 | -1.40 | [kN/m] |
| Cpe57 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q65 | Plat dak; Verdeelde element belasting (q): S2 | (Qp11*Cpe57*CsCd1) * Lsys1 | 0.93 | [kN/m] |

LR14 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|----------------------|
| | Windbelasting van Voren + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width14 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A12 | Belast oppervlak (A) | 145.60 | 145.60 | [m ²] |
| Cpe58 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi12 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe58,Openingen=0.00,Over=False) | -0.30 | |
| Z13 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe59 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q66 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp12*Cpe59*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q67 | Interne druk; Verdeelde element belasting (q) | (Cpi12*Qp12) * Lsys1 | -1.40 | [kN/m] |
| Cpe60 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q68 | Plat dak; Verdeelde element belasting (q): S2 | (Qp12*Cpe60*CsCd1) * Lsys1 | -0.93 | [kN/m] |

LR15 (Horizontale druk bewaring)

| | | | | |
|---------|--|----------------------|-------|----------------------|
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m ³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q69 | Horizontale druk bewaring | Ka1*Height4*D1*Lsys1 | 46.17 | [kN/m] |

B.G.1: Permanente Belasting

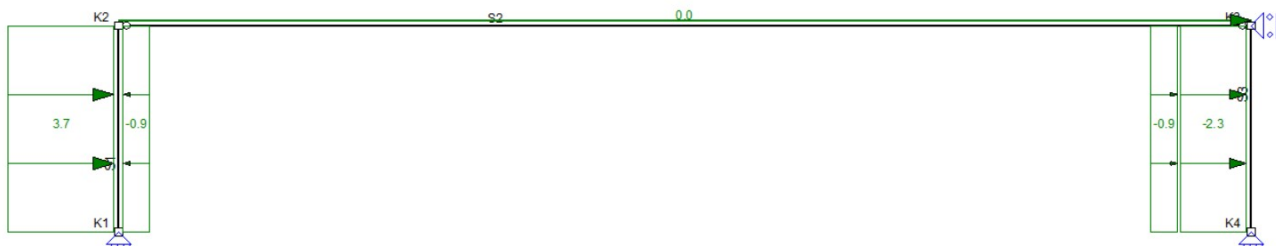


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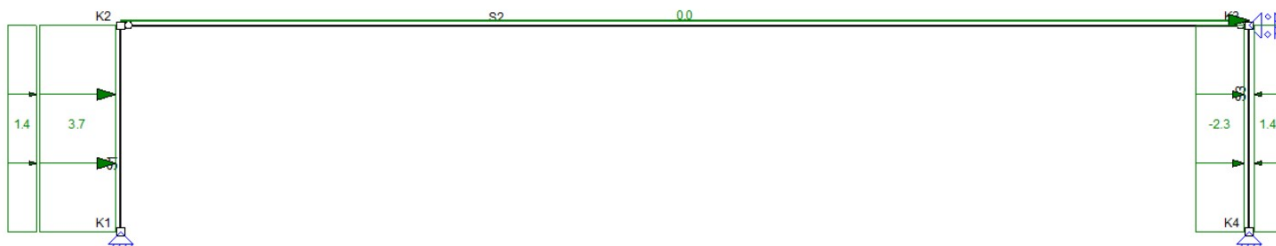
Eenheden: m, mm, kN, kNm

**B.G.1: PERMANENTE BELASTING**

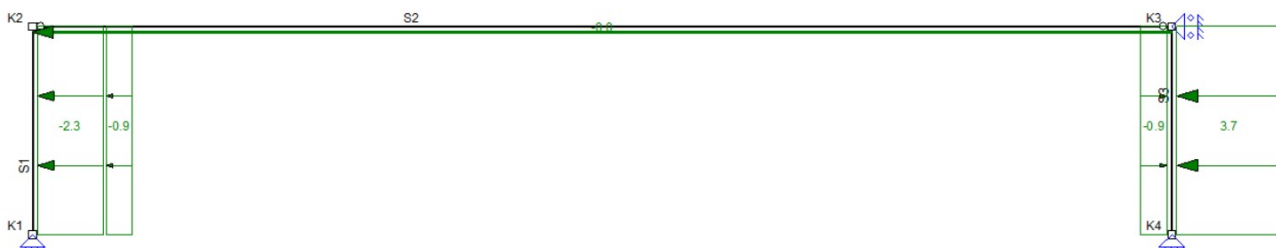
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1,S3 | |
| N | 7.0 | | | | Z | K2-K3 | |
| Som lasten | Z: 32.3 | | | | | | |
| | | | m | m | | | |

B.G.2: Windbelasting van Links + Overdruk**B.G.2: WINDBELASTING VAN LINKS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q1) | 3.7 (q1) | 0.00 | 11.70 (L) | Z' | S1 | |
| q | -0.9 (-q2) | -0.9 (-q2) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q6) | 0.0 (q6) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q7) | -2.3 (q7) | 0.00 | 11.70 (L) | Z' | S3 | |
| Som lasten | X: 73.8 | | | | | | |
| | | | m | m | | | |

B.G.3: Windbelasting van Links + Onderdruk**B.G.3: WINDBELASTING VAN LINKS + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q15) | 3.7 (q15) | 0.00 | 11.70 (L) | Z' | S1 | |
| q | 1.4 (-q16) | 1.4 (-q16) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q20) | 0.0 (q20) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q21) | -2.3 (q21) | 0.00 | 11.70 (L) | Z' | S3 | |
| Som lasten | X: 73.8 | | | | | | |
| | | | m | m | | | |

B.G.4: Windbelasting van Rechts + Overdruk

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**B.G.4: WINDBELASTING VAN RECHTS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q29) | -2.3 (q29) | 0.00 | 11.70 (L) | Z' | S1 | |
| q | -0.9 (-q30) | -0.9 (-q30) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q34) | -0.0 (-q34) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q35) | 3.7 (q35) | 0.00 | 11.70 (L) | Z' | S3 | |
| Som lasten | | X: -73.8 | | | | | |
| | | | m | m | | | |

B.G.5: Windbelasting van Rechts + Onderdruk**B.G.5: WINDBELASTING VAN RECHTS + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q43) | -2.3 (q43) | 0.00 | 11.70 (L) | Z' | S1 | |
| q | 1.4 (-q44) | 1.4 (-q44) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q48) | -0.0 (-q48) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q49) | 3.7 (q49) | 0.00 | 11.70 (L) | Z' | S3 | |
| Som lasten | | X: -73.8 | | | | | |
| | | | m | m | | | |

B.G.6: Windbelasting van Voren + Overdruk**B.G.6: WINDBELASTING VAN VOREN + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q57) | -3.7 (q57) | 0.00 | L | Z' | S1,S3 | |
| q | -0.9 (-q58) | -0.9 (-q58) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

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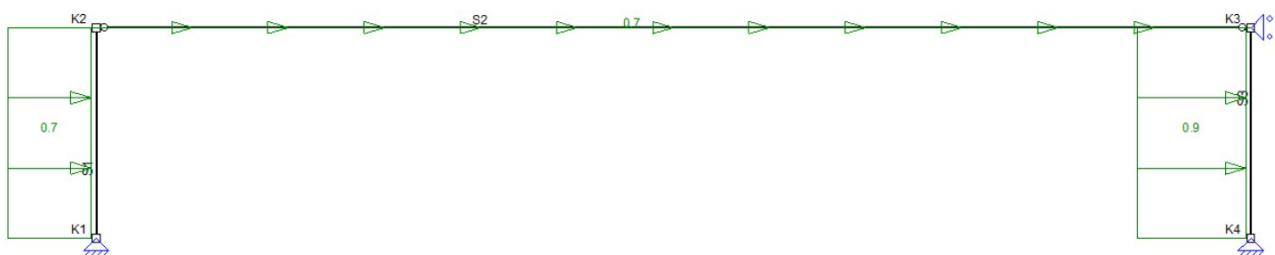
B.G.7: Windbelasting van Voren + Onderdruk



B.G.7: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q63) | -3.7 (q63) | 0.00 | L | Z' | S1,S3 | |
| q | 1.4 (-q64) | 1.4 (-q64) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

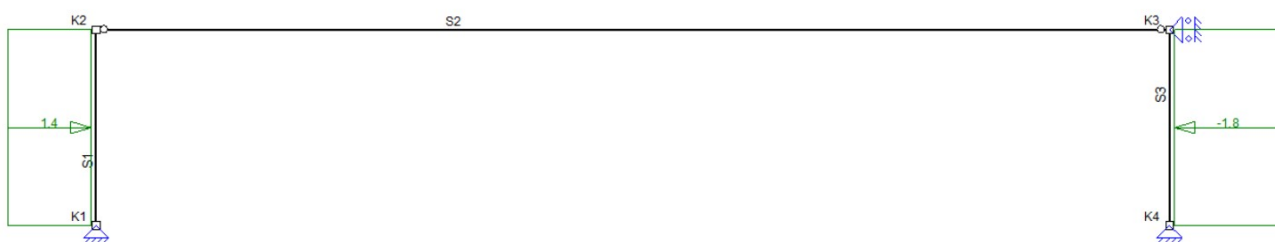
B.G.8: Kniklengte (Asymmetrisch)



B.G.8: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3 | |
| Som lasten | X: 61.9 | | | | | | |
| | | | m | m | | | |

B.G.9: Kniklengte (Symmetrisch)



B.G.9: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|---------------|--------------|-------------|----------|----------------|--------------|
| qG | 2.00 (1.36) | 2.00 (1.36) | 0.00 | 11.70 (L) | X" | S1 | |
| qG | -2.00 (-1.77) | -2.00 (-1.77) | 0.00 | 11.70 (L) | X" | S3 | |
| Som lasten | X: -4.7 | | | | | | |
| | | | m | m | | | |

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B.G.10: Verdeelde veranderlijke belasting



B.G.10: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|--------------------|--------------|-------------|----------|----------------|--------------|
| q | 0.0 | -46.2 (-q69) | 7.20 | 11.70 (L) | Z' | S3 | |
| Som lasten | | X: 103.9 Yr: -10.4 | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

Fundamenteel

| 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 | Fu.C.9 | Fu.C.10 |
|--------|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 | 0.90 | 1.08 |
| B.G.2 | Windbelasting van Lin... | 1.15 | | | | | | | | 1.15 | |
| B.G.3 | Windbelasting van Lin... | | 1.15 | | | | | | | | 1.15 |
| B.G.4 | Windbelasting van Re... | | | 1.15 | | | | | | | |
| B.G.5 | Windbelasting van Re... | | | | 1.15 | | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | 1.15 | | | | | |
| B.G.7 | Windbelasting van Vo... | | | | | | 1.15 | | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | | 1.35 | 1.35 |

| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Lin... | | | | | | |
| B.G.3 | Windbelasting van Lin... | | | | | | |
| B.G.4 | Windbelasting van Re... | 1.15 | | | | | |
| B.G.5 | Windbelasting van Re... | | 1.15 | | | | |
| B.G.6 | Windbelasting van Vo... | | | 1.15 | | | |
| B.G.7 | Windbelasting van Vo... | | | | 1.15 | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | |

Karakteristiek

| 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 | Ka.C.8 | Ka.C.9 |
|--------|---------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | 0.85 | | | | | | 0.85 | | |
| B.G.3 | Windbelasting van Lin... | | | 0.85 | | | | | | 0.85 | |
| B.G.4 | Windbelasting van Re... | | | | 0.85 | | | | | | 0.85 |
| B.G.5 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | | 0.85 | | | | |
| B.G.7 | Windbelasting van Vo... | | | | | | | 0.85 | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | 1.00 | 1.00 | 1.00 |

| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 |
|-------|--------------------------|---------|---------|---------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | | |
| B.G.3 | Windbelasting van Lin... | | | |
| B.G.4 | Windbelasting van Re... | | | |
| B.G.5 | Windbelasting van Re... | 0.85 | | |

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving Gevelstijlen 11,7m

Eenheden: m, mm, kN, kNm



| | | | |
|--------|---------------------------|------|------|
| B.G.6 | Windbelasting van Vo... | 0.85 | |
| B.G.7 | Windbelasting van Vo... | | 0.85 |
| B.G.8 | Kniklengte (Asymmetr... | | |
| B.G.9 | Kniklengte (Symmetris... | | |
| B.G.10 | Verdeelde veranderlijk... | 1.00 | 1.00 |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

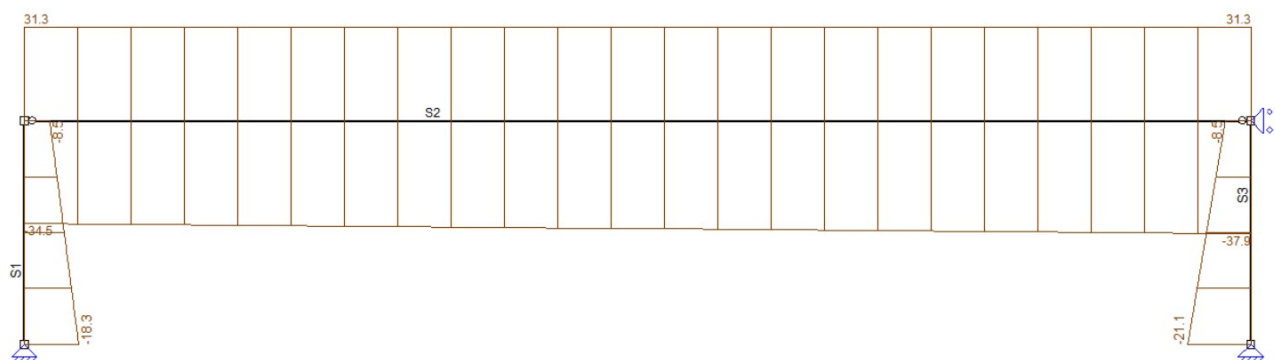
Fu.C. Omhullende Momenten (My)



Fu.C. Omhullende Dwarskracht (Vz)



Fu.C. Omhullende Normaalkracht (Nx)



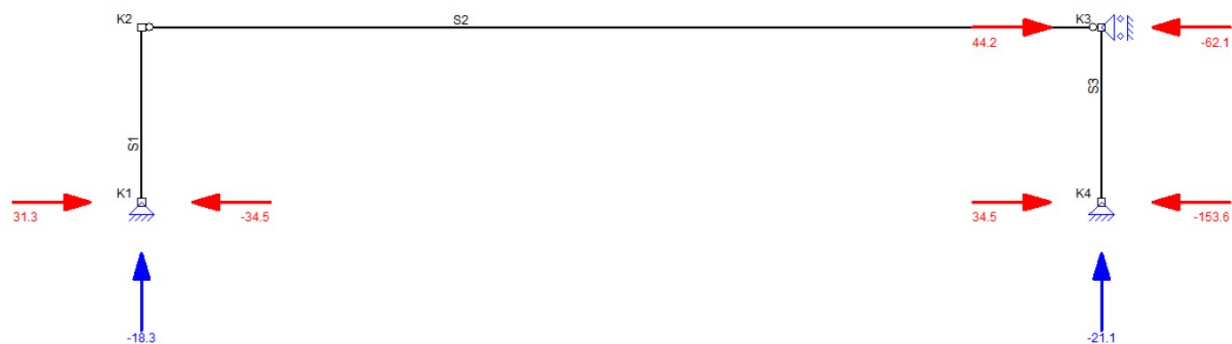
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 11,7m

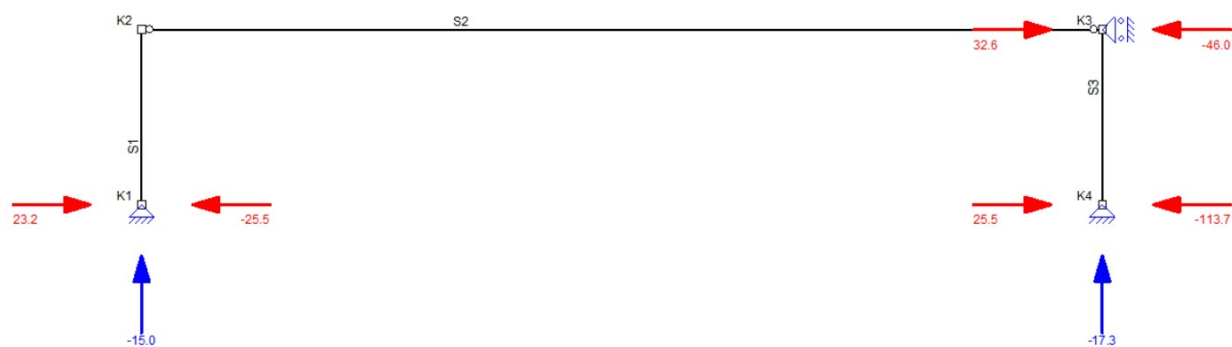
Eenheden: m, mm, kN, kNm



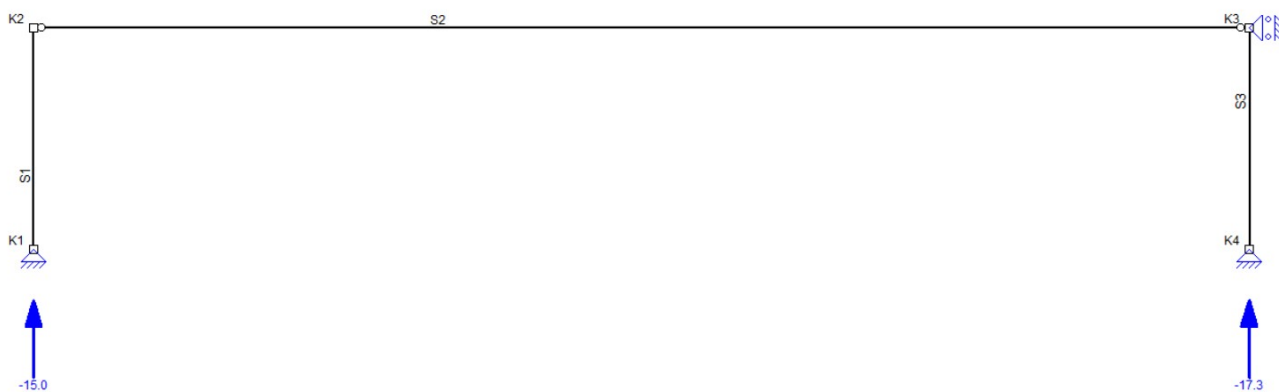
Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



Ka.C. Omhullende Doorbuigingen

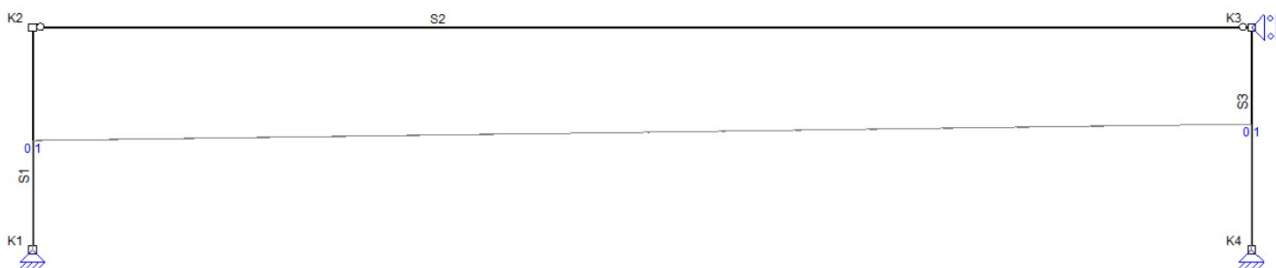


Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving Gevelstijlen 11,7m

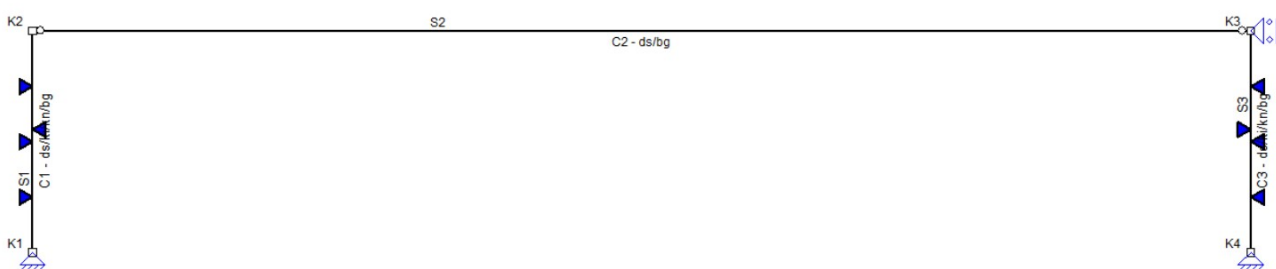
Eenheden: m, mm, kN, kNm



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructie deel | Staal/staven |
|------------------|--------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |

INVOER GEGEVENS

KNIKLENGTEGEGEVENS

| Staal | Profiel | Lsys | Lokale Y-as | | Lokale Z-as | | Lbuc | Lbuc/Lsys |
|----------------------|---------|-------|--------------|-------|--------------|-----|-------|-----------|
| | | | Methode | | Methode | | | |
| C1-V1 (0.000-11.700) | P3 | 11.70 | Cons. gesch. | 11.70 | Cons. gesch. | 1.0 | 11.70 | 1.0 |
| C3-V1 (0.000-11.700) | P2 | 11.70 | Cons. gesch. | 11.70 | Cons. gesch. | 1.0 | 11.70 | 1.0 |

m

m

KIPSTEUNENGEGEVENS

| Staal | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C1-V1 (0.000-11.700) | P3 | Gesteund | Gesteund | 2.93,5.85,8.77 | 6.5 | Centrum |
| C3-V1 (0.000-11.700) | P2 | Gesteund | Gesteund | 2.93,5.85,8.77 | 5.2 | Centrum |

DOORBUIGINGGEGEVENS

| Staal | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-11.700) | Kolom | Handmatig/l | 0 | Parabolisch | L/200 | L/0 | |
| C2-V1 (0.000-64.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C3-V1 (0.000-11.700) | Kolom | Handmatig/l | 0 | Parabolisch | L/200 | L/0 | |

mm

mm

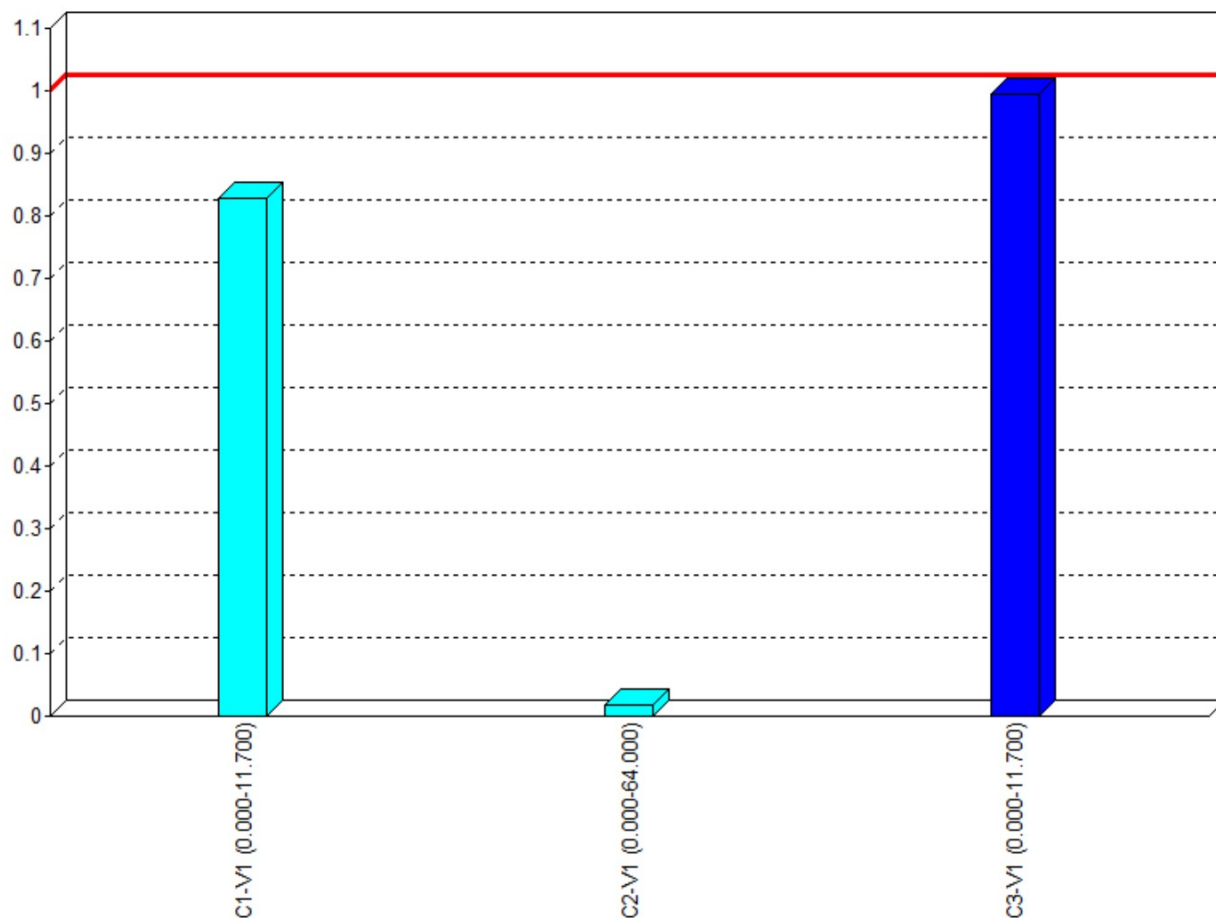
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 11,7m

Eenheden: m, mm, kN, kNm



Afb. Staal UC Diagram



EXTREME UNITY CHECK

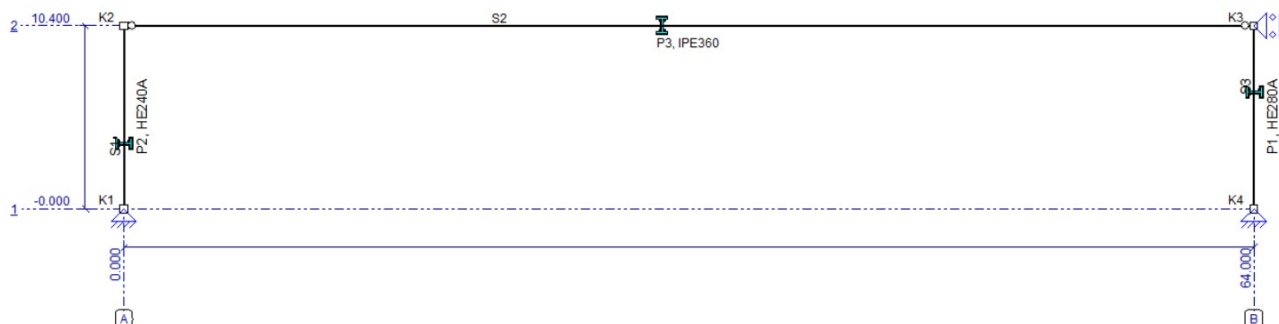
| Label | Toetsing | Combinatie | ArtikeI | Unity Check |
|----------------------|----------------------|------------|-----------------------------|-------------|
| C1-V1 (0.000-11.700) | Doorbuigingstoetsing | Ka.C.2 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.83 |
| C2-V1 (0.000-64.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |
| C3-V1 (0.000-11.700) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 1.00 |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 10,4m
 Bestand P:\Projecten van 18800-\41798\berek\41798-1 Gevelstijlen 10,4m.mxf

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 4 | 3 | 3 | 3 | 10 | 46 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -10.40 | 10.40 | P2 | 0.00 - 10.40 (L) |
| S2 | K2 | K3 | 0.00 | 64.00 | -10.40 | -10.40 | 64.00 | P3 | 0.00 - 64.00 (L) |
| S3 | K3 | K4 | 64.00 | 64.00 | -10.40 | 0.00 | 10.40 | P1 | 0.00 - 10.40 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|-----------|------|
| P1 | HE280A | 9726 | 1.3673e+08 | S355 | 0 |
| P2 | HE240A | 7684 | 7.7632e+07 | S235 | 0 |
| P3 | IPE360 | 7273 | 1.6266e+08 | S235 | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|---------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °C/m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|-----------|-----------|------|------|---------|
| S2 | 0.00 | A1 | Vast | Vast | Vrij |
| | 64.00 (L) | A1 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O2 | K4 | K4 | Vast | Vast | Vrij | 0 | |
| O3 | K3 | K3 | Vast | Vrij | Vrij | 0 | |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen
 Referentieperiode (UG): 50
 Referentieperiode (GG): 50
 Betrouwbaarheidsklasse: 1

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm



Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)
 NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)
 NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|---|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5.00 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 64.00 | 64.00 | [m] |
| Width2 | Totale breedte van constructie | 35.00 | 35.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| LR2 (Wrijvingscoëfficiënt (Cfr)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| Cfr1 | Wrijvingscoëfficiënt (Cfr) | EN1991-1-4#7.5(Oppervlak=Glad) | 0.01 | |
| LR3 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A1 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe1 | Uitwendige druk; Druk coëfficiënt (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi1 | Interne druk; Druk coëfficiënt (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Vertikale wand; Druk coëfficiënt (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q1 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.93 | [kN/m] |
| Cpe3 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q3 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe4 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q4 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe5 | Plat dak; Druk coëfficiënt (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q5 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe5*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q6 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp1) * Lsys1 | 0.05 | [kN/m] |
| Cpe6 | Vertikale wand; Druk coëfficiënt (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q7 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A2 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe7 | Uitwendige druk; Druk coëfficiënt (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |

Projectnummer
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Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|-------|---|--|--------|----------------------|
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe7,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe8 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q8 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe8*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q9 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0.93 | [kN/m] |
| Cpe9 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q10 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe9*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe10 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q11 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe11 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q12 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q13 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp2) * Lsys1 | 0.05 | [kN/m] |
| Cpe12 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q14 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|----------------------|
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A3 | Belast oppervlak (A) | 65.00 | 65.00 | [m ²] |
| Cpe13 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe13,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q15 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp3*Cpe14*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q16 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -1.40 | [kN/m] |
| Cpe15 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q17 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe15*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe16 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q18 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe16*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe17 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q19 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe17*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q20 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp3) * Lsys1 | 0.05 | [kN/m] |
| Cpe18 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q21 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp3*Cpe18*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR6 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|--|---|-------|-------------------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A4 | Belast oppervlak (A) | 65.00 | 65.00 | [m ²] |
| Cpe19 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe19,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |

Projectnummer
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Eenheden: m, mm, kN, kNm



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|-------|---|--|--------|----------|
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe20 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q22 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp4*Cpe20*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q23 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -1.40 | [kN/m] |
| Cpe21 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q24 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe21*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe22 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q25 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe22*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe23 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q26 | Plat dak; Verdeelde element belasting (q): S2 | (Qp4*Cpe23*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q27 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp4) * Lsys1 | 0.05 | [kN/m] |
| Cpe24 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q28 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp4*Cpe24*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A5 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe25 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe25,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe26 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q29 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp5*Cpe26*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q30 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 0.93 | [kN/m] |
| Cpe27 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q31 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe27*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| Cpe28 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q32 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe28*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe29 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q33 | Plat dak; Verdeelde element belasting (q): S2 | (Qp5*Cpe29*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q34 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp5) * Lsys1 | 0.05 | [kN/m] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q35 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp5*Cpe30*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A6 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe31 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe31,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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|-------|---|---|--------|----------|
| Cpe32 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q36 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp6*Cpe32*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q37 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 0.93 | [kN/m] |
| Cpe33 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q38 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe33*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| Cpe34 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q39 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe34*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe35 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q40 | Plat dak; Verdeelde element belasting (q): S2 | (Qp6*Cpe35*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q41 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp6) * Lsys1 | 0.05 | [kN/m] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q42 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp6*Cpe36*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A7 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe37 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe37,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe38 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp7*Cpe38*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| q44 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1.40 | [kN/m] |
| Cpe39 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q45 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe39*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| Cpe40 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q46 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe40*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe41 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q47 | Plat dak; Verdeelde element belasting (q): S2 | (Qp7*Cpe41*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| q48 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp7) * Lsys1 | 0.05 | [kN/m] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp7*Cpe42*CsCd1) * Lsys1 | 3.73 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|---------|---|--|-------|---------|
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A8 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe44 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |

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| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe44 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |
| q51 | Interne druk; Verdeelde element belasting (q) | $(Cpi8 * Qp8) * Lsys1$ | -1.40 | [kN/m] |
| Cpe45 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q52 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe45 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |
| Cpe46 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q53 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe46 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe47 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q54 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp8 * Cpe47 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| q55 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp8) * Lsys1$ | 0.05 | [kN/m] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp8 * Cpe48 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |

LR11 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe49 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe49,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe50 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q57 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Qp9 * Cpe50 * CsCd1) * Lsys1$ | -3.73 | [kN/m] |
| q58 | Interne druk; Verdeelde element belasting (q) | $(Cpi9 * Qp9) * Lsys1$ | 0.93 | [kN/m] |
| Cpe51 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q59 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp9 * Cpe51 * CsCd1) * Lsys1$ | 0.93 | [kN/m] |

LR12 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe52 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe52,Openingen=0.00,Over=True) | 0.20 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe53 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Qp10 * Cpe53 * CsCd1) * Lsys1$ | -3.73 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(Cpi10 * Qp10) * Lsys1$ | 0.93 | [kN/m] |
| Cpe54 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q62 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp10 * Cpe54 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |

LR13 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|---|---|--------|------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A11 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe55 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |

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| Cpi11 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe55,Openingen=0.00,Over=False) | -0.30 | |
| Z12 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe56 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q63 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp11*Cpe56*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q64 | Interne druk; Verdeelde element belasting (q) | (Cpi11*Qp11) * Lsys1 | -1.40 | [kN/m] |
| Cpe57 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q65 | Plat dak; Verdeelde element belasting (q): S2 | (Qp11*Cpe57*CsCd1) * Lsys1 | 0.93 | [kN/m] |

LR14 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|----------------------|
| | Windbelasting van Voren + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width14 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A12 | Belast oppervlak (A) | 145.60 | 145.60 | [m ²] |
| Cpe58 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi12 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe58,Openingen=0.00,Over=False) | -0.30 | |
| Z13 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe59 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q66 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp12*Cpe59*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q67 | Interne druk; Verdeelde element belasting (q) | (Cpi12*Qp12) * Lsys1 | -1.40 | [kN/m] |
| Cpe60 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q68 | Plat dak; Verdeelde element belasting (q): S2 | (Qp12*Cpe60*CsCd1) * Lsys1 | -0.93 | [kN/m] |

LR15 (Horizontale druk bewaring)

| | | | | |
|---------|--|----------------------|-------|----------------------|
| | Veranderlijke belasting bewaring | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m ³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q69 | Horizontale druk bewaring | Ka1*Height4*D1*Lsys1 | 46.17 | [kN/m] |

B.G.1: Permanente Belasting**B.G.1: PERMANENTE BELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| | | | m | m | | | |

Projectnummer J
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 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 10,4m

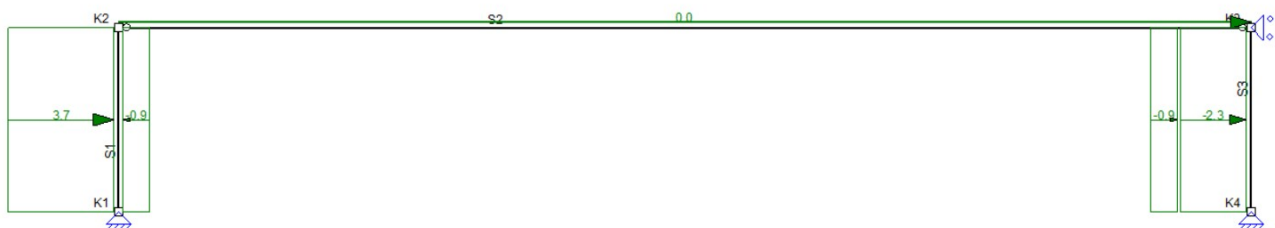
Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z' | S1,S3 | |
| N | 7.0 | | | | Z | K2-K3 | |
| Som lasten | Z: 28.2 | | | | | | |

m m

B.G.2: Windbelasting van Links + Overdruk

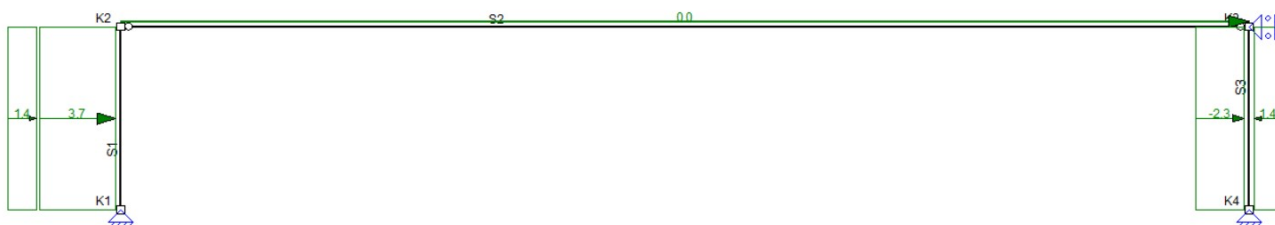


B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q1) | 3.7 (q1) | 0.00 | 10.40 (L) | Z' | S1 | |
| q | -0.9 (-q2) | -0.9 (-q2) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q6) | 0.0 (q6) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q7) | -2.3 (q7) | 0.00 | 10.40 (L) | Z' | S3 | |
| Som lasten | X: 66.0 | | | | | | |

m m

B.G.3: Windbelasting van Links + Onderdruk

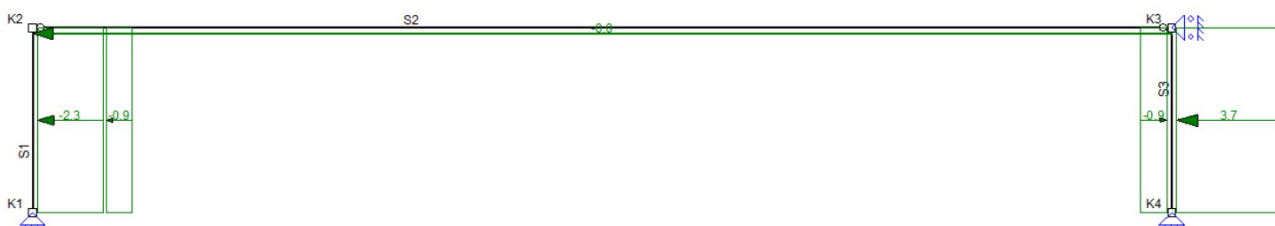


B.G.3: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q15) | 3.7 (q15) | 0.00 | 10.40 (L) | Z' | S1 | |
| q | 1.4 (-q16) | 1.4 (-q16) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q20) | 0.0 (q20) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q21) | -2.3 (q21) | 0.00 | 10.40 (L) | Z' | S3 | |
| Som lasten | X: 66.0 | | | | | | |

m m

B.G.4: Windbelasting van Rechts + Overdruk



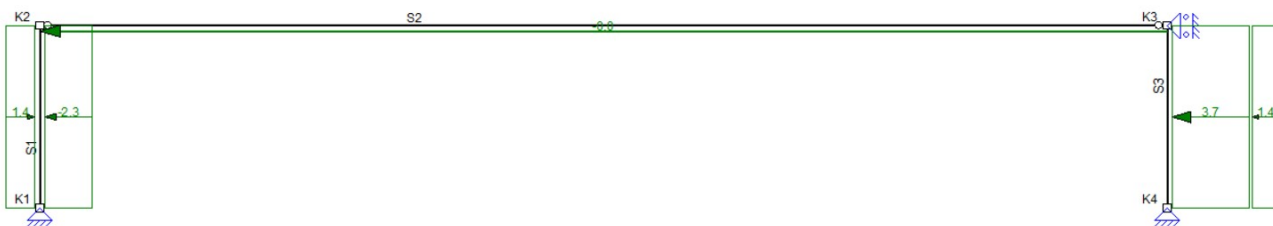
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm

**B.G.4: WINDBELASTING VAN RECHTS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-----------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q29) | -2.3 (q29) | 0.00 | 10.40 (L) | Z' | S1 | |
| q | -0.9 (-q30) | -0.9 (-q30) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q34) | -0.0 (-q34) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q35) | 3.7 (q35) | 0.00 | 10.40 (L) | Z' | S3 | |
| Som lasten | X: -66.0 | | | | | | |
| | | | m | m | | | |

B.G.5: Windbelasting van Rechts + Onderdruk**B.G.5: WINDBELASTING VAN RECHTS + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-----------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q43) | -2.3 (q43) | 0.00 | 10.40 (L) | Z' | S1 | |
| q | 1.4 (-q44) | 1.4 (-q44) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q48) | -0.0 (-q48) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q49) | 3.7 (q49) | 0.00 | 10.40 (L) | Z' | S3 | |
| Som lasten | X: -66.0 | | | | | | |
| | | | m | m | | | |

B.G.6: Windbelasting van Voren + Overdruk**B.G.6: WINDBELASTING VAN VOREN + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q57) | -3.7 (q57) | 0.00 | L | Z' | S1,S3 | |
| q | -0.9 (-q58) | -0.9 (-q58) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

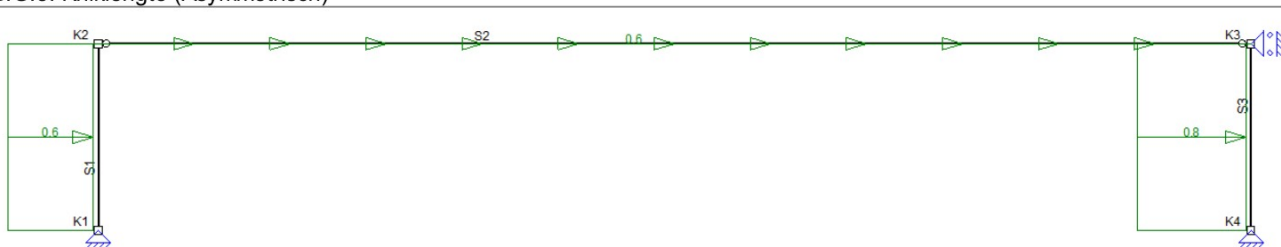
B.G.7: Windbelasting van Voren + Onderdruk

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm

**B.G.7: WINDBELASTING VAN VOREN + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q63) | -3.7 (q63) | 0.00 | L | Z' | S1,S3 | |
| q | 1.4 (-q64) | 1.4 (-q64) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

B.G.8: Kniklengte (Asymmetrisch)**B.G.8: KNIKLENGTE (ASYMMETRISCH)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X'' | S1-S3 | |
| Som lasten | X: 50.8 | | | | | | |
| | | | m | m | | | |

B.G.9: Kniklengte (Symmetrisch)**B.G.9: KNIKLENGTE (SYMMETRISCH)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|---------------|--------------|-------------|----------|----------------|--------------|
| qG | 2.00 (1.21) | 2.00 (1.21) | 0.00 | 10.40 (L) | X'' | S1 | |
| qG | -2.00 (-1.53) | -2.00 (-1.53) | 0.00 | 10.40 (L) | X'' | S3 | |
| Som lasten | X: -3.3 | | | | | | |
| | | | m | m | | | |

B.G.10: Verdeelde veranderlijke belasting**B.G.10: VERDEELDE VERANDERLIJKE BELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|--------------------------|--------------|--------------|-------------|----------|----------------|--------------|
| q | 0.0 | -46.2 (-q69) | 5.90 | 10.40 (L) | Z' | S3 | |
| Som lasten | X: 103.9 Yr: -8.3 | | | | | | |
| | | | m | m | | | |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm

**BELASTINGSCOMBINATIES****Fundamenteel**

| 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 | Fu.C.9 | Fu.C.10 |
|--------|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 | 0.90 | 1.08 |
| B.G.2 | Windbelasting van Lin... | 1.15 | | | | | | | | 1.15 | |
| B.G.3 | Windbelasting van Lin... | | 1.15 | | | | | | | | 1.15 |
| B.G.4 | Windbelasting van Re... | | | 1.15 | | | | | | | |
| B.G.5 | Windbelasting van Re... | | | | 1.15 | | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | 1.15 | | | | | |
| B.G.7 | Windbelasting van Vo... | | | | | | 1.15 | | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | | 1.35 | 1.35 |

| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 |
|--------|---------------------------|---------|---------|---------|---------|---------|---------|
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Lin... | | | | | | |
| B.G.3 | Windbelasting van Lin... | | | | | | |
| B.G.4 | Windbelasting van Re... | 1.15 | | | | | |
| B.G.5 | Windbelasting van Re... | | 1.15 | | | | |
| B.G.6 | Windbelasting van Vo... | | | 1.15 | | | |
| B.G.7 | Windbelasting van Vo... | | | | 1.15 | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | |

Karakteristiek

| 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 | Ka.C.8 | Ka.C.9 |
|--------|---------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | 0.85 | | | | | | 0.85 | | |
| B.G.3 | Windbelasting van Lin... | | | 0.85 | | | | | | 0.85 | |
| B.G.4 | Windbelasting van Re... | | | | 0.85 | | | | | | 0.85 |
| B.G.5 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | | 0.85 | | | | |
| B.G.7 | Windbelasting van Vo... | | | | | | | 0.85 | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | 1.00 | 1.00 | 1.00 |

| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 |
|--------|---------------------------|---------|---------|---------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | | |
| B.G.3 | Windbelasting van Lin... | | | |
| B.G.4 | Windbelasting van Re... | | | |
| B.G.5 | Windbelasting van Re... | 0.85 | | |
| B.G.6 | Windbelasting van Vo... | | 0.85 | |
| B.G.7 | Windbelasting van Vo... | | | 0.85 |
| B.G.8 | Kniklengte (Asymmetr... | | | |
| B.G.9 | Kniklengte (Symmetris... | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My)



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 10,4m

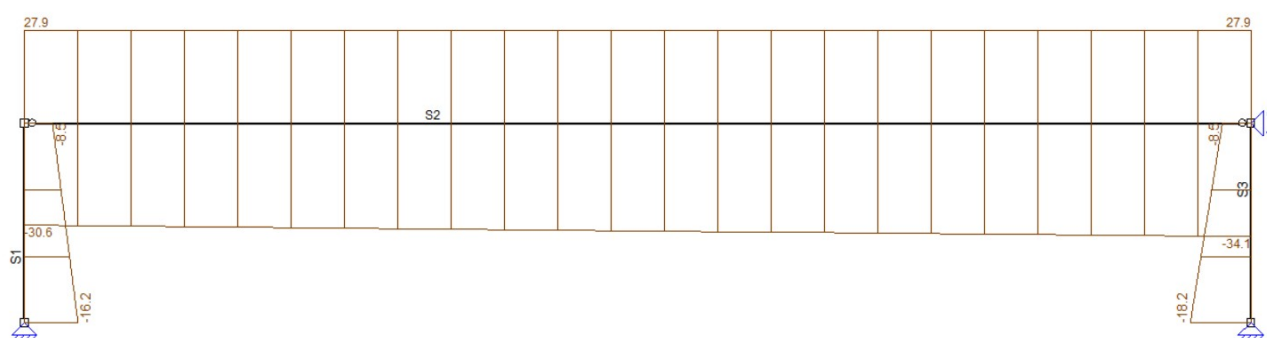
Eenheden: m, mm, kN, kNm



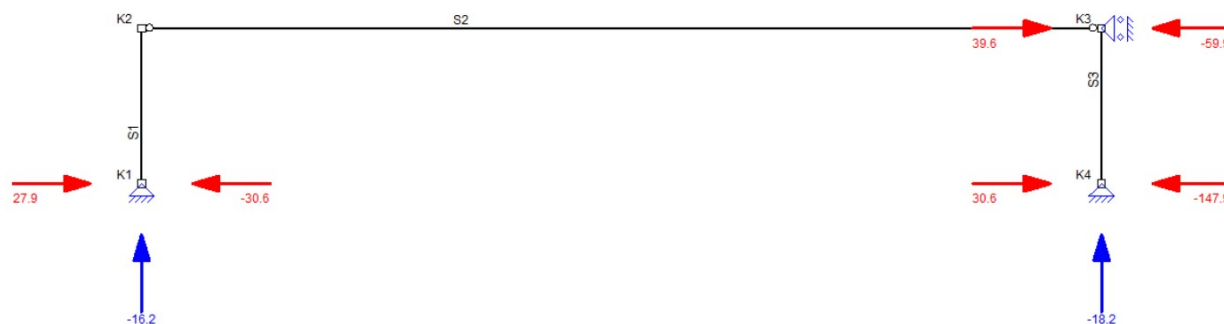
Fu.C. Omhullende Dwarskracht (Vz)



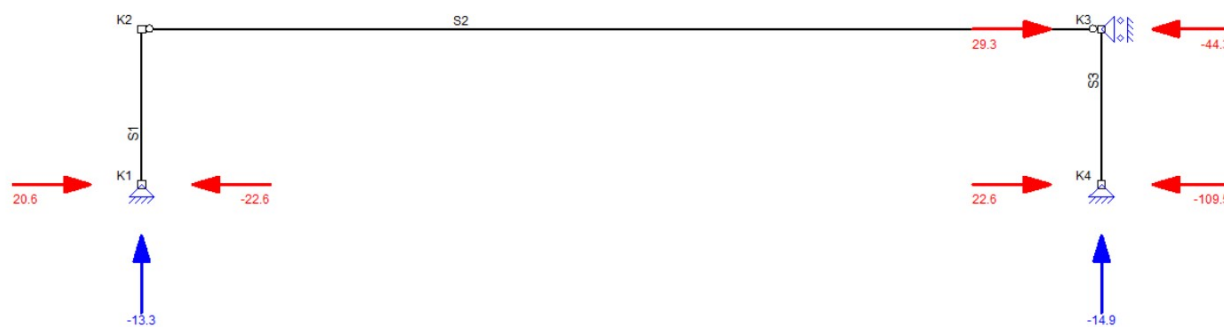
Fu.C. Omhullende Normaalkracht (Nx)



Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



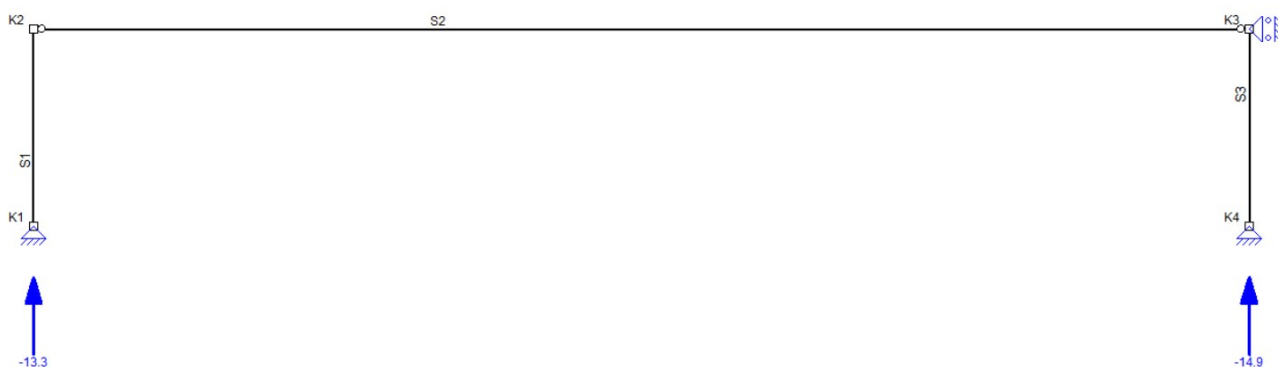
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

J
 bedrijfsloods Parlevliet Agro
 J
 Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm



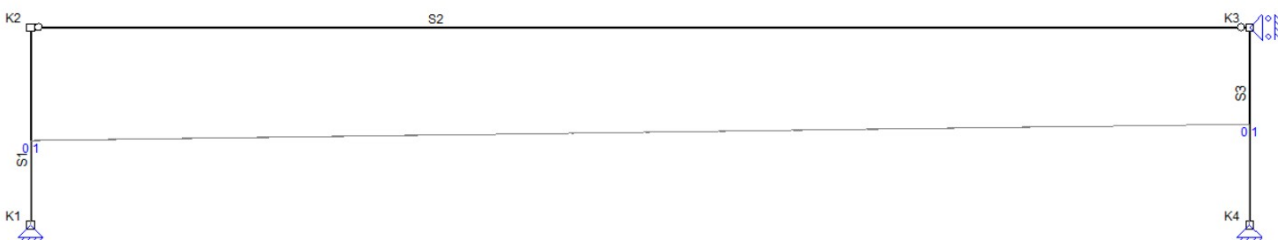
Ka.C.(w1) Oplegreacties



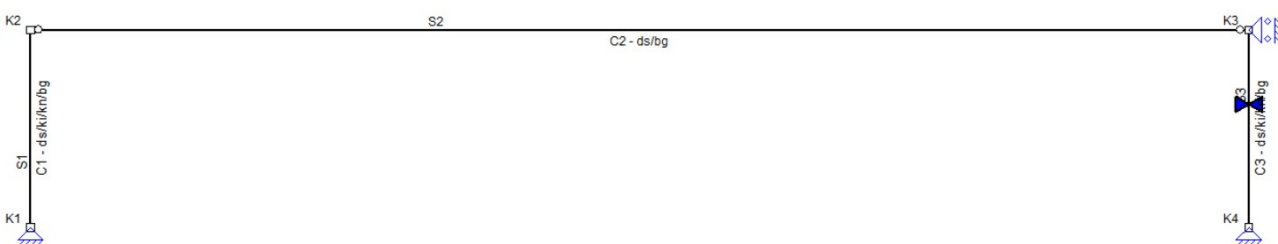
Ka.C. Omhullende Doorbuigingen



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staal/staven |
|-----------------|--------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |

INVOER GEGEVENS

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm

**KNIKLENGTEGEGEVENS**

| Staaf | Profiel | Lsys | Lokale Y-as Methode | Lbuc | Lbuc/Lsys | Lokale Z-as Methode | Lbuc | Lbuc/Lsys |
|----------------------|---------|-------|------------------------|-------|-----------|------------------------|-------|-----------|
| C1-V1 (0.000-10.400) | P2 | 10.40 | Cons. gesch. | 10.40 | 1.0 | Cons. gesch. | 10.40 | 1.0 |
| C3-V1 (0.000-10.400) | P1 | 10.40 | Cons. gesch. | 10.40 | 1.0 | handmatig geschoord | 6.50 | 0.6 |

m

m

KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C1-V1 (0.000-10.400) | P2 | Gesteund | Gesteund | | | Centrum |
| C3-V1 (0.000-10.400) | P1 | Gesteund | Gesteund | 3.9 | 3.9 | Centrum |

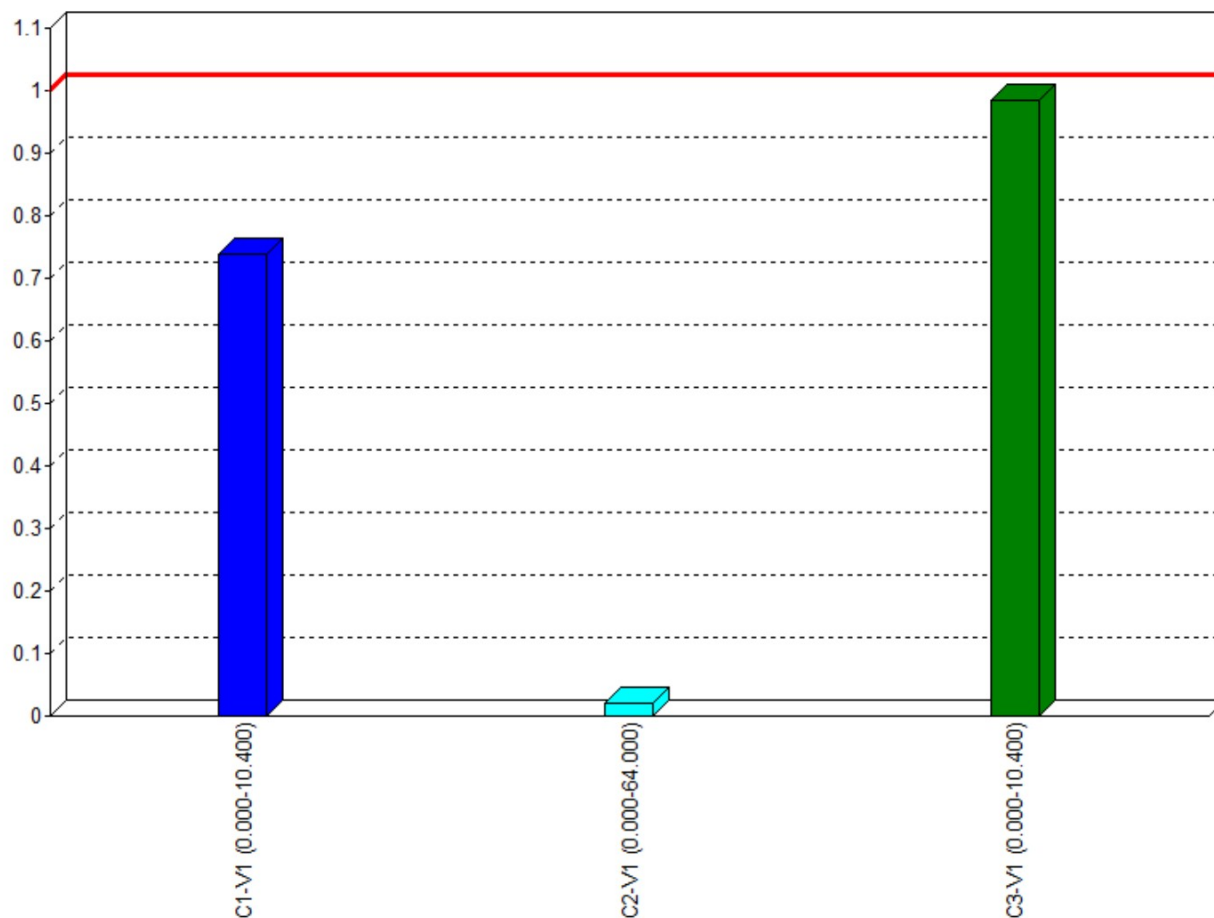
DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-10.400) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C2-V1 (0.000-64.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C3-V1 (0.000-10.400) | Kolom | Handmatig/l | 0 | Parabolisch | L/185 | L/0 | |

mm

mm

Afb. Staal UC Diagram

**EXTREME UNITY CHECK**

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------|------------|---------------------------|-------------|
| C1-V1 (0.000-10.400) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.74 |
| C2-V1 (0.000-64.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |

Projectnummer [REDACTED]
Projectomschrijving bedrijfsloods Parlevliet Agro
Opdrachtgever [REDACTED]
Constructeur [REDACTED]
Omschrijving Gevelstijlen 10,4m

Eenheden: m, mm, kN, kNm



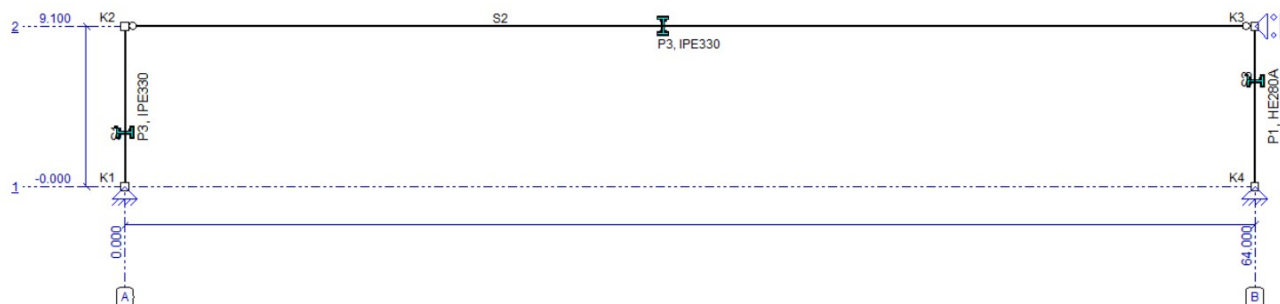
| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------------|------------|-----------------------------|-------------|
| C3-V1 (0.000-10.400) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.98 |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving Gevelstijlen 9,1m
 Bestand P:\Projecten van 18800-141798\berek\41798-1 Gevelstijlen 9,1m.mxf

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knoen | Staven | Opleggingsen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|-------|--------|--------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 4 | 3 | 3 | 3 | 10 | 46 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|-------|-------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -9.10 | 9.10 | P3 | 0.00 - 9.10 (L) |
| S2 | K2 | K3 | 0.00 | 64.00 | -9.10 | -9.10 | 64.00 | P3 | 0.00 - 64.00 (L) |
| S3 | K3 | K4 | 64.00 | 64.00 | -9.10 | 0.00 | 9.10 | P1 | 0.00 - 9.10 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|-----------|------|
| P1 | HE280A | 9726 | 1.3673e+08 | S355 | 0 |
| P3 | IPE330 | 6261 | 1.1767e+08 | S235 | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|---------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | C°m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|-----------|-----------|------|------|---------|
| S2 | 0.00 | A1 | Vast | Vast | Vrij |
| | 64.00 (L) | A1 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O1 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O2 | K4 | K4 | Vast | Vast | Vrij | 0 | |
| O3 | K3 | K3 | Vast | Vrij | Vrij | 0 | |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen
 Referentieperiode (UG): 50
 Referentieperiode (GG): 50
 Betrouwbaarheidsklasse: 1
 Combinatieregels:
 NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 9,1m

Eenheden: m, mm, kN, kNm



NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)
 NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|---|--|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5.00 | [m] |
| Height1 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 64.00 | 64.00 | [m] |
| Width2 | Totale breedte van constructie | 35.00 | 35.00 | [m] |
| LR1 (Permanente Belasting) | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| LR2 (Wrijvingscoefficient (Cfr)) | | | | |
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13.00 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |
| Cfr1 | Wrijvingscoefficient (Cfr) | EN1991-1-4#7.5(Oppervlak=Glad) | 0.01 | |
| LR3 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A1 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q1 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp1*Cpe2*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.93 | [kN/m] |
| Cpe3 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q3 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe3*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe4 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q4 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe4*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe5 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q5 | Plat dak; Verdeelde element belasting (q): S2 | (Qp1*Cpe5*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q6 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp1) * Lsys1 | 0.05 | [kN/m] |
| Cpe6 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q7 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp1*Cpe6*CsCd1) * Lsys1 | -2.33 | [kN/m] |
| LR4 (Vertikale wand; Verdeelde element belasting (q): S3) | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A2 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe7 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe7,Openingen=0.00,Over=True) | 0.20 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |

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|-------|---|--|--------|----------|
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe8 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q8 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp2*Cpe8*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q9 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0.93 | [kN/m] |
| Cpe9 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q10 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe9*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe10 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q11 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe10*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe11 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q12 | Plat dak; Verdeelde element belasting (q): S2 | (Qp2*Cpe11*CsCd1) * Lsys1 | -0.93 | [kN/m] |
| q13 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp2) * Lsys1 | 0.05 | [kN/m] |
| Cpe12 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q14 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp2*Cpe12*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR5 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A3 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe13 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe13,Openingen=0.00,Over=False) | -0.30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q15 | Vertikale wand; Verdeelde element belasting (q): S1 | (Qp3*Cpe14*CsCd1) * Lsys1 | 3.73 | [kN/m] |
| q16 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -1.40 | [kN/m] |
| Cpe15 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q17 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe15*CsCd1) * Lsys1 | -5.59 | [kN/m] |
| Cpe16 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q18 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe16*CsCd1) * Lsys1 | -3.26 | [kN/m] |
| Cpe17 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q19 | Plat dak; Verdeelde element belasting (q): S2 | (Qp3*Cpe17*CsCd1) * Lsys1 | 0.93 | [kN/m] |
| q20 | Wrijving; Verdeelde element belasting (q) | (Cfr1*Qp3) * Lsys1 | 0.05 | [kN/m] |
| Cpe18 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q21 | Vertikale wand; Verdeelde element belasting (q): S3 | (Qp3*Cpe18*CsCd1) * Lsys1 | -2.33 | [kN/m] |

LR6 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A4 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe19 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe19,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |

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|-------|---|---|--------|----------|
| Cpe20 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q22 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp4 * Cpe20 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |
| q23 | Interne druk; Verdeelde element belasting (q) | $(Cpi4 * Qp4) * Lsys1$ | -1.40 | [kN/m] |
| Cpe21 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q24 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe21 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| Cpe22 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q25 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe22 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe23 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q26 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp4 * Cpe23 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |
| q27 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp4) * Lsys1$ | 0.05 | [kN/m] |
| Cpe24 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q28 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp4 * Cpe24 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |

LR7 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width7 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A5 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe25 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe25,Openingen=0.00,Over=True) | 0.20 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe26 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q29 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp5 * Cpe26 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |
| q30 | Interne druk; Verdeelde element belasting (q) | $(Cpi5 * Qp5) * Lsys1$ | 0.93 | [kN/m] |
| Cpe27 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q31 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp5 * Cpe27 * CsCd1) * Lsys1$ | 0.93 | [kN/m] |
| Cpe28 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q32 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp5 * Cpe28 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe29 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q33 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp5 * Cpe29 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| q34 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp5) * Lsys1$ | 0.05 | [kN/m] |
| Cpe30 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q35 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp5 * Cpe30 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |

LR8 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------|---|--|-------|---------|
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A6 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe31 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe31,Openingen=0.00,Over=True) | 0.20 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe32 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |

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| q36 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp6 * Cpe32 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |
| q37 | Interne druk; Verdeelde element belasting (q) | $(Cpi6 * Qp6) * Lsys1$ | 0.93 | [kN/m] |
| Cpe33 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q38 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe33 * CsCd1) * Lsys1$ | -0.93 | [kN/m] |
| Cpe34 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q39 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe34 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe35 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q40 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp6 * Cpe35 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| q41 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp6) * Lsys1$ | 0.05 | [kN/m] |
| Cpe36 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q42 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp6 * Cpe36 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |

LR9 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|--------------------------------------|---|--|-------|---------|
| Windbelasting van Rechts + Onderdruk | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width9 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A7 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe37 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe37,Openingen=0.00,Over=False) | -0.30 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe38 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| q43 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp7 * Cpe38 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |
| q44 | Interne druk; Verdeelde element belasting (q) | $(Cpi7 * Qp7) * Lsys1$ | -1.40 | [kN/m] |
| Cpe39 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q45 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe39 * CsCd1) * Lsys1$ | 0.93 | [kN/m] |
| Cpe40 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H) | -0.70 | |
| q46 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe40 * CsCd1) * Lsys1$ | -3.26 | [kN/m] |
| Cpe41 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G) | -1.20 | |
| q47 | Plat dak; Verdeelde element belasting (q): S2 | $(Qp7 * Cpe41 * CsCd1) * Lsys1$ | -5.59 | [kN/m] |
| q48 | Wrijving; Verdeelde element belasting (q) | $(Cfr1 * Qp7) * Lsys1$ | 0.05 | [kN/m] |
| Cpe42 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20) | 0.80 | |
| q49 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Qp7 * Cpe42 * CsCd1) * Lsys1$ | 3.73 | [kN/m] |

LR10 (Vertikale wand; Verdeelde element belasting (q): S3)

| | | | | |
|---|---|--|-------|---------|
| Windbelasting van Rechts + Onderdruk (2e Cpe) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5.00 | [m] |
| A8 | Belast oppervlak (A) | 65.00 | 65.00 | [m²] |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0.30 | |
| Z9 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe44 | Vertikale wand; Druk coefficient (Cpe): S1 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.20,Eerst=False) | -0.50 | |
| q50 | Vertikale wand; Verdeelde element belasting (q): S1 | $(Qp8 * Cpe44 * CsCd1) * Lsys1$ | -2.33 | [kN/m] |

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| q51 | Interne druk; Verdeelde element belasting (q) | $(C_{pi}8 * Q_{p8}) * L_{sys1}$ | -1.40 | [kN/m] |
| Cpe45 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q52 | Plat dak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe45} * C_{sCd1}) * L_{sys1}$ | -0.93 | [kN/m] |
| Cpe46 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=H,Eerst=False) | -0.70 | |
| q53 | Plat dak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe46} * C_{sCd1}) * L_{sys1}$ | -3.26 | [kN/m] |
| Cpe47 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=G,Eerst=False) | -1.20 | |
| q54 | Plat dak; Verdeelde element belasting (q): S2 | $(Q_{p8} * C_{pe47} * C_{sCd1}) * L_{sys1}$ | -5.59 | [kN/m] |
| q55 | Wrijving; Verdeelde element belasting (q) | $(C_{fr1} * Q_{p8}) * L_{sys1}$ | 0.05 | [kN/m] |
| Cpe48 | Vertikale wand; Druk coefficient (Cpe): S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.20,Eerst=False) | 0.80 | |
| q56 | Vertikale wand; Verdeelde element belasting (q): S3 | $(Q_{p8} * C_{pe48} * C_{sCd1}) * L_{sys1}$ | 3.73 | [kN/m] |

LR11 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width11 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A9 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe49 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe49,Openingen=0.00,Over=True) | 0.20 | |
| Z10 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe50 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| q57 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Q_{p9} * C_{pe50} * C_{sCd1}) * L_{sys1}$ | -3.73 | [kN/m] |
| q58 | Interne druk; Verdeelde element belasting (q) | $(C_{pi9} * Q_{p9}) * L_{sys1}$ | 0.93 | [kN/m] |
| Cpe51 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I) | 0.20 | |
| q59 | Plat dak; Verdeelde element belasting (q): S2 | $(Q_{p9} * C_{pe51} * C_{sCd1}) * L_{sys1}$ | 0.93 | [kN/m] |

LR12 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|--|---|--------|---------|
| | Windbelasting van Voren + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width12 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A10 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe52 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe52,Openingen=0.00,Over=True) | 0.20 | |
| Z11 | z=h; (h<=b) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe53 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37,Eerst=False) | -0.80 | |
| q60 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | $(Q_{p10} * C_{pe53} * C_{sCd1}) * L_{sys1}$ | -3.73 | [kN/m] |
| q61 | Interne druk; Verdeelde element belasting (q) | $(C_{pi10} * Q_{p10}) * L_{sys1}$ | 0.93 | [kN/m] |
| Cpe54 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat,Zone=I,Eerst=False) | -0.20 | |
| q62 | Plat dak; Verdeelde element belasting (q): S2 | $(Q_{p10} * C_{pe54} * C_{sCd1}) * L_{sys1}$ | -0.93 | [kN/m] |

LR13 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|---------|---|---|--------|------|
| | Windbelasting van Voren + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width13 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A11 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe55 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=B,hd=0.37) | -0.80 | |
| Cpi11 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe55,Openingen=0.00,Over=False) | -0.30 | |

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Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro
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Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|-------|--|--|--------|----------|
| Z12 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12, Terrein=Cat1, Regio=Region1, C0=Co1) | 0.93 | [kN/m²] |
| Cpe56 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=B, hd=0.37) | -0.80 | |
| q63 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp11*Cpe56*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q64 | Interne druk; Verdeelde element belasting (q) | (Cpi11*Qp11) * Lsys1 | -1.40 | [kN/m] |
| Cpe57 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat, Zone=I) | 0.20 | |
| q65 | Plat dak; Verdeelde element belasting (q): S2 | (Qp11*Cpe57*CsCd1) * Lsys1 | 0.93 | [kN/m] |

LR14 (Plat dak; Verdeelde element belasting (q): S2)

| | | | | |
|--|--|--|--------|---------|
| Windbelasting van Voren + Onderdruk (2e Cpe) | | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width14 | Gemiddelde breedte (b) | 11.20 | 11.20 | [m] |
| A12 | Belast oppervlak (A) | 145.60 | 145.60 | [m²] |
| Cpe58 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=B, hd=0.37) | -0.80 | |
| Cpi12 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe58, Openingen=0.00, Over=False) | -0.30 | |
| Z13 | $z=h$; ($h \leq b$) voor knopen: K1,K2,K3,K4 | 13.00 | 13.00 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13, Terrein=Cat1, Regio=Region1, C0=Co1) | 0.93 | [kN/m²] |
| Cpe59 | Vertikale wand; Druk coefficient (Cpe): S1,S3 | NEN-EN1991-1-4#7.2(Dak=Wand, Zone=B, hd=0.37, Eerst=False) | -0.80 | |
| q66 | Vertikale wand; Verdeelde element belasting (q): S1,S3 | (Qp12*Cpe59*CsCd1) * Lsys1 | -3.73 | [kN/m] |
| q67 | Interne druk; Verdeelde element belasting (q) | (Cpi12*Qp12) * Lsys1 | -1.40 | [kN/m] |
| Cpe60 | Plat dak; Druk coefficient (Cpe): S2 | NEN-EN1991-1-4#7.2(Dak=Plat, Zone=I, Eerst=False) | -0.20 | |
| q68 | Plat dak; Verdeelde element belasting (q): S2 | (Qp12*Cpe60*CsCd1) * Lsys1 | -0.93 | [kN/m] |

LR15 (Horizontale druk bewaring)

| | | | | |
|----------------------------------|--|----------------------|-------|---------|
| Veranderlijke belasting bewaring | | | | |
| D1 | soortelijk gewicht bewaring - losse stort | 7.6 | 7.60 | [kN/m³] |
| y1 | Hellingshoek natuurlijke talud | 35 | 35.00 | |
| Height4 | Maximale hoogte bewaring - losse stort | 4.5 | 4.50 | [m] |
| Ka1 | Horizontale drukfactor ($\tan^2(45 - ((y1)/2))$) | 0.27 | 0.27 | |
| q69 | Horizontale druk bewaring | Ka1*Height4*D1*Lsys1 | 46.17 | [kN/m] |

B.G.1: Permanente Belasting**B.G.1: PERMANENTE BELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1,S3 | |
| N | 7.0 | | | | Z | K2-K3 | |
| Som lasten | | Z: 25.4 | | | | | |

m

m

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Eenheden: m, mm, kN, kNm



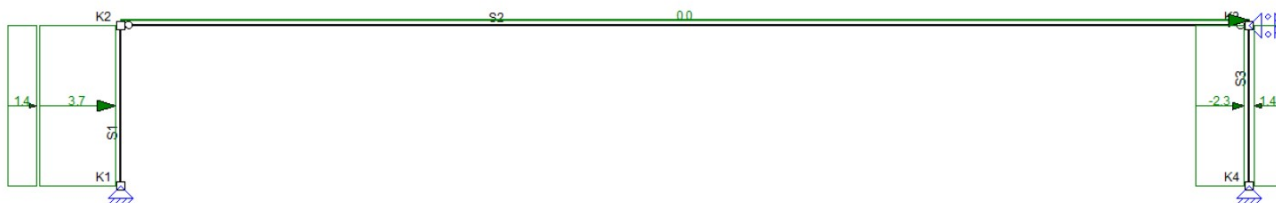
B.G.2: Windbelasting van Links + Overdruk



B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q1) | 3.7 (q1) | 0.00 | 9.10 (L) | Z' | S1 | |
| q | -0.9 (-q2) | -0.9 (-q2) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q6) | 0.0 (q6) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q7) | -2.3 (q7) | 0.00 | 9.10 (L) | Z' | S3 | |
| Som lasten | | X: 58.1 | | | | | |
| | | | m | m | | | |

B.G.3: Windbelasting van Links + Onderdruk



B.G.3: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|----------------|--------------|-------------|----------|----------------|--------------|
| q | 3.7 (q15) | 3.7 (q15) | 0.00 | 9.10 (L) | Z' | S1 | |
| q | 1.4 (-q16) | 1.4 (-q16) | 0.00 | L | Z' | S1,S3 | |
| q | 0.0 (q20) | 0.0 (q20) | 0.00 | 64.00 (L) | X' | S2 | |
| q | -2.3 (q21) | -2.3 (q21) | 0.00 | 9.10 (L) | Z' | S3 | |
| Som lasten | | X: 58.1 | | | | | |
| | | | m | m | | | |

B.G.4: Windbelasting van Rechts + Overdruk



B.G.4: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q29) | -2.3 (q29) | 0.00 | 9.10 (L) | Z' | S1 | |
| q | -0.9 (-q30) | -0.9 (-q30) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q34) | -0.0 (-q34) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q35) | 3.7 (q35) | 0.00 | 9.10 (L) | Z' | S3 | |
| Som lasten | | X: -58.1 | | | | | |
| | | | m | m | | | |

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Eenheden: m, mm, kN, kNm



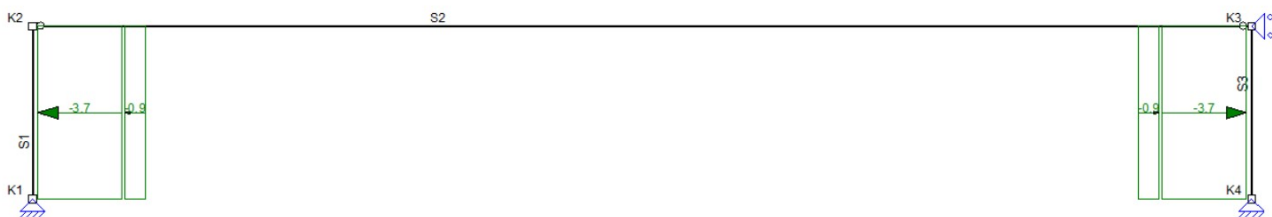
B.G.5: Windbelasting van Rechts + Onderdruk



B.G.5: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | -2.3 (q43) | -2.3 (q43) | 0.00 | 9.10 (L) | Z' | S1 | |
| q | 1.4 (-q44) | 1.4 (-q44) | 0.00 | L | Z' | S1,S3 | |
| q | -0.0 (-q48) | -0.0 (-q48) | 0.00 | 64.00 (L) | X' | S2 | |
| q | 3.7 (q49) | 3.7 (q49) | 0.00 | 9.10 (L) | Z' | S3 | |
| Som lasten | | X: -58.1 | | | | | |
| | | | m | m | | | |

B.G.6: Windbelasting van Voren + Overdruk



B.G.6: WINDBELASTING VAN VOREN + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|-------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q57) | -3.7 (q57) | 0.00 | L | Z' | S1,S3 | |
| q | -0.9 (-q58) | -0.9 (-q58) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

B.G.7: Windbelasting van Voren + Onderdruk



B.G.7: WINDBELASTING VAN VOREN + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| q | -3.7 (q63) | -3.7 (q63) | 0.00 | L | Z' | S1,S3 | |
| q | 1.4 (-q64) | 1.4 (-q64) | 0.00 | L | Z' | S1,S3 | |
| | | | m | m | | | |

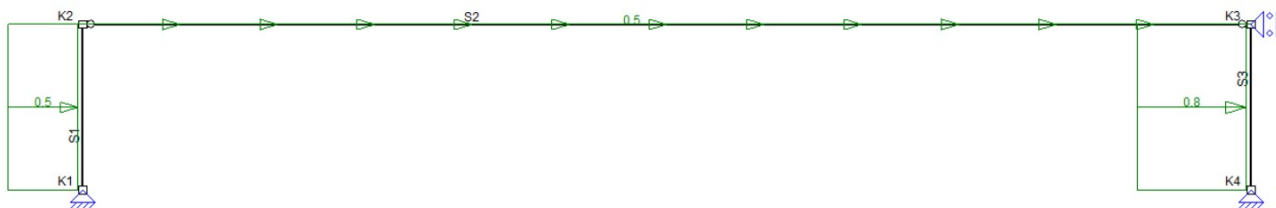
Projectnummer
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 Gevelstijlen 9,1m

Eenheden: m, mm, kN, kNm



B.G.8: Kniklengte (Asymmetrisch)



B.G.8: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S3 | |
| Som lasten | X: 42.9 | | | | | | |
| | | | m | m | | | |

B.G.9: Kniklengte (Symmetrisch)



B.G.9: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|---------------|--------------|-------------|----------|----------------|--------------|
| qG | 2.00 (0.98) | 2.00 (0.98) | 0.00 | 9.10 (L) | X" | S1 | |
| qG | -2.00 (-1.53) | -2.00 (-1.53) | 0.00 | 9.10 (L) | X" | S3 | |
| Som lasten | X: -5.0 | | | | | | |
| | | | m | m | | | |

B.G.10: Verdeelde veranderlijke belasting



B.G.10: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|--------------------------|--------------|--------------|-------------|----------|----------------|--------------|
| q | 0.0 | -46.2 (-q69) | 4.60 | 9.10 (L) | Z' | S3 | |
| Som lasten | X: 103.9 Yr: -7.0 | | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES

| Fundamenteel | 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 | Fu.C.9 | Fu.C.10 |
|--------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 | 0.90 | 1.08 |
| B.G.2 | Windbelasting van Lin... | 1.15 | | | | | | | | 1.15 | |
| B.G.3 | Windbelasting van Lin... | | 1.15 | | | | | | | | 1.15 |
| B.G.4 | Windbelasting van Re... | | | 1.15 | | | | | | | |
| B.G.5 | Windbelasting van Re... | | | | 1.15 | | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | 1.15 | | | | | |

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 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 9,1m

Eenheden: m, mm, kN, kNm



| | | | | | | | | | | | |
|-------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|------|------|------|--|
| B.G.7 | Windbelasting van Vo... | | | | | | | 1.15 | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | 1.35 | 1.35 | |
| B.G. | Omschrijving | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 | | | | |
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 1.22 | 0.90 | | | | |
| B.G.2 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.3 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.4 | Windbelasting van Re... | 1.15 | | | | | | | | | |
| B.G.5 | Windbelasting van Re... | | 1.15 | | | | | | | | |
| B.G.6 | Windbelasting van Vo... | | | 1.15 | | | | | | | |
| B.G.7 | Windbelasting van Vo... | | | | 1.15 | | | | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | | | | |

Karakteristiek

| | | | | | | | | | | | |
|-------------|---------------------------|------------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 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 | Ka.C.8 | Ka.C.9 |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | 0.85 | | | | | | 0.85 | | |
| B.G.3 | Windbelasting van Lin... | | | 0.85 | | | | | | 0.85 | |
| B.G.4 | Windbelasting van Re... | | | | 0.85 | | | | | | 0.85 |
| B.G.5 | Windbelasting van Re... | | | | | 0.85 | | | | | |
| B.G.6 | Windbelasting van Vo... | | | | | | 0.85 | | | | |
| B.G.7 | Windbelasting van Vo... | | | | | | | 0.85 | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | | | | | | | | 1.00 | 1.00 | 1.00 |
| B.G. | Omschrijving | Ka.C.10 | Ka.C.11 | Ka.C.12 | | | | | | | |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | | | | | | | |
| B.G.2 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.3 | Windbelasting van Lin... | | | | | | | | | | |
| B.G.4 | Windbelasting van Re... | | | | | | | | | | |
| B.G.5 | Windbelasting van Re... | 0.85 | | | | | | | | | |
| B.G.6 | Windbelasting van Vo... | | 0.85 | | | | | | | | |
| B.G.7 | Windbelasting van Vo... | | | 0.85 | | | | | | | |
| B.G.8 | Kniklengte (Asymmetr... | | | | | | | | | | |
| B.G.9 | Kniklengte (Symmetris... | | | | | | | | | | |
| B.G.10 | Verdeelde veranderlijk... | 1.00 | 1.00 | 1.00 | | | | | | | |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My)



Projectnummer [J]
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 Opdrachtgever [J]
 Constructeur [J]
 Omschrijving Gevelstijlen 9,1m

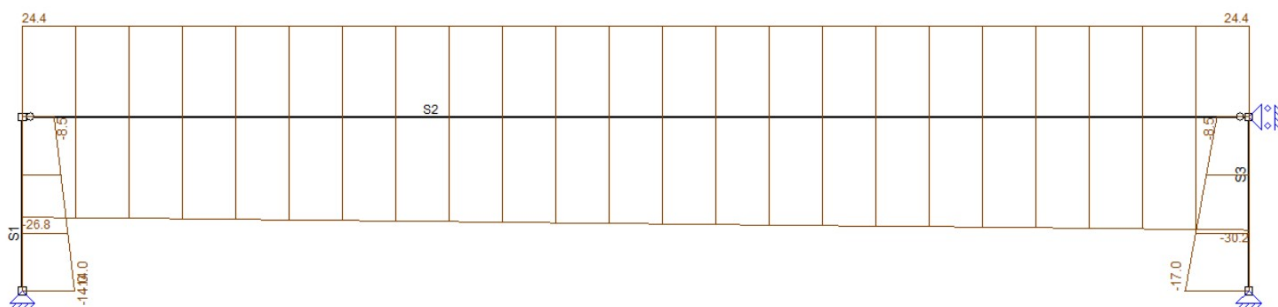
Eenheden: m, mm, kN, kNm



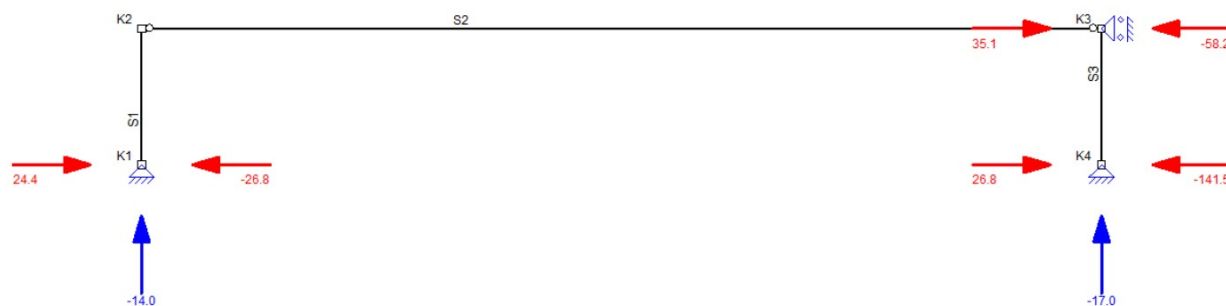
Fu.C. Omhullende Dwarskracht (Vz)



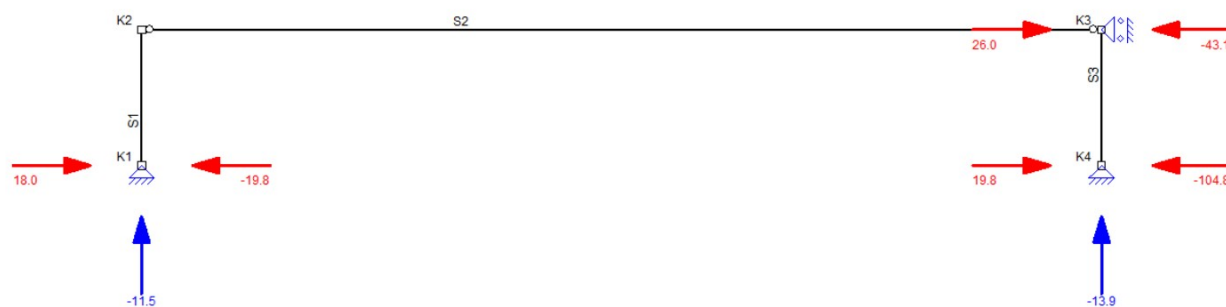
Fu.C. Omhullende Normalkracht (Nx)



Fu.C. Omhullende Oplegreacties



Ka.C. Omhullende Oplegreacties



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 Gevelstijlen 9,1m

Eenheden: m, mm, kN, kNm



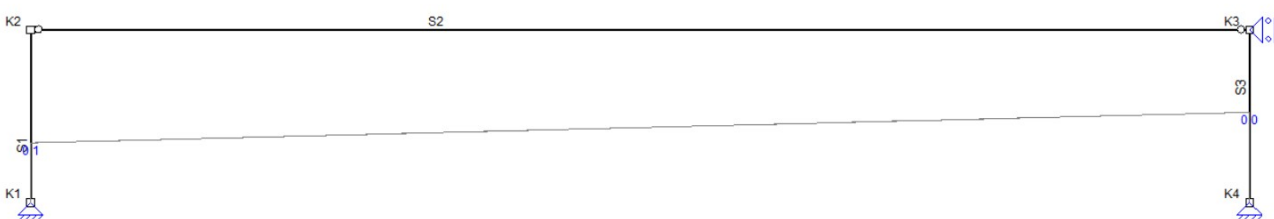
Ka.C.(w1) Oplegreacties



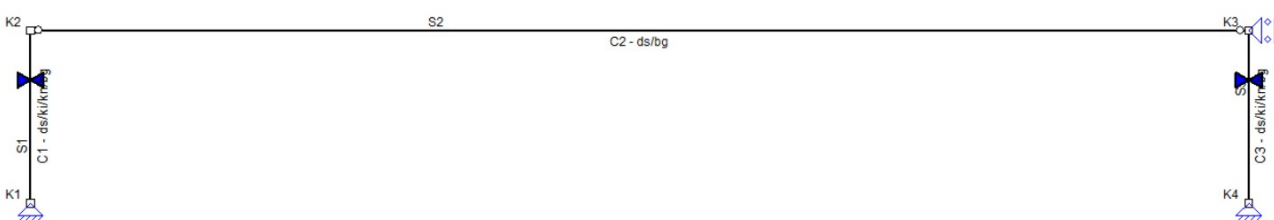
Ka.C. Omhullende Doorbuigingen



Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructie deel | Staaf/staven |
|------------------|--------------|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |

INVOER GEGEVENS

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving Gevelstijlen 9,1m

Eenheden: m, mm, kN, kNm

**KNIKLENGTEGEGEVENS**

| Staaf | Profiel | Lsys | Lokale Y-as Methode | Lbuc | Lokale Z-as | | Lbuc | Lbuc/Lsys |
|---------------------|---------|------|------------------------|------|-------------------------|--|------|-----------|
| | | | | | Methode | | | |
| C1-V1 (0.000-9.100) | P3 | 9.10 | Cons. gesch. | 9.10 | 1.0 handmatig geschoord | | 6.50 | 0.7 |
| C3-V1 (0.000-9.100) | P1 | 9.10 | Cons. gesch. | 9.10 | 1.0 handmatig geschoord | | 6.50 | 0.7 |

m

m

KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---------------------|---------|----------|----------|------------------|------------------|----------------|
| C1-V1 (0.000-9.100) | P3 | Gesteund | Gesteund | 6.5 | 6.5 | Centrum |
| C3-V1 (0.000-9.100) | P1 | Gesteund | Gesteund | 2.6 | 2.6 | Centrum |

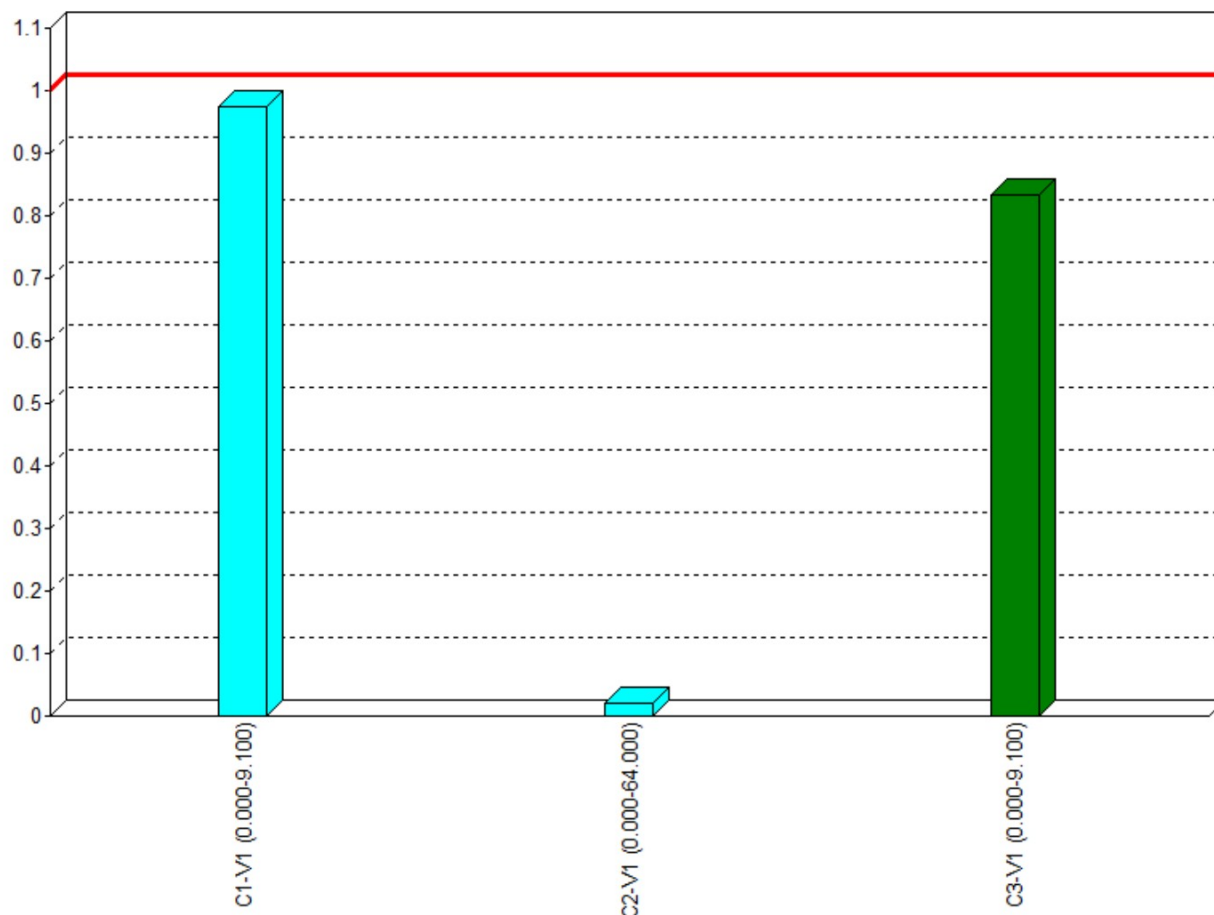
DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-9.100) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C2-V1 (0.000-64.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C3-V1 (0.000-9.100) | Kolom | Handmatig/l | 0 | Parabolisch | L/200 | L/0 | |

mm

mm

Afb. Staal UC Diagram

**EXTREME UNITY CHECK**

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------|------------|---------------------------|-------------|
| C1-V1 (0.000-9.100) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.97 |
| C2-V1 (0.000-64.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |

Projectnummer
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Omschrijving

 J
bedrijfsloods Parlevliet Agro
 J
Gevelstijlen 9,1m

Eenheden: m, mm, kN, kNm



| Label | Toetsing | Combinatie | Artikel | Unity Check |
|---------------------|----------------------|------------|-----------------------------|-------------|
| C3-V1 (0.000-9.100) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN NEN-EN1990/NB A1.4.2 | 0.83 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving
 Bestand

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

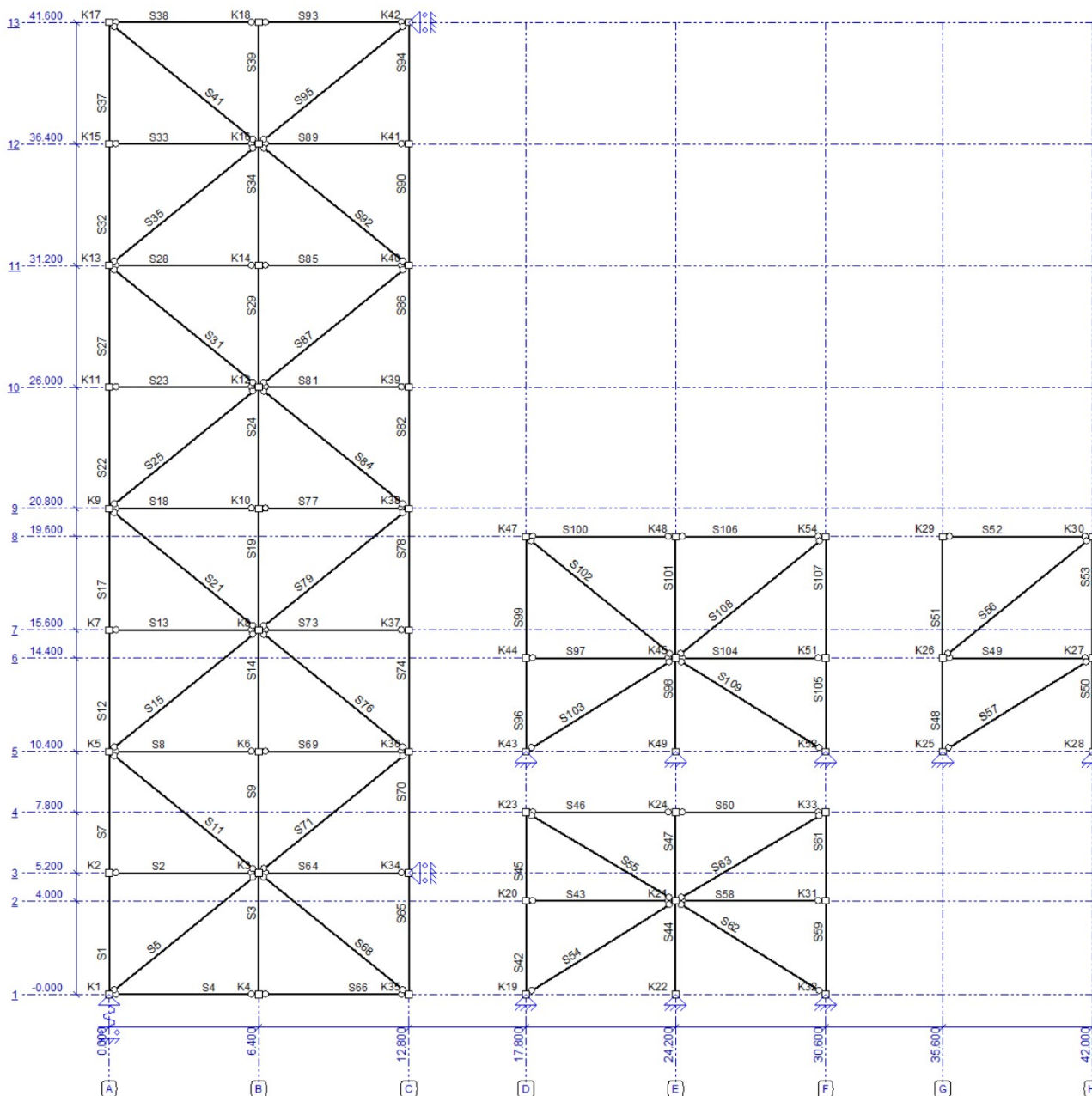


P:\Projecten van 18800-141798\berek\41798-1 Dakverband en windbokken zijgevels.mxf

CONSTRUCTIEGEGEVENS



| Projecttype | Knope | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|-------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 51 | 94 | 11 | 9 | 2 | 9 |

Constructie



STAVEN

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|------|------|--------|--------|--------|---------|-----------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -5.20 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S2 | K2 | K3 | 0.00 | 6.40 | -5.20 | -5.20 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S3 | K3 | K4 | 6.40 | 6.40 | -5.20 | 0.00 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S4 | K4 | K1 | 6.40 | 0.00 | 0.00 | 0.00 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S5 | K1 | K3 | 0.00 | 6.40 | 0.00 | -5.20 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S7 | K2 | K5 | 0.00 | 0.00 | -5.20 | -10.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S8 | K5 | K6 | 0.00 | 6.40 | -10.40 | -10.40 | 6.40 | P5 | 0.00 - 6.40 (L) |
| | | | m | m | m | m | m | | m |

Projectnummer 
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever 
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



| Staafl | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|--------|---------|---------|-------|-------|--------|--------|--------|---------|-----------------|
| S9 | K6 | K3 | 6.40 | 6.40 | -10.40 | -5.20 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S11 | K3 | K5 | 6.40 | 0.00 | -5.20 | -10.40 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S12 | K5 | K7 | 0.00 | 0.00 | -10.40 | -15.60 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S13 | K7 | K8 | 0.00 | 6.40 | -15.60 | -15.60 | 6.40 | P4 | 0.00 - 6.40 (L) |
| S14 | K8 | K6 | 6.40 | 6.40 | -15.60 | -10.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S15 | K5 | K8 | 0.00 | 6.40 | -10.40 | -15.60 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S17 | K7 | K9 | 0.00 | 0.00 | -15.60 | -20.80 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S18 | K9 | K10 | 0.00 | 6.40 | -20.80 | -20.80 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S19 | K10 | K8 | 6.40 | 6.40 | -20.80 | -15.60 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S21 | K8 | K9 | 6.40 | 0.00 | -15.60 | -20.80 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S22 | K9 | K11 | 0.00 | 0.00 | -20.80 | -26.00 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S23 | K11 | K12 | 0.00 | 6.40 | -26.00 | -26.00 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S24 | K12 | K10 | 6.40 | 6.40 | -26.00 | -20.80 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S25 | K9 | K12 | 0.00 | 6.40 | -20.80 | -26.00 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S27 | K11 | K13 | 0.00 | 0.00 | -26.00 | -31.20 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S28 | K13 | K14 | 0.00 | 6.40 | -31.20 | -31.20 | 6.40 | P5 | 0.00 - 6.40 (L) |
| S29 | K14 | K12 | 6.40 | 6.40 | -31.20 | -26.00 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S31 | K12 | K13 | 6.40 | 0.00 | -26.00 | -31.20 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S32 | K13 | K15 | 0.00 | 0.00 | -31.20 | -36.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S33 | K15 | K16 | 0.00 | 6.40 | -36.40 | -36.40 | 6.40 | P5 | 0.00 - 6.40 (L) |
| S34 | K16 | K14 | 6.40 | 6.40 | -36.40 | -31.20 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S35 | K13 | K16 | 0.00 | 6.40 | -31.20 | -36.40 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S37 | K15 | K17 | 0.00 | 0.00 | -36.40 | -41.60 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S38 | K17 | K18 | 0.00 | 6.40 | -41.60 | -41.60 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S39 | K18 | K16 | 6.40 | 6.40 | -41.60 | -36.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S41 | K16 | K17 | 6.40 | 0.00 | -36.40 | -41.60 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S42 | K19 | K20 | 17.80 | 17.80 | 0.00 | -4.00 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S43 | K20 | K21 | 17.80 | 24.20 | -4.00 | -4.00 | 6.40 | P7 | 0.00 - 6.40 (L) |
| S44 | K21 | K22 | 24.20 | 24.20 | -4.00 | 0.00 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S45 | K20 | K23 | 17.80 | 17.80 | -4.00 | -7.80 | 3.80 | P2 | 0.00 - 3.80 (L) |
| S46 | K23 | K24 | 17.80 | 24.20 | -7.80 | -7.80 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S47 | K24 | K21 | 24.20 | 24.20 | -7.80 | -4.00 | 3.80 | P2 | 0.00 - 3.80 (L) |
| S48 | K25 | K26 | 35.60 | 35.60 | -10.40 | -14.40 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S49 | K26 | K27 | 35.60 | 42.00 | -14.40 | -14.40 | 6.40 | P8 | 0.00 - 6.40 (L) |
| S50 | K27 | K28 | 42.00 | 42.00 | -14.40 | -10.40 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S51 | K26 | K29 | 35.60 | 35.60 | -14.40 | -19.60 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S52 | K29 | K30 | 35.60 | 42.00 | -19.60 | -19.60 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S53 | K30 | K27 | 42.00 | 42.00 | -19.60 | -14.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S54 | K19 | K21 | 17.80 | 24.20 | 0.00 | -4.00 | 7.55 | P6 | 0.00 - 7.55 (L) |
| S55 | K21 | K23 | 24.20 | 17.80 | -4.00 | -7.80 | 7.44 | P6 | 0.00 - 7.44 (L) |
| S56 | K26 | K30 | 35.60 | 42.00 | -14.40 | -19.60 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S57 | K25 | K27 | 35.60 | 42.00 | -10.40 | -14.40 | 7.55 | P6 | 0.00 - 7.55 (L) |
| S58 | K21 | K31 | 24.20 | 30.60 | -4.00 | -4.00 | 6.40 | P7 | 0.00 - 6.40 (L) |
| S59 | K31 | K32 | 30.60 | 30.60 | -4.00 | 0.00 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S60 | K24 | K33 | 24.20 | 30.60 | -7.80 | -7.80 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S61 | K33 | K31 | 30.60 | 30.60 | -7.80 | -4.00 | 3.80 | P2 | 0.00 - 3.80 (L) |
| S62 | K21 | K32 | 24.20 | 30.60 | -4.00 | 0.00 | 7.55 | P6 | 0.00 - 7.55 (L) |
| S63 | K21 | K33 | 24.20 | 30.60 | -4.00 | -7.80 | 7.44 | P6 | 0.00 - 7.44 (L) |
| S64 | K3 | K34 | 6.40 | 12.80 | -5.20 | -5.20 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S65 | K34 | K35 | 12.80 | 12.80 | -5.20 | 0.00 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S66 | K35 | K4 | 12.80 | 6.40 | 0.00 | 0.00 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S68 | K35 | K3 | 12.80 | 6.40 | 0.00 | -5.20 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S69 | K6 | K36 | 6.40 | 12.80 | -10.40 | -10.40 | 6.40 | P5 | 0.00 - 6.40 (L) |
| S70 | K36 | K34 | 12.80 | 12.80 | -10.40 | -5.20 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S71 | K3 | K36 | 6.40 | 12.80 | -5.20 | -10.40 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S73 | K8 | K37 | 6.40 | 12.80 | -15.60 | -15.60 | 6.40 | P4 | 0.00 - 6.40 (L) |
| S74 | K37 | K36 | 12.80 | 12.80 | -15.60 | -10.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S76 | K36 | K8 | 12.80 | 6.40 | -10.40 | -15.60 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S77 | K10 | K38 | 6.40 | 12.80 | -20.80 | -20.80 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S78 | K38 | K37 | 12.80 | 12.80 | -20.80 | -15.60 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S79 | K8 | K38 | 6.40 | 12.80 | -15.60 | -20.80 | 8.25 | P3 | 0.00 - 8.25 (L) |

m

m

m

m

m

m

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|--------|--------|--------|---------|-----------------|
| S81 | K12 | K39 | 6.40 | 12.80 | -26.00 | -26.00 | 6.40 | P1 | 0.00 - 6.40 (L) |
| S82 | K39 | K38 | 12.80 | 12.80 | -26.00 | -20.80 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S84 | K38 | K12 | 12.80 | 6.40 | -20.80 | -26.00 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S85 | K14 | K40 | 6.40 | 12.80 | -31.20 | -31.20 | 6.40 | P5 | 0.00 - 6.40 (L) |
| S86 | K40 | K39 | 12.80 | 12.80 | -31.20 | -26.00 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S87 | K12 | K40 | 6.40 | 12.80 | -26.00 | -31.20 | 8.25 | P3 | 0.00 - 8.25 (L) |
| S89 | K16 | K41 | 6.40 | 12.80 | -36.40 | -36.40 | 6.40 | P5 | 0.00 - 6.40 (L) |
| S90 | K41 | K40 | 12.80 | 12.80 | -36.40 | -31.20 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S92 | K40 | K16 | 12.80 | 6.40 | -31.20 | -36.40 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S93 | K18 | K42 | 6.40 | 12.80 | -41.60 | -41.60 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S94 | K42 | K41 | 12.80 | 12.80 | -41.60 | -36.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S95 | K16 | K42 | 6.40 | 12.80 | -36.40 | -41.60 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S96 | K43 | K44 | 17.80 | 17.80 | -10.40 | -14.40 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S97 | K44 | K45 | 17.80 | 24.20 | -14.40 | -14.40 | 6.40 | P7 | 0.00 - 6.40 (L) |
| S98 | K45 | K49 | 24.20 | 24.20 | -14.40 | -10.40 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S99 | K44 | K47 | 17.80 | 17.80 | -14.40 | -19.60 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S100 | K47 | K48 | 17.80 | 24.20 | -19.60 | -19.60 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S101 | K48 | K45 | 24.20 | 24.20 | -19.60 | -14.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S102 | K47 | K45 | 17.80 | 24.20 | -19.60 | -14.40 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S103 | K43 | K45 | 17.80 | 24.20 | -10.40 | -14.40 | 7.55 | P6 | 0.00 - 7.55 (L) |
| S104 | K45 | K51 | 24.20 | 30.60 | -14.40 | -14.40 | 6.40 | P7 | 0.00 - 6.40 (L) |
| S105 | K51 | K52 | 30.60 | 30.60 | -14.40 | -10.40 | 4.00 | P2 | 0.00 - 4.00 (L) |
| S106 | K48 | K54 | 24.20 | 30.60 | -19.60 | -19.60 | 6.40 | P9 | 0.00 - 6.40 (L) |
| S107 | K54 | K51 | 30.60 | 30.60 | -19.60 | -14.40 | 5.20 | P2 | 0.00 - 5.20 (L) |
| S108 | K45 | K54 | 24.20 | 30.60 | -14.40 | -19.60 | 8.25 | P6 | 0.00 - 8.25 (L) |
| S109 | K45 | K52 | 24.20 | 30.60 | -14.40 | -10.40 | 7.55 | P6 | 0.00 - 7.55 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|------------------|------|
| P1 | B88.9/3.2 | 862 | 7.9206e+05 | S235H(EN10219-1) | 0 |
| P2 | IPE600 | 15598 | 3.3873e+07 | S355 | 90 |
| P3 | P60/6 | 360 | 1.0800e+05 | S235 | 0 |
| P4 | B88.9/4.05 | 1080 | 9.7378e+05 | S235H(EN10219-1) | 0 |
| P5 | B101.6/4 | 1226 | 1.4628e+06 | S235H(EN10219-1) | 0 |
| P6 | P80/8 | 640 | 3.4133e+05 | S235 | 0 |
| P7 | KK80/4 | 1175 | 1.1104e+06 | S235H(EN10219-1) | 0 |
| P8 | KK100/4 | 1495 | 2.2635e+06 | S235H(EN10219-1) | 0 |
| P9 | B101.6/6.3 | 1886 | 2.1507e+06 | S235H(EN10219-1) | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|------------------|--------|-------------------|-------------------|-----------------|
| S235H(EN10219-1) | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | °m |

PROFIELEN (GEAVANCEERD)

| Profiel | I _{vv} | Avz | Trek | Druk | Kabelelement | Voorspanning |
|---------|-----------------|----------------|------|------|--------------|--------------|
| P3 | 1.0800e-09 | 3.0000e-04 | Ja | Nee | Nee | Nee |
| P6 | 3.4133e-09 | 5.3333e-04 | Ja | Nee | Nee | Nee |
| | m ⁴ | m ⁴ | | | | |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|---------|-----------|------|------|---------|
| S2 | 0.00 | A1 | Vast | Vast | Vrij |
| | m | | kN/m | kN/m | kNm/rad |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| Staaf | Positie | Scharnier | X | Z | Yr |
|----------|----------|-----------|-------------|-------------|----------------|
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S4 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S5 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S8 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S11 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S13 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S15 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S18 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S21 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S23 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S25 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S28 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S31 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S33 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S35 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S38 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S41 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S43 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S46 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S49 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S52 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S54 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.55 (L) | A1 | Vast | Vast | Vrij |
| S55 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.44 (L) | A1 | Vast | Vast | Vrij |
| S56 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S57 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.55 (L) | A1 | Vast | Vast | Vrij |
| S58 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S60 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S62 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.55 (L) | A1 | Vast | Vast | Vrij |
| S63 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.44 (L) | A1 | Vast | Vast | Vrij |
| S64 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S66 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| m | | | kN/m | kN/m | kNm/rad |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| Staaf | Positie | Scharnier | X | Z | Yr |
|----------|----------|-----------|-------------|-------------|----------------|
| S68 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S69 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S71 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S73 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S76 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S77 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S79 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S81 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S84 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S85 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S87 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S89 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S92 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S93 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S95 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S97 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S100 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S102 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S103 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.55 (L) | A1 | Vast | Vast | Vrij |
| S104 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S106 | 0.00 | A1 | Vast | Vast | Vrij |
| | 6.40 (L) | A1 | Vast | Vast | Vrij |
| S108 | 0.00 | A1 | Vast | Vast | Vrij |
| | 8.25 (L) | A1 | Vast | Vast | Vrij |
| S109 | 0.00 | A1 | Vast | Vast | Vrij |
| | 7.55 (L) | A1 | Vast | Vast | Vrij |
| m | | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|-------------|-------------|----------------|------|----------|
| O1 | K1 | K1 | Vrij | 10.0 | Vrij | 0 | |
| O5 | K19 | K19 | Vast | Vast | Vrij | 0 | |
| O6 | K22 | K22 | Vast | Vast | Vrij | 0 | |
| O7 | K25 | K25 | Vast | Vast | Vrij | 0 | |
| O8 | K28 | K28 | Vast | Vast | Vrij | 0 | |
| O9 | K32 | K32 | Vast | Vast | Vrij | 0 | |
| O10 | K34 | K34 | Vast | Vrij | Vrij | 0 | |
| O11 | K42 | K42 | Vast | Vrij | Vrij | 0 | |
| O12 | K43 | K43 | Vast | Vast | Vrij | 0 | |
| O14 | K49 | K49 | Vast | Vast | Vrij | 0 | |
| m | | | kN/m | kN/m | kNm/rad | | ° |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro
 J

Eenheden: m, mm, kN, kNm



| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|------|---------|----|
| O15 | K52 | K52 | Vast | Vast | Vrij | 0 | 0 |
| | | | m | kN/m | kN/m | kNm/rad | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 15

Referentieperiode (GG): 15

Betrouwbaarheidsklasse: 1

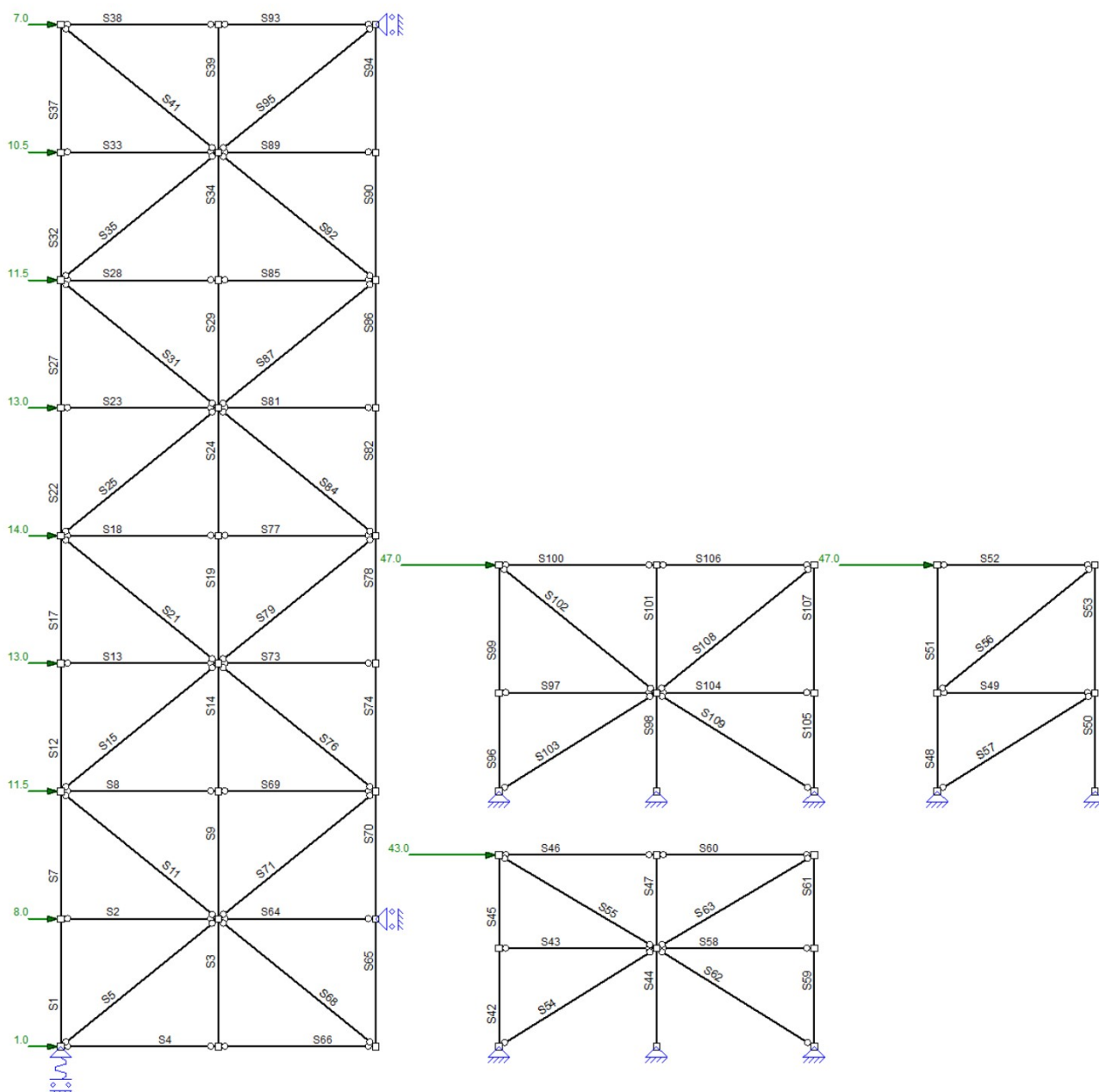
Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

B.G.1: Windbelasting



Projectnummer
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 Opdrachtgever
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bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



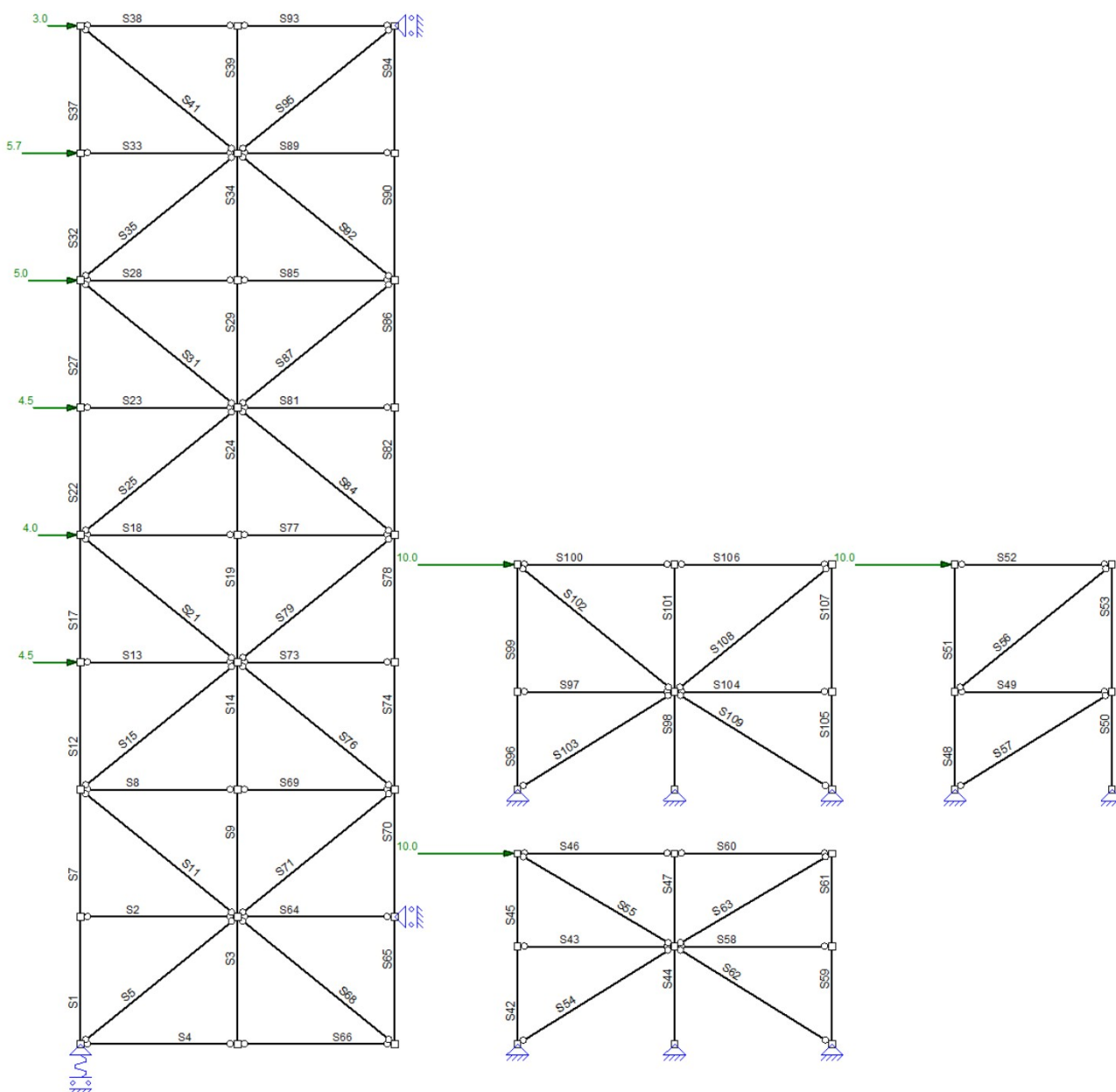
B.G.1: WINDBELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| N | 14.0 | | | | | X K9 | |
| N | 13.0 | | | | | X K7,K11 | |
| N | 11.5 | | | | | X K5,K13 | |
| N | 10.5 | | | | | X K15 | |
| N | 8.0 | | | | | X K2 | |
| N | 1.0 | | | | | X K1 | |
| N | 7.0 | | | | | X K17 | |
| N | 43.0 | | | | | X K23 | |
| N | 47.0 | | | | | X K29,K47 | |

m

m

B.G.2: Verdeelde veranderlijke belasting



Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

**B.G.2: VERDEELDE VERANDERLIJKE BELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| N | 4.0 | | | | | X K9 | |
| N | 4.5 | | | | | X K7,K11 | |
| N | 5.0 | | | | | X K13 | |
| N | 5.7 | | | | | X K15 | |
| N | 3.0 | | | | | X K17 | |
| N | 10.0 | | | | | X K23,K29,K47 | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES**Fundamenteel**

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 |
|-------|---------------------------|--------|--------|
| B.G.1 | Windbelasting | | 1.17 |
| B.G.2 | Verdeelde veranderlijk... | 1.35 | 1.35 |

Karakteristiek

| B.G. | Omschrijving | Ka.C.1 | Ka.C.2 |
|-------|---------------------------|--------|--------|
| B.G.1 | Windbelasting | | 0.86 |
| B.G.2 | Verdeelde veranderlijk... | 1.00 | 1.00 |

UITGANGSPUNTEN VAN DE ANALYSE

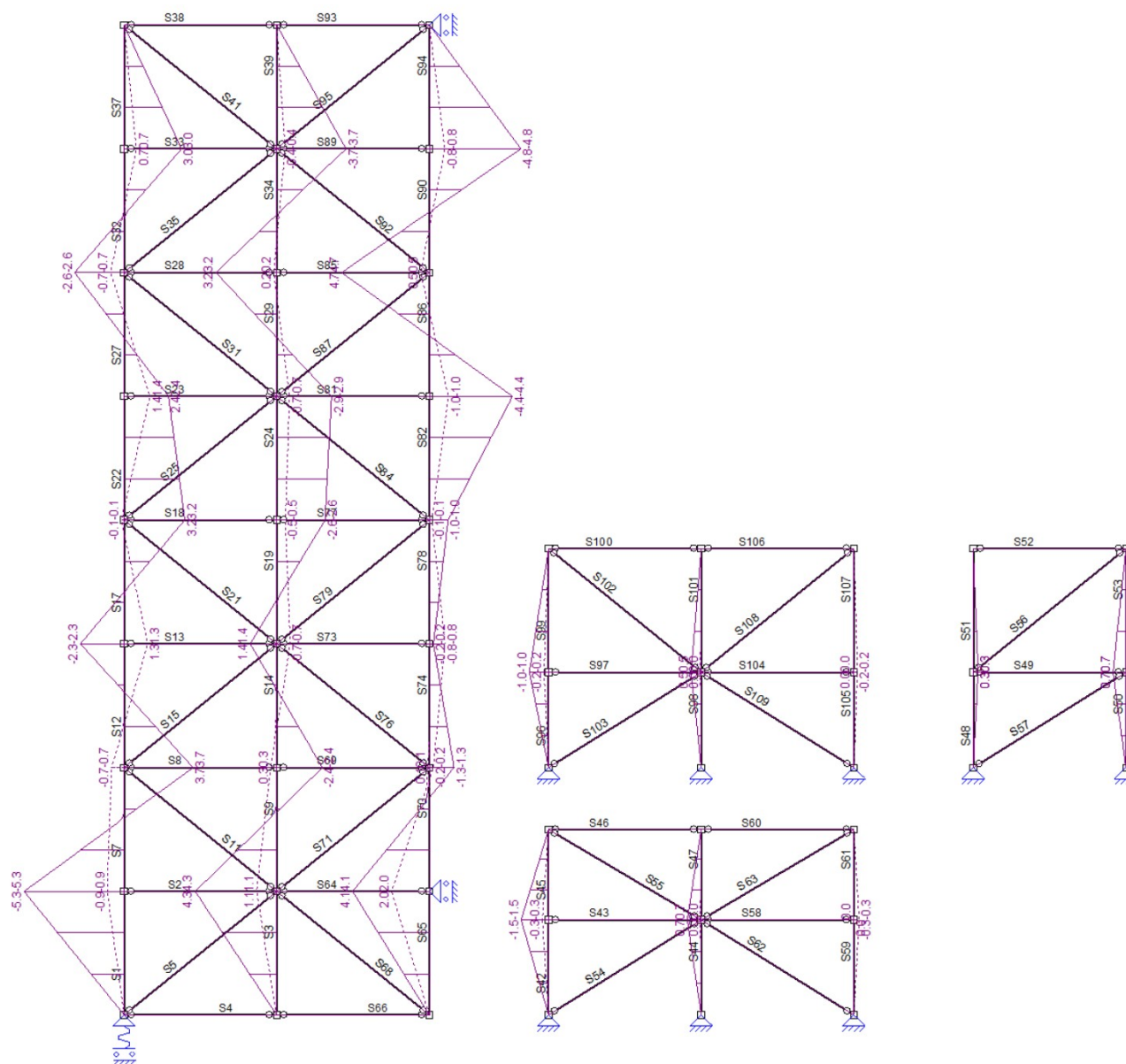
Geavanceerde Analyse
 Trekelement(en) gebruikt

Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Momenten (My)



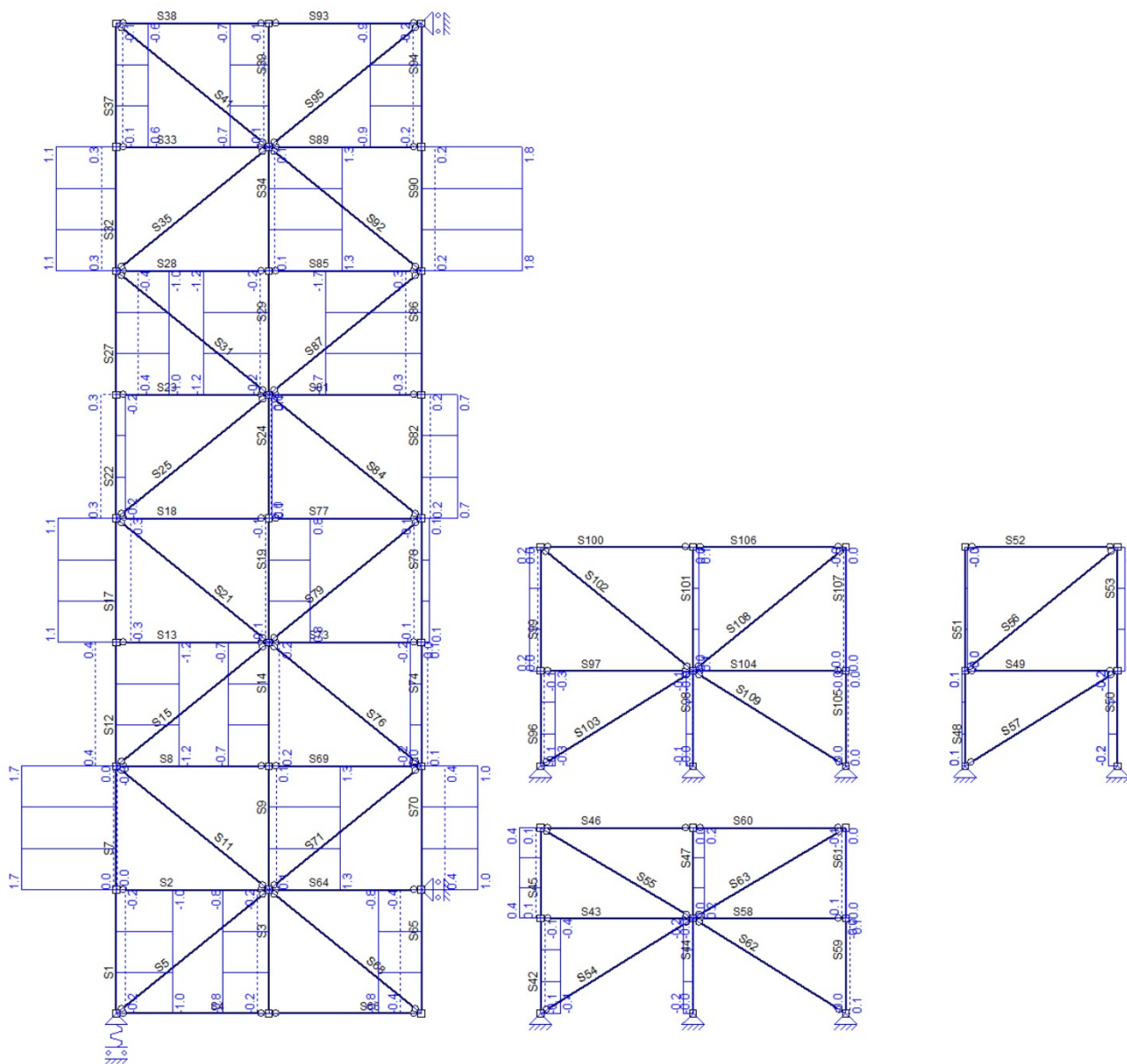
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Dwarskracht (Vz)



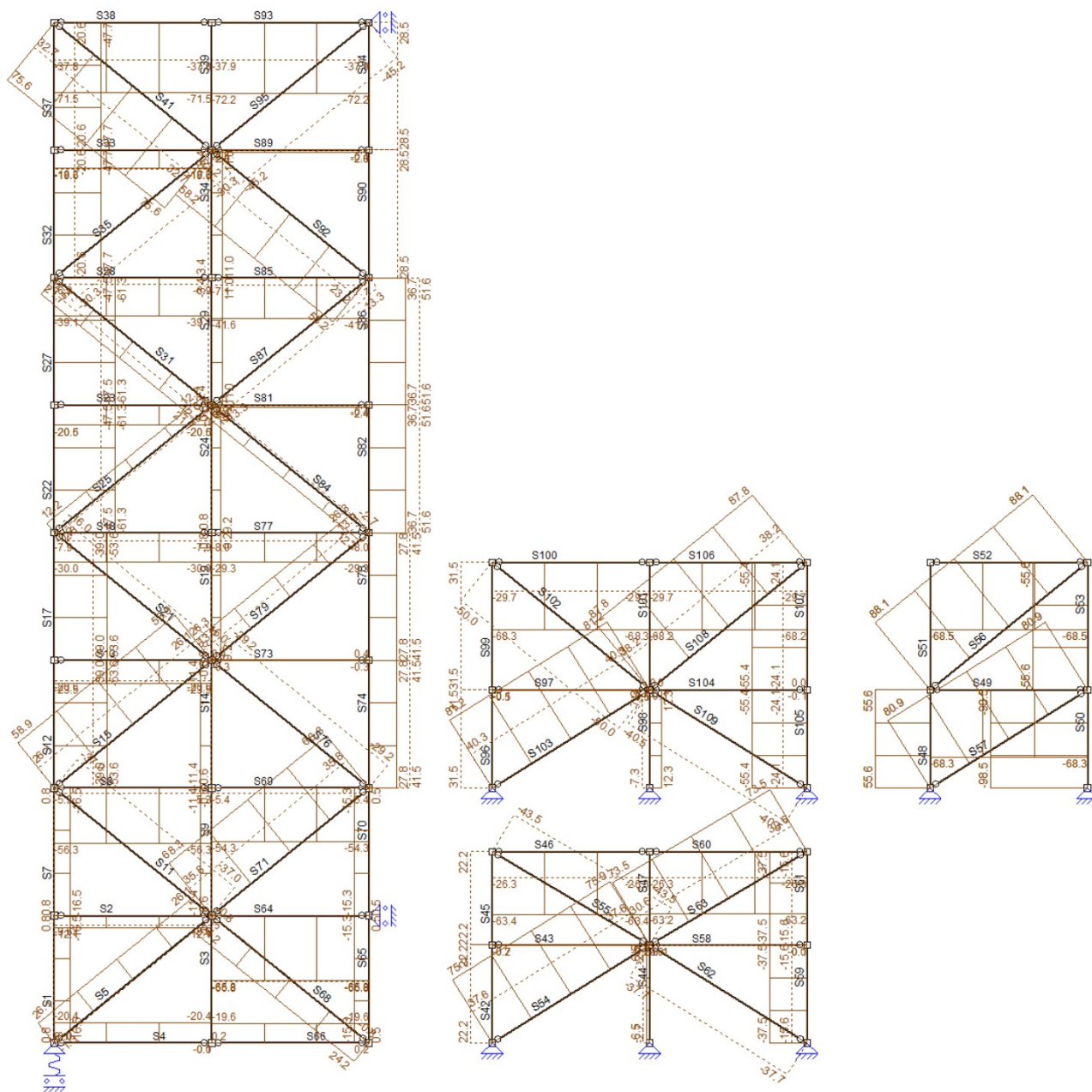
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Normaalkracht (Nx)



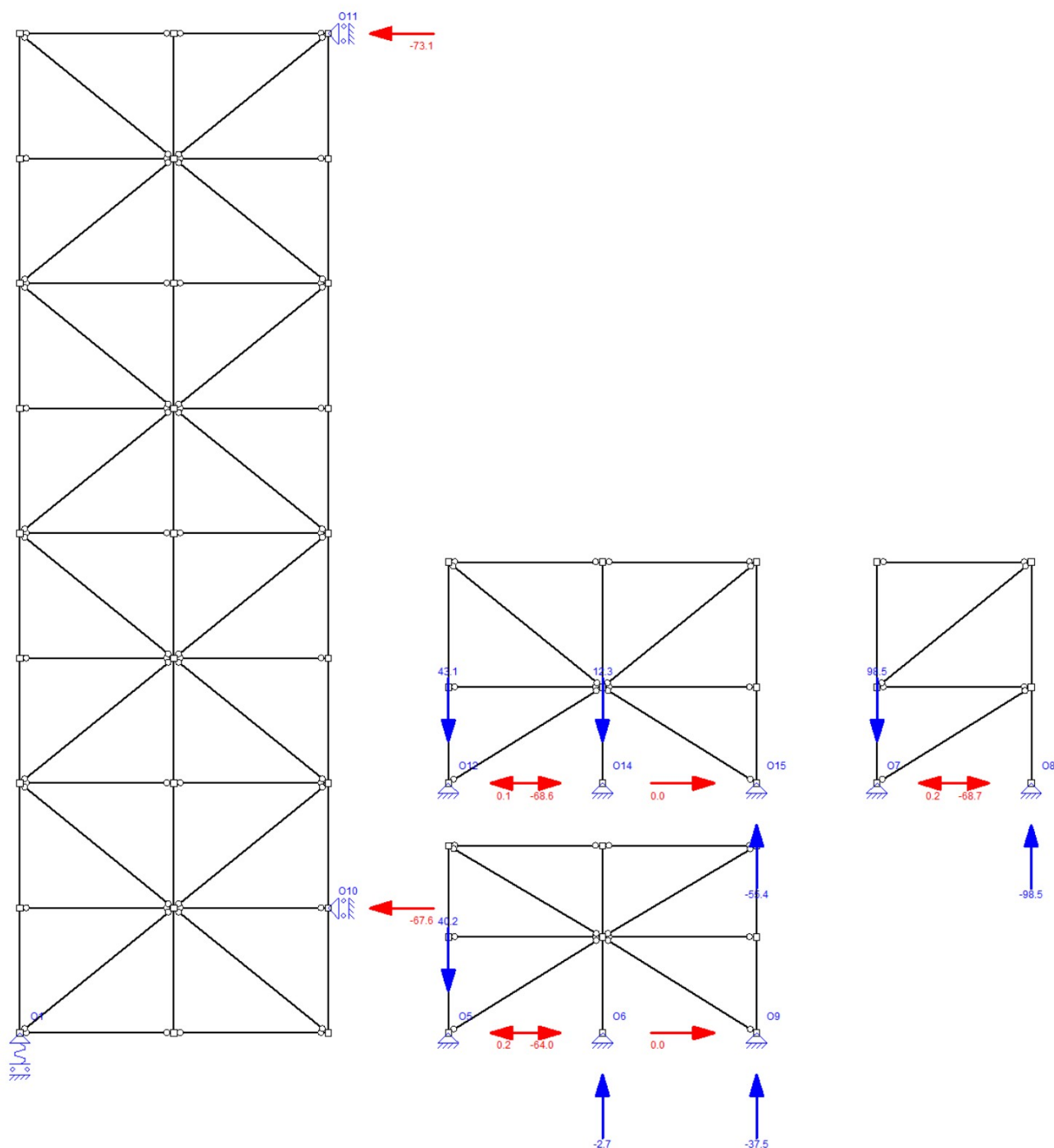
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Oplegreacties



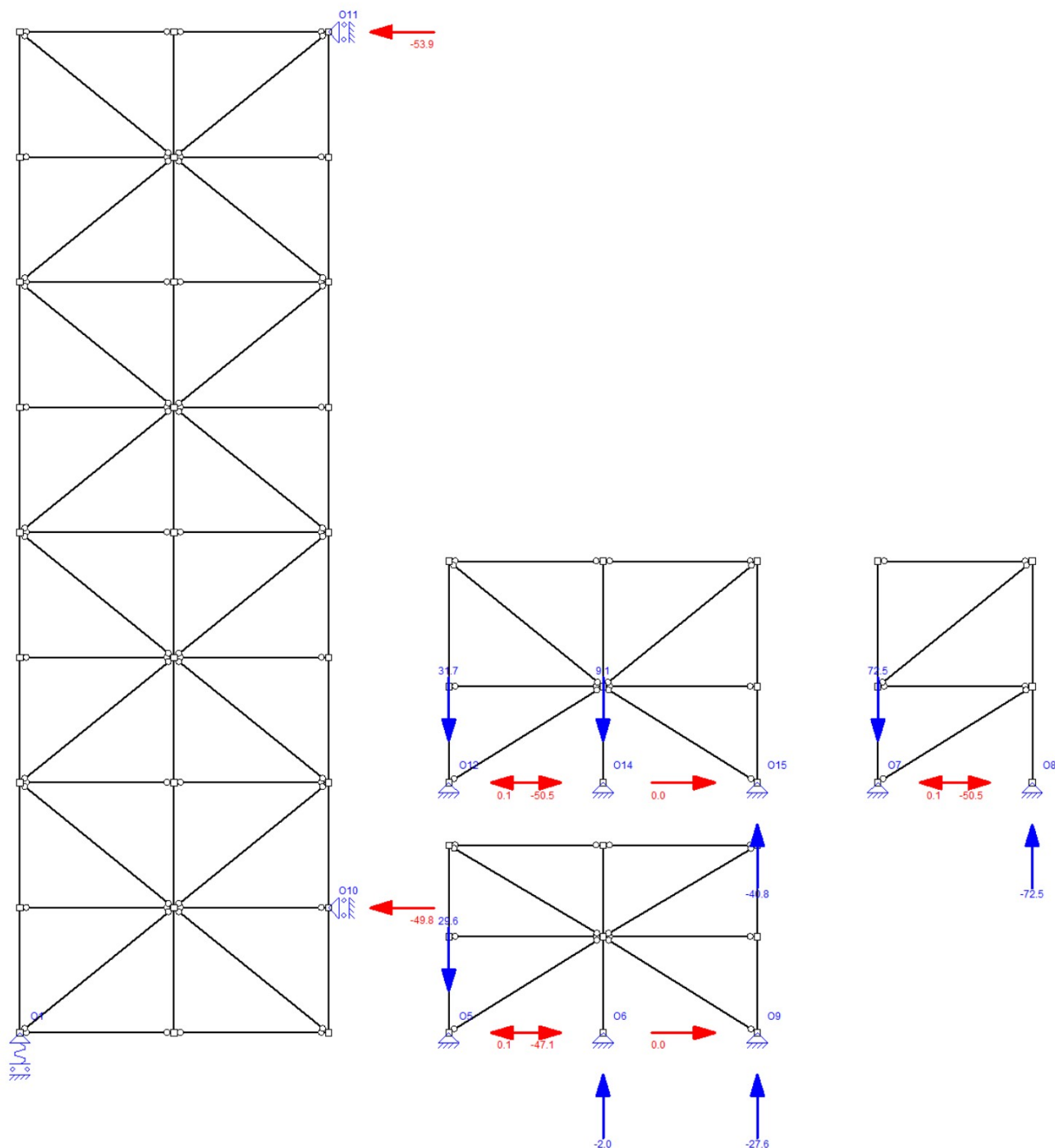
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving



Eenheden: m, mm, kN, kNm



Ka.C. Omhullende Oplegreacties



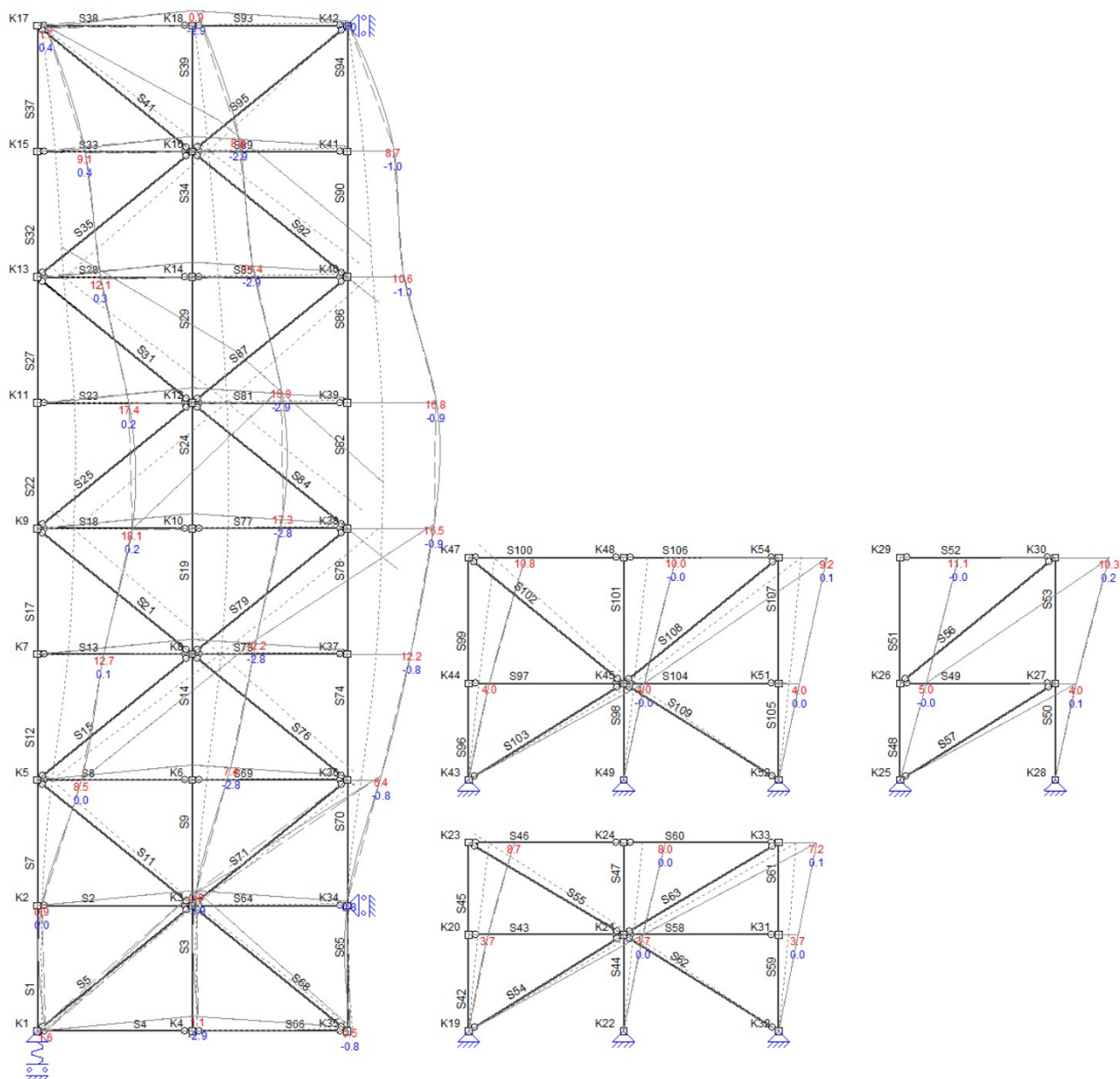
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Ka.C. Omhullende Doorbuigingen



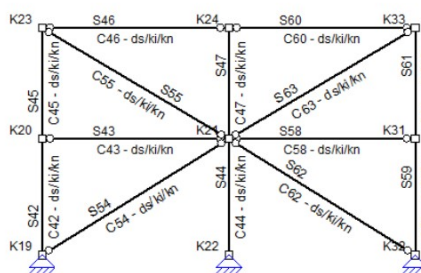
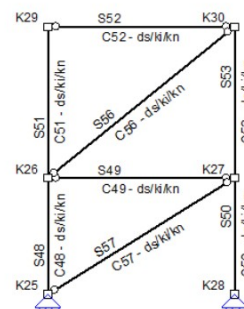
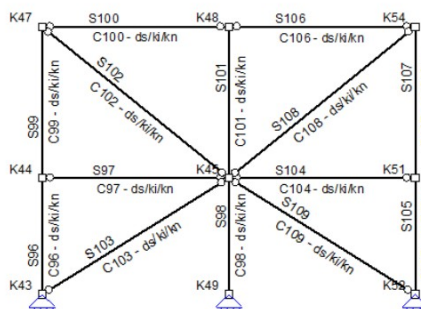
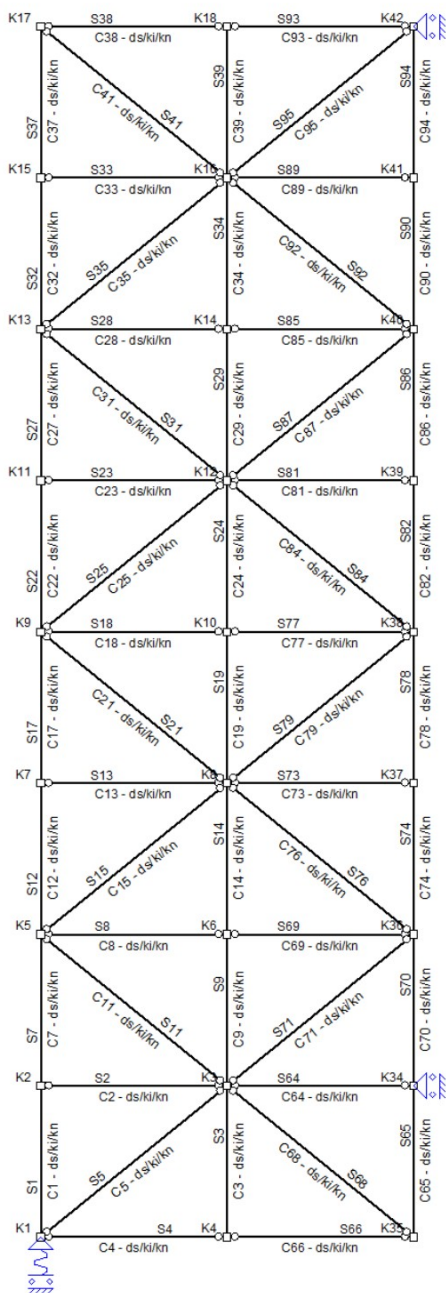
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



Staaldefinitie



CONSTRUCTIEDELEN

Constructiedeel Staaf/staven

| | |
|-----|-----|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |
| C4 | S4 |
| C5 | S5 |
| C7 | S7 |
| C8 | S8 |
| C9 | S9 |
| C11 | S11 |
| C12 | S12 |
| C13 | S13 |
| C14 | S14 |

Projectnummer [REDACTED]
Projectomschrijving bedrijfsloods Parlevliet Agro
Opdrachtgever [REDACTED]
Constructeur [REDACTED]
Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm

**Constructiedeel Staaf/staven**

| | |
|-----|-----|
| C15 | S15 |
| C17 | S17 |
| C18 | S18 |
| C19 | S19 |
| C21 | S21 |
| C22 | S22 |
| C23 | S23 |
| C24 | S24 |
| C25 | S25 |
| C27 | S27 |
| C28 | S28 |
| C29 | S29 |
| C31 | S31 |
| C32 | S32 |
| C33 | S33 |
| C34 | S34 |
| C35 | S35 |
| C37 | S37 |
| C38 | S38 |
| C39 | S39 |
| C41 | S41 |
| C42 | S42 |
| C43 | S43 |
| C44 | S44 |
| C45 | S45 |
| C46 | S46 |
| C47 | S47 |
| C48 | S48 |
| C49 | S49 |
| C50 | S50 |
| C51 | S51 |
| C52 | S52 |
| C53 | S53 |
| C54 | S54 |
| C55 | S55 |
| C56 | S56 |
| C57 | S57 |
| C58 | S58 |
| C59 | S59 |
| C60 | S60 |
| C61 | S61 |
| C62 | S62 |
| C63 | S63 |
| C64 | S64 |
| C65 | S65 |
| C66 | S66 |
| C68 | S68 |
| C69 | S69 |
| C70 | S70 |
| C71 | S71 |
| C73 | S73 |
| C74 | S74 |
| C76 | S76 |
| C77 | S77 |
| C78 | S78 |
| C79 | S79 |
| C81 | S81 |
| C82 | S82 |
| C84 | S84 |
| C85 | S85 |
| C86 | S86 |
| C87 | S87 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm

**Constructiedeel Staaf/staven**

| | |
|------|------|
| C89 | S89 |
| C90 | S90 |
| C92 | S92 |
| C93 | S93 |
| C94 | S94 |
| C95 | S95 |
| C96 | S96 |
| C97 | S97 |
| C98 | S98 |
| C99 | S99 |
| C100 | S100 |
| C101 | S101 |
| C102 | S102 |
| C103 | S103 |
| C104 | S104 |
| C105 | S105 |
| C106 | S106 |
| C107 | S107 |
| C108 | S108 |
| C109 | S109 |

INVOER GEGEVENS**KNIKLENGTEGEGEVENS**

| Staaf | Profiel | Lsys | Lokale Y-as | | Lokale Z-as | | Lbuc | Lbuc/Lsys |
|----------------------|---------|------|--------------|------|------------------|------|------|-----------|
| | | | Methode | Lbuc | Methode | Lbuc | | |
| C1-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C2-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C4-V1 (0.000-6.400) | P1 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C7-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C8-V1 (0.000-6.400) | P5 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C9-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C12-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C13-V1 (0.000-6.400) | P4 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C14-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C17-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C18-V1 (0.000-6.400) | P1 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C22-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C23-V1 (0.000-6.400) | P1 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C27-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C28-V1 (0.000-6.400) | P5 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C32-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C33-V1 (0.000-6.400) | P5 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C37-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C38-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C43-V1 (0.000-6.400) | P7 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C44-V1 (0.000-4.000) | P2 | 4.00 | Cons. gesch. | 4.00 | 1.0 Cons. gesch. | 4.00 | | 1.0 |
| C46-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C49-V1 (0.000-6.400) | P8 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C50-V1 (0.000-4.000) | P2 | 4.00 | Cons. gesch. | 4.00 | 1.0 Cons. gesch. | 4.00 | | 1.0 |
| C52-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C53-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C59-V1 (0.000-4.000) | P2 | 4.00 | Cons. gesch. | 4.00 | 1.0 Cons. gesch. | 4.00 | | 1.0 |
| C60-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C61-V1 (0.000-3.800) | P2 | 3.80 | Cons. gesch. | 3.80 | 1.0 Cons. gesch. | 3.80 | | 1.0 |
| C64-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C65-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | 5.20 | 1.0 Cons. gesch. | 5.20 | | 1.0 |
| C66-V1 (0.000-6.400) | P1 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |
| C69-V1 (0.000-6.400) | P5 | 6.40 | Cons. gesch. | 6.40 | 1.0 Cons. gesch. | 6.40 | | 1.0 |

m

m

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staaf | Profiel | Lsys | Lokale Y-as | | Lbuc | Lokale Z-as | | Lbuc | Lbuc/Lsys |
|-----------------------|---------|------|--------------|--|------|-------------|--------------|------|-----------|
| | | | Methode | | | Methode | | | |
| C70-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | | 5.20 | 1.0 | Cons. gesch. | 5.20 | 1.0 |
| C77-V1 (0.000-6.400) | P1 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C81-V1 (0.000-6.400) | P1 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C85-V1 (0.000-6.400) | P5 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C89-V1 (0.000-6.400) | P5 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C90-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | | 5.20 | 1.0 | Cons. gesch. | 5.20 | 1.0 |
| C93-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C94-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | | 5.20 | 1.0 | Cons. gesch. | 5.20 | 1.0 |
| C97-V1 (0.000-6.400) | P7 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C100-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C105-V1 (0.000-4.000) | P2 | 4.00 | Cons. gesch. | | 4.00 | 1.0 | Cons. gesch. | 4.00 | 1.0 |
| C106-V1 (0.000-6.400) | P9 | 6.40 | Cons. gesch. | | 6.40 | 1.0 | Cons. gesch. | 6.40 | 1.0 |
| C107-V1 (0.000-5.200) | P2 | 5.20 | Cons. gesch. | | 5.20 | 1.0 | Cons. gesch. | 5.20 | 1.0 |
| | | | | | m | m | | | |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

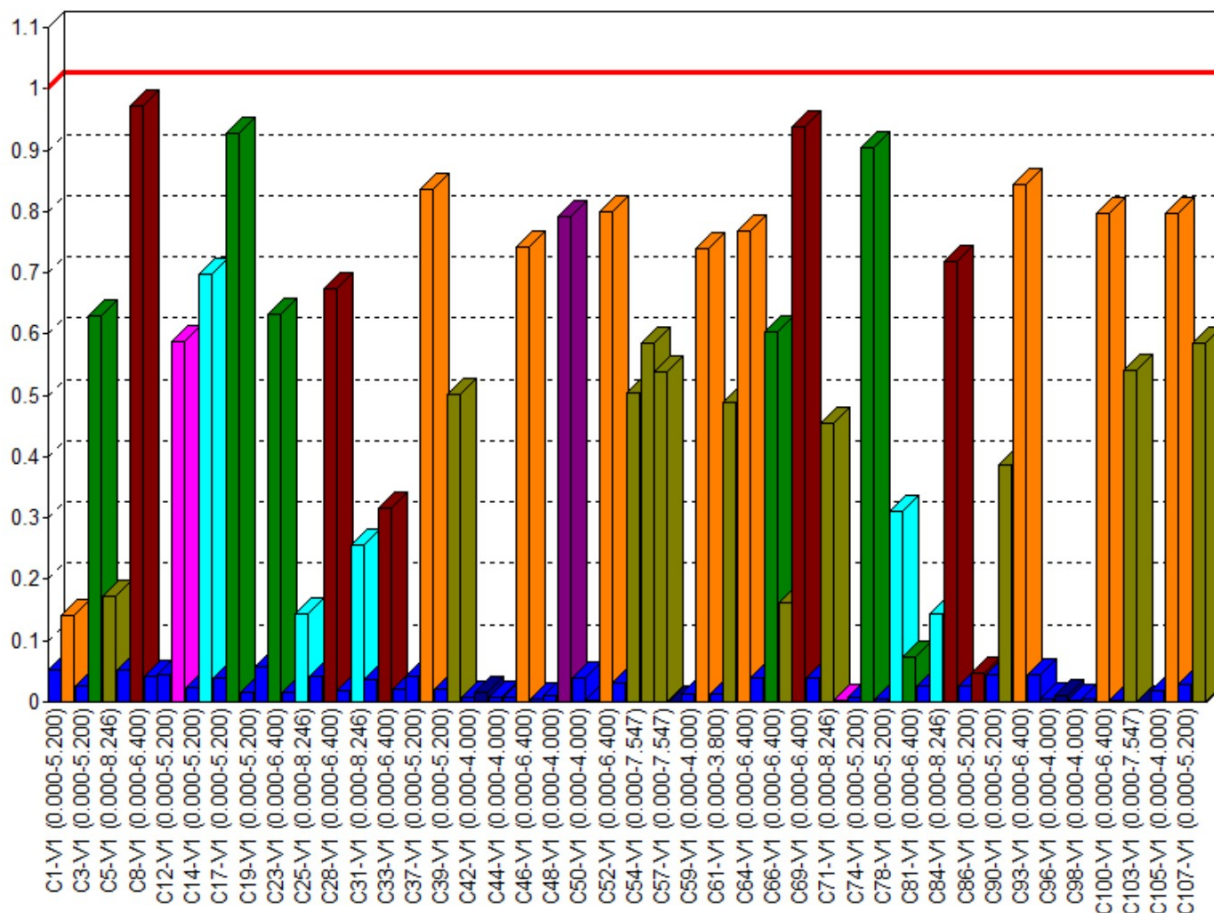
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Staaft | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|-----------------------|---------|----------|----------|------------------|------------------|----------------|
| C66-V1 (0.000-6.400) | P1 | Gesteund | Gesteund | | | Centrum |
| C69-V1 (0.000-6.400) | P5 | Gesteund | Gesteund | | | Centrum |
| C70-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C73-V1 (0.000-6.400) | P4 | Gesteund | Gesteund | | | Centrum |
| C74-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C77-V1 (0.000-6.400) | P1 | Gesteund | Gesteund | | | Centrum |
| C78-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C81-V1 (0.000-6.400) | P1 | Gesteund | Gesteund | | | Centrum |
| C82-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C85-V1 (0.000-6.400) | P5 | Gesteund | Gesteund | | | Centrum |
| C86-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C89-V1 (0.000-6.400) | P5 | Gesteund | Gesteund | | | Centrum |
| C90-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C93-V1 (0.000-6.400) | P9 | Gesteund | Gesteund | | | Centrum |
| C94-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C96-V1 (0.000-4.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C97-V1 (0.000-6.400) | P7 | Gesteund | Gesteund | | | Centrum |
| C98-V1 (0.000-4.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C99-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C100-V1 (0.000-6.400) | P9 | Gesteund | Gesteund | | | Centrum |
| C101-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |
| C104-V1 (0.000-6.400) | P7 | Gesteund | Gesteund | | | Centrum |
| C105-V1 (0.000-4.000) | P2 | Gesteund | Gesteund | | | Centrum |
| C106-V1 (0.000-6.400) | P9 | Gesteund | Gesteund | | | Centrum |
| C107-V1 (0.000-5.200) | P2 | Gesteund | Gesteund | | | Centrum |

Afb. Staal UC Diagram



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



EXTREME UNITY CHECK

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|-----------------------|----------------|------------|---------------------------|-------------|
| C1-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.05 |
| C100-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.80 |
| C101-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.00 |
| C103-V1 (0.000-7.547) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.54 |
| C104-V1 (0.000-6.400) | Kiptoetsing | Bi.C.2 | NEN-EN1993-1-1(6.54) | 0.00 |
| C105-V1 (0.000-4.000) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.02 |
| C106-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.80 |
| C107-V1 (0.000-5.200) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.03 |
| C108-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.58 |
| C12-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C13-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.59 |
| C14-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.02 |
| C15-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.70 |
| C17-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C18-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.93 |
| C19-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |
| C2-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.14 |
| C22-V1 (0.000-5.200) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.06 |
| C23-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.63 |
| C24-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.02 |
| C25-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.14 |
| C27-V1 (0.000-5.200) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.04 |
| C28-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.68 |
| C29-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.02 |
| C3-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.03 |
| C31-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.26 |
| C32-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C33-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.32 |
| C34-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.02 |
| C37-V1 (0.000-5.200) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.04 |
| C38-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.84 |
| C39-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.02 |
| C4-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.63 |
| C41-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.50 |
| C42-V1 (0.000-4.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |
| C43-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.02 |
| C44-V1 (0.000-4.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.01 |
| C45-V1 (0.000-3.800) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |
| C46-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.74 |
| C47-V1 (0.000-3.800) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.00 |
| C48-V1 (0.000-4.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.01 |
| C49-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.79 |
| C5-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.17 |
| C50-V1 (0.000-4.000) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.04 |
| C51-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.00 |
| C52-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.80 |
| C53-V1 (0.000-5.200) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.03 |
| C54-V1 (0.000-7.547) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.50 |
| C56-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.59 |
| C57-V1 (0.000-7.547) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.54 |
| C58-V1 (0.000-6.400) | Kiptoetsing | Bi.C.2 | NEN-EN1993-1-1(6.54) | 0.00 |
| C59-V1 (0.000-4.000) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.01 |
| C60-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.74 |
| C61-V1 (0.000-3.800) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.01 |
| C63-V1 (0.000-7.443) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.49 |
| C64-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.77 |
| C65-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C66-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.60 |
| C68-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.16 |
| C69-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.94 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|-------------|------------|----------------------|-------------|
| C7-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.05 |
| C70-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C71-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.45 |
| C73-V1 (0.000-6.400) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.00 |
| C74-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |
| C77-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.91 |
| C78-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |
| C79-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.31 |
| C8-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.97 |
| C81-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.07 |
| C82-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.03 |
| C84-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.14 |
| C85-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.72 |
| C86-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.03 |
| C89-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.05 |
| C9-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C90-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C92-V1 (0.000-8.246) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.5) | 0.39 |
| C93-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.84 |
| C94-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.42) | 0.04 |
| C96-V1 (0.000-4.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |
| C97-V1 (0.000-6.400) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0.01 |
| C98-V1 (0.000-4.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.00 |
| C99-V1 (0.000-5.200) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.01 |

Projectnummer
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur
 Omschrijving
 Bestand

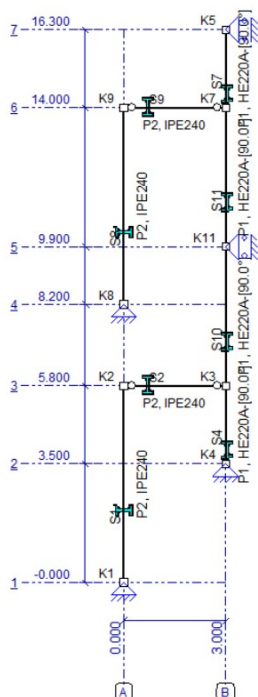
Eenheden: m, mm, kN, kNm



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CONSTRUCTIEGEGEVENS

| Projecttype | Knopen | Staven | Opleggingen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|-------------|-----------|--------------------|-----------------------|
| 2D-Raamwerk | 9 | 8 | 5 | 2 | 8 | 24 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Z-B | Z-E | Lengte | Profiel | Positie |
|-------|---------|---------|------|------|--------|--------|--------|---------|-----------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -5.80 | 5.80 | P2 | 0.00 - 5.80 (L) |
| S2 | K2 | K3 | 0.00 | 3.00 | -5.80 | -5.80 | 3.00 | P2 | 0.00 - 3.00 (L) |
| S4 | K4 | K3 | 3.00 | 3.00 | -3.50 | -5.80 | 2.30 | P1 | 0.00 - 2.30 (L) |
| S7 | K7 | K5 | 3.00 | 3.00 | -14.00 | -16.30 | 2.30 | P1 | 0.00 - 2.30 (L) |
| S8 | K8 | K9 | 0.00 | 0.00 | -8.20 | -14.00 | 5.80 | P2 | 0.00 - 5.80 (L) |
| S9 | K9 | K7 | 0.00 | 3.00 | -14.00 | -14.00 | 3.00 | P2 | 0.00 - 3.00 (L) |
| S10 | K3 | K11 | 3.00 | 3.00 | -5.80 | -9.90 | 4.10 | P1 | 0.00 - 4.10 (L) |
| S11 | K11 | K7 | 3.00 | 3.00 | -9.90 | -14.00 | 4.10 | P1 | 0.00 - 4.10 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|-----------|------|
| P1 | HE220A | 6434 | 1.9546e+07 | S355 | 90 |
| P2 | IPE240 | 3912 | 3.8916e+07 | S235 | 0 |
| | | mm ² | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoëff |
|---------------|--------|-------------------|-------------------|-----------------|
| S235 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| S355 | 0.30 | 78.5 | 2.1000e+05 | 12.0000e-06 |
| | | kN/m ³ | N/mm ² | C°m |

SCHARNIEREN

| Staaf | Positie | Scharnier | X | Z | Yr |
|-------|---------|-----------|------|------|---------|
| | m | | kN/m | kN/m | kNm/rad |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



| Staal | Positie | Scharnier | X | Z | Yr |
|-------|----------|-----------|------|------|---------|
| S2 | 0.00 | A2 | Vast | Vast | Vrij |
| | 3.00 (L) | A2 | Vast | Vast | Vrij |
| S4 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.30 (L) | A1 | Vast | Vast | Vast |
| S7 | 0.00 | A1 | Vast | Vast | Vast |
| | 2.30 | A1 | Vast | Vast | Vast |
| S9 | 0.00 | A2 | Vast | Vast | Vrij |
| | 3.00 (L) | A2 | Vast | Vast | Vrij |
| S10 | 0.00 | A1 | Vast | Vast | Vast |
| | 4.10 (L) | A1 | Vast | Vast | Vast |
| S11 | 0.00 | A1 | Vast | Vast | Vast |
| | 4.10 | A1 | Vast | Vast | Vast |
| m | | | kN/m | kN/m | kNm/rad |

OPLEGGINGEN

| Oplegging | Object | Positie | X | Z | Yr | Hoek | Yr |
|-----------|--------|---------|------|------|---------|------|----|
| O1 | K8 | K8 | Vast | Vast | Vrij | 0 | |
| O2 | K1 | K1 | Vast | Vast | Vrij | 0 | |
| O3 | K4 | K4 | Vast | Vast | Vrij | 0 | |
| O4 | K5 | K5 | Vast | Vrij | Vrij | 0 | |
| O5 | K11 | K11 | Vast | Vrij | Vrij | 0 | |
| m | | | kN/m | kN/m | kNm/rad | | ° |

LASTENGEGENERATOR OPTIES

Gebouwtype: Industriegebouwen met 1 of 2 bouwlagen

Referentieperiode (UG): 50

Referentieperiode (GG): 50

Betrouwbaarheidsklasse: 1

Combinatieregels:

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 NB.4-A1.2(B) (6.10a+6.10b)

NEN-EN 1990 (Brand) (6.11 a/b) N.v.t.

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--------------------------|--------------------------------|------------|--------|----------|
| Gemeenschappelijk | | | | |
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.30 | 5.30 | [m] |
| Height1 | Totale hoogte van constructie | 13 | 13.00 | [m] |
| Width1 | Totale diepte van constructie | 3.00 | 3.00 | [m] |
| Width2 | Totale breedte van constructie | 63.60 | 63.60 | [m] |
| Lsys2 | Systeemmaat onderslagligger | 1.7 | 1.70 | [m] |

LR1 (Permanente Belasting)

Permanente Belasting

NEN-EN1991-1-1:2011/NB:2011

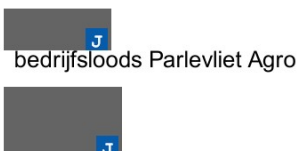
LR2 (Constructie factor (CsCd))

| | | | | |
|---------|-------------------------------|-----------------------------|-------|-----|
| | Windbelasting Algemeen | NEN-EN1991-1-4:2011/NB:2019 | | |
| Height2 | Totale hoogte van constructie | 13 | 13.00 | [m] |
| Z1 | Referentiehoogte | 0.6*Height2 | 7.80 | [m] |
| Region1 | Regio | 2 | 2.00 | |
| Cat1 | Terrein | Onbebouwd | 2.00 | |
| Co1 | Orthografie factor (C0) | 1.00 | 1.00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 | |

LR3 (Interne druk; Verdeelde element belasting (q) onderslag)

| | | | | |
|--------|------------------------------------|-----------------------------|-------|------|
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width3 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A1 | Belast oppervlak (A) | 86.39 | 86.39 | [m²] |

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Eenheden: m, mm, kN, kNm



| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--|--|--|--------|----------|
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe2 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| q1 | Vertikale wand; Verdeelde element belasting (q): S1,S8 | (Qp1*Cpe2*CsCd1) * Lsys1 | 3.95 | [kN/m] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0.99 | [kN/m] |
| Width9 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A7 | Belast oppervlak (A) | 86.39 | 86.39 | [m²] |
| Cpe11 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0.20 | |
| Z22 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp21 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe12 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| q10 | Vertikale wand; Verdeelde element belasting (q): S1,S8 onderslag | (Qp1*Cpe2*CsCd1) * Lsys2 | 1.27 | [kN/m] |
| q11 | Interne druk; Verdeelde element belasting (q) onderslag | (Cpi1*Qp1) * Lsys2 | 0.32 | [kN/m] |
| LR4 (Interne druk; Verdeelde element belasting (q) onderslag) | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width4 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A2 | Belast oppervlak (A) | 86.39 | 86.39 | [m²] |
| Cpe3 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe3,Openingen=0.00,Over=False) | -0.30 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe4 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| q3 | Vertikale wand; Verdeelde element belasting (q): S1,S8 | (Qp2*Cpe4*CsCd1) * Lsys1 | 3.95 | [kN/m] |
| q4 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | -1.48 | [kN/m] |
| Width10 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A8 | Belast oppervlak (A) | 86.39 | 86.39 | [m²] |
| Cpe13 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe3,Openingen=0.00,Over=False) | -0.30 | |
| Z23 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp22 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m²] |
| Cpe14 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| q12 | Vertikale wand; Verdeelde element belasting (q): S1,S8 onderslag | (Qp2*Cpe4*CsCd1) * Lsys2 | 1.27 | [kN/m] |
| q13 | Interne druk; Verdeelde element belasting (q) onderslag | (Cpi2*Qp2) * Lsys2 | -0.48 | [kN/m] |
| LR5 (Interne druk; Verdeelde element belasting (q) onderslag) | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width5 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A3 | Belast oppervlak (A) | 86.39 | 86.39 | [m²] |
| Cpe5 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe5,Openingen=0.00,Over=True) | 0.20 | |

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|--|--|--|--------|----------------------|
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe6 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| q5 | Vertikale wand; Verdeelde element belasting (q): S1,S8 | (Qp3*Cpe6*CsCd1) * Lsys1 | -2.47 | [kN/m] |
| q6 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | 0.99 | [kN/m] |
| Width11 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A9 | Belast oppervlak (A) | 86.39 | 86.39 | [m ²] |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D) | 0.80 | |
| Cpi9 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe5,Openingen=0.00,Over=True) | 0.20 | |
| Z24 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp23 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe16 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| q14 | Vertikale wand; Verdeelde element belasting (q): S1,S8 onderslag | (Qp3*Cpe6*CsCd1) * Lsys2 | -0.79 | [kN/m] |
| q15 | Interne druk; Verdeelde element belasting (q) onderslag | (Cpi3*Qp3) * Lsys2 | 0.32 | [kN/m] |
| LR6 (Interne druk; Verdeelde element belasting (q) onderslag) | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2019 | | |
| Width6 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A4 | Belast oppervlak (A) | 86.39 | 86.39 | [m ²] |
| Cpe7 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe7,Openingen=0.00,Over=False) | -0.30 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe8 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| q7 | Vertikale wand; Verdeelde element belasting (q): S1,S8 | (Qp4*Cpe8*CsCd1) * Lsys1 | -2.47 | [kN/m] |
| q8 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -1.48 | [kN/m] |
| Width12 | Gemiddelde breedte (b) | 5.30 | 5.30 | [m] |
| A10 | Belast oppervlak (A) | 86.39 | 86.39 | [m ²] |
| Cpe17 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| Cpi10 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe7,Openingen=0.00,Over=False) | -0.30 | |
| Z25 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K7,K8,K9,K11 | 13 | 13.00 | [m] |
| Qp24 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Cat1,Regio=Region1,C0=Co1) | 0.93 | [kN/m ²] |
| Cpe18 | Vertikale wand; Druk coefficient (Cpe): S1,S8 | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E) | -0.50 | |
| q16 | Vertikale wand; Verdeelde element belasting (q): S1,S8 onderslag | (Qp4*Cpe8*CsCd1) * Lsys2 | -0.79 | [kN/m] |
| q17 | Interne druk; Verdeelde element belasting (q) onderslag | (Cpi4*Qp4) * Lsys2 | -0.48 | [kN/m] |

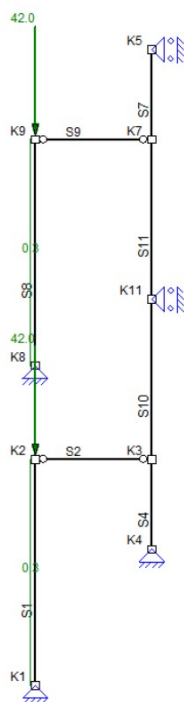
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Eenheden: m, mm, kN, kNm



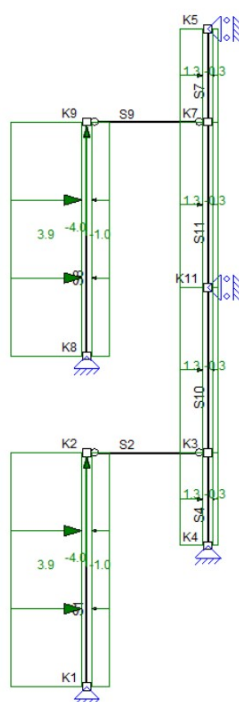
B.G.1: Permanente Belasting



B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | Z" | S1,S8 | |
| N | 42.0 | | | | Z | K2,K9 | |
| Som lasten | | Z: 87.6 | | | | | |
| | | | m | m | | | |

B.G.2: Windbelasting van Links + Overdruk

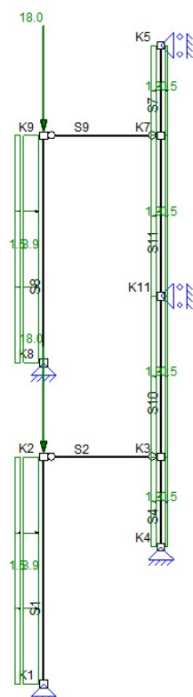


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**B.G.2: WINDBELASTING VAN LINKS + OVERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.9 (q1) | 3.9 (q1) | 0.00 | L | Z' | S1,S8 | |
| q | -1.0 (-q2) | -1.0 (-q2) | 0.00 | L | Z' | S1,S8 | |
| q | 1.3 (q10) | 1.3 (q10) | 0.00 | L | X | S4,S7,S10-S11 | |
| q | -0.3 (-q11) | -0.3 (-q11) | 0.00 | L | X | S4,S7,S10-S11 | |
| N | -4.0 | | | | Z | K2,K9 | |
| Som lasten | | X: 46.5 Z: -8.0 | | | | | |
| | | | m | m | | | |

B.G.3: Windbelasting van Links + Onderdruk**B.G.3: WINDBELASTING VAN LINKS + ONDERDRUK**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|------------------------|--------------|-------------|----------|----------------|--------------|
| q | 3.9 (q3) | 3.9 (q3) | 0.00 | L | Z' | S1,S8 | |
| q | 1.5 (-q4) | 1.5 (-q4) | 0.00 | L | Z' | S1,S8 | |
| q | 1.3 (q12) | 1.3 (q12) | 0.00 | L | X | S4,S7,S10-S11 | |
| q | -0.5 (q13) | -0.5 (q13) | 0.00 | L | X | S4,S7,S10-S11 | |
| N | 18.0 | | | | Z | K2,K9 | |
| Som lasten | | X: 73.1 Z: 36.0 | | | | | |
| | | | m | m | | | |

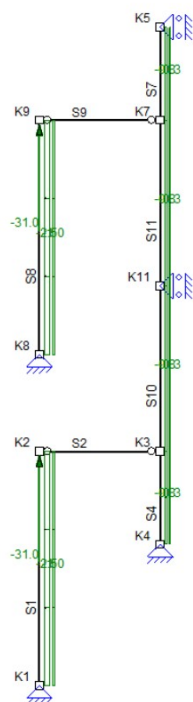
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Eenheden: m, mm, kN, kNm



B.G.4: Windbelasting van Rechts + Overdruk



B.G.4: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|--------------------------|--------------|-------------|----------|----------------|--------------|
| q | -2.5 (q5) | -2.5 (q5) | 0.00 | L | Z' | S1,S8 | |
| q | -1.0 (-q6) | -1.0 (-q6) | 0.00 | L | Z' | S1,S8 | |
| q | -0.8 (q14) | -0.8 (q14) | 0.00 | L | X | S4,S7,S10-S11 | |
| q | -0.3 (-q15) | -0.3 (-q15) | 0.00 | L | X | S4,S7,S10-S11 | |
| N | -31.0 | | | | Z | K2,K9 | |
| Som lasten | | X: -54.3 Z: -62.0 | | | | | |
| | | | m | m | | | |

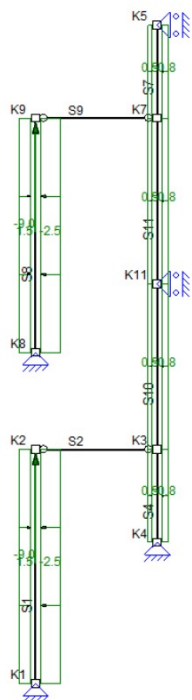
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B.G.5: Windbelasting van Rechts + Onderdruk



B.G.5: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|--------------------------|--------------|-------------|----------|----------------|--------------|
| q | -2.5 (q7) | -2.5 (q7) | 0.00 | L | Z' | S1,S8 | |
| q | 1.5 (-q8) | 1.5 (-q8) | 0.00 | L | Z' | S1,S8 | |
| q | -0.8 (q16) | -0.8 (q16) | 0.00 | L | X | S4,S7,S10-S11 | |
| q | 0.5 (-q17) | 0.5 (-q17) | 0.00 | L | X | S4,S7,S10-S11 | |
| N | -9.0 | | | | Z | K2,K9 | |
| Som lasten | | X: -15.5 Z: -18.0 | | | | | |
| | | | m | m | | | |

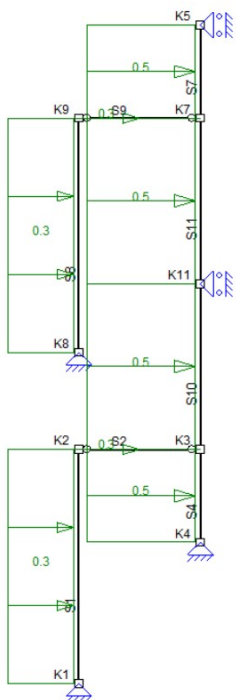
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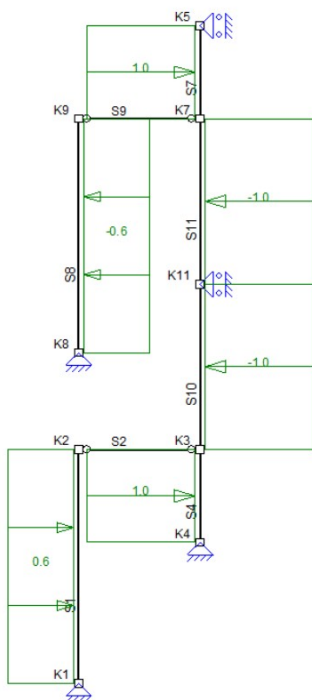
B.G.6: Kniklengte (Asymmetrisch)



B.G.6: KNIKLENGTE (ASYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|------------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | X" | S1-S2,S4,S7-S11 | |
| Som lasten | | X: 11.9 | | m | m | | |

B.G.7: Kniklengte (Symmetrisch)

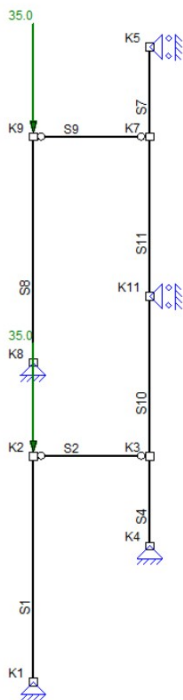


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**B.G.7: KNIKLENGTE (SYMMETRISCH)**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| qG | 2.0 | 2.0 | 0.00 | L | X" | S1,S4,S7 | |
| qG | -2.0 | -2.0 | 0.00 | L | X" | S8,S10-S11 | |
| Som lasten | X: -3.6 | | | | | | |
| | | | m | m | | | |

B.G.8: Sneeuwbelasting**B.G.8: SNEEUWBELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|----------------|------------|--------------|-------------|----------|----------------|--------------|
| N | 35.0 | | | | Z | K2,K9 | |
| Som lasten | Z: 70.0 | | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES**Fundamenteel**

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 | Fu.C.7 |
|-------|--------------------------|--------|--------|--------|--------|--------|--------|--------|
| B.G.1 | Permanente Belasting | 0.90 | 1.08 | 0.90 | 1.08 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Lin... | 1.15 | | | | | | |
| B.G.3 | Windbelasting van Lin... | | 1.15 | | | | | |
| B.G.4 | Windbelasting van Re... | | | 1.15 | | | | |
| B.G.5 | Windbelasting van Re... | | | | 1.15 | | | |
| B.G.6 | Kniklengte (Asymmetr... | | | | | | | |
| B.G.7 | Kniklengte (Symmetris... | | | | | | | |
| B.G.8 | Sneeuwbelasting | | | | | 1.01 | | |

Karakteristiek

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 | Ka.C.5 | Ka.C.6 |
|-------|--------------------------|-----------|--------|--------|--------|--------|--------|--------|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Lin... | | | 0.85 | | | | |
| B.G.3 | Windbelasting van Lin... | | | | 0.85 | | | |
| B.G.4 | Windbelasting van Re... | | | | | 0.85 | | |
| B.G.5 | Windbelasting van Re... | | | | | | 0.85 | |

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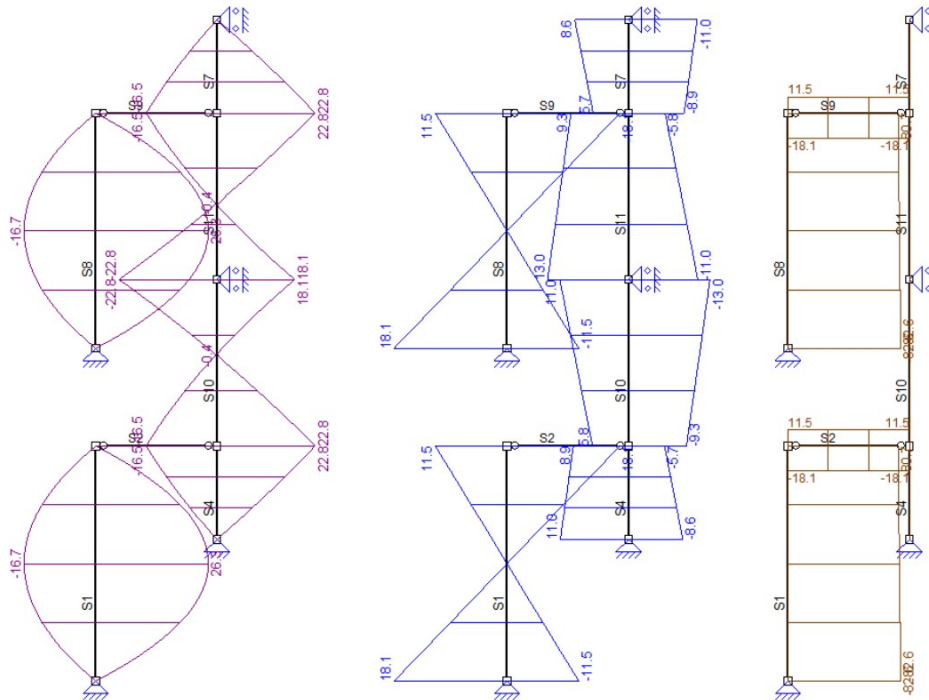
B.G.6 Kniklengte (Asymmetr...
 B.G.7 Kniklengte (Symmetris...
 B.G.8 Sneeuwbelasting

0.75

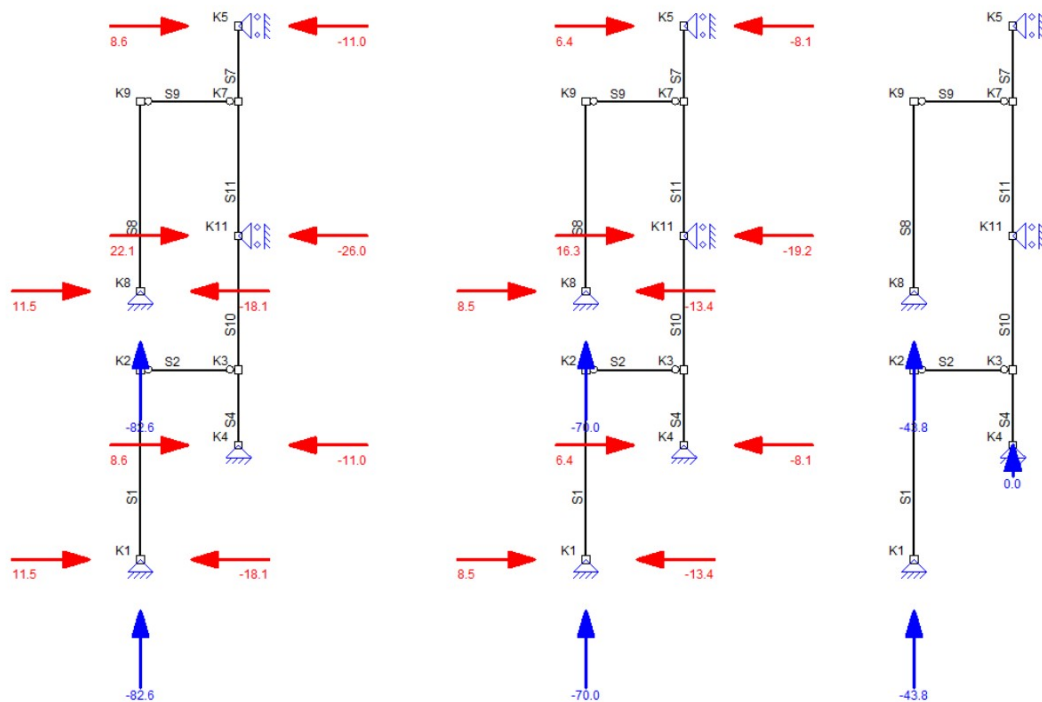
UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse

Fu.C. Omhullende Momenten (My) Fu.C. Omhullende Dwarskracht (Vz) Fu.C. Omhullende Normaalkracht (Nx)



Fu.C. Omhullende Oplegreacties Ka.C. Omhullende Oplegreacties Ka.C.(w1) Oplegreacties

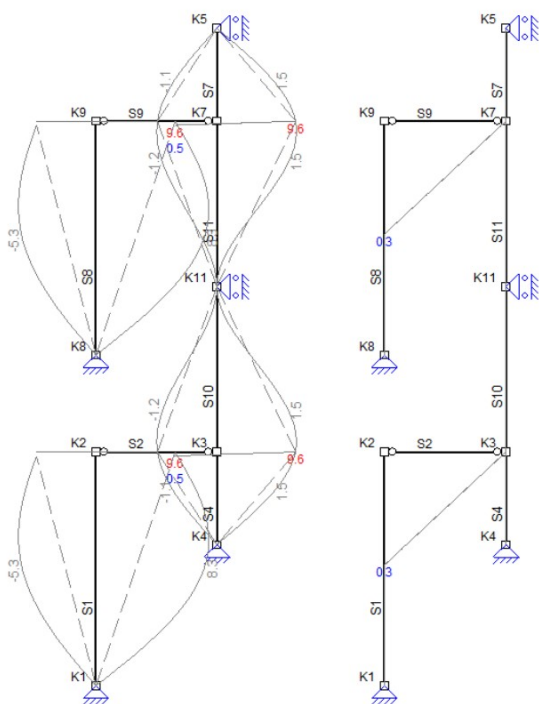


Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

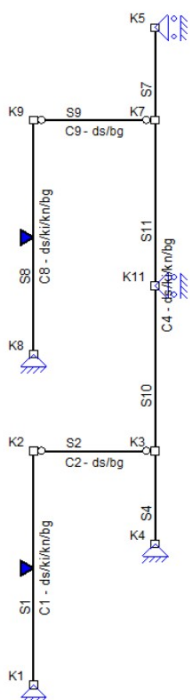
Eenheden: m, mm, kN, kNm



Ka.C. Omhullende Doorbuigingen Ka.C.(w1) Doorbuigingen



Staaldefinitie



CONSTRUCTIEDELEN

| Constructiedeel | Staaft/staven |
|-----------------|------------------|
| C1 | S1 |
| C2 | S2 |
| C4 | S4; S7; S10; S11 |
| C8 | S8 |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Constructiedeel Staaf/staven

C9 S9

INVOER GEGEVENS

KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lsys | Lokale Y-as Methode | Lbuc | Lbuc/Lsys | Lokale Z-as Methode | Lbuc | Lbuc/Lsys |
|---------------------|---------|------|------------------------|------|-----------|------------------------|------|-----------|
| C1-V1 (0.000-5.800) | P2 | 5.80 | Cons. gesch. | 5.80 | 1.0 | Cons. gesch. | 5.80 | 1.0 |
| C8-V1 (0.000-5.800) | P2 | 5.80 | Cons. gesch. | 5.80 | 1.0 | Cons. gesch. | 5.80 | 1.0 |
| | | | | m | | | m | |

KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin | Eind | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|----------------------|---------|----------|----------|------------------|------------------|----------------|
| C1-V1 (0.000-5.800) | P2 | Gesteund | Gesteund | 2.9 | | Centrum |
| C4-V1 (0.000-12.800) | P1 | Gesteund | Gesteund | | | Centrum |
| C8-V1 (0.000-5.800) | P2 | Gesteund | Gesteund | 2.9 | | Centrum |

DOORBUIGINGGEGEVENS

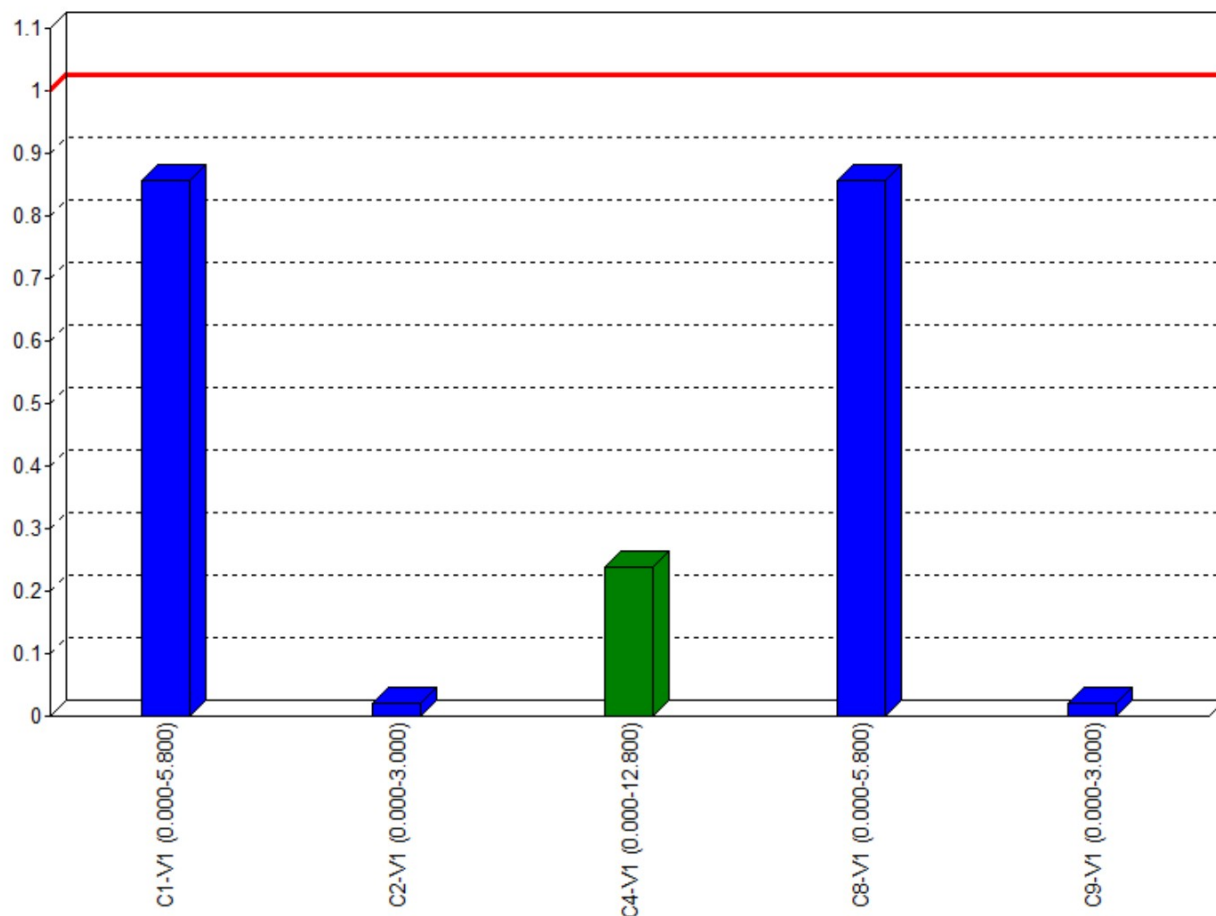
| Staaf | Constructietype | Toetsing | Zeeg Z' | Zeegvorm | w _{max} | w ₂ + w ₃ | Abs. limiet w ₂ + w ₃ |
|----------------------|-----------------|-------------|---------|-------------|------------------|---------------------------------|---|
| C1-V1 (0.000-5.800) | Kolom | Handmatig/l | 0 | Parabolisch | L/300 | L/0 | |
| C2-V1 (0.000-3.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| C4-V1 (0.000-12.800) | Kolom | Handmatig/h | 0 | Parabolisch | H/500 | Htot/500 | |
| C8-V1 (0.000-5.800) | Kolom | 1 bouwlaag | 0 | Parabolisch | H/300 | N/B | |
| C9-V1 (0.000-3.000) | Vloer | Algemeen | 0 | Parabolisch | L/250 | L/333 | |
| | | | | mm | | | mm |

Projectnummer [J]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [J]
 Constructeur [J]
 Omschrijving

Eenheden: m, mm, kN, kNm



Afb. Staal UC Diagram

**EXTREME UNITY CHECK**

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|----------------------|----------------|------------|---------------------------|-------------|
| C1-V1 (0.000-5.800) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.86 |
| C2-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |
| C4-V1 (0.000-12.800) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.24 |
| C8-V1 (0.000-5.800) | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.86 |
| C9-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |

EXTREME UC'S PER CONSTRUCTIEDEEL

| Label | Toetsing | Combinatie | Artikel | Unity Check |
|-------|----------------|------------|---------------------------|-------------|
| C1 | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.86 |
| C2 | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |
| C4 | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0.24 |
| C8 | Buiging & Druk | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0.86 |
| C9 | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0.02 |

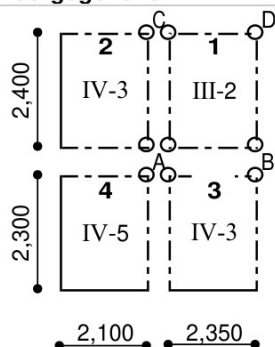
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 
 Datum: 14-12-2023
 Onder: Vloer op palen 3,5 ton

Wapeningsberekening puntvormig ondersteunde vloer

Algemene gegevens

bedrijfsruimte
 - $\gamma_G = 1,08$ ref. periode 15 jaar
 - $\gamma_Q = 1,35$

Paalgegevens



— = vrij opgelegd, star ondersteund

- - - = volledig ingeklemd, niet ondersteund

○ = puntvormige ondersteuning

| veld | tabel | l_x | l_y | l_y / l_x | afger. |
|------|-------|-------|-------|-------------|--------|
| 1 | III-2 | 2,35 | 2,40 | 1,02 | 1,0 |
| 2 | IV-3 | 2,10 | 2,40 | 1,14 | 1,2 |
| 3 | IV-3 | 2,30 | 2,35 | 1,02 | 1,0 |
| 4 | IV-5 | 2,10 | 2,30 | 1,10 | 1,0 |

Vloeroppervlakte per merk funderingspaal

| | | |
|--------|---|-------------------------------|
| Paal A | $= 0,55 * (2,10 + 2,35) * 0,55 * (2,30 + 2,40)$ | $= 5,88 \text{ [m}^2\text{]}$ |
| B | $= 2,35 * 0,55 * (2,30 + 2,40)$ | $= 5,85 \text{ [m}^2\text{]}$ |
| C | $= 2,40 * 0,55 * (2,10 + 2,35)$ | $= 5,66 \text{ [m}^2\text{]}$ |
| D | $= 2,40 * 2,35$ | $= 5,64 \text{ [m}^2\text{]}$ |

Vloergegevens

| | | | | |
|--------------------------------|----------------|------------------------------|--------------------------------------|-------------------------------------|
| palen: Beton | Vierkant | 250 x 250 | [mm ¹ x mm ¹] | |
| Variabele vloerbelasting: | q_k | 35,00 [kN/m ²] | - Relatieve vochtigheid | 50 % |
| Extra permanente belasting | g_k | 0,00 [kN/m ²] | - Moment van belasten (t0) | 28 dagen |
| - Betonvloerdikte | h | 220 [mm ¹] | | |
| Bovenzijde | | | Onderzijde | |
| - milieuklasse | | XC2 | - milieuklasse | XC2 |
| - dekking minimaal | $c_{b,min}$ | 20 [mm ¹] | - dekking min (incl. onzichtbaar) | $c_{o,min}$ = 25 [mm ¹] |
| - dekking aanwezig | $c_{b,toe}$ | 30 [mm ¹] | - dekking aanwezig | $c_{o,toe}$ = 30 [mm ¹] |
| - hoofdwapening | h_w | 8 [mm ¹] | - hoofdwapening | h_w = 9 [mm ¹] |
| - $d = h - c - h_w$ | d_b | 182 [mm ¹] | - $d = h - c - h_w$ | d_o = 181 [mm ¹] |
| - breedte t.b.v. wapeningsber. | b_b | 1000 [mm ¹] | - breedte t.b.v. wapeningsber. | b_o = 1000 [mm ¹] |
| - standaard wapening | net rond | 8 - 100 | - standaard wapening | net rond = 9 - 150 |
| - scheurwijdte min. | | = 0,30 | - scheurwijdte min. | = 0,30 |
| - scheurwijdte toelaatbaar | | = 0,45 | - scheurwijdte toelaatbaar | = 0,36 |
| - betonkwaliteit C30/37 | f_{cd} | 20,00 [N/mm ²] | f_{ctd} | 1,35 [N/mm ²] |
| | E_c | 32800 [N/mm ²] | f_{ctm} | 2,90 [N/mm ²] |
| - staalkwaliteit B500 | f_{yd} | 435 [N/mm ²] | f_{yk} | 500 [N/mm ²] |
| | E_s | 2,0E+05 [N/mm ²] | oppervlakstaal geribd | |
| - wapeningspercentages | ρ_{max} | = 1,54 [%] | ρ_{min1} | = 0,15 [%] |
| - kruipfactor | $\phi(t, t_0)$ | = 2,08 | | |

Q-belastingen t.p.v. opleggingen

| | | |
|-----------------|--|------------------------------|
| - $Q_{rep;opl}$ | $= (1,00 * 0,22 * 25,00) + (1,00 * 35,00)$ | = 40,50 [kN/m ²] |
| - $Q_{Ed;opl}$ | $= (1,08 * 1,00 * 0,22 * 25,00) + (1,35 * 1,00 * 35,00)$ | = 53,19 [kN/m ²] |

Q-belastingen t.p.v. velden

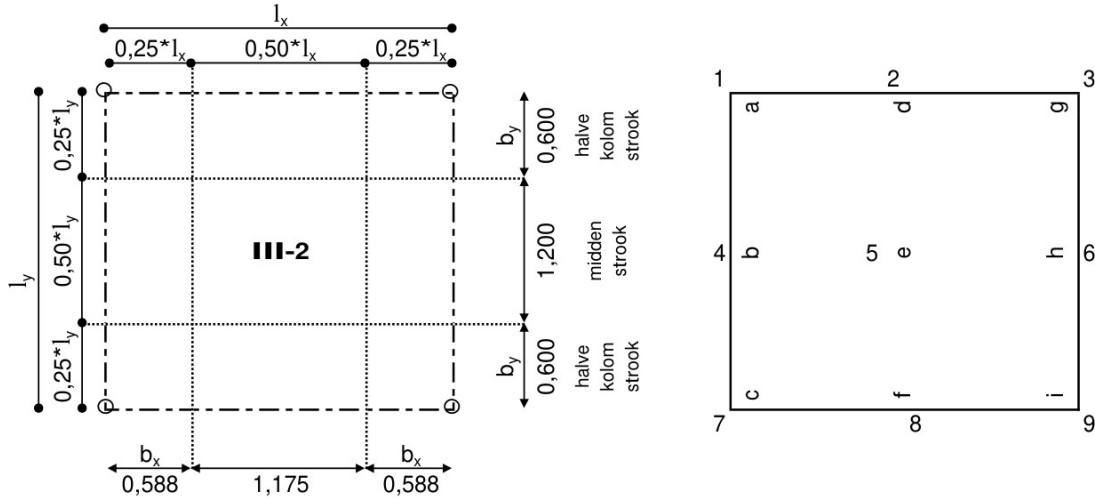
| | | |
|-------------------|--|------------------------------|
| - $Q_{rep;veld1}$ | $= (1,00 * 0,22 * 25,00) + (1,00 * 35,00 / 2)$ | = 23,00 [kN/m ²] |
| - $Q_{Ed;veld1}$ | $= (1,08 * 1,00 * 0,22 * 25,00) + (1,35 * 1,00 * 35,00 / 2)$ | = 29,57 [kN/m ²] |
| - $Q_{rep;veld2}$ | $= (1,00 * 35,00 / 2)$ | = 17,50 [kN/m ²] |
| - $Q_{Ed;veld2}$ | $= (1,35 * 1,00 * 35,00 / 2)$ | = 23,63 [kN/m ²] |

Paalbelastingen / controle pons

| | | | | |
|---------------|---------------|------------------------|---------------|---------------|
| - Paal merk : | A | B | C | D |
| - V_{rep} | = 237,94 [kN] | 237,08 [kN] | 229,25 [kN] | 228,42 [kN] |
| - V_{Ed} | = 312,49 [kN] | 311,37 [kN] | 301,08 [kN] | 299,99 [kN] |
| - $V_{Rd,c}$ | = 304,90 [kN] | ponswapeningber. nodig | $V_{Rd,max.}$ | = 738,13 [kN] |

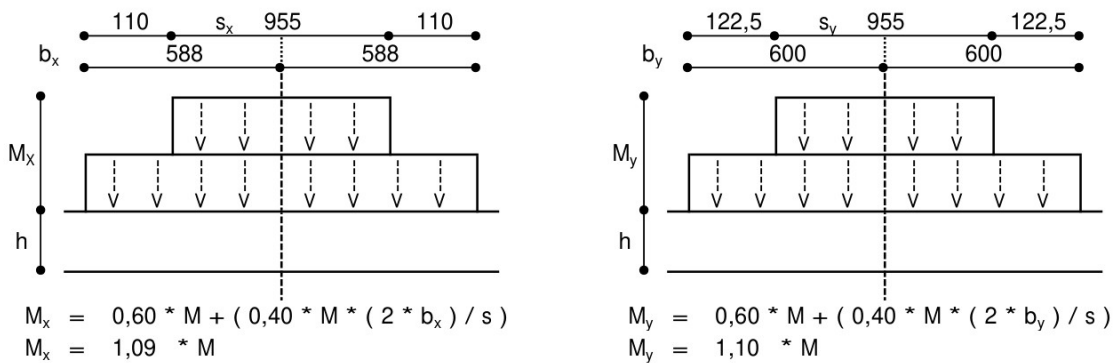
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: J
 Datum: 14-12-2023
 Onder: Vloer op palen 3,5 ton

Berekening veld 1



$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,09 * M$$

$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,10 * M$$

$$s_x > 1,4 * b_x \quad 955 > 822,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

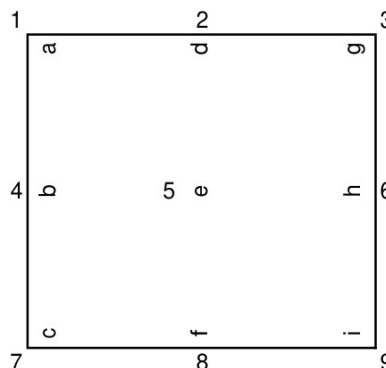
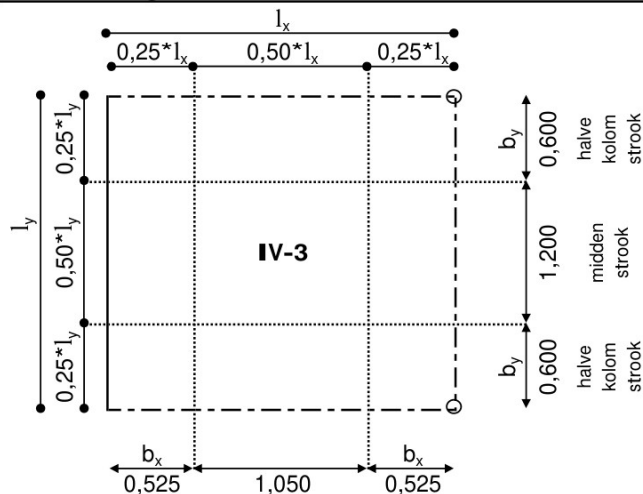
$$s_y > 1,4 * b_y \quad 955 > 840 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en III-2, steunpunten III-2

| III-2 | $m_{xx}^* = 0,001 * p_d * l_x^2 *$ | | | | | | | | | $m_{yy}^* = 0,001 * p_d * l_x^2 *$ | | | | | | | | |
|-------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| l_y / l_x | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e | f | g | h | i |
| | -132 | 54 | -132 | -40 | +34 | -40 | -132 | 54 | -132 | -132 | +54 | -132 | -40 | +34 | -40 | -132 | +54 | -132 |
| *factor | -132 | | -132 | -40 | | -40 | -132 | | -132 | -132 | | -132 | -40 | | -40 | -132 | | -132 |
| III-1 | +151 | | | +112 | | | +151 | | | +151 | | | +112 | | | +151 | | |
| M_d | -38,8 | 28,5 | -38,8 | -11,7 | 20,2 | -11,7 | -38,8 | 28,5 | -38,8 | -38,8 | 28,5 | -38,8 | -11,7 | 20,2 | -11,7 | -38,8 | 28,5 | -38,8 |
| M_{rep} | -29,5 | 21,5 | -29,5 | -8,9 | 15,1 | -8,9 | -29,5 | 21,5 | -29,5 | -29,5 | 21,5 | -29,5 | -8,9 | 15,1 | -8,9 | -29,5 | 21,5 | -29,5 |
| ρ_l | 0,261 | 0,205 | 0,261 | 0,081 | 0,144 | 0,081 | 0,261 | 0,205 | 0,261 | 0,261 | 0,205 | 0,261 | 0,081 | 0,144 | 0,081 | 0,261 | 0,205 | 0,261 |
| ρ_l toegep. | 0,261 | 0,205 | 0,261 | 0,101 | 0,151 | 0,101 | 0,261 | 0,205 | 0,261 | 0,261 | 0,205 | 0,261 | 0,101 | 0,151 | 0,101 | 0,261 | 0,205 | 0,261 |
| $A_{s,ben}$ | 476 | 371 | 476 | 222 | 332 | 222 | 476 | 371 | 476 | 476 | 371 | 476 | 222 | 332 | 222 | 476 | 371 | 476 |
| \emptyset basis | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 |
| \emptyset extra | | | | | | | | | | | | | | | | | | |
| H.o.h. | | | | | | | | | | | | | | | | | | |
| $A_{s,toe}$ | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 |
| \emptyset equ | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 |
| $S_{r,max}$ | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 |
| ω_k | 0,26 | 0,27 | 0,26 | 0,08 | 0,19 | 0,08 | 0,26 | 0,27 | 0,26 | 0,26 | 0,27 | 0,26 | 0,08 | 0,19 | 0,08 | 0,26 | 0,27 | 0,26 |

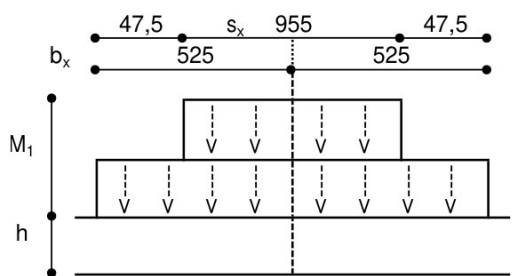
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: XXXXXXXXXX
 Datum: 14-12-2023
 Onder: Vloer op palen 3,5 ton

Berekening veld 2



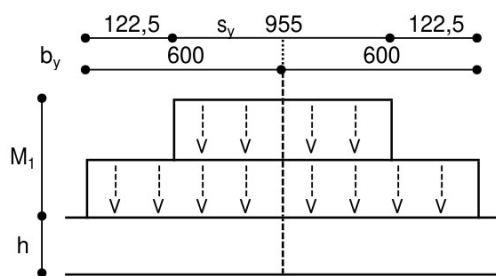
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,04 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,10 * M$$

$$s_x > 1,4 * b_x \quad 955 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

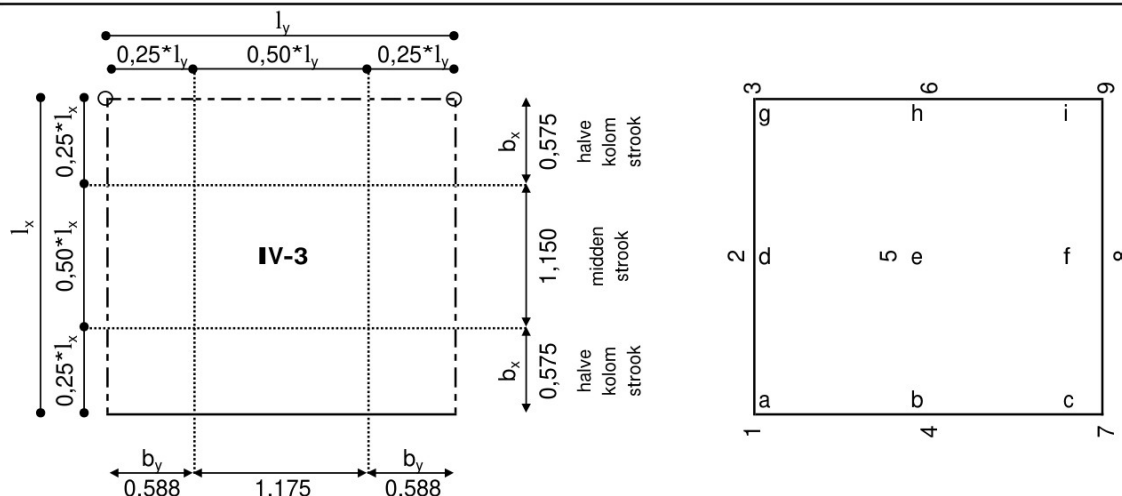
$$s_y > 1,4 * b_y \quad 955 > 840 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en IV-3, steunpunten IV-3

| IV-3 l _y / l _x | m _{xx} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | | m _{yy} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c | d | e | f | g | h | i | |
| *factor | -4 | +94 | -182 | -4 | +80 | -47 | 0 | -4 | +94 | -182 | -9 | +9 | -9 | -48 | +38 | -48 | -210 | +78 | -210 | |
| III-1 | -4 | | -182 | -4 | | -47 | 0 | -4 | | -182 | -9 | | -9 | -48 | | -48 | -210 | | -210 | |
| | | +163 | | | +107 | | | | +163 | | | 0 | | | +167 | | | +203 | | |
| M _d | -0,9 | 29,2 | -42,7 | -0,9 | 21,6 | -11,0 | 0,0 | -0,9 | 29,2 | -42,7 | -2,1 | 1,2 | -2,1 | -11,3 | 22,4 | -11,3 | -49,3 | 31,3 | -49,3 | |
| M _{rep} | -0,7 | 22,1 | -32,5 | -0,7 | 16,4 | -8,4 | 0,0 | -0,7 | 22,1 | -32,5 | -1,6 | 0,9 | -1,6 | -8,6 | 16,7 | -8,6 | -37,5 | 23,6 | -37,5 | |
| p _i | 0,007 | 0,210 | 0,287 | 0,007 | 0,154 | 0,076 | 0,000 | 0,007 | 0,210 | 0,287 | 0,015 | 0,008 | 0,015 | 0,077 | 0,160 | 0,077 | 0,330 | 0,226 | 0,330 | |
| p _i toegep. | 0,008 | 0,210 | 0,287 | 0,008 | 0,154 | 0,095 | 0,000 | 0,008 | 0,210 | 0,287 | 0,018 | 0,010 | 0,018 | 0,097 | 0,160 | 0,097 | 0,330 | 0,226 | 0,330 | |
| A _{s;ben} | 18 | 380 | 522 | 18 | 279 | 209 | 0 | 18 | 380 | 522 | 40 | 23 | 40 | 213 | 289 | 213 | 600 | 408 | 600 | |
| ø basis | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| ø extra | | | 8 | | | | | | | 8 | | | | | | | 8 | | 8 | |
| H.o.h. | | | 300 | | | | | | | 300 | | | | | | | 300 | | 300 | |
| A _{s;toe} | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 424 | 503 | 670 | 424 | 670 | |
| ø equ | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | |
| S _{r,max} | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 311 | 255 | 213 | 311 | 213 | |
| ω _k | 0,01 | 0,28 | 0,18 | 0,01 | 0,20 | 0,07 | 0,00 | 0,01 | 0,28 | 0,18 | 0,01 | 0,01 | 0,01 | 0,07 | 0,21 | 0,07 | 0,22 | 0,29 | 0,22 | |

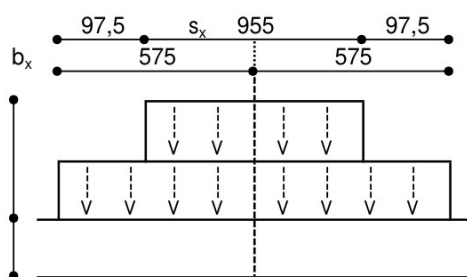
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 41798-1
 Datum: 14-12-2023
 Onder: Vloer op palen 3,5 ton

Berekening veld 3



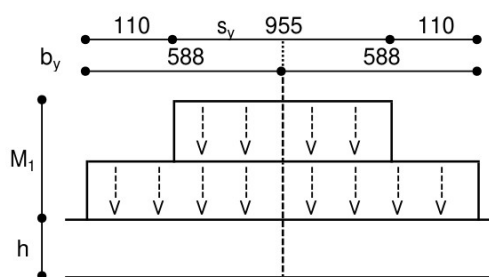
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,08 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,09 * M$$

$$s_x > 1,4 * b_x \quad 955 > 805 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

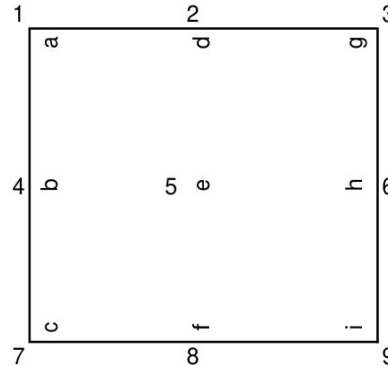
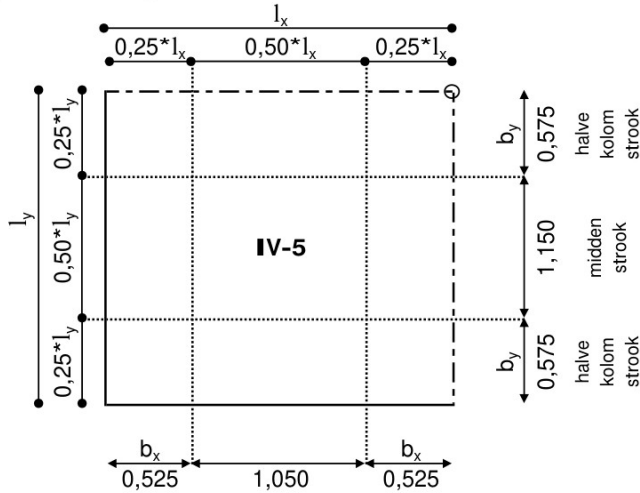
$$s_y > 1,4 * b_y \quad 955 > 822,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en IV-3, steunpunten IV-3

| IV-3 | $m_{xx}^* = 0,001 \cdot p_d \cdot l_x^2$ | | | | | | | | | | $m_{yy}^* = 0,001 \cdot p_d \cdot l_x^2$ | | | | | | | | | |
|-------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|--|
| l_y / l_x | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c | d | e | f | g | h | i | |
| | 0 | +84 | -178 | 0 | +75 | -62 | 0 | 0 | 84 | -178 | 0 | +0 | 0 | -30 | +24 | -30 | -159 | +64 | -159 | |
| *factor | 0 | | -178 | 0 | | -62 | 0 | 0 | | -178 | 0 | | 0 | -30 | | -30 | -159 | | -159 | |
| III-1 | | +151 | | | +112 | | | | +151 | | | +112 | | | +112 | | | +151 | | |
| M_d | 0,0 | 32,0 | -50,1 | 0,0 | 25,7 | -17,4 | 0,0 | 0,0 | 32,0 | -50,1 | 0,0 | 14,0 | 0,0 | -8,4 | 17,8 | -8,4 | -44,7 | 28,9 | -44,7 | |
| M_{rep} | 0,0 | 24,2 | -38,1 | 0,0 | 19,5 | -13,3 | 0,0 | 0,0 | 24,2 | -38,1 | 0,0 | 10,4 | 0,0 | -6,4 | 13,3 | -6,4 | -34,1 | 18,1 | -34,1 | |
| ρ_l | 0,000 | 0,231 | 0,335 | 0,000 | 0,184 | 0,119 | 0,000 | 0,000 | 0,231 | 0,335 | 0,000 | 0,099 | 0,000 | 0,058 | 0,126 | 0,058 | 0,300 | 0,208 | 0,300 | |
| ρ_l toegep. | 0,000 | 0,231 | 0,335 | 0,000 | 0,184 | 0,149 | 0,000 | 0,000 | 0,231 | 0,335 | 0,000 | 0,124 | 0,000 | 0,073 | 0,151 | 0,073 | 0,300 | 0,208 | 0,300 | |
| $A_{s;ben}$ | 0 | 417 | 610 | 0 | 334 | 329 | 0 | 0 | 417 | 610 | 0 | 273 | 0 | 160 | 332 | 160 | 547 | 376 | 547 | |
| \emptyset basis | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| \emptyset extra | | | 8 | | | | | | | 8 | | | | | | | 8 | | 8 | |
| H.o.h. | | | 300 | | | | | | | 300 | | | | | | | 300 | | 300 | |
| $A_{s;toe}$ | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 424 | 503 | 670 | 424 | 670 | |
| \emptyset equ | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | |
| $S_{r,max}$ | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 311 | 255 | 213 | 311 | 213 | |
| ω_k | 0,00 | 0,30 | 0,22 | 0,00 | 0,24 | 0,11 | 0,00 | 0,00 | 0,30 | 0,22 | 0,00 | 0,13 | 0,00 | 0,06 | 0,17 | 0,06 | 0,19 | 0,23 | 0,19 | |

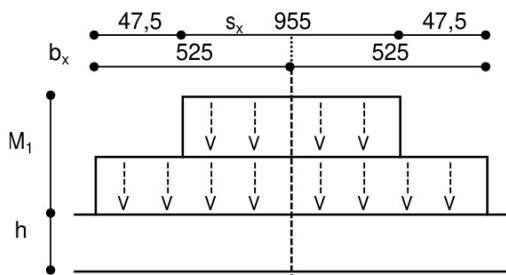
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: J
 Datum: 14-12-2023
 Onder: Vloer op palen 3,5 ton

Berekening veld 4



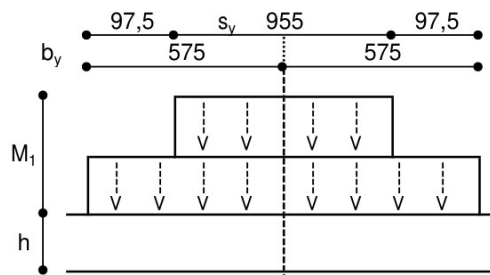
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,04 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,08 * M$$

$$s_x > 1,4 * b_x \quad 955 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

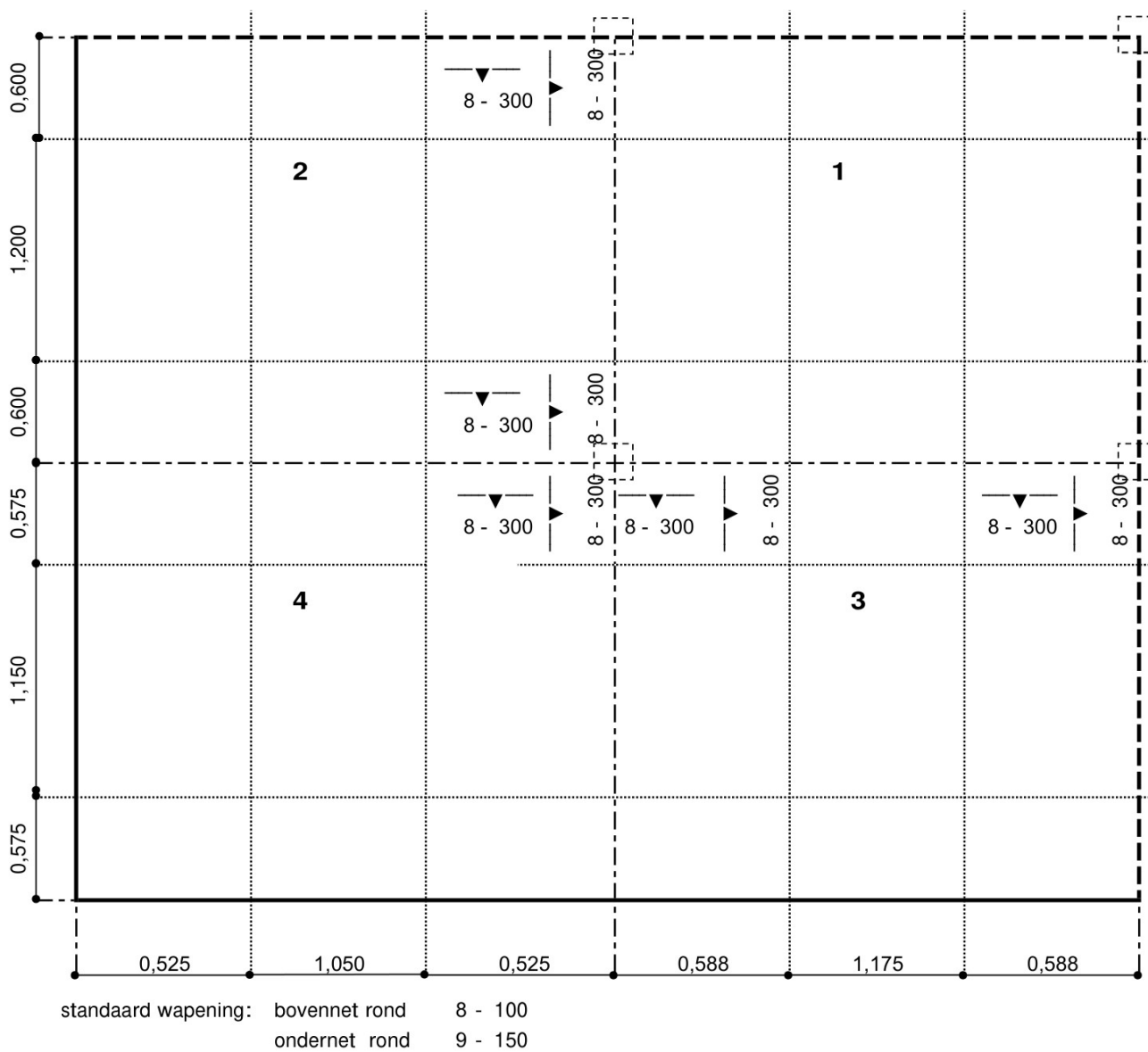
$$s_y > 1,4 * b_y \quad 955 > 805 \implies \text{geen herverdeling} \implies \text{factor} = 1$$


Berekening momenten en wapening veld III-1, IV-5, steunpunten IV-5

| IV-5 | $m_{xx}^* = 0,001 * p_d * l_x^{2*}$ | | | | | | | | | | $m_{yy}^* = 0,001 * p_d * l_x^{2*}$ | | | | | | | | | |
|-------------------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| l_y / l_x | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c(±) | d | e | f(±) | g | h | i | |
| | -1 | +86 | -190 | -21 | +56 | -34 | 0 | -56 | +61 | 0 | 0 | +61 | -56 | -34 | +56 | -21 | -190 | +86 | 0 | |
| *factor | -1 | | -190 | -21 | | | 0 | -56 | 61 | 0 | 0 | 61 | -56 | -34 | | -21 | -190 | | 0 | |
| III-1 | | +151 | | | +112 | -23 | | | | | | | | | +112 | | | +151 | | |
| M_d | -0,2 | 26,9 | -44,6 | -4,9 | 19,0 | -6,8 | 0,0 | -13,1 | 14,3 | 0,0 | 0,0 | 14,3 | -13,1 | -8,0 | 19,0 | -4,9 | -44,6 | 26,9 | 0,0 | |
| M_{rep} | -0,2 | 20,4 | -33,9 | -3,8 | 14,3 | -5,2 | 0,0 | -10,0 | 10,9 | 0,0 | 0,0 | 10,9 | -10,0 | -6,1 | 14,3 | -3,8 | -33,9 | 20,4 | 0,0 | |
| ρ_l | 0,002 | 0,193 | 0,299 | 0,034 | 0,135 | 0,047 | 0,000 | 0,090 | 0,102 | 0,000 | 0,000 | 0,102 | 0,090 | 0,055 | 0,135 | 0,034 | 0,299 | 0,193 | 0,000 | |
| ρ_l toegep. | 0,002 | 0,193 | 0,299 | 0,043 | 0,151 | 0,059 | 0,000 | 0,113 | 0,127 | 0,000 | 0,000 | 0,127 | 0,113 | 0,069 | 0,151 | 0,043 | 0,299 | 0,193 | 0,000 | |
| $A_{s;ben}$ | 4 | 350 | 545 | 94 | 332 | 130 | 0 | 248 | 279 | 0 | 0 | 279 | 248 | 151 | 332 | 94 | 545 | 350 | 0 | |
| \emptyset basis | 8 | 9 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| \emptyset extra | 8 | | | | | | | | | | 8 | | | | | | | | | |
| H.o.h. | 300 | | | | | | | | | | 300 | | | | | | | | | |
| $A_{s;toe}$ | 503 | 424 | 670 | 503 | 424 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 670 | 424 | 503 | |
| \emptyset equ | 8 | 9 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| $S_{r,max}$ | 255 | 311 | 213 | 255 | 311 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 213 | 311 | 255 | |
| ω_k | 0,00 | 0,25 | 0,19 | 0,03 | 0,18 | 0,06 | 0,00 | 0,09 | 0,14 | 0,00 | 0,00 | 0,14 | 0,09 | 0,05 | 0,18 | 0,03 | 0,19 | 0,25 | 0,00 | |

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 Projectnr.: J
 Datum: 14-12-2023
 Onder: Vloer op palen 3,5 ton

Schematische weergave van de extra wapening



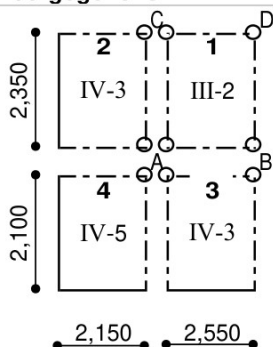
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 
 Datum: 07-12-2023
 Onder: Vloer op palen 3,5 ton as 1-5

Wapeningsberekening puntvormig ondersteunde vloer

Algemene gegevens

bedrijfsruimte
 - $\gamma_G = 1,08$ ref. periode 15 jaar
 - $\gamma_Q = 1,35$

Paalgegevens



— = vrij opgelegd, star ondersteund

- - - = volledig ingeklemd, niet ondersteund

○ = puntvormige ondersteuning

| veld | tabel | l_x | l_y | l_y / l_x | afger. |
|------|-------|-------|-------|-------------|--------|
| 1 | III-2 | 2,35 | 2,55 | 1,09 | 1,0 |
| 2 | IV-3 | 2,15 | 2,35 | 1,09 | 1,0 |
| 3 | IV-3 | 2,10 | 2,55 | 1,21 | 1,2 |
| 4 | IV-5 | 2,10 | 2,15 | 1,02 | 1,0 |

Vloeroppervlakte per merk funderingspaal

| | | |
|--------|---|-------------------------------|
| Paal A | $= 0,55 * (2,15 + 2,55) * 0,55 * (2,10 + 2,35)$ | $= 5,66 \text{ [m}^2\text{]}$ |
| B | $= 2,55 * 0,55 * (2,10 + 2,35)$ | $= 5,90 \text{ [m}^2\text{]}$ |
| C | $= 2,35 * 0,55 * (2,15 + 2,55)$ | $= 5,74 \text{ [m}^2\text{]}$ |
| D | $= 2,35 * 2,55$ | $= 5,99 \text{ [m}^2\text{]}$ |

Vloergegevens

| | | | | |
|--------------------------------|------------------|------------------------------|--------------------------------------|-------------------------------------|
| palen: Beton | Vierkant | 250 x 250 | [mm ¹ x mm ¹] | |
| Variabele vloerbelasting: | $q_k =$ | 35,00 [kN/m ²] | - Relatieve vochtigheid | 50 % |
| Extra permanente belasting | $g_k =$ | 0,00 [kN/m ²] | - Moment van belasten (t0) | 28 dagen |
| - Betonvloerdikte | $h =$ | 220 [mm ¹] | | |
| Bovenzijde | | | Onderzijde | |
| - milieuklasse | | XC2 | - milieuklasse | XC2 |
| - dekking minimaal | $c_{b,min} =$ | 20 [mm ¹] | - dekking min (incl. onzichtbaar) | $c_{o,min} =$ 25 [mm ¹] |
| - dekking aanwezig | $c_{b,toe} =$ | 30 [mm ¹] | - dekking aanwezig | $c_{o,toe} =$ 30 [mm ¹] |
| - hoofdwapening | $hw =$ | 8 [mm ¹] | - hoofdwapening | $hw =$ 9 [mm ¹] |
| - $d = h - c - hw$ | $d_b =$ | 182 [mm ¹] | - $d = h - c - hw$ | $d_o =$ 181 [mm ¹] |
| - breedte t.b.v. wapeningsber. | $b_b =$ | 1000 [mm ¹] | - breedte t.b.v. wapeningsber. | $b_o =$ 1000 [mm ¹] |
| - standaard wapening | net rond | 8 - 100 | - standaard wapening | net rond = 9 - 150 |
| - scheurwijdte min. | | = 0,30 | - scheurwijdte min. | = 0,30 |
| - scheurwijdte toelaatbaar | | = 0,45 | - scheurwijdte toelaatbaar | = 0,36 |
| - betonkwaliteit C30/37 | $f_{cd} =$ | 20,00 [N/mm ²] | $f_{ctd} =$ | 1,35 [N/mm ²] |
| | $E_c =$ | 32800 [N/mm ²] | $f_{ctm} =$ | 2,90 [N/mm ²] |
| - staalkwaliteit B500 | $f_{yd} =$ | 435 [N/mm ²] | $f_{yk} =$ | 500 [N/mm ²] |
| | $E_s =$ | 2,0E+05 [N/mm ²] | oppervlakstaal geribd | |
| - wapeningspercentages | $\rho_{max} =$ | 1,54 [%] | $\rho_{min1} =$ | 0,15 [%] |
| - kruipfactor | $\phi(t, t_0) =$ | 2,08 | | |

Q-belastingen t.p.v. opleggingen


| | |
|---|-----------------------------------|
| - $Q_{rep;opl} = (1,00 * 0,22 * 25,00) + (1,00 * 35,00)$ | $= 40,50 \text{ [kN/m}^2\text{]}$ |
| - $Q_{Ed;opl} = (1,08 * 1,00 * 0,22 * 25,00) + (1,35 * 1,00 * 35,00)$ | $= 53,19 \text{ [kN/m}^2\text{]}$ |

Q-belastingen t.p.v. velden

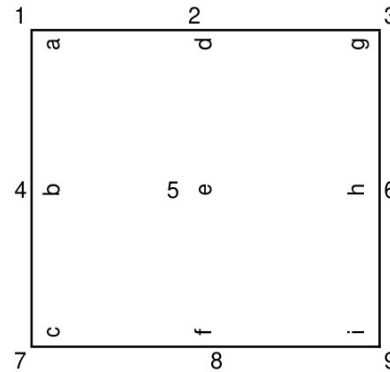
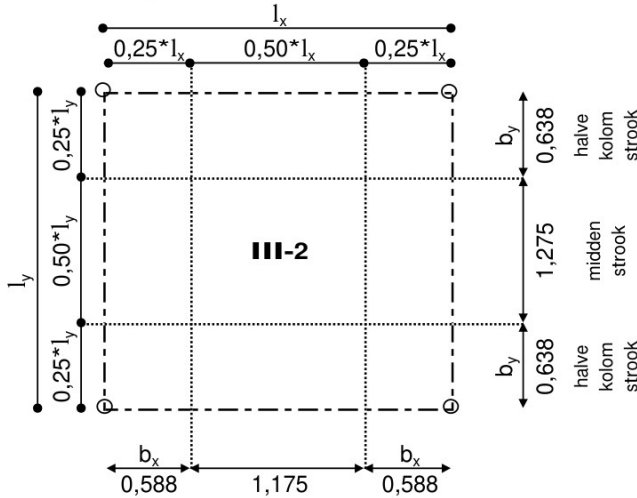
| | |
|---|-----------------------------------|
| - $Q_{rep;veld1} = (1,00 * 0,22 * 25,00) + (1,00 * 35,00 / 2)$ | $= 23,00 \text{ [kN/m}^2\text{]}$ |
| - $Q_{Ed;veld1} = (1,08 * 1,00 * 0,22 * 25,00) + (1,35 * 1,00 * 35,00 / 2)$ | $= 29,57 \text{ [kN/m}^2\text{]}$ |
| - $Q_{rep;veld2} = (1,00 * 35,00 / 2)$ | $= 17,50 \text{ [kN/m}^2\text{]}$ |
| - $Q_{Ed;veld2} = (1,35 * 1,00 * 35,00 / 2)$ | $= 23,63 \text{ [kN/m}^2\text{]}$ |

Paalbelastingen / controle pons

| | | | | |
|----------------|-------------|-------------------------|-------------|-------------------------------------|
| - Paal merk : | A | B | C | D |
| - $V_{rep} =$ | 229,04 [kN] | 238,98 [kN] | 232,61 [kN] | 242,70 [kN] |
| - $V_{Ed} =$ | 300,81 [kN] | 313,86 [kN] | 305,49 [kN] | 318,74 [kN] |
| - $V_{Rd,c} =$ | 304,90 [kN] | ponswapeningsber. nodig | | $V_{Rd,max.} = 738,13 \text{ [kN]}$ |

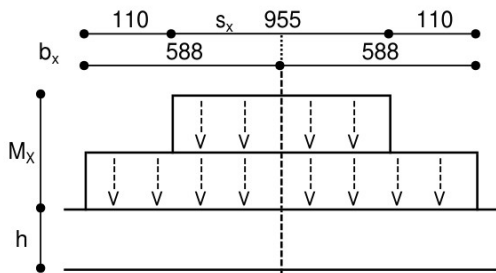
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 
 Datum: 07-12-2023
 Onder: Vloer op palen 3,5 ton as 1-5

Berekening veld 1



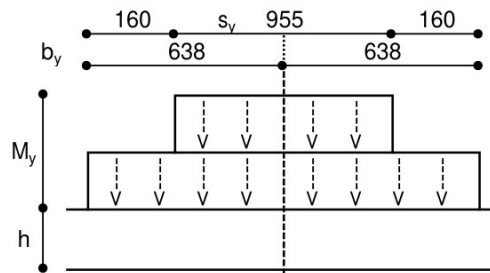
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,09 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,13 * M$$

$$s_x > 1,4 * b_x \quad 955 > 822,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

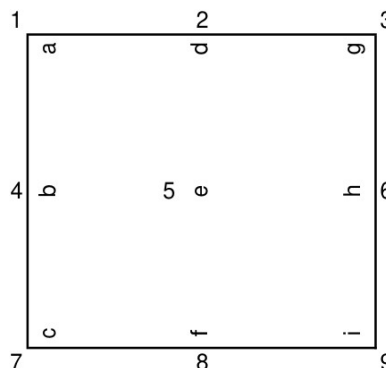
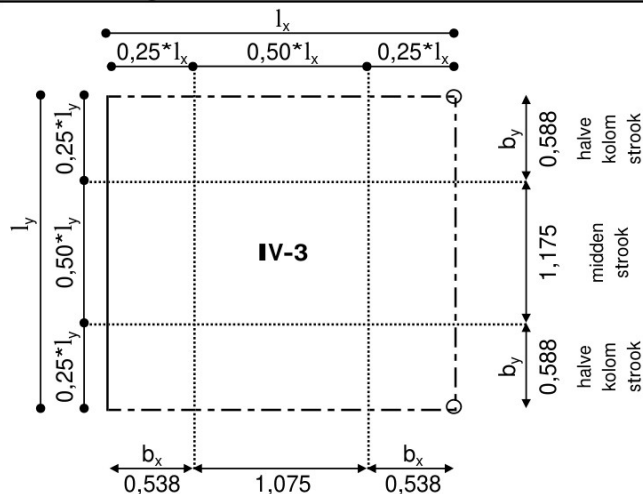
$$s_y > 1,4 * b_y \quad 955 > 892,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en III-2, steunpunten III-2

| III-2 | $m_{xx}^* = 0,001 * p_d * l_x^2 *$ | | | | | | | | | $m_{yy}^* = 0,001 * p_d * l_x^2 *$ | | | | | | | | |
|-------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e | f | g | h | i |
| | -132 | 54 | -132 | -40 | +34 | -40 | -132 | 54 | -132 | -132 | +54 | -132 | -40 | +34 | -40 | -132 | +54 | -132 |
| *factor | -132 | | -132 | -40 | | -40 | -132 | | -132 | -132 | | -132 | -40 | | -40 | -132 | | -132 |
| III-1 | +151 | | | +112 | | | +151 | | | +151 | | | +112 | | | +151 | | |
| M_d | -38,8 | 28,5 | -38,8 | -11,7 | 20,2 | -11,7 | -38,8 | 28,5 | -38,8 | -38,8 | 28,5 | -38,8 | -11,7 | 20,2 | -11,7 | -38,8 | 28,5 | -38,8 |
| M_{rep} | -29,5 | 21,5 | -29,5 | -8,9 | 15,1 | -8,9 | -29,5 | 21,5 | -29,5 | -29,5 | 21,5 | -29,5 | -8,9 | 15,1 | -8,9 | -29,5 | 21,5 | -29,5 |
| ρ_l | 0,261 | 0,205 | 0,261 | 0,081 | 0,144 | 0,081 | 0,261 | 0,205 | 0,261 | 0,261 | 0,205 | 0,261 | 0,081 | 0,144 | 0,081 | 0,261 | 0,205 | 0,261 |
| ρ_l toegep. | 0,261 | 0,205 | 0,261 | 0,101 | 0,151 | 0,101 | 0,261 | 0,205 | 0,261 | 0,261 | 0,205 | 0,261 | 0,101 | 0,151 | 0,101 | 0,261 | 0,205 | 0,261 |
| $A_{s,ben}$ | 476 | 371 | 476 | 222 | 332 | 222 | 476 | 371 | 476 | 476 | 371 | 476 | 222 | 332 | 222 | 476 | 371 | 476 |
| \emptyset basis | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 |
| \emptyset extra | | | | | | | | | | | | | | | | | | |
| H.o.h. | | | | | | | | | | | | | | | | | | |
| $A_{s,toe}$ | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 |
| \emptyset equ | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 |
| $S_{r,max}$ | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 |
| ω_k | 0,26 | 0,27 | 0,26 | 0,08 | 0,19 | 0,08 | 0,26 | 0,27 | 0,26 | 0,26 | 0,27 | 0,26 | 0,08 | 0,19 | 0,08 | 0,26 | 0,27 | 0,26 |

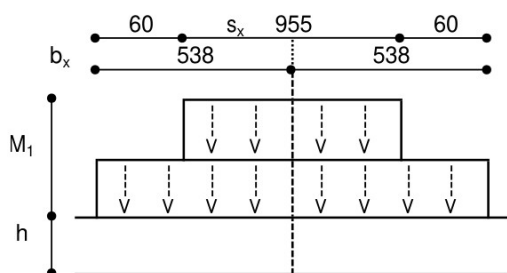
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: J
 Datum: 07-12-2023
 Onder: Vloer op palen 3,5 ton as 1-5

Berekening veld 2



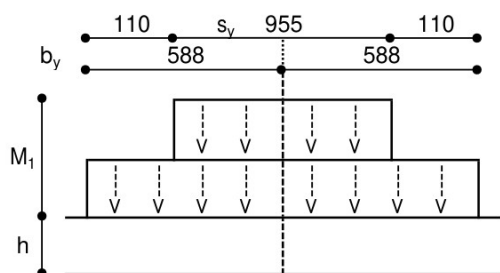
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,05 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$


$$M_y = 1,09 * M$$

$$s_x > 1,4 * b_x \quad 955 > 752,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

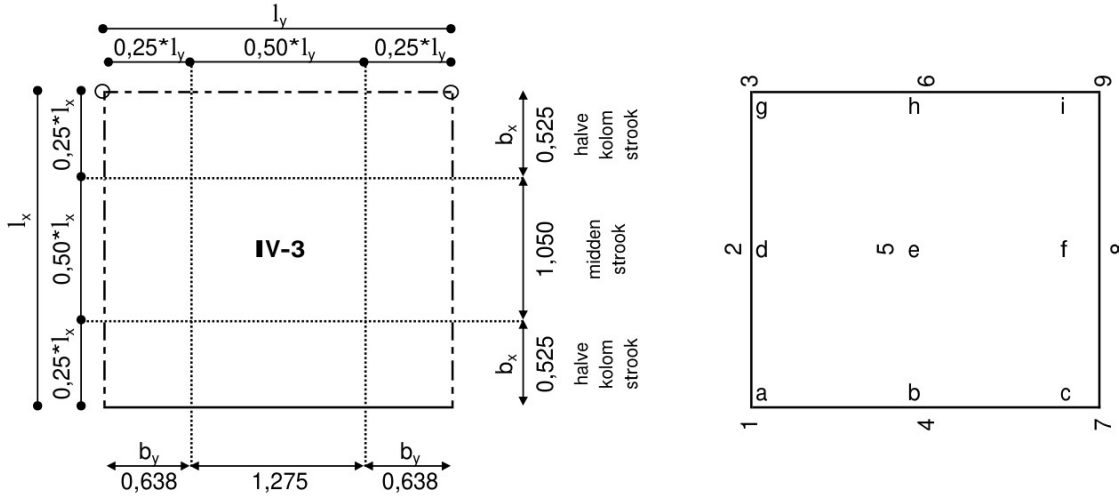
$$s_y > 1,4 * b_y \quad 955 > 822,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en IV-3, steunpunten IV-3

| IV-3 | $m_{xx}^* = 0,001 \cdot p_d \cdot l_x^{2*}$ | | | | | | | | | | $m_{yy}^* = 0,001 \cdot p_d \cdot l_x^{2*}$ | | | | | | | | | |
|---------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|--|
| l_y / l_x | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c | d | e | f | g | h | i | |
| *factor | 0 | +84 | -178 | 0 | +75 | -62 | 0 | 0 | 84 | -178 | 0 | +0 | 0 | -30 | +24 | -30 | -159 | +64 | -159 | |
| III-1 | 0 | | -178 | 0 | | -62 | 0 | 0 | | -178 | 0 | | 0 | -30 | | -30 | -159 | | -159 | |
| | | +151 | | | +112 | | | | +151 | | | 0 | | | +112 | | | +151 | | |
| M_d | 0,0 | 28,0 | -43,8 | 0,0 | 22,5 | -15,2 | 0,0 | 0,0 | 28,0 | -43,8 | 0,0 | 0,0 | 0,0 | -7,4 | 15,5 | -7,4 | -39,1 | 25,2 | -39,1 | |
| M_{rep} | 0,0 | 21,1 | -33,3 | 0,0 | 17,0 | -11,6 | 0,0 | 0,0 | 21,1 | -33,3 | 0,0 | 0,0 | 0,0 | -5,6 | 11,6 | -5,6 | -29,8 | 19,0 | -29,8 | |
| p_i | 0,000 | 0,201 | 0,294 | 0,000 | 0,161 | 0,105 | 0,000 | 0,000 | 0,201 | 0,294 | 0,000 | 0,000 | 0,000 | 0,051 | 0,110 | 0,051 | 0,263 | 0,181 | 0,263 | |
| p_i toegep. | 0,000 | 0,201 | 0,294 | 0,000 | 0,161 | 0,131 | 0,000 | 0,000 | 0,201 | 0,294 | 0,000 | 0,000 | 0,000 | 0,064 | 0,138 | 0,064 | 0,263 | 0,181 | 0,263 | |
| $A_{s;ben}$ | 0 | 363 | 535 | 0 | 291 | 288 | 0 | 0 | 363 | 535 | 0 | 0 | 0 | 140 | 303 | 140 | 480 | 327 | 480 | |
| \varnothing basis | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| \varnothing extra | 8 | | | | | | | | | | 8 | | | | | | | | | |
| H.o.h. | 300 | | | | | | | | | | 300 | | | | | | | | | |
| $A_{s;toe}$ | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | |
| \varnothing equ | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | |
| $S_{r,max}$ | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | |
| ω_k | 0,00 | 0,26 | 0,18 | 0,00 | 0,21 | 0,10 | 0,00 | 0,00 | 0,26 | 0,18 | 0,00 | 0,00 | 0,00 | 0,05 | 0,14 | 0,05 | 0,26 | 0,24 | 0,26 | |

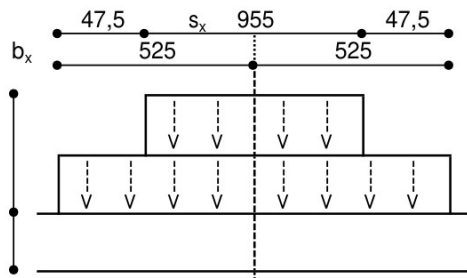
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 
 Datum: 07-12-2023
 Onder: Vloer op palen 3,5 ton as 1-5

Berekening veld 3



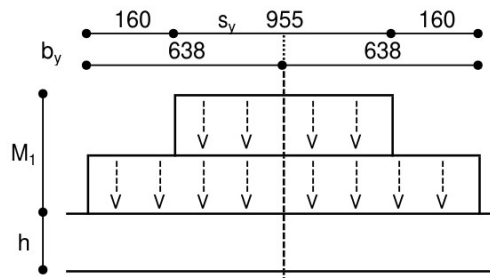
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,04 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,13 * M$$

$$s_x > 1,4 * b_x \quad 955 > 735 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

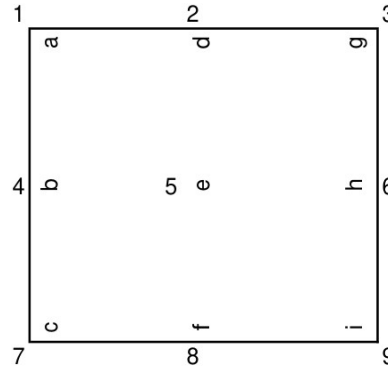
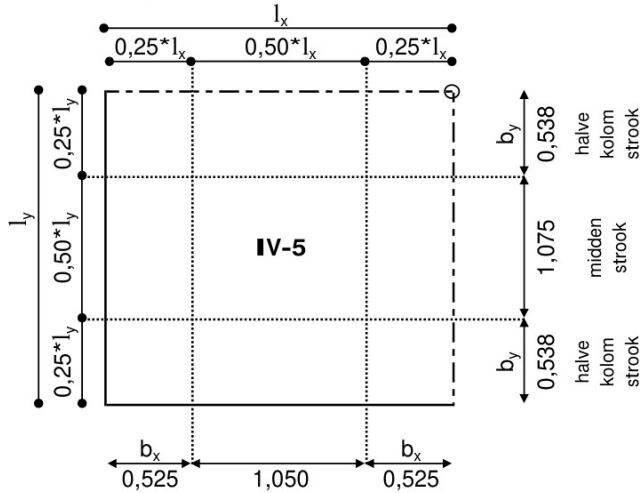
$$s_y > 1,4 * b_y \quad 955 > 892,5 \Rightarrow \text{geen herverdeling} \Rightarrow \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en IV-3, steunpunten IV-3

| IV-3 l _y / l _x | m _{xx} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | | m _{yy} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c | d | e | f | g | h | i | |
| | -4 | +94 | -182 | -4 | +80 | -47 | 0 | -4 | +94 | -182 | -9 | +9 | -9 | -48 | +38 | -48 | -210 | +78 | -210 | |
| *factor | -4 | | -182 | -4 | | -47 | 0 | -4 | | -182 | -9 | | -9 | -48 | | -48 | -210 | | -210 | |
| III-1 | +163 | | | +107 | | | | +163 | | | +167 | | | +167 | | | +203 | | | |
| M _d | -0,9 | 29,2 | -42,7 | -0,9 | 21,6 | -11,0 | 0,0 | -0,9 | 29,2 | -42,7 | -2,1 | 18,6 | -2,1 | -11,3 | 22,4 | -11,3 | -49,3 | 31,3 | -49,3 | |
| M _{rep} | -0,7 | 22,1 | -32,5 | -0,7 | 16,4 | -8,4 | 0,0 | -0,7 | 22,1 | -32,5 | -1,6 | 13,8 | -1,6 | -8,6 | 16,7 | -8,6 | -37,5 | 24,7 | -37,5 | |
| ρ _l | 0,007 | 0,210 | 0,287 | 0,007 | 0,154 | 0,076 | 0,000 | 0,007 | 0,210 | 0,287 | 0,015 | 0,132 | 0,015 | 0,077 | 0,160 | 0,077 | 0,330 | 0,226 | 0,330 | |
| ρ _l toegep. | 0,008 | 0,210 | 0,287 | 0,008 | 0,154 | 0,095 | 0,000 | 0,008 | 0,210 | 0,287 | 0,018 | 0,151 | 0,018 | 0,097 | 0,160 | 0,097 | 0,330 | 0,226 | 0,330 | |
| A _{s;ben} | 18 | 380 | 522 | 18 | 279 | 209 | 0 | 18 | 380 | 522 | 40 | 332 | 40 | 213 | 289 | 213 | 600 | 408 | 600 | |
| Ø basis | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| Ø extra | 8 | | | | | | | 8 | | | | | | | | | 8 | | | |
| H.o.h. | 300 | | | | | | | 300 | | | | | | | | | 300 | | | |
| A _{s;toe} | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 503 | 424 | 670 | 503 | 424 | 503 | 503 | 424 | 503 | 670 | 424 | 670 | |
| Ø equ | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | 8,00 | 9,00 | 8,00 | |
| S _{r,max} | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 255 | 311 | 213 | 255 | 311 | 255 | 255 | 311 | 255 | 213 | 311 | 213 | |
| ω _k | 0,01 | 0,28 | 0,18 | 0,01 | 0,20 | 0,07 | 0,00 | 0,01 | 0,28 | 0,18 | 0,01 | 0,17 | 0,01 | 0,07 | 0,21 | 0,07 | 0,22 | 0,31 | 0,22 | |

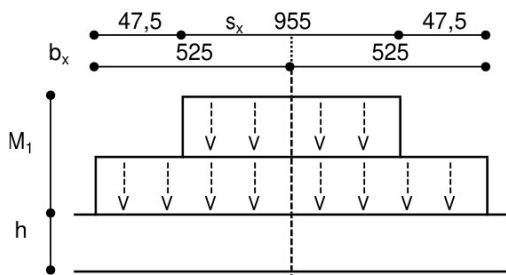
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: XXXXXXXXXX
 Datum: 07-12-2023
 Onder: Vloer op palen 3,5 ton as 1-5

Berekening veld 4



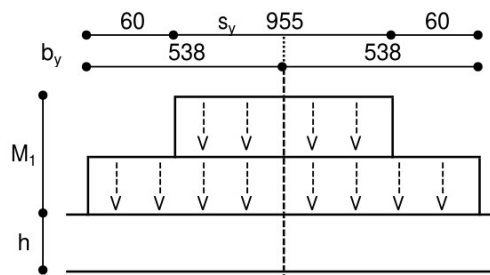
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 955 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,04 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,05 * M$$

$$s_x > 1,4 * b_x \quad 955 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

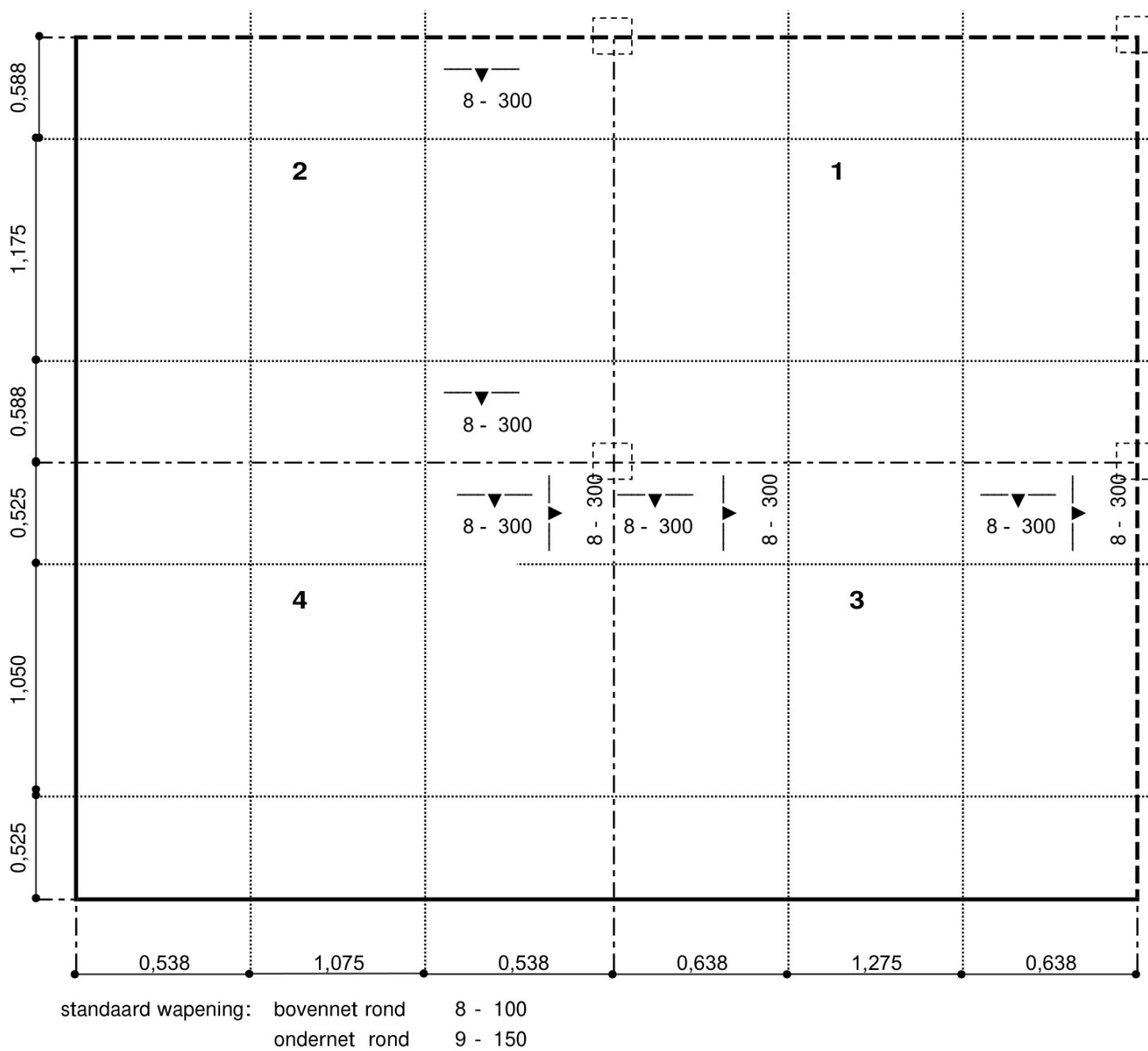
$$s_y > 1,4 * b_y \quad 955 > 752,5 \implies \text{geen herverdeling} \implies \text{factor} = 1$$


Berekening momenten en wapening veld III-1, IV-5, steunpunten IV-5

| IV-5 | $m_{xx}^* = 0,001 * p_d * l_x^{2*}$ | | | | | | | | | | $m_{yy}^* = 0,001 * p_d * l_x^{2*}$ | | | | | | | | | |
|-------------------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| l_y / l_x | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c(±) | d | e | f(±) | g | h | i | |
| | -1 | +86 | -190 | -21 | +56 | -34 | 0 | -56 | +61 | 0 | 0 | +61 | -56 | -34 | +56 | -21 | -190 | +86 | 0 | |
| *factor | -1 | | -190 | -21 | | | 0 | -56 | 61 | 0 | 0 | 61 | -56 | -34 | | -21 | -190 | | 0 | |
| III-1 | | +151 | | | +112 | -23 | | | | | | | | | +112 | | | +151 | | |
| M_d | -0,2 | 26,9 | -44,6 | -4,9 | 19,0 | -6,8 | 0,0 | -13,1 | 14,3 | 0,0 | 0,0 | 14,3 | -13,1 | -8,0 | 19,0 | -4,9 | -44,6 | 26,9 | 0,0 | |
| M_{rep} | -0,2 | 20,4 | -33,9 | -3,8 | 14,3 | -5,2 | 0,0 | -10,0 | 10,9 | 0,0 | 0,0 | 10,9 | -10,0 | -6,1 | 14,3 | -3,8 | -33,9 | 20,4 | 0,0 | |
| ρ_l | 0,002 | 0,193 | 0,299 | 0,034 | 0,135 | 0,047 | 0,000 | 0,090 | 0,102 | 0,000 | 0,000 | 0,102 | 0,090 | 0,055 | 0,135 | 0,034 | 0,299 | 0,193 | 0,000 | |
| ρ_l toegep. | 0,002 | 0,193 | 0,299 | 0,043 | 0,151 | 0,059 | 0,000 | 0,113 | 0,127 | 0,000 | 0,000 | 0,127 | 0,113 | 0,069 | 0,151 | 0,043 | 0,299 | 0,193 | 0,000 | |
| $A_{s;ben}$ | 4 | 350 | 545 | 94 | 332 | 130 | 0 | 248 | 279 | 0 | 0 | 279 | 248 | 151 | 332 | 94 | 545 | 350 | 0 | |
| \emptyset basis | 8 | 9 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| \emptyset extra | 8 | | | | | | | | | | 8 | | | | | | | | | |
| H.o.h. | 300 | | | | | | | | | | 300 | | | | | | | | | |
| $A_{s;toe}$ | 503 | 424 | 670 | 503 | 424 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 503 | 424 | 503 | 670 | 424 | 503 | |
| \emptyset equ | 8 | 9 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | 8 | 9 | 8 | |
| $S_{r,max}$ | 255 | 311 | 213 | 255 | 311 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 255 | 311 | 255 | 213 | 311 | 255 | |
| ω_k | 0,00 | 0,25 | 0,19 | 0,03 | 0,18 | 0,06 | 0,00 | 0,09 | 0,14 | 0,00 | 0,00 | 0,14 | 0,09 | 0,05 | 0,18 | 0,03 | 0,19 | 0,25 | 0,00 | |

Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
Projectnr.: J
Datum: 07-12-2023
Onder: Vloer op palen 3,5 ton as 1-5

Schematische weergave van de extra wapening



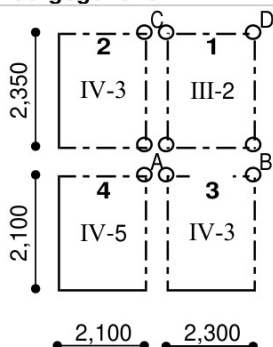
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 
 Datum: 14-12-2023
 Onder: Vloer op palen 4,5 ton

Wapeningsberekening puntvormig ondersteunde vloer

Algemene gegevens

bedrijfsruimte
 - $\gamma_G = 1,08$
 - $\gamma_Q = 1,35$
 ref. periode 15 jaar

Paalgegevens



— = vrij opgelegd, star ondersteund

- - - = volledig ingeklemd, niet ondersteund

○ = puntvormige ondersteuning

| veld | tabel | l_x | l_y | l_y / l_x | afger. |
|------|-------|-------|-------|-------------|--------|
| 1 | III-2 | 2,30 | 2,35 | 1,02 | 1,0 |
| 2 | IV-3 | 2,10 | 2,35 | 1,12 | 1,2 |
| 3 | IV-3 | 2,10 | 2,30 | 1,10 | 1,0 |
| 4 | IV-5 | 2,10 | 2,10 | 1,00 | 1,0 |

Vloeroppervlakte per merk funderingspaal

| | | |
|--------|---|-------------------------------|
| Paal A | $= 0,55 * (2,10 + 2,30) * 0,55 * (2,10 + 2,35)$ | $= 5,50 \text{ [m}^2\text{]}$ |
| B | $= 2,30 * 0,55 * (2,10 + 2,35)$ | $= 5,42 \text{ [m}^2\text{]}$ |
| C | $= 2,35 * 0,55 * (2,10 + 2,30)$ | $= 5,48 \text{ [m}^2\text{]}$ |
| D | $= 2,35 * 2,30$ | $= 5,41 \text{ [m}^2\text{]}$ |

Vloergegevens

| | | | | |
|--------------------------------|------------------|------------------------------|--------------------------------------|-------------------------------------|
| palen: Beton | Vierkant | 290 x 290 | [mm ¹ x mm ¹] | |
| Variabele vloerbelasting: | $q_k =$ | 45,00 [kN/m ²] | - Relatieve vochtigheid | 50 % |
| Extra permanente belasting | $g_k =$ | 0,00 [kN/m ²] | - Moment van belasten (t0) | 28 dagen |
| - Betonvloerdikte | $h =$ | 240 [mm ¹] | | |
| Bovenzijde | | | Onderzijde | |
| - milieuklasse | | XC2 | - milieuklasse | XC2 |
| - dekking minimaal | $c_{b,min} =$ | 20 [mm ¹] | - dekking min (incl. onzichtbaar) | $c_{o,min} =$ 25 [mm ¹] |
| - dekking aanwezig | $c_{b,toe} =$ | 30 [mm ¹] | - dekking aanwezig | $c_{o,toe} =$ 30 [mm ¹] |
| - hoofdwapening | $hw =$ | 9 [mm ¹] | - hoofdwapening | $hw =$ 10 [mm ¹] |
| - $d = h - c - hw$ | $d_b =$ | 201 [mm ¹] | - $d = h - c - hw$ | $d_o =$ 200 [mm ¹] |
| - breedte t.b.v. wapeningsber. | $b_b =$ | 1000 [mm ¹] | - breedte t.b.v. wapeningsber. | $b_o =$ 1000 [mm ¹] |
| - standaard wapening | net rond = | 9 - 100 | - standaard wapening | net rond = 10 - 150 |
| - scheurwijdte min. | = | 0,30 | - scheurwijdte min. | = 0,30 |
| - scheurwijdte toelaatbaar | = | 0,45 | - scheurwijdte toelaatbaar | = 0,36 |
| - betonkwaliteit C30/37 | $f_{cd} =$ | 20,00 [N/mm ²] | $f_{ctd} =$ | 1,35 [N/mm ²] |
| | $E_c =$ | 32800 [N/mm ²] | $f_{ctm} =$ | 2,90 [N/mm ²] |
| - staalkwaliteit B500 | $f_{yd} =$ | 435 [N/mm ²] | $f_{yk} =$ | 500 [N/mm ²] |
| | $E_s =$ | 2,1E+05 [N/mm ²] | oppervlakstaal geribd | |
| - wapeningspercentages | $\rho_{max} =$ | 1,54 [%] | $\rho_{min1} =$ | 0,15 [%] |
| - kruipfactor | $\phi(t, t_0) =$ | 2,06 | | |

Q-belastingen t.p.v. opleggingen


| | | |
|---|---|----------------------------|
| - $Q_{rep;opl} = (1,00 * 0,24 * 25,00) + (1,00 * 45,00)$ | = | 51,00 [kN/m ²] |
| - $Q_{Ed;opl} = (1,08 * 1,00 * 0,24 * 25,00) + (1,35 * 1,00 * 45,00)$ | = | 67,23 [kN/m ²] |

Q-belastingen t.p.v. velden

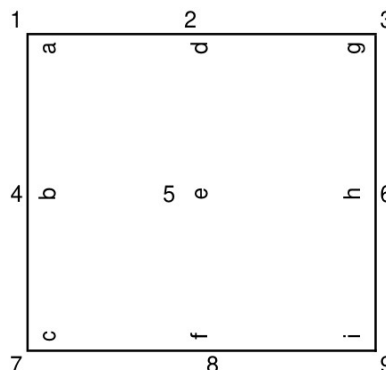
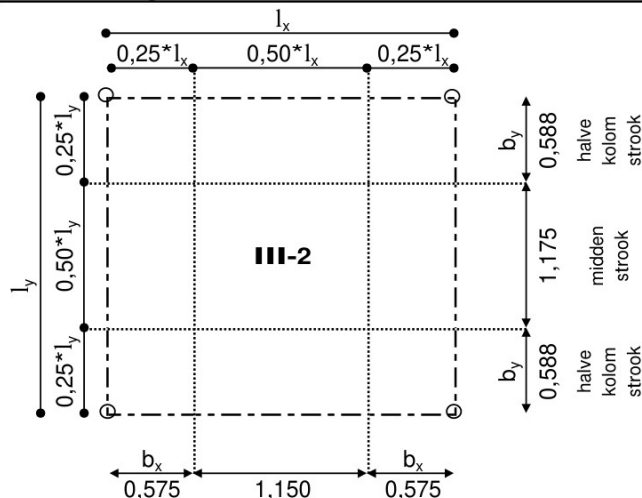
| | | |
|---|---|----------------------------|
| - $Q_{rep;veld1} = (1,00 * 0,24 * 25,00) + (1,00 * 45,00 / 2)$ | = | 28,50 [kN/m ²] |
| - $Q_{Ed;veld1} = (1,08 * 1,00 * 0,24 * 25,00) + (1,35 * 1,00 * 45,00 / 2)$ | = | 36,86 [kN/m ²] |
| - $Q_{rep;veld2} = (1,00 * 45,00 / 2)$ | = | 22,50 [kN/m ²] |
| - $Q_{Ed;veld2} = (1,35 * 1,00 * 45,00 / 2)$ | = | 30,38 [kN/m ²] |

Paalbelastingen / controle pons

| | | | | |
|----------------|-------------|------------------------|-------------|-----------------------------|
| - Paal merk : | A | B | C | D |
| - $V_{rep} =$ | 280,50 [kN] | 276,65 [kN] | 279,49 [kN] | 275,66 [kN] |
| - $V_{Ed} =$ | 369,77 [kN] | 364,69 [kN] | 368,43 [kN] | 363,38 [kN] |
| - $V_{Rd,c} =$ | 362,55 [kN] | ponswapeningber. nodig | | $V_{Rd,max.} =$ 945,22 [kN] |

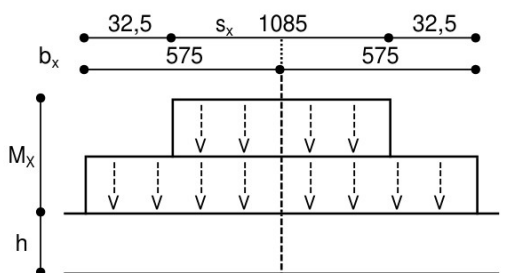
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: 
 Datum: 14-12-2023
 Onder: Vloer op palen 4,5 ton

Berekening veld 1



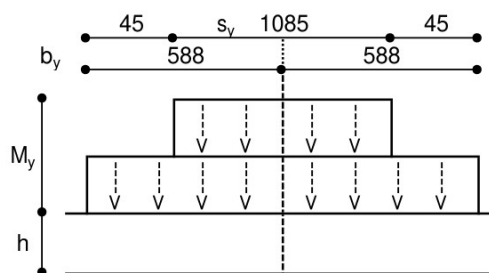
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 1085 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,02 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,03 * M$$

$$s_x > 1,4 * b_x \quad 1085 > 805 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

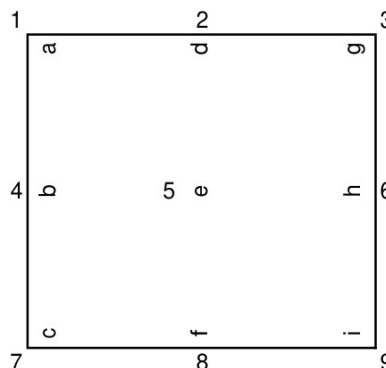
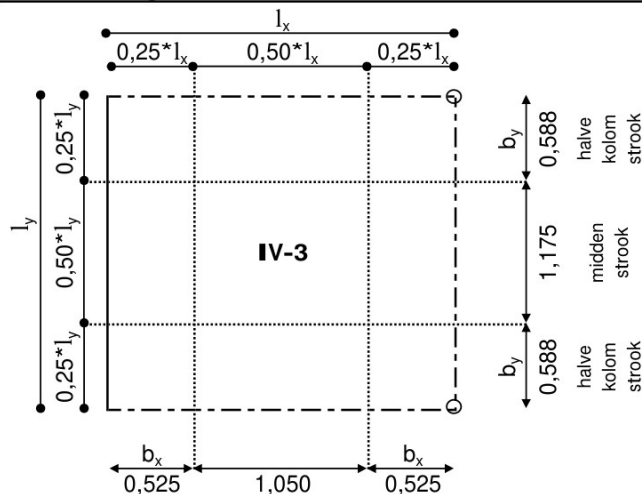
$$s_y > 1,4 * b_y \quad 1085 > 822,5 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en III-2, steunpunten III-2

| III-2 | $m_{xx}^* = 0,001 * p_d * l_x^2 *$ | | | | | | | | | $m_{yy}^* = 0,001 * p_d * l_x^2 *$ | | | | | | | | |
|-------------------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e | f | g | h | i |
| | -132 | 54 | -132 | -40 | +34 | -40 | -132 | 54 | -132 | -132 | +54 | -132 | -40 | +34 | -40 | -132 | +54 | -132 |
| *factor | -132 | | -132 | -40 | | -40 | -132 | | -132 | -132 | | -132 | -40 | | -40 | -132 | | -132 |
| III-1 | +151 | | | +112 | | | +151 | | | +151 | | | +112 | | | +151 | | |
| M_d | -46,9 | 34,8 | -46,9 | -14,2 | 24,6 | -14,2 | -46,9 | 34,8 | -46,9 | -46,9 | 34,8 | -46,9 | -14,2 | 24,6 | -14,2 | -46,9 | 34,8 | -46,9 |
| M_{rep} | -35,6 | 26,1 | -35,6 | -10,8 | 18,5 | -10,8 | -35,6 | 26,1 | -35,6 | -35,6 | 26,1 | -35,6 | -10,8 | 18,5 | -10,8 | -35,6 | 26,1 | -35,6 |
| ρ_l | 0,260 | 0,205 | 0,260 | 0,080 | 0,144 | 0,080 | 0,260 | 0,205 | 0,260 | 0,260 | 0,205 | 0,260 | 0,080 | 0,144 | 0,080 | 0,260 | 0,205 | 0,260 |
| ρ_l toegep. | 0,260 | 0,205 | 0,260 | 0,100 | 0,151 | 0,100 | 0,260 | 0,205 | 0,260 | 0,260 | 0,205 | 0,260 | 0,100 | 0,151 | 0,100 | 0,260 | 0,205 | 0,260 |
| $A_{s,ben}$ | 522 | 409 | 522 | 241 | 362 | 241 | 522 | 409 | 522 | 522 | 409 | 522 | 241 | 362 | 241 | 522 | 409 | 522 |
| \emptyset basis | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 |
| \emptyset extra | | | | | | | | | | | | | | | | | | |
| H.o.h. | | | | | | | | | | | | | | | | | | |
| $A_{s,toe}$ | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 |
| \emptyset equ | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 |
| $S_{r,max}$ | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 |
| ω_k | 0,21 | 0,23 | 0,21 | 0,07 | 0,17 | 0,07 | 0,21 | 0,23 | 0,21 | 0,21 | 0,23 | 0,21 | 0,07 | 0,17 | 0,07 | 0,21 | 0,23 | 0,21 |

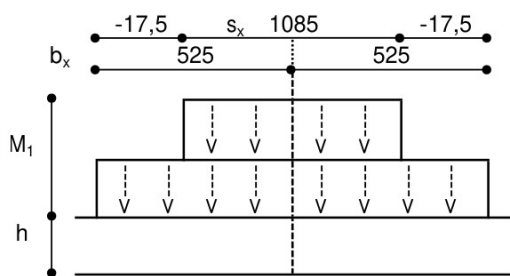
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: J
 Datum: 14-12-2023
 Onder: Vloer op palen 4,5 ton

Berekening veld 2



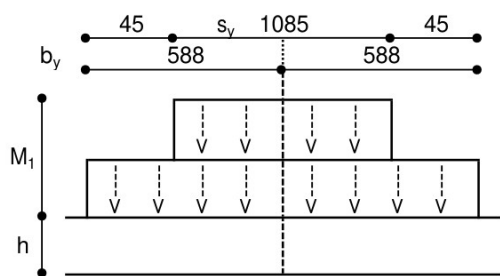
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 1085 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,00 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,03 * M$$

$$s_x > 1,4 * b_x \quad 1085 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

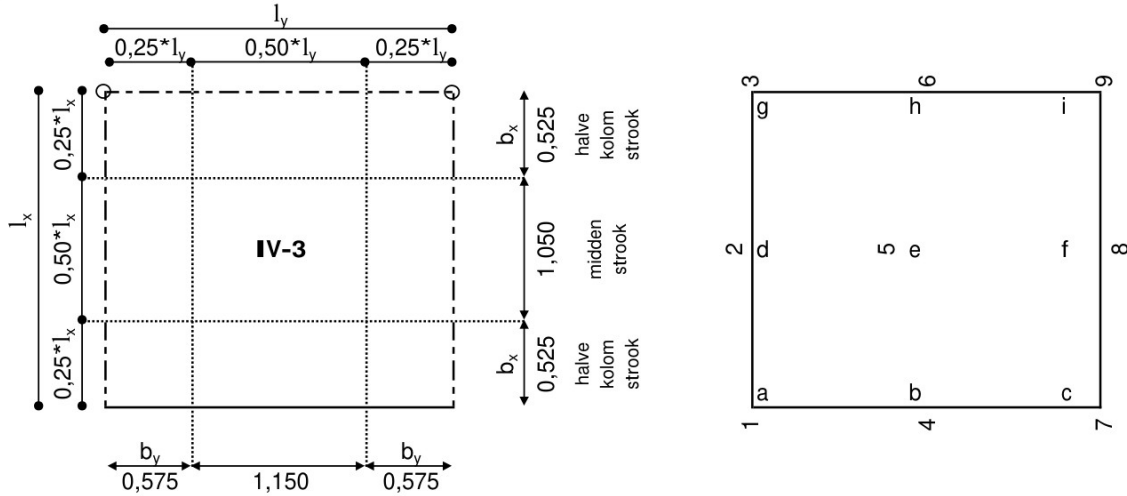
$$s_y > 1,4 * b_y \quad 1085 > 822,5 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en IV-3, steunpunten IV-3

| IV-3 l _y / l _x | m _{xx} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | | m _{yy} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | | |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|--|-----|
| | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c | d | e | f | g | h | i | | |
| *factor | -4 | +94 | -182 | -4 | +80 | -47 | 0 | -4 | +94 | -182 | -9 | +9 | -9 | -48 | +38 | -48 | -210 | +78 | -210 | | |
| III-1 | -4 | | -182 | -4 | | -47 | 0 | -4 | | -182 | -9 | | -9 | -48 | | -48 | -210 | | -210 | | |
| | | +163 | | | +107 | | | | +163 | | | 0 | | +167 | | | +203 | | | | |
| M _d | -1,2 | 37,1 | -54,0 | -1,2 | 27,3 | -13,9 | 0,0 | -1,2 | 37,1 | -54,0 | -2,7 | 1,5 | -2,7 | -14,2 | 28,5 | -14,2 | -62,3 | 39,9 | -62,3 | | |
| M _{rep} | -0,9 | 28,0 | -40,9 | -0,9 | 20,7 | -10,6 | 0,0 | -0,9 | 28,0 | -40,9 | -2,0 | 1,1 | -2,0 | -10,8 | 21,3 | -10,8 | -47,2 | 29,9 | -47,2 | | |
| p _i | 0,007 | 0,219 | 0,297 | 0,007 | 0,160 | 0,079 | 0,000 | 0,007 | 0,219 | 0,297 | 0,015 | 0,008 | 0,015 | 0,080 | 0,167 | 0,080 | 0,341 | 0,235 | 0,341 | | |
| p _i toegep. | 0,008 | 0,219 | 0,297 | 0,008 | 0,160 | 0,098 | 0,000 | 0,008 | 0,219 | 0,297 | 0,019 | 0,011 | 0,019 | 0,100 | 0,167 | 0,100 | 0,341 | 0,235 | 0,341 | | |
| A _{s;ben} | 20 | 437 | 597 | 20 | 320 | 236 | 0 | 20 | 437 | 597 | 45 | 25 | 45 | 241 | 334 | 241 | 686 | 471 | 686 | | |
| ø basis | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | | |
| ø extra | | | | | | | | | | | 8 | | | | | | | | | | 8 |
| H.o.h. | | | | | | | | | | | 300 | | | | | | | | | | 300 |
| A _{s;toe} | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 804 | 524 | 804 | | |
| ø equ | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 8,77 | 10,00 | 8,77 | | |
| S _{r,max} | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 211 | 304 | 211 | | |
| ω _k | 0,01 | 0,25 | 0,25 | 0,01 | 0,19 | 0,06 | 0,00 | 0,01 | 0,25 | 0,25 | 0,01 | 0,01 | 0,01 | 0,07 | 0,19 | 0,07 | 0,21 | 0,27 | 0,21 | | |

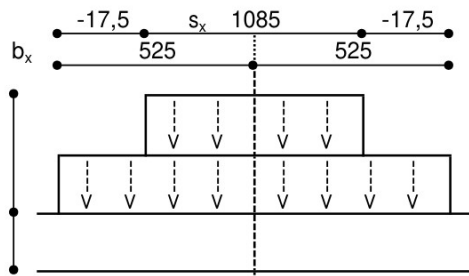
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: J
 Datum: 14-12-2023
 Onder: Vloer op palen 4,5 ton

Berekening veld 3



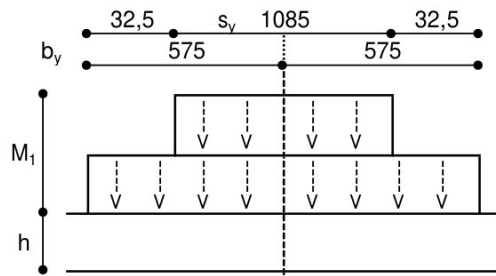
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 1085 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,00 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$

$$M_y = 1,02 * M$$

$$s_x > 1,4 * b_x \quad 1085 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

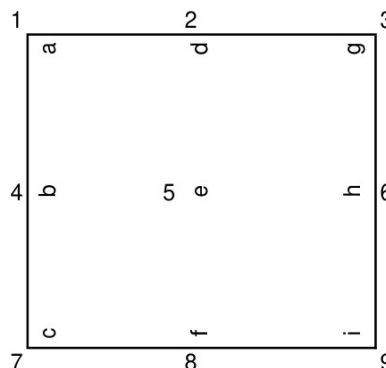
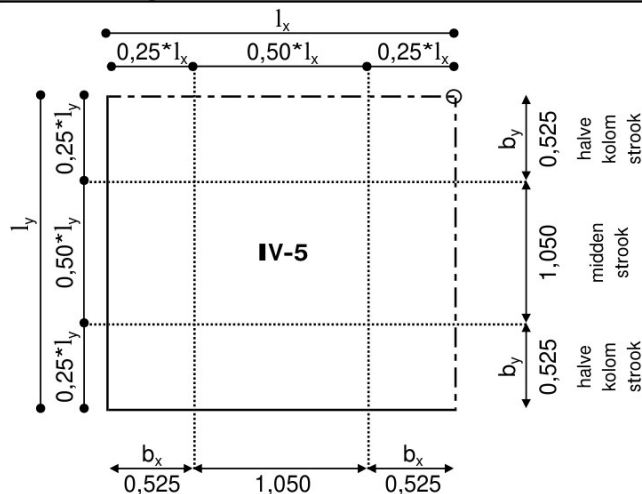
$$s_y > 1,4 * b_y \quad 1085 > 805 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

Berekening momenten en wapening veld III-1 en IV-3, steunpunten IV-3

| IV-3 l _y / l _x | m _{xx} [*] = 0,001 * p _d [*] l _x ^{2*} | | | | | | | | | | m _{yy} [*] = 0,001 * p _d [*] l _x ^{2*} | | | | | | | | | |
|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c | d | e | f | g | h | i | |
| | 0 | +84 | -178 | 0 | +75 | -62 | 0 | 0 | 84 | -178 | 0 | +0 | 0 | -30 | +24 | -30 | -159 | +64 | -159 | |
| *factor | 0 | | -178 | 0 | | -62 | 0 | 0 | | -178 | 0 | | 0 | -30 | | -30 | -159 | | -159 | |
| III-1 | | +151 | | | +112 | | | | +151 | | | +112 | | | +112 | | | +151 | | |
| M _d | 0,0 | 33,9 | -52,8 | 0,0 | 27,2 | -18,4 | 0,0 | 0,0 | 33,9 | -52,8 | 0,0 | 15,0 | 0,0 | -8,9 | 18,9 | -8,9 | -47,1 | 30,6 | -47,1 | |
| M _{rep} | 0,0 | 25,5 | -40,0 | 0,0 | 20,5 | -13,9 | 0,0 | 0,0 | 25,5 | -40,0 | 0,0 | 11,1 | 0,0 | -6,7 | 14,1 | -6,7 | -35,8 | 23,0 | -35,8 | |
| ρ _l | 0,000 | 0,199 | 0,291 | 0,000 | 0,159 | 0,103 | 0,000 | 0,000 | 0,199 | 0,291 | 0,000 | 0,087 | 0,000 | 0,050 | 0,110 | 0,050 | 0,261 | 0,180 | 0,261 | |
| ρ _l toegep. | 0,000 | 0,199 | 0,291 | 0,000 | 0,159 | 0,129 | 0,000 | 0,000 | 0,199 | 0,291 | 0,000 | 0,109 | 0,000 | 0,063 | 0,138 | 0,063 | 0,261 | 0,180 | 0,261 | |
| A _{s;ben} | 0 | 398 | 584 | 0 | 318 | 310 | 0 | 0 | 398 | 584 | 0 | 261 | 0 | 151 | 330 | 151 | 524 | 359 | 524 | |
| Ø basis | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| Ø extra | | | | | | | | | | | | | | | | | | | | |
| H.o.h. | | | | | | | | | | | | | | | | | | | | |
| A _{s;toe} | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | |
| Ø equ | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | 9,00 | 10,00 | 9,00 | |
| S _{r,max} | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | |
| ω _k | 0,00 | 0,23 | 0,24 | 0,00 | 0,18 | 0,08 | 0,00 | 0,00 | 0,23 | 0,24 | 0,00 | 0,10 | 0,00 | 0,04 | 0,13 | 0,04 | 0,22 | 0,21 | 0,22 | |

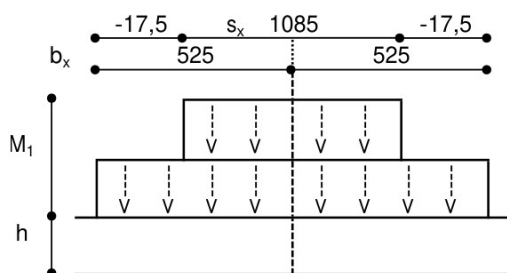
Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
 Projectnr.: XXXXXXXXXX
 Datum: 14-12-2023
 Onder: Vloer op palen 4,5 ton

Berekening veld 4



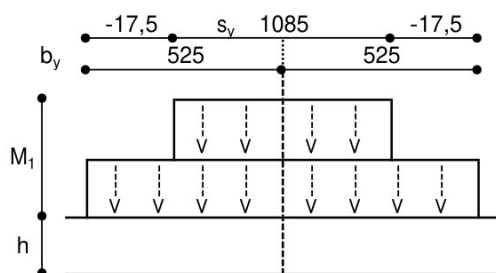
$$s = b_2 + 1,50 * b_1 + 1,50 * h = 1085 \text{ mm}$$

als s_y resp. $s_x > 0,7 * \text{breedte kolomstrook}$ hoeft geen herverdeling te worden aangebracht



$$M_x = 0,60 * M + (0,40 * M * (2 * b_x) / s)$$

$$M_x = 1,00 * M$$



$$M_y = 0,60 * M + (0,40 * M * (2 * b_y) / s)$$


$$M_y = 1,00 * M$$

$$s_x > 1,4 * b_x \quad 1085 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

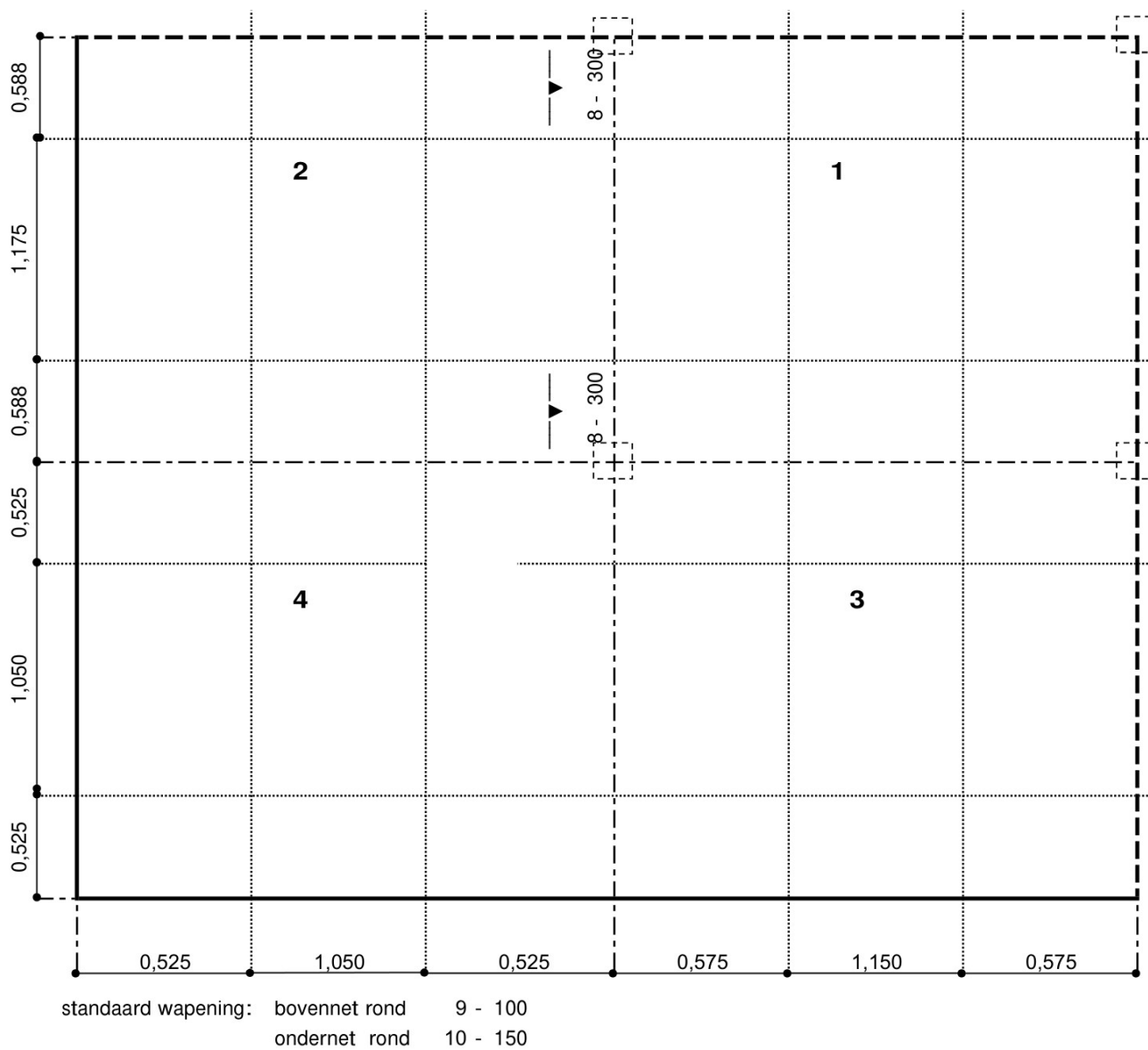
$$s_y > 1,4 * b_y \quad 1085 > 735 \implies \text{geen herverdeling} \implies \text{factor} = 1$$

Berekening momenten en wapening veld III-1, IV-5, steunpunten IV-5

| IV-5 l _y / l _x | m _{xx} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | | m _{yy} [*] = 0,001 * p _d * l _x ^{2*} | | | | | | | | | |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 1(±) | 2 | 3 | 4(±) | 5 | 6a | 6 | 7(±) | 8 | 9 | a | b | c(±) | d | e | f(±) | g | h | i | |
| *factor | -1 | +86 | -190 | -21 | +56 | -34 | | -56 | +61 | 0 | 0 | +61 | -56 | -34 | +56 | -21 | -190 | +86 | 0 | |
| III-1 | -1 | | -190 | -21 | | | 0 | -56 | 61 | 0 | 0 | 61 | -56 | -34 | | -21 | -190 | | 0 | |
| | | +151 | | | +112 | -23 | | | | | | | | | +112 | | | +151 | | |
| M _d | -0,3 | 34,2 | -56,3 | -6,2 | 24,1 | -8,6 | 0,0 | -16,6 | 18,1 | 0,0 | 0,0 | 18,1 | -16,6 | -10,1 | 24,1 | -6,2 | -56,3 | 34,2 | 0,0 | |
| M _{rep} | -0,2 | 25,8 | -42,7 | -4,7 | 18,2 | -6,6 | 0,0 | -12,6 | 13,7 | 0,0 | 0,0 | 13,7 | -12,6 | -7,6 | 18,2 | -4,7 | -42,7 | 25,8 | 0,0 | |
| p _i | 0,002 | 0,201 | 0,310 | 0,035 | 0,141 | 0,049 | 0,000 | 0,093 | 0,105 | 0,000 | 0,000 | 0,105 | 0,093 | 0,057 | 0,141 | 0,035 | 0,310 | 0,201 | 0,000 | |
| p _i toegep. | 0,002 | 0,201 | 0,310 | 0,044 | 0,151 | 0,061 | 0,000 | 0,117 | 0,131 | 0,000 | 0,000 | 0,131 | 0,117 | 0,071 | 0,151 | 0,044 | 0,310 | 0,201 | 0,000 | |
| A _{s;ben} | 5 | 402 | 623 | 106 | 362 | 146 | 0 | 280 | 316 | 0 | 0 | 316 | 280 | 171 | 362 | 106 | 623 | 402 | 0 | |
| Ø basis | 9 | 10 | 9 | 9 | 10 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | |
| H.o.h. | 100 | 150 | 100 | 100 | 150 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | 100 | 150 | 100 | |
| Ø extra | | | | | | | | | | | | | | | | | | | | |
| H.o.h. | | | | | | | | | | | | | | | | | | | | |
| A _{s;toe} | 636 | 524 | 636 | 636 | 524 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | 636 | 524 | 636 | |
| Ø equ | 9 | 10 | 9 | 9 | 10 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | 9 | 10 | 9 | |
| S _{r,max} | 248 | 304 | 248 | 248 | 304 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | 248 | 304 | 248 | |
| ω _k | 0,00 | 0,23 | 0,27 | 0,03 | 0,16 | 0,06 | 0,00 | 0,08 | 0,12 | 0,00 | 0,00 | 0,12 | 0,08 | 0,05 | 0,16 | 0,03 | 0,27 | 0,23 | 0,00 | |

Betreft: Bedrijfsloods Parlevloet Agro, Frederikaweg 2, Rilland
Projectnr.: 
Datum: 14-12-2023
Onder: Vloer op palen 4,5 ton

Schematische weergave van de extra wapening



Van Roekel, Ingenieursbureau voor Civiele Techniek
Rhenen
Gebruikslicentie COMMERCIELE-versie tot 1-5-2024



B pons EC
Versie : 7.19.14 ; NDP : NL
printdatum : 14-12-2023

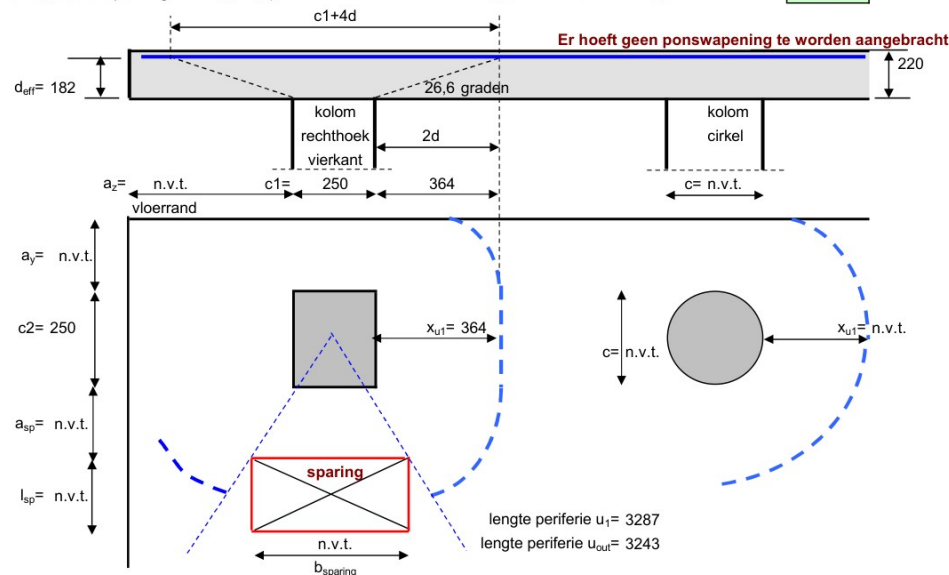
controle pons(-wapening) berekening volgens eurocode : NEN-EN 1992

middenkolom rechthoekig 250 mm x 250 mm 320 kN

| | | | |
|---|--|---|------------------------------------|
| algemene gegevens | werk | Bedrijfsloods Parlevliet Agro | |
| | werknnummer | 41798-1 | |
| | onderdeel | Pons vloerpalen 3,5 ton | |
| | ontwerpsituatie (art. 2.4.2.4) | blijvend en tijdelijk | |
| gegevens geometrie en belasting | | | |
| kwaliteit beton | betonklasse | = | C30/37 |
| kwaliteit staal | staalsoort | = | B 500 |
| soort poer | betreft deze berekening een funderingspoer op staal? | = | nee |
| vloerdikte | h | = | 220 mm |
| betondekking | Choofdwapening | = | 30 mm |
| diameter vloerwapening y-richting | d _{s,y} | ligt in de eerste laag van buiten | = 8 mm |
| diameter vloerwapening z-richting | d _{s,z} | ligt in de tweede laag van buiten | = 8 mm |
| rekenwaarde ponsbelasting | V | = | 320 kN |
| soort kolom | | middenkolom rechthoekig | |
| afmeting kolom | breedte kolom c1 (kleinste maat) | = | 250 mm |
| | lengte kolom c2 (grootste maat) | = | 250 mm |
| trekwapening in y-richting in de vloer | A _{s,y} | (6d _y = 1116 mm) | = 503 mm ² /m |
| trekwapening in z-richting in de vloer | A _{s,z} | (6d _z = 1068 mm) | = 503 mm ² /m |
| verhoging schuifsterkte t.g.v. toepassing staalvezels e.d. | | | = 0 N/mm ² |
| excentriciteit belasting en sparing in de buurt van de kolom | | | |
| excentriciteit ponskracht in y-richting | e _y =e | (in richting c2) met M _{Ed,y} = V _{Ed} *e | = 0 mm |
| excentriciteit ponskracht in z-richting | e _z = e _{par} | (in richting evenwijdig plaatrand) | = 0 mm |
| afstand zijkant kolom tot begin sparing | a _{sp} | | = 0 mm |
| lengte sparing in richting naar kolom | l _{sparing} | =L1 | = 0 mm |
| breedte sparing loodrecht daarop | b _{sparing} | =L2 | = 0 mm |
| de wijze waarop de factor b wordt berekend bij art 6.4.3 (6) | | | wijze van berekenen = nauwkeurig - |

unity-check pons zonder wapening

| | | | | | | | | | |
|--------------------------|----------------------|---|------|-----|---|------|---|------|---|
| 6.38 ponsbelasting | $bV_{Ed} / V_{Rd,s}$ | = | 1,00 | 320 | / | 324 | = | 0,99 | - |
| 6.4.3(2)b schuifspanning | $V_{Ed} / V_{Rd,c}$ | = | 0,53 | | / | 0,54 | = | 0,99 | - |



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B pons EC
Versie : 7.19.14 ; NDP : NL
printdatum : 14-12-2023

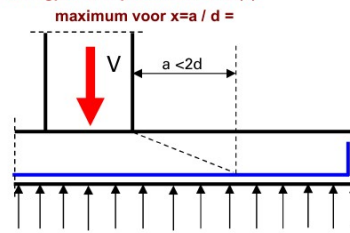
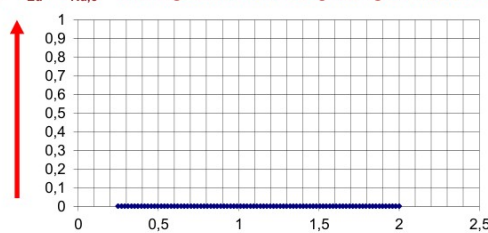
samenvatting resultaten zonder ponswapening

| | | | | |
|--------------------------------------|------------|---|------|-------------------|
| rekenwaarde ponsbelasting | V_{Ed} | = | 320 | kN |
| resulterende lengte periferie | u_1 | = | 3287 | mm |
| opneembare schuifspanning | $V_{Rd,c}$ | = | 0,54 | N/mm ² |
| opneembare belasting zonder wapening | $V_{Rd,c}$ | = | 324 | kN |

berekening ponscirkel, factor b, periferie

| | | | | |
|----------------------------------|---|---|-----|----|
| nuttige hoogte in y richting | d_y | = | 186 | mm |
| nuttige hoogte in z richting | d_z | = | 178 | mm |
| 6.32 effectieve nuttige hoogte | $d = d_{gemiddeld} = d_{eff} = (d_y + d_z) / 2$ | = | 182 | mm |
| afstand tot 1e periferie 2d of a | 2d | = | 364 | mm |

$y = V_{Ed} / V_{Rd,c}$ voor a geldt : $a < 2d$ deze grafiek geldt alleen voor funderingpoeren op staal art. 6.4.4(2)



| | | | | |
|--------------------------------------|---|-------------------------|----------|-------------------|
| in onderstaande formules geldt: | $d = d_{eff}$ | = | 182 | mm |
| middenkolom rond | $A = \frac{1}{4} p^* (c+4d)^2$ | = | 0,75 | m ² |
| middenkolom rechthoekig | $A = c_1 c_2 + \frac{1}{4} p^* (4d)^2 + 4d (c_1 + c_2)$ | = | 0,84 | m ² |
| randkolom rechthoekig | $A = (a_y + c_2)(c_1 + 4d) + 2dc_1 + 0,125 p^* (4d)^2$ | = | 0,54 | m ² |
| hoekkolom rechthoekig | $A = (a_y + c_2)(a_z + c_1 + 2d) + 2d(a_z + c_1) + \frac{1}{16} p^* (4d)^2$ | = | 0,35 | m ² |
| maatgevend oppervlak | A | = | 0,84 | m ² |
| reductie ponsbelasting | $V_{red} = A p_d$ | = | 0,0 | kN |
| 6.48 rekenwaarde ponsbelasting | $V_{Ed} = V - V_{red}$ | = | 320 | kN |
| 6.38 rekenwaarde schuifspanning pons | $V_{Ed} = b V_{Ed} / u_1 d_{eff}$ | = | 0,53 | N/mm ² |
| maatgevende correctiefactor | $b_{nauwkeurig} = 1,00$ | $b_{benadering} = 1,15$ | b = 1,00 | - |

berekening b

| | | | | |
|---|---|---|-------|----------------|
| 6.39 middenkolom rechthoekig | $b = 1 + k M_{Ed} / V_{Ed} u_1 / W_1$ | = | 1,00 | ter info |
| (nauwkeurige berekening) | k factor uit tabel 6,1 | = | 0,60 | - |
| met deze berekening wordt NIETS gedaan! | $M_{Ed,y} = V_{Ed} \cdot e_y$ | = | 0,00 | kNm |
| periferie | u_1 | = | 3,29 | m |
| 6.41 | $W_1 = c_1^2 / 2 + c_1 c_2 + 4c_2 d + 16 d^2 + 2 p d c_1$ | = | 0,807 | m ² |
| | $c_1 =$ kolomafmeting evenwijdig aan excentriciteit | = | 250 | mm |
| | $c_2 =$ kolomafmeting loodrecht op excentriciteit | = | 250 | mm |
| | c_1 / c_2 | = | 1,00 | - |

verhouding tbv tabel 6,1

benaderingsformules b

| | | | |
|---|--|------------|----------------------|
| in onderstaande formules geldt: $d = d_{eff} =$ | 182 mm | nauwkeurig | benadering |
| 6.42 middenkolom rond | $b = 1 + 0,6 p e / (D + 4d)$ | = | 1,00 1,15 |
| 6.43 middenkolom rechthoekig | $b = 1 + 1,8 \sqrt{\{ (e_y / b_z)^2 + (e_z / b_y)^2 \}}$ | = | 1,00 1,15 |
| 6.44 randkolom rechthoekig | $b = u_1 / u_{1*} + k u_1 e_{par} / W_1$ | = | 1,15 1,40 |
| 6.46 hoekkolom rechthoekig | $b = u_1 / u_{1*}$ | = | 1,30 1,50 |
| factoren om bovenstaande formules te berekenen | | | |
| diameter ronde kolom | D = c | = | 250 mm |
| excentriciteiten | e_y in richting c2 (kolomhoogte) | = | 0 mm |
| excentriciteiten | e_z in richting c1 (kolombreedte) | = | 0 mm |
| | $b_y = c_1 + 4d$ | = | 1706 mm |
| | $b_z = c_2 + 4d$ | = | 1706 mm |
| fig. 6.20 a randkolom rechthoekig | $u_{1*} = \min(3d \text{ of } c_1) + c_2 + 2 p d_{eff}$ | = | 1644 mm |
| | k | = | 0,45 - |
| | $c_1 / 2 c_2$ | = | 0,50 - |
| 6.45 | e_{par} (excentriciteit evenwijdig aan plaatrand) | = | 0 mm |
| fig. 6.20 b hoekkolom rechthoekig | $W_1 = c_2^2 / 4 + c_1 c_2 + 4c_1 d + 8 d^2 + p d c_2$ | = | 0,668 m ² |
| | $u_{1*} = \min(1,5d \text{ of } 0,5c_1) + \min(1,5d \text{ of } 0,5c_2) + p d_{eff}$ | = | 822 mm |



berekening periferie

| | | |
|---|--|-----------|
| in onderstaande formules geldt: $d=d_{eff}$ | 182 mm | |
| middenkolom rond | $u_1 = p \cdot (c+4 \cdot d_{eff})$ | = 3072 mm |
| middenkolom rechthoekig | $u_1 = 2(c_1+c_2) + 4p d_{eff}$ | = 3287 mm |
| randkolom rechthoekig | $u_1 = 2a_y+c_1+2c_2 + 2p d_{eff}$ | = 1894 mm |
| hoekkolom rechthoekig | $u_1 = a_y+a_z+c_1+c_2+p d_{eff}$ | = 1072 mm |
| lengte van de periferie | u maatgevende waarde | = 3287 mm |
| grenswaarde afstand sparing-kolom | $a_{grens} = 6 \cdot d_{eff}$ | = 1092 mm |
| effectieve breedte van de sparing | $L_{sp} = \text{als } L_2 > L_1; L_2 ; \sqrt{L_1 \cdot L_2}$ | = 0 mm |
| reductie ivm sparingen binnen 6d | $u_{1,red} = (0,5c_2+2d_{eff}) / (0,5c_2+a_{sp}) \cdot L_{sp}$ | = 0 mm |
| resulterende lengte periferie | $u_1 = u - u_{1,red}$ | = 3287 mm |

berekening opneembare ponskracht zonder wapening en de maximale ponskracht

| | | |
|--|---|--------------------------|
| materiaalfactor beton | g_c | = 1,50 - |
| materiaalfactor wapeningstaal | g_s | = 1,15 - |
| | | = 1,00 - |
| 6.47 opneembare schuifsterkte | $V_{Rd,c} = C_{Rd,c} \cdot k \cdot (100 \cdot r_1 \cdot f_{ck})^{1/3}$ | = 0,49 N/mm ² |
| correctiefactor schuifsterkte | $C_{Rd,c} = 0,18 / g_c$ | = 0,12 |
| ondergrens schuifsterkte | $V_{Rd,c,min} = 0,035 \cdot k^{3/2} \cdot f_{ck}^{1/2}$ | = 0,54 N/mm ² |
| opneembare schuifsterkte | $V_{Rd,c} = 0,54 + 0,00$ | = 0,54 N/mm ² |
| schaalfactor | $k = 1 + \sqrt{(200/d_{eff})} \leq 2,0$ | = 2,00 - |
| karacteristieke kubusdruksterkte | f_{ck} | = 37,0 |
| karacteristieke cilinderdruksterkte | f_{cd} | = 30,0 N/mm ² |
| 3.15 rekenwaarde betondruksterkte | $f_{cd} = f_{ck} / g_c$ | = 20,0 N/mm ² |
| wapeningsverhouding in z richting | $r_{1,y} = A_{s,y} / b \cdot d_y$ met $b=1000\text{mm}$ | = 0,0027 - |
| wapeningsverhouding in y richting | $r_{1,z} = A_{s,z} / b \cdot d_z$ met $b=1000\text{mm}$ | = 0,0028 - |
| gemiddelde wapeningsverhouding | $r_1 = \sqrt{r_{1,y} \cdot r_{1,z}} \leq 0,02$ | = 0,0028 - |
| maximaal opneembare schuifspanning | $V_{Rd,max} = 0,4 \cdot v \cdot f_{cd}$ | = 4,22 N/mm ² |
| | $v = 0,6 \cdot (1 - f_{ck}/250)$ | = 0,528 |
| opneembare belasting zonder wapening | $V_{Rd,c} = v \cdot V_{Rd,c} \cdot u_1 \cdot d_{eff} \cdot 10^{-3}$ | = 324 kN |
| maximaal toelaatbare ponsbelasting | $V_{Rd,max} = v \cdot V_{Rd,max} \cdot u_1 \cdot d_{eff} \cdot 10^{-3}$ | = 2527 kN |
| 6.51 schuifspanning bij excentrische belasting | $V_{Ed} = V_{Ed,red} / u \cdot d \cdot (1 + k \cdot M_{Ed} \cdot u / V_{Ed,red} \cdot W)$ | = 0,53 N/mm ² |

invoergegevens berekening ponswapening

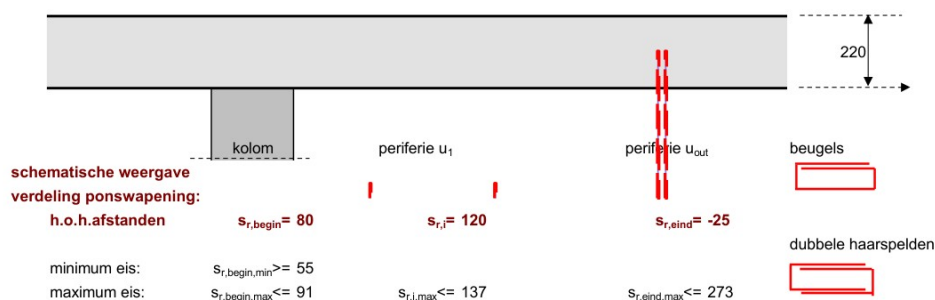
onderstaande invoer is niet nodig, er is geen ponswapening nodig

| | | |
|---|---|-------------|
| soort ponswapening (beugels / haarspelden / neergebogen staven) | neergebogen wapening (2-snedig) | |
| hoek van ponswapening | a | = 45 graden |
| diameter ponswapening | d_{sw} (alle wapening werkt dubbelsnedig) | = 10 mm |
| hoeveelheid toe te passen ponswapening | n_1 (per ponscirkel tot periferie u_1) | = 12 st |
| (beugels, dubbele haarspelden, neergebogen) | n_{out} (per ponscirkel tot periferie u_{out}) | = 8 st |
| | n_2 (per radiaal) | = 2 st |
| radiaalafstand 1e perimeter ponswapening | $s_{r,begin}$ afstand 1e ponswapening tot kolom | = 80 mm |
| radiaalafstand perimeters ponswapening | $s_{r,j} < 0,75 \cdot d$ afstand overige ponswapening | = 120 mm |

unity-check pons met wapening

ponswapening mag stoppen op $u_{out} \sim 1,5 \cdot d$

| | |
|------------------------------------|------------|
| grootste waarde van de unitychecks | = n.v.t. - |
|------------------------------------|------------|

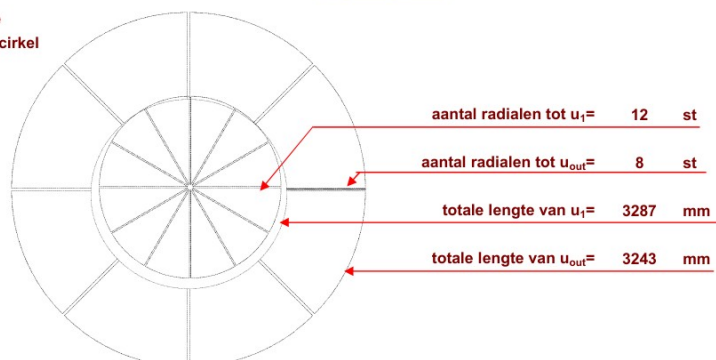


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schematische weergave
verdeling radialen ponscirkel



| | | | | | |
|---------------------------------------|---------------|-----------------------------------|---|-----|-----------------|
| benodigde ponswapening per ponscirkel | A_{sw} | enkelsnedig | = | 161 | mm ² |
| maatgevende waarde "straal" periferie | X_{out} | maat vanaf kolom met ponswapening | = | 357 | mm |
| tussenafstand beugels / haarspelden | $S_{bgl,min}$ | in periferie u_{min} | = | 71 | mm |
| tussenafstand beugels / haarspelden | $S_{bgl,max}$ | in periferie u_{max} | = | 102 | mm |

onderstaande unity-checks zijn NIET VAN TOEPASSING, er is GEEN ponswapening nodig

| | | | | | | | |
|-----------------------------------|---|------|---|------|---|-------|---|
| gekozen ponswapening | $A_{sw} / A_{sw,aanw,u1}$ | 161 | / | 1885 | = | 0,09 | - |
| gekozen ponswapening | $A_{sw} / A_{sw,aanw,u_{out}}$ | 161 | / | 1257 | = | 0,13 | - |
| max. ponsweerstand (6.52) | $(0,75 V_{Rd,c} + V_{Rd,s}) / k_{max} V_{Rd,c}$ | 0,53 | / | 0,78 | = | 0,69 | - |
| max. ponsweerstand (6.53) | $V_{Ed} / V_{Rd,max}$ | 1,76 | / | 4,22 | = | 0,42 | - |
| beginafstand radiaal, minimum | $S_{r,begin,min} / S_{r,begin}$ | 55 | / | 80 | = | 0,68 | - |
| beginafstand radiaal, maximum | $S_{r,begin} / S_{r,begin,max}$ | 80 | / | 91 | = | 0,88 | - |
| tussenafstand radiaal, maximum | $S_{r,i} / S_{r,i,max}$ | 120 | / | 137 | = | 0,88 | - |
| eindafstand radiaal, maximum | $S_{r,eind} / S_{r,eind,max}$ | -25 | / | 273 | = | -0,09 | - |
| hart op hart tangential u_1 | $S_{t,1} / S_{t,1,min}$ | 180 | / | 273 | = | 0,66 | - |
| hart op hart tangential u_{out} | $S_{t,out} / S_{t,out,min}$ | 180 | / | 364 | = | 0,49 | - |
| minimum doorsnede ponswap. | $A_{s,w,min} / A_{s,w}$ | 6,1 | / | 79 | = | 0,08 | - |

art. 6.4.5 berekening ponswapening met beugels dubbele haarspelden of neergebogen staven

| | | | | |
|--|---|-------------------------|---------------------------------|----------------------|
| op te nemen ponskracht met wapening | $V_{Rd,s} = V_{Rd,s} * u_1 * d_{eff} 10^{-3}$ | = | 76,7 | kN |
| schuifspanning door ponswapening | $V_{Rd,s} = V_{Ed} - 0,75 V_{Rd,c}$ | = | 0,13 | N/mm ² |
| toelaatbare staalspanning | $f_{y,wd,ef} = 250 + 0,25 * d \leq f_{y,wd}$ | = | 296 | N/mm ² |
| staaltrekspanning | f_{yk} | = | 500 | N/mm ² |
| rekenwaarde staaltrekspanning | $f_{y,wd} = f_{y,ef}$ met $f_{y,ef} = f_{yk} / g_s$ | = | 435 | N/mm ² |
| benodigde ponswapening per mm (radiaal) | $A_{sw,r} = A_{sw} / S_{r,i,max}$ | = | 1,2 | mm ² /mm |
| 6.52 benodigde ponswapening per ponscirkel | $A_{sw} = [V_{Rd,s} * u_1 * d_{eff} / (1,5 * (d/S_r) * f_{y,wd,ef})] / \sin \alpha$ | = | 161 | mm ² |
| verhoudingsgetal | (d/S_r) | = | 1,52 | - |
| doorsnede neergebogen wapening (2-snedig) | $A_{p,sw} = 2 * 0,25 * p * d_{sw}^2$ | = | 157 | mm ² /bgl |
| aanwezige ponswapening tot ponscirkel u_1 | $A_{sw,aanw} = n_1 * A_{p,sw}$ | = | 1885,0 | mm ² |
| aanwezige ponswapening tot ponscirkel u_{out} | $A_{sw,aanw} = n_{out} * A_{p,sw}$ | = | 1256,6 | mm ² |
| 6.53 direct langs de kolom is de ponsweerstand begrenst tot de maximum waarde: | $V_{Ed} = b V_{Ed} / u_0 d \leq V_{Rd,max}$ | = | 1,76 | N/mm ² |
| waarin | $V_{Rd,max} = 4,22$ | $b = 1,00$ | $V_{Ed} = 320$ | $d = 182$ mm |
| middenkolom | $u_0 = \text{minimale omtrek kolom}$ | = | 1000 | mm |
| randkolom | $u_0 = c_2 + 3d \leq c_2 + 2 c_1$ | met $c_2 + 2 c_1 = 750$ | = | 750 mm |
| hoekkolom | $u_0 = 3d \leq c_1 + c_2$ | met $c_1 + c_2 = 500$ | = | 500 mm |
| $V_{Ed} = 320$ | $0,063$ | $0 = 320$ | maatgevende waarde voor $u_0 =$ | 1000 mm |

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eisen te stellen aan ponswapening

| | | | | | |
|--|--|---------------------|---|-----|------------------------|
| kleinste afstand 1e ponswap v.a.kolom | $S_{r,begin,min} \geq 0,3d$ | radiaal afstand | = | 55 | mm |
| grootste afstand 1e ponswap v.a.kolom | $S_{r,begin,max} \leq 0,5d$ | | = | 91 | mm |
| maximale radiaalafstand | $S_{r,i,max} \leq 0,75 d_{eff}$ | | = | 137 | mm |
| grootste afstand laatste ponswap tot u_{out} | $S_{r,eind,max} \leq 1,5d$ | | = | 273 | mm |
| 9.4.3 max. afstand binnen 1e periferie ($\leq 2d$) | $S_{t,1} \leq 1,5d$ | tangentiaal afstand | = | 273 | mm |
| max. afstand buiten 1e periferie ($> 2d$) | $S_{t,out} \leq 2d$ | tangentiaal afstand | = | 364 | mm |
| 9.11 minimum oppervlak enkele ponswapening | $A_{sw,min} = 0,08 s_r \cdot s_t \cdot \sqrt{f_{ck}} / (1,5 \sin \alpha + \cos \alpha) f_{yk}$ met $s_r = 120$ en $s_t = 102$ | | = | 6,1 | mm ² /staaf |

benodigde periferie u_{out} zonder ponswapening

| | | | | | |
|---|---|--|---|------|----|
| 6.54 lengte periferie zonder ponswapening | $u_{out} = b \cdot V_{Ed} / V_{Rd,c} \cdot d_{eff}$ | | = | 3243 | mm |
| middenkolom rond | $x_{out} = \{ u_{out} - p \cdot c \} / 2p$ | | = | 391 | mm |
| middenkolom rechthoekig | $x_{out} = \{ u_{out} - 2(c_1 + c_2) \} / 2p$ | | = | 357 | mm |
| randkolom rechthoekig | $x_{out} = \{ u_{out} - 2a_y - 2c_2 - c_1 \} / p$ | | = | 793 | mm |
| hoekkolom rechthoekig | $x_{out} = \{ u_{out} - a_y - a_z - c_2 - c_1 \} \cdot 2 / p$ | | = | 1746 | mm |
| maatgevende waarde "straal" periferie | x_{out} maat vanaf kolom tot u_{out} | | = | 357 | mm |

verdeling ponswapening

| | | | | | |
|--|--|--|----------|-----|----|
| afstand eerste ponswapening tot kolom | $S_{r,begin}$ | | = | 80 | mm |
| tussenafstand overige ponswapening | $s = (n_2 - 1) S_{r,i}$ | | = | 120 | mm |
| afstand laatste ponswapening tot u_{out} | $S_{r,eind} = x_{out} - S_{r,begin} - (n_2 - 1) S_{r,i} - d$ | | = | -25 | mm |
| | | | totaal = | 175 | mm |

breedte en tussenafstand beugels / haarspelden in laatste periferie van 1e ponscirkel

| | | | | | |
|---|---|--|---|-----|----|
| afstand zijkant kolom tot u_1 | $x_{u1} = 2d_{eff}$ | | = | 364 | mm |
| max aantal ponswapeningstaven tot u_1 | $n_3 = 1 + (x_{u1} - S_{r,begin}) / S_{r,i}$ | | = | 3,4 | st |
| max aantal ponswapeningstaven tot u_1 | n_3 afgerond | | = | 3 | st |
| straal vanaf kolom | $x_{min} = S_{r,begin} + (n_3 - 1) \cdot S_{r,i}$ | | = | 320 | mm |

berekening omtrek en minimale breedte laatste ponswapening voor u_1

| | | | | | |
|--|--|--|---|------|----|
| middenkolom rond | $u_{min} = p \cdot (c + 2 x_{min})$ | | = | 2796 | mm |
| middenkolom rechthoekig | $u_{min} = 2(c_1 + c_2) + 2p x_{min}$ | | = | 3011 | mm |
| randkolom rechthoekig | $u_{min} = 2a_y + c_1 + 2c_2 + p x_{min}$ | | = | 1755 | mm |
| hoekkolom rechthoekig | $u_{min} = a_y + a_z + c_1 + c_2 + 0,5p x_{min}$ | | = | 753 | mm |
| maatgevende waarde | u_{min} | | = | 3011 | mm |
| tussenafstand beugels / haarspelden | $u_{min} / n_1 - b_{hrsp}$ met $b_{hrsp} = 180$ | | = | 71 | mm |
| gemiddelde breedte ponsbeugel in u_1 | $S_{t,1} = b_{hrsp, in u_1} = 0,5 \cdot u_{min} / n_1$ | | = | 125 | mm |

berekening breedte en tussenafstand beugels / haarspelden in laatste periferie (vlak bij u_{out})

| | | | | | |
|--------------------|-----------------------------|--|---|-----|----|
| straal vanaf kolom | $x_{max} = S_{r,begin} + s$ | | = | 200 | mm |
|--------------------|-----------------------------|--|---|-----|----|

berekening omtrek en minimale breedte laatste ponswapening voor u_{out}

| | | | | | |
|--|--|--|---|------|----|
| middenkolom rond | $u_{max} = p \cdot (c + 2 x_{max})$ | | = | 2042 | mm |
| middenkolom rechthoekig | $u_{max} = 2(c_1 + c_2) + 2p x_{max}$ | | = | 2257 | mm |
| randkolom rechthoekig | $u_{max} = 2a_y + c_1 + 2c_2 + p x_{max}$ | | = | 1378 | mm |
| hoekkolom rechthoekig | $u_{max} = a_y + a_z + c_1 + c_2 + 0,5p x_{max}$ | | = | 814 | mm |
| maatgevende waarde | u_{max} | | = | 2257 | mm |
| tussenafstand beugels / haarspelden | $u_{max} / n_{out} - b_{hrsp}$ met $b_{hrsp} = 180$ | | = | 102 | mm |
| gemiddelde breedte ponsbeugel in u_{out} | $S_{t,out} = b_{hrsp, in u_{out}} = 0,5 \cdot u_{max} / n_{out}$ | | = | 141 | mm |

opmerking:

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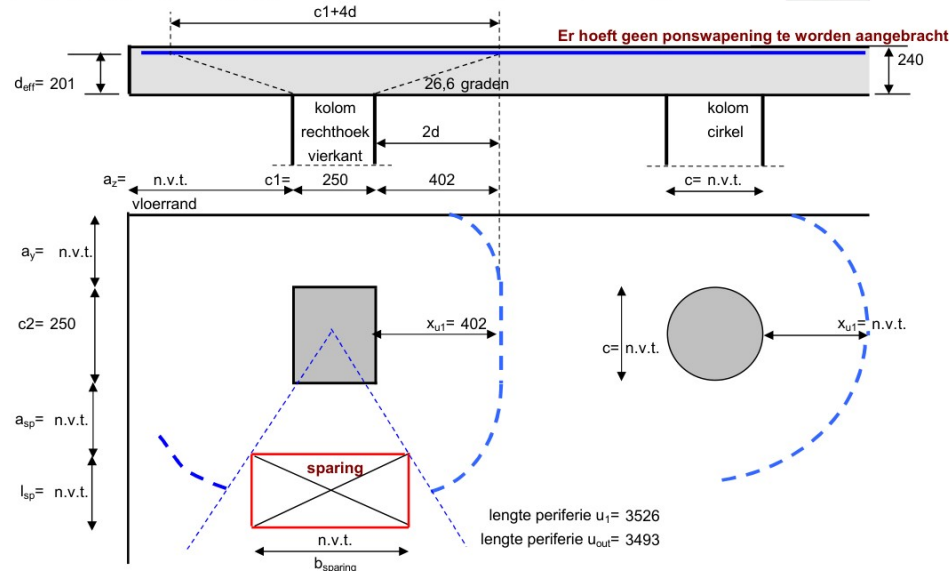
controle pons(-wapening) berekening volgens eurocode : NEN-EN 1992

middenkolom rechthoekig 250 mm x 250 mm 380 kN

| | | | |
|---|--|---|------------------------------------|
| algemene gegevens | werk | Bedrijfsloods Parlevliet Agro | |
| | werknnummer | 41798-1 | |
| | onderdeel | Pons vloerpalen 4,5 ton | |
| | ontwerpsituatie (art. 2.4.2.4) | blijvend en tijdelijk | |
| gegevens geometrie en belasting | | | |
| kwaliteit beton | betonklasse | = | C30/37 |
| kwaliteit staal | staalsoort | = | B 500 |
| soort poer | betreft deze berekening een funderingspoer op staal? | = | nee |
| vloerdikte | h | = | 240 mm |
| betondekking | Chooftwapening | = | 30 mm |
| diameter vloerwapening y-richting | d _{s,y} | ligt in de eerste laag van buiten | = 9 mm |
| diameter vloerwapening z-richting | d _{s,z} | ligt in de tweede laag van buiten | = 9 mm |
| rekenwaarde ponsbelasting | V | = | 380 kN |
| soort kolom | | middenkolom rechthoekig | |
| afmeting kolom | breedte kolom c1 (kleinste maat) | = | 250 mm |
| | lengte kolom c2 (grootste maat) | = | 250 mm |
| trekwapening in y-richting in de vloer | A _{s,y} | (6d _y = 1233 mm) | = 636 mm ² /m |
| trekwapening in z-richting in de vloer | A _{s,z} | (6d _z = 1179 mm) | = 636 mm ² /m |
| verhoging schuifsterkte t.g.v. toepassing staalvezels e.d. | | | = 0 N/mm ² |
| excentriciteit belasting en sparing in de buurt van de kolom | | | |
| excentriciteit ponskracht in y-richting | e _y =e | (in richting c2) met M _{Ed,y} = V _{Ed} *e | = 0 mm |
| excentriciteit ponskracht in z-richting | e _z = e _{par} | (in richting evenwijdig plaatrand) | = 0 mm |
| afstand zijkant kolom tot begin sparing | a _{sp} | | = 0 mm |
| lengte sparing in richting naar kolom | l _{sparing} | =L1 | = 0 mm |
| breedte sparing loodrecht daarop | b _{sparing} | =L2 | = 0 mm |
| de wijze waarop de factor b wordt berekend bij art 6.4.3 (6) | | | wijze van berekenen = nauwkeurig - |

unity-check pons zonder wapening

| | | | | | | | | | |
|--------------------------|----------------------|---|------|-----|---|------|---|------|---|
| 6.38 ponsbelasting | $bV_{Ed} / V_{Rd,s}$ | = | 1,00 | 380 | / | 384 | = | 0,99 | - |
| 6.4.3(2)b schuifspanning | $V_{Ed} / V_{Rd,c}$ | = | 0,54 | | / | 0,54 | = | 0,99 | - |



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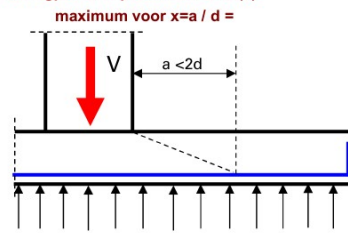
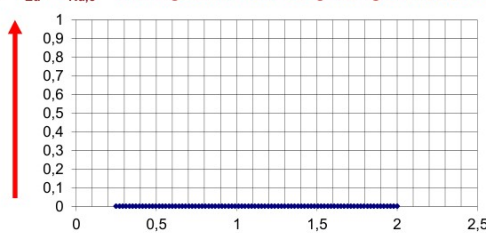
samenvatting resultaten zonder ponswapening

| | | | | |
|--------------------------------------|------------|---|------|-------------------|
| rekenwaarde ponsbelasting | V_{Ed} | = | 380 | kN |
| resulterende lengte periferie | u_1 | = | 3526 | mm |
| opneembare schuifspanning | $V_{Rd,c}$ | = | 0,54 | N/mm ² |
| opneembare belasting zonder wapening | $V_{Rd,c}$ | = | 384 | kN |

berekening ponscirkel, factor b, periferie

| | | | | |
|----------------------------------|---|---|-------|----|
| nuttige hoogte in y richting | d_y | = | 205,5 | mm |
| nuttige hoogte in z richting | d_z | = | 196,5 | mm |
| 6,32 effectieve nuttige hoogte | $d = d_{gemiddeld} = d_{eff} = (d_y + d_z) / 2$ | = | 201 | mm |
| afstand tot 1e periferie 2d of a | 2d | = | 402 | mm |

$y = V_{Ed} / V_{Rd,c}$ voor a geldt : $a < 2d$ deze grafiek geldt alleen voor funderingpoeren op staal art. 6.4.4(2)



| | | | | |
|--------------------------------------|---|-------------------------|----------|-------------------|
| in onderstaande formules geldt: | $d = d_{eff}$ | = | 201 | mm |
| middenkolom rond | $A = \frac{1}{4} p^* (c+4d)^2$ | = | 0,87 | m ² |
| middenkolom rechthoekig | $A = c_1 c_2 + \frac{1}{4} p^* (4d)^2 + 4d (c_1 + c_2)$ | = | 0,97 | m ² |
| randkolom rechthoekig | $A = (a_y + c_2)(c_1 + 4d) + 2dc_1 + 0,125 p^* (4d)^2$ | = | 0,62 | m ² |
| hoekkolom rechthoekig | $A = (a_y + c_2)(a_z + c_1 + 2d) + 2d(a_z + c_1) + \frac{1}{16} p^* (4d)^2$ | = | 0,39 | m ² |
| maatgevend oppervlak | A | = | 0,97 | m ² |
| reductie ponsbelasting | $V_{red} = A p_d$ | = | 0,0 | kN |
| 6,48 rekenwaarde ponsbelasting | $V_{Ed} = V - V_{red}$ | = | 380 | kN |
| 6,38 rekenwaarde schuifspanning pons | $V_{Ed} = b V_{Ed} / u_1 d_{eff}$ | = | 0,54 | N/mm ² |
| maatgevende correctiefactor | $b_{nauwkeurig} = 1,00$ | $b_{benadering} = 1,15$ | b = 1,00 | - |

berekening b

| | | | | |
|---|---|---|-------|----------------|
| 6,39 middenkolom rechthoekig (nauwkeurige berekening) | $b = 1 + k M_{Ed} / V_{Ed} u_1 / W_1$ | = | 1,00 | ter info |
| met deze berekening wordt NIETS gedaan! | k factor uit tabel 6,1 | = | 0,60 | - |
| periferie | $M_{Ed,y} = V_{Ed} e_y$ | = | 0,00 | kNm |
| 6,41 | u_1 | = | 3,53 | m |
| | $W_1 = c_1^2 / 2 + c_1 c_2 + 4c_2 d + 16 d^2 + 2 p d c_1$ | = | 0,943 | m ² |
| | $c_1 =$ kolomafmeting evenwijdig aan excentriciteit | = | 250 | mm |
| | $c_2 =$ kolomafmeting loodrecht op excentriciteit | = | 250 | mm |
| | c_1 / c_2 | = | 1,00 | - |

verhouding tbv tabel 6,1

benaderingsformules b

| | | | |
|--|--|------------|----------------------|
| in onderstaande formules geldt: $d = d_{eff}$ | 201 mm | nauwkeurig | benadering |
| 6,42 middenkolom rond | $b = 1 + 0,6 p e / (D + 4d)$ | = | 1,00 1,15 |
| 6,43 middenkolom rechthoekig | $b = 1 + 1,8 \sqrt{\{ (e_y / b_z)^2 + (e_z / b_y)^2 \}}$ | = | 1,00 1,15 |
| 6,44 randkolom rechthoekig | $b = u_1 / u_{1*} + k u_1 e_{par} / W_1$ | = | 1,14 1,40 |
| 6,46 hoekkolom rechthoekig | $b = u_1 / u_{1*}$ | = | 1,28 1,50 |
| factoren om bovenstaande formules te berekenen | | | |
| diameter ronde kolom | $D = c$ | = | 250 mm |
| excentriciteiten | e_y in richting c2 (kolomhoogte) | = | 0 mm |
| excentriciteiten | e_z in richting c1 (kolombreedte) | = | 0 mm |
| | $b_y = c_1 + 4d$ | = | 1858 mm |
| | $b_z = c_2 + 4d$ | = | 1858 mm |
| fig. 6,20 a randkolom rechthoekig | $u_{1*} = \min(3d \text{ of } c_1) + c_2 + 2 p d_{eff}$ | = | 1763 mm |
| | k | = | 0,45 - |
| | $c_1 / 2 c_2$ | = | 0,50 - |
| 6,45 | e_{par} (excentriciteit evenwijdig aan plaatrand) | = | 0 mm |
| fig. 6,20 b hoekkolom rechthoekig | $W_1 = c_2^2 / 4 + c_1 c_2 + 4c_1 d + 8 d^2 + p d c_2$ | = | 0,760 m ² |
| | $u_{1*} = \min(1,5d \text{ of } 0,5c_1) + \min(1,5d \text{ of } 0,5c_2) + p d_{eff}$ | = | 881 mm |



berekening periferie

| | | |
|---|--|-----------|
| in onderstaande formules geldt: $d=d_{eff}$ | 201 mm | |
| middenkolom rond | $u_1 = p \cdot (c+4 d_{eff})$ | = 3311 mm |
| middenkolom rechthoekig | $u_1 = 2(c_1+c_2) + 4p d_{eff}$ | = 3526 mm |
| randkolom rechthoekig | $u_1 = 2a_y+c_1+2c_2 + 2p d_{eff}$ | = 2013 mm |
| hoekkolom rechthoekig | $u_1 = a_y+a_z+c_1+c_2+p d_{eff}$ | = 1131 mm |
| lengte van de periferie | u maatgevende waarde | = 3526 mm |
| grenswaarde afstand sparing-kolom | $a_{grens} = 6 d_{eff}$ | = 1206 mm |
| effectieve breedte van de sparing | $L_{sp} = \text{als } L_2 > L_1; L_2 ; \sqrt{L_1 \cdot L_2}$ | = 0 mm |
| reductie ivm sparingen binnen 6d | $u_{1,red} = (0,5c_2+2d_{eff}) / (0,5c_2+a_{sp}) \cdot L_{sp}$ | = 0 mm |
| resulterende lengte periferie | $u_1 = u - u_{1,red}$ | = 3526 mm |

berekening opneembare ponskracht zonder wapening en de maximale ponskracht

| | | |
|--|---|--------------------------|
| materiaalfactor beton | g_c | = 1,50 - |
| materiaalfactor wapeningstaal | g_s | = 1,15 - |
| | | = 1,00 - |
| 6.47 opneembare schuifsterkte | $V_{Rd,c} = C_{Rd,c} k (100 r_1 f_{ck})^{1/3}$ | = 0,51 N/mm ² |
| correctiefactor schuifsterkte | $C_{Rd,c} = 0,18 / g_c$ | = 0,12 |
| ondergrens schuifsterkte | $V_{Rd,c,min} = 0,035 k^{3/2} f_{ck}^{1/2}$ | = 0,54 N/mm ² |
| opneembare schuifsterkte | $V_{Rd,c} = 0,54 + 0,00$ | = 0,54 N/mm ² |
| schaalfactor | $k = 1 + \sqrt{(200/d_{eff})} \leq 2,0$ | = 2,00 - |
| karacteristieke kubusdruksterkte | f_{ck} | = 37,0 |
| karacteristieke cilinderdruksterkte | f_{cd} | = 30,0 N/mm ² |
| 3.15 rekenwaarde betondruksterkte | $f_{cd} = f_{ck} / g_c$ | = 20,0 N/mm ² |
| wapeningsverhouding in z richting | $r_{1,y} = A_{s,y} / b d_y$ met $b=1000\text{mm}$ | = 0,0031 - |
| wapeningsverhouding in y richting | $r_{1,z} = A_{s,z} / b d_z$ met $b=1000\text{mm}$ | = 0,0032 - |
| gemiddelde wapeningsverhouding | $r_1 = \sqrt{r_{1,y} r_{1,z}} \leq 0,02$ | = 0,0032 - |
| maximaal opneembare schuifspanning | $V_{Rd,max} = 0,4 v f_{cd}$ | = 4,22 N/mm ² |
| | $v = 0,6 (1 - f_{ck}/250)$ | = 0,528 |
| opneembare belasting zonder wapening | $V_{Rd,c} = v_{Rd,c} \cdot u_1 \cdot d_{eff} 10^{-3}$ | = 384 kN |
| maximaal toelaatbare ponsbelasting | $V_{Rd,max} = v_{Rd,max} \cdot u_1 \cdot d_{eff} 10^{-3}$ | = 2994 kN |
| 6.51 schuifspanning bij excentrische belasting | $V_{Ed} = V_{Ed,red} / u d \cdot (1 + k M_{Ed} u / V_{Ed,red} W)$ | = 0,54 N/mm ² |

invoergegevens berekening ponswapening

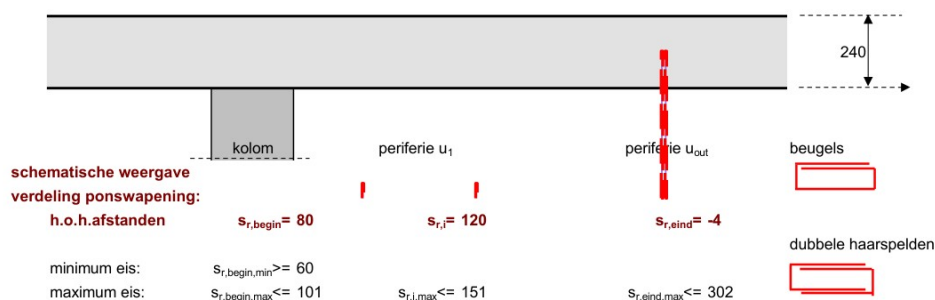
onderstaande invoer is niet nodig, er is geen ponswapening nodig

| | | |
|---|---|-----------|
| soort ponswapening (beugels / haarspelden / neergebogen staven) | neergebogen wapening (2-snedig) | |
| hoek van ponswapening | a | 45 graden |
| diameter ponswapening | d_{sw} (alle wapening werkt dubbelsnedig) | = 10 mm |
| hoeveelheid toe te passen ponswapening | n_1 (per ponscirkel tot periferie u_1) | = 12 st |
| (beugels, dubbele haarspelden, neergebogen) | n_{out} (per ponscirkel tot periferie u_{out}) | = 8 st |
| | n_2 (per radiaal) | = 2 st |
| radiaalafstand 1e perimeter ponswapening | $s_{r,begin}$ afstand 1e ponswapening tot kolom | = 80 mm |
| radiaalafstand perimeters ponswapening | $s_{r,j} < 0,75 d$ afstand overige ponswapening | = 120 mm |

unity-check pons met wapening

ponswapening mag stoppen op $u_{out} \sim 1,5 d$

| | |
|------------------------------------|------------|
| grootste waarde van de unitychecks | = n.v.t. - |
|------------------------------------|------------|

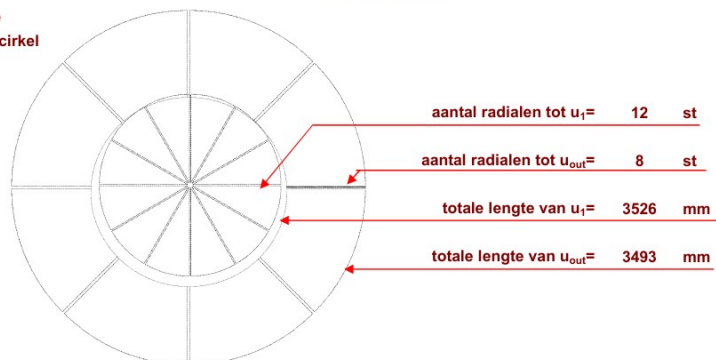


Van Roekel, Ingenieursbureau voor Civiele Techniek
Rhenen
Gebruikslicentie COMMERCIELE-versie tot 1-5-2024



B pons EC
Versie : 7.19.14 ; NDP : NL
printdatum : 14-12-2023

schematische weergave
verdeling radialen ponscirkel



| | | | | | |
|---------------------------------------|---------------|-----------------------------------|---|-----|-----------------|
| benodigde ponswapening per ponscirkel | A_{sw} | enkelsnedig | = | 173 | mm ² |
| maatgevende waarde "straal" periferie | X_{out} | maat vanaf kolom met ponswapening | = | 397 | mm |
| tussenafstand beugels / haarspelden | $S_{bgl,min}$ | in periferie u_{min} | = | 71 | mm |
| tussenafstand beugels / haarspelden | $S_{bgl,max}$ | in periferie u_{max} | = | 102 | mm |

onderstaande unity-checks zijn NIET VAN TOEPASSING, er is GEEN ponswapening nodig

| | | | | | | | |
|-----------------------------------|---|------|---|------|---|-------|---|
| gekozen ponswapening | $A_{sw} / A_{sw,aanw,u1}$ | 173 | / | 1885 | = | 0,09 | - |
| gekozen ponswapening | $A_{sw} / A_{sw,aanw,u_{out}}$ | 173 | / | 1257 | = | 0,14 | - |
| max. ponsweerstand (6.52) | $(0,75 V_{Rd,c} + V_{Rd,s}) / k_{max} V_{Rd,c}$ | 0,54 | / | 0,81 | = | 0,66 | - |
| max. ponsweerstand (6.53) | $V_{Ed} / V_{Rd,max}$ | 1,89 | / | 4,22 | = | 0,45 | - |
| beginafstand radiaal, minimum | $S_{r,begin,min} / S_{r,begin}$ | 60 | / | 80 | = | 0,75 | - |
| beginafstand radiaal, maximum | $S_{r,begin} / S_{r,begin,max}$ | 80 | / | 101 | = | 0,80 | - |
| tussenafstand radiaal, maximum | $S_{r,i} / S_{r,i,max}$ | 120 | / | 151 | = | 0,80 | - |
| eindafstand radiaal, maximum | $S_{r,eind} / S_{r,eind,max}$ | -4 | / | 302 | = | -0,01 | - |
| hart op hart tangential u_1 | $S_{t,1} / S_{t,1,min}$ | 180 | / | 302 | = | 0,60 | - |
| hart op hart tangential u_{out} | $S_{t,out} / S_{t,out,min}$ | 180 | / | 402 | = | 0,45 | - |
| minimum doorsnede ponswap. | $A_{s,w,min} / A_{s,w}$ | 6,1 | / | 79 | = | 0,08 | - |

art. 6.4.5 berekening ponswapening met beugels dubbele haarspelden of neergebogen staven

| | | | | |
|--|---|-------------------------------|---|----------------------|
| op te nemen ponskracht met wapening | $V_{Rd,s} = V_{Rd,s} \cdot u_1 \cdot d_{eff} \cdot 10^{-3}$ | = | 92,3 | kN |
| schuifspanning door ponswapening | $V_{Rd,s} = V_{Ed} - 0,75 V_{Rd,c}$ | = | 0,13 | N/mm ² |
| toelaatbare staalspanning | $f_{y,wd,ef} = 250 + 0,25 \cdot d \leq f_{y,wd}$ | = | 300 | N/mm ² |
| staaltrekspanning | f_{yk} | = | 500 | N/mm ² |
| rekenwaarde staaltrekspanning | $f_{y,wd} = f_{y,ef}$ met $f_{y,ef} = f_{yk} / g_s$ | = | 435 | N/mm ² |
| benodigde ponswapening per mm (radiaal) | $A_{sw,r} = A_{sw} / S_{r,i,max}$ | = | 1,1 | mm ² /mm |
| 6.52 benodigde ponswapening per ponscirkel | $A_{sw} = [V_{Rd,s} \cdot u_1 \cdot d_{eff} / (1,5 \cdot (d/S_r) \cdot f_{y,wd,ef})] / \sin \alpha$ | = | 173 | mm ² |
| verhoudingsgetal | (d/S_r) | = | 1,68 | - |
| doorsnede neergebogen wapening (2-snedig) | $A_{p,sw} = 2 \cdot 0,25 \cdot p \cdot d_{sw}^2$ | = | 157 | mm ² /bgl |
| aanwezige ponswapening tot ponscirkel u_1 | $A_{sw,aanw} = n_1 \cdot A_{p,sw}$ | = | 1885,0 | mm ² |
| aanwezige ponswapening tot ponscirkel u_{out} | $A_{sw,aanw} = n_{out} \cdot A_{p,sw}$ | = | 1256,6 | mm ² |
| 6.53 direct langs de kolom is de ponsweerstand begrenst tot de maximum waarde: | $V_{Ed} = b V_{Ed} / u_0 d \leq V_{Rd,max}$ | = | 1,89 | N/mm ² |
| waarin | $V_{Rd,max} = 4,22$ | $b = 1,00$ | $V_{Ed} = 380$ | $d = 201$ mm |
| middenkolom | $u_0 = \text{minimale omtrek kolom}$ | = | 1000 | mm |
| randkolom | $u_0 = c_2 + 3d \leq c_2 + 2 \cdot c_1$ | met $c_2 + 2 \cdot c_1 = 750$ | = | 750 mm |
| hoekkolom | $u_0 = 3d \leq c_1 + c_2$ | met $c_1 + c_2 = 500$ | = | 500 mm |
| $V_{Ed} = 380$ | $0,063$ | $0 = 380$ | maatgevende waarde voor $u_0 = 1000$ mm | |

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printdatum : 14-12-2023

eisen te stellen aan ponswapening

| | | | | | |
|--|--|---------------------|---|-----|------------------------|
| kleinste afstand 1e ponswap v.a.kolom | $S_{r,begin,min} \geq 0,3d$ | radiaal afstand | = | 60 | mm |
| grootste afstand 1e ponswap v.a.kolom | $S_{r,begin,max} \leq 0,5d$ | | = | 101 | mm |
| maximale radiaalafstand | $S_{r,i,max} \leq 0,75 d_{eff}$ | | = | 151 | mm |
| grootste afstand laatste ponswap tot u_{out} | $S_{r,eind,max} \leq 1,5d$ | | = | 302 | mm |
| 9.4.3 max. afstand binnen 1e periferie ($\leq 2d$) | $S_{t,i} \leq 1,5d$ | tangentiaal afstand | = | 302 | mm |
| max. afstand buiten 1e periferie ($> 2d$) | $S_{t,out} \leq 2d$ | tangentiaal afstand | = | 402 | mm |
| 9.11 minimum oppervlak enkele ponswapening | $A_{sw,min} = 0,08 s_r \cdot s_t \cdot \sqrt{f_{ck}} / (1,5 \sin \alpha + \cos \alpha) f_{yk}$ met $s_r = 120$ en $s_t = 102$ | | = | 6,1 | mm ² /staaf |

benodigde periferie u_{out} zonder ponswapening

| | | | | | |
|---|---|--|---|------|----|
| 6.54 lengte periferie zonder ponswapening | $u_{out} = b \cdot V_{Ed} / V_{Rd,c} \cdot d_{eff}$ | | = | 3493 | mm |
| middenkolom rond | $x_{out} = \{ u_{out} - p \cdot c \} / 2p$ | | = | 431 | mm |
| middenkolom rechthoekig | $x_{out} = \{ u_{out} - 2(c_1 + c_2) \} / 2p$ | | = | 397 | mm |
| randkolom rechthoekig | $x_{out} = \{ u_{out} - 2a_y - 2c_2 - c_1 \} / p$ | | = | 873 | mm |
| hoekkolom rechthoekig | $x_{out} = \{ u_{out} - a_y - a_z - c_2 - c_1 \} \cdot 2 / p$ | | = | 1906 | mm |
| maatgevende waarde "straal" periferie | x_{out} maat vanaf kolom tot u_{out} | | = | 397 | mm |

verdeling ponswapening

| | | | | | |
|--|--|--|---|-----|----|
| afstand eerste ponswapening tot kolom | $S_{r,begin}$ | | = | 80 | mm |
| tussenafstand overige ponswapening | $s = (n_2 - 1) S_{r,i}$ | | = | 120 | mm |
| afstand laatste ponswapening tot u_{out} | $S_{r,eind} = x_{out} - S_{r,begin} - (n_2 - 1) S_{r,i} - d$ | | = | -4 | mm |
| totaal | | | = | 196 | mm |

breedte en tussenafstand beugels / haarspelden in laatste periferie van 1e ponscirkel

| | | | | | |
|---|---|--|---|-----|----|
| afstand zijkant kolom tot u_1 | $x_{u1} = 2d_{eff}$ | | = | 402 | mm |
| max aantal ponswapeningstaven tot u_1 | $n_3 = 1 + (x_{u1} - S_{r,begin}) / S_{r,i}$ | | = | 3,7 | st |
| max aantal ponswapeningstaven tot u_1 | n_3 afgerond | | = | 3 | st |
| straal vanaf kolom | $x_{min} = S_{r,begin} + (n_3 - 1) \cdot S_{r,i}$ | | = | 320 | mm |

berekening omtrek en minimale breedte laatste ponswapening voor u_1

| | | | | | |
|--|--|--|---|------|----|
| middenkolom rond | $u_{min} = p \cdot (c + 2 x_{min})$ | | = | 2796 | mm |
| middenkolom rechthoekig | $u_{min} = 2(c_1 + c_2) + 2p x_{min}$ | | = | 3011 | mm |
| randkolom rechthoekig | $u_{min} = 2a_y + c_1 + 2c_2 + p x_{min}$ | | = | 1755 | mm |
| hoekkolom rechthoekig | $u_{min} = a_y + a_z + c_1 + c_2 + 0,5p x_{min}$ | | = | 753 | mm |
| maatgevende waarde | u_{min} | | = | 3011 | mm |
| tussenafstand beugels / haarspelden | $u_{min} / n_1 - b_{hrsp}$ met $b_{hrsp} = 180$ | | = | 71 | mm |
| gemiddelde breedte ponsbeugel in u_1 | $S_{t,i} = b_{hrsp, in u_1} = 0,5 \cdot u_{min} / n_1$ | | = | 125 | mm |

berekening breedte en tussenafstand beugels / haarspelden in laatste periferie (vlak bij u_{out})

| | | | | | |
|--------------------|-----------------------------|--|---|-----|----|
| straal vanaf kolom | $x_{max} = S_{r,begin} + s$ | | = | 200 | mm |
|--------------------|-----------------------------|--|---|-----|----|

berekening omtrek en minimale breedte laatste ponswapening voor u_{out}

| | | | | | |
|--|--|--|---|------|----|
| middenkolom rond | $u_{max} = p \cdot (c + 2 x_{max})$ | | = | 2042 | mm |
| middenkolom rechthoekig | $u_{max} = 2(c_1 + c_2) + 2p x_{max}$ | | = | 2257 | mm |
| randkolom rechthoekig | $u_{max} = 2a_y + c_1 + 2c_2 + p x_{max}$ | | = | 1378 | mm |
| hoekkolom rechthoekig | $u_{max} = a_y + a_z + c_1 + c_2 + 0,5p x_{max}$ | | = | 814 | mm |
| maatgevende waarde | u_{max} | | = | 2257 | mm |
| tussenafstand beugels / haarspelden | $u_{max} / n_{out} - b_{hrsp}$ met $b_{hrsp} = 180$ | | = | 102 | mm |
| gemiddelde breedte ponsbeugel in u_{out} | $S_{t,out} = b_{hrsp, in u_{out}} = 0,5 \cdot u_{max} / n_{out}$ | | = | 141 | mm |

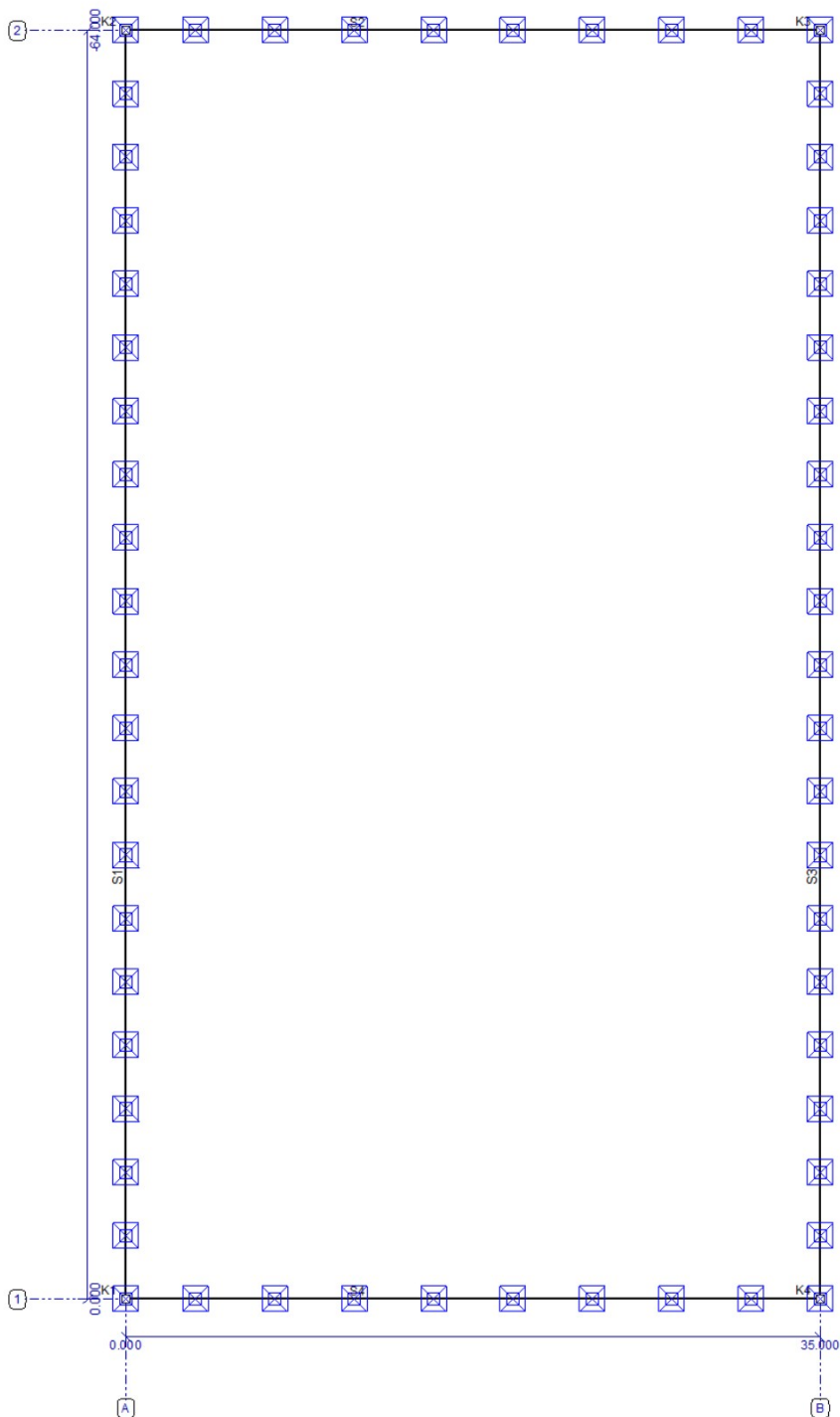
opmerking:

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever
 Constructeur J
 Omschrijving
 Bestand P:\Projecten van 18800-\41798\berek\41798-1 Balkrooster.mxf

Eenheden: m, mm, kN, kNm

**CONSTRUCTIEGEGEVENS**

| Projecttype | Knopen | Staven | Opleggingsen | Profielen | Belastingsgevallen | Belastingscombinaties |
|-------------|--------|--------|--------------|-----------|--------------------|-----------------------|
| Balkrooster | 4 | 4 | 58 | 1 | 7 | 16 |

Constructie**STAVEN**

| Staaf | Knoop-B | Knoop-E | X-B | X-E | Y-B | Y-E | Lengte | Profiel | Positie |
|-------|---------|---------|------|-------|--------|--------|--------|---------|------------------|
| S1 | K1 | K2 | 0.00 | 0.00 | 0.00 | -64.00 | 64.00 | P1 | 0.00 - 64.00 (L) |
| S2 | K2 | K3 | 0.00 | 35.00 | -64.00 | -64.00 | 35.00 | P1 | 0.00 - 35.00 (L) |
| | | | m | m | m | m | m | | m |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



| Staaf | Knoop-B | Knoop-E | X-B | X-E | Y-B | Y-E | Lengte | Profiel | Positie |
|-------|---------|---------|-------|-------|------|--------|--------|---------|------------------|
| S3 | K4 | K3 | 35.00 | 35.00 | 0.00 | -64.00 | 64.00 | P1 | 0.00 - 64.00 (L) |
| S4 | K1 | K4 | 0.00 | 35.00 | 0.00 | 0.00 | 35.00 | P1 | 0.00 - 35.00 (L) |
| | | | m | m | m | m | m | | m |

PROFIELEN

| Profiel | Profielnaam | It | Iz | Materiaal | Hoek |
|---------|-------------|-----------------|-----------------|-----------|------|
| P1 | 400 x 500 | 5.4742e+09 | 2.6667e+09 | C20/25 | 0 |
| | | mm ⁴ | mm ⁴ | | ° |

MATERIALEN

| Materiaalnaam | Poison | Dichtheid | E-Modulus | Uitzettingcoeff |
|---------------|--------|-------------------|-------------------|-----------------|
| C20/25 | 0.20 | 25.0 | 1.2000e+04 | 10.0000e-06 |
| | | kN/m ³ | N/mm ² | °C/m |

Projectnummer  

Projectomschrijving bedrijfsloods Parlevliet Agro

Opdrachtgever  

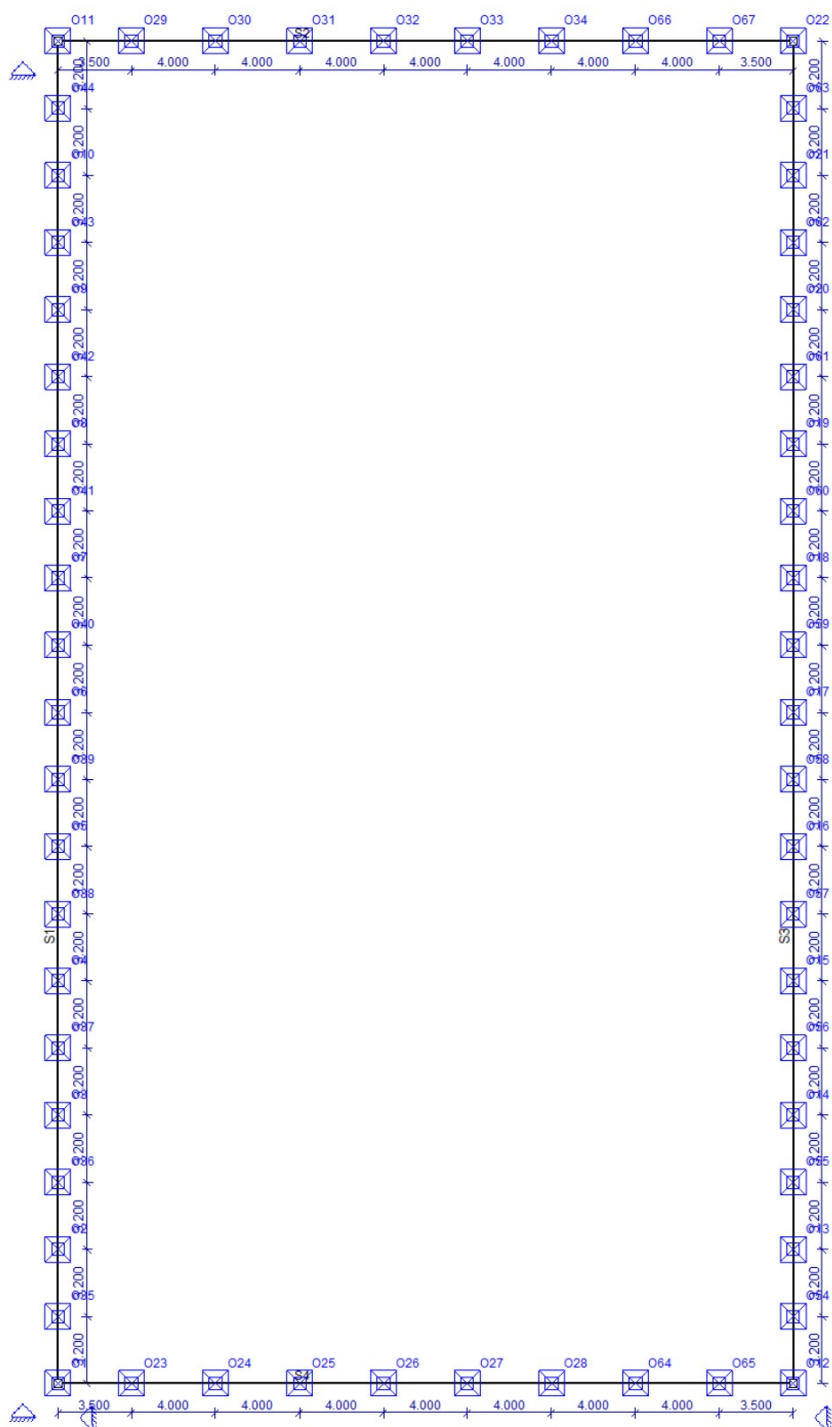
Constructeur

Omschrijving

Eenheden: m, mm, kN, kNm



Randvoorwaarden



OPLEGGINGEN

| Oplegging | Object | Positie | Z | Xr | Yr |
|-----------|--------|---------|---------|---------|---------|
| O1 | S1 | 0.00 | 80000.0 | Vrij | Vrij |
| O2 | S1 | 6.40 | 80000.0 | Vrij | Vrij |
| O3 | S1 | 12.80 | 80000.0 | Vrij | Vrij |
| O4 | S1 | 19.20 | 80000.0 | Vrij | Vrij |
| O5 | S1 | 25.60 | 80000.0 | Vrij | Vrij |
| O6 | S1 | 32.00 | 80000.0 | Vrij | Vrij |
| O7 | S1 | 38.40 | 80000.0 | Vrij | Vrij |
| | | m | kN/m | kNm/rad | kNm/rad |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| Oplegging | Object | Positie | Z | Xr | Yr |
|-----------|--------|-----------|---------|------|---------|
| O8 | S1 | 44.80 | 80000.0 | Vrij | Vrij |
| O9 | S1 | 51.20 | 80000.0 | Vrij | Vrij |
| O10 | S1 | 57.60 | 80000.0 | Vrij | Vrij |
| O11 | S1 | 64.00 (L) | 80000.0 | Vrij | Vrij |
| O12 | S3 | 0.00 | 80000.0 | Vrij | Vrij |
| O13 | S3 | 6.40 | 80000.0 | Vrij | Vrij |
| O14 | S3 | 12.80 | 80000.0 | Vrij | Vrij |
| O15 | S3 | 19.20 | 80000.0 | Vrij | Vrij |
| O16 | S3 | 25.60 | 80000.0 | Vrij | Vrij |
| O17 | S3 | 32.00 | 80000.0 | Vrij | Vrij |
| O18 | S3 | 38.40 | 80000.0 | Vrij | Vrij |
| O19 | S3 | 44.80 | 80000.0 | Vrij | Vrij |
| O20 | S3 | 51.20 | 80000.0 | Vrij | Vrij |
| O21 | S3 | 57.60 | 80000.0 | Vrij | Vrij |
| O22 | S3 | 64.00 (L) | 80000.0 | Vrij | Vrij |
| O23 | S4 | 3.50 | 80000.0 | Vrij | Vrij |
| O24 | S4 | 7.50 | 80000.0 | Vrij | Vrij |
| O25 | S4 | 11.50 | 80000.0 | Vrij | Vrij |
| O26 | S4 | 15.50 | 80000.0 | Vrij | Vrij |
| O27 | S4 | 19.50 | 80000.0 | Vrij | Vrij |
| O28 | S4 | 23.50 | 80000.0 | Vrij | Vrij |
| O29 | S2 | 3.50 | 80000.0 | Vrij | Vrij |
| O30 | S2 | 7.50 | 80000.0 | Vrij | Vrij |
| O31 | S2 | 11.50 | 80000.0 | Vrij | Vrij |
| O32 | S2 | 15.50 | 80000.0 | Vrij | Vrij |
| O33 | S2 | 19.50 | 80000.0 | Vrij | Vrij |
| O34 | S2 | 23.50 | 80000.0 | Vrij | Vrij |
| O35 | S1 | 3.20 | 80000.0 | Vrij | Vrij |
| O36 | S1 | 9.60 | 80000.0 | Vrij | Vrij |
| O37 | S1 | 16.00 | 80000.0 | Vrij | Vrij |
| O38 | S1 | 22.40 | 80000.0 | Vrij | Vrij |
| O39 | S1 | 28.80 | 80000.0 | Vrij | Vrij |
| O40 | S1 | 35.20 | 80000.0 | Vrij | Vrij |
| O41 | S1 | 41.60 | 80000.0 | Vrij | Vrij |
| O42 | S1 | 48.00 | 80000.0 | Vrij | Vrij |
| O43 | S1 | 54.40 | 80000.0 | Vrij | Vrij |
| O44 | S1 | 60.80 | 80000.0 | Vrij | Vrij |
| O54 | S3 | 3.20 | 80000.0 | Vrij | Vrij |
| O55 | S3 | 9.60 | 80000.0 | Vrij | Vrij |
| O56 | S3 | 16.00 | 80000.0 | Vrij | Vrij |
| O57 | S3 | 22.40 | 80000.0 | Vrij | Vrij |
| O58 | S3 | 28.80 | 80000.0 | Vrij | Vrij |
| O59 | S3 | 35.20 | 80000.0 | Vrij | Vrij |
| O60 | S3 | 41.60 | 80000.0 | Vrij | Vrij |
| O61 | S3 | 48.00 | 80000.0 | Vrij | Vrij |
| O62 | S3 | 54.40 | 80000.0 | Vrij | Vrij |
| O63 | S3 | 60.80 | 80000.0 | Vrij | Vrij |
| O64 | S4 | 27.50 | 80000.0 | Vrij | Vrij |
| O65 | S4 | 31.50 | 80000.0 | Vrij | Vrij |
| O66 | S2 | 27.50 | 80000.0 | Vrij | Vrij |
| O67 | S2 | 31.50 | 80000.0 | Vrij | Vrij |
| | | | m | kN/m | kNm/rad |

GEWICHTSBEREKENING

| Index | Omschrijving | Berekening | Waarde | Eenheden |
|--------------------------|---------------------------------|------------|--------|----------|
| Gemeenschappelijk | | | | |
| Lsys1 | Systeemmaat as A losse stort | 1.1 | 1.10 | [m] |
| Lsys2 | Systeemmaat as A kistenbewaring | 1.1 | 1.10 | [m] |
| Lsys3 | Systeemmaat as H as 1-5 | 1.1 | 1.10 | [m] |
| Lsys4 | Systeemmaat as H as 5-11 | 1.1 | 1.10 | [m] |
| Lsys5 | Systeemmaat as 1 | 1.1 | 1.10 | [m] |

Projectnummer J
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| Index | Omschrijving | Berekening | Waarde | Eenheden |
|-------|-------------------|------------|--------|----------|
| Lsys6 | Systeemmaat as 11 | 1.2 | 1.20 | [m] |

LR1 (Permanente belasting prefab betonplint)

PERMANENTE BELASTING

Losse stort

| | | | | |
|-----|---------------------------------------|-------------|------|----------------------|
| Pp1 | Begane grondvloer 220 | 5.5 | 5.50 | [kN/m ²] |
| q1 | Permanente belasting as A losse stort | Pp1 * Lsys1 | 6.05 | [kN/m] |
| q2 | Permanente belasting as H as 1-5 | Pp1 * Lsys3 | 6.05 | [kN/m] |
| q3 | Permanente belasting as H as 5-11 | Pp1 * Lsys4 | 6.05 | [kN/m] |
| q4 | Permanente belasting as 1 losse stort | Pp1 * Lsys5 | 6.05 | [kN/m] |
| q5 | Permanente belasting as 11 | Pp1 * Lsys6 | 6.60 | [kN/m] |

Kistenbewaring

| | | | | |
|-----|--|-------------|------|----------------------|
| Pp2 | Begane grondvloer 240mm | 6.0 | 6.00 | [kN/m ²] |
| q6 | Permanente belasting as A kistenbewaring | Pp2 * Lsys2 | 6.60 | [kN/m] |
| q7 | Permanente belasting as 1 kistenbewaring | Pp2 * Lsys5 | 6.60 | [kN/m] |

Prefab betonplint

| | | | | |
|---------|--|-------------|-------|----------------------|
| Pp3 | Betonplint | 3.75 | 3.75 | [kN/m ²] |
| Height1 | Hoogte betonplint | 3 | 3.00 | [m] |
| q15 | Permanente belasting prefab betonplint | Pp3*Height1 | 11.25 | [kN/m] |

LR2 (Veranderlijke belasting as 1 kistenbewaring)

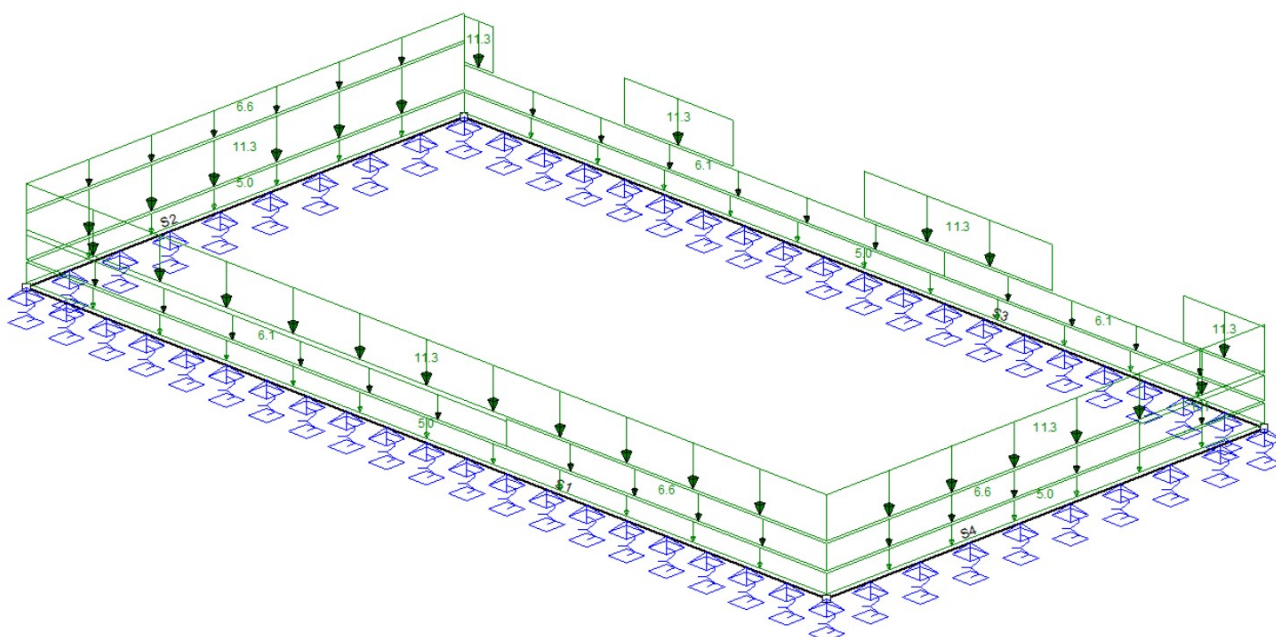
VERANDERLIJKE BELASTING

Losse stort

| | | | | |
|-----|--|-------------|-------|----------------------|
| qk1 | Begane grondvloer 220 | 35 | 35.00 | [kN/m ²] |
| q8 | Veranderlijke belasting as A losse stort | qk1 * Lsys1 | 38.50 | [kN/m] |
| q9 | Veranderlijke belasting as H as 1-5 | qk1 * Lsys3 | 38.50 | [kN/m] |
| q10 | Veranderlijke belasting as H as 5-11 | qk1 * Lsys4 | 38.50 | [kN/m] |
| q11 | Veranderlijke belasting as 1 | qk1 * Lsys5 | 38.50 | [kN/m] |
| q12 | Veranderlijke belasting as 11 | qk1 * Lsys6 | 42.00 | [kN/m] |

Kistenbewaring

| | | | | |
|-----|---|-------------|-------|----------------------|
| qk2 | Begane grondvloer 240mm | 45 | 45.00 | [kN/m ²] |
| q13 | Veranderlijke belasting as A kistenbewaring | qk2 * Lsys2 | 49.50 | [kN/m] |
| q14 | Veranderlijke belasting as 1 kistenbewaring | qk2 * Lsys5 | 49.50 | [kN/m] |

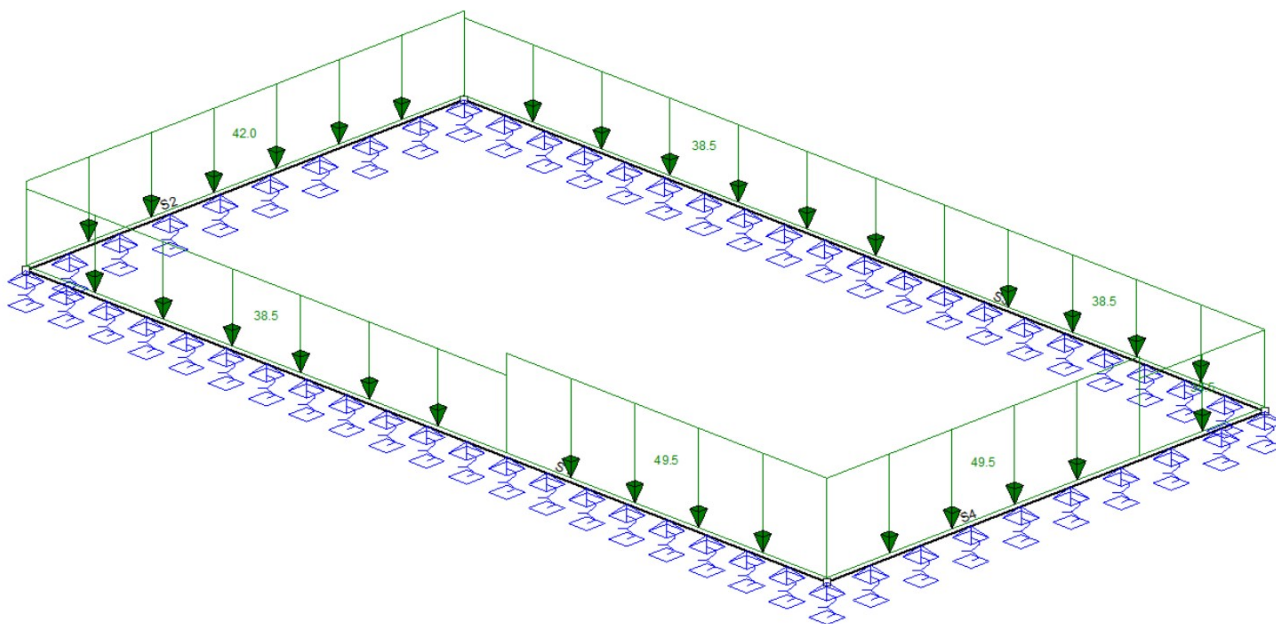
B.G.1: Permanent

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Eenheden: m, mm, kN, kNm

**B.G.1: PERMANENT**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|---------------------------|--------------|-------------|----------|----------------|--------------|
| qG | 1.0 | 1.0 | 0.00 | L | | Z S1-S4 | |
| q | 6.1 (q1) | 6.1 (q1) | 25.60 | 64.00 (L) | | Z S1 | |
| q | 6.1 (q2) | 6.1 (q2) | 0.00 | 25.60 | | Z S3 | |
| q | 6.1 (q3) | 6.1 (q3) | 25.60 | 64.00 (L) | | Z S3 | |
| q | 6.1 (q4) | 6.1 (q4) | 25.00 | 35.00 (L) | | Z S4 | |
| q | 6.6 (q5) | 6.6 (q5) | 0.00 | 35.00 (L) | | Z S2 | |
| q | 6.6 (q6) | 6.6 (q6) | 0.00 | 25.60 | | Z S1 | |
| q | 6.6 (q7) | 6.6 (q7) | 0.00 | 25.00 | | Z S4 | |
| q | 11.3 (q15) | 11.3 (q15) | 0.00 | L | | Z S1-S2,S4 | |
| q | 11.3 (q15) | 11.3 (q15) | 0.00 | 6.40 | | Z S3 | |
| q | 11.3 (q15) | 11.3 (q15) | 16.90 | 32.00 | | Z S3 | |
| q | 11.3 (q15) | 11.3 (q15) | 42.50 | 51.20 | | Z S3 | |
| q | 11.3 (q15) | 11.3 (q15) | 61.70 | 64.00 (L) | | Z S3 | |
| Som lasten | | Z: 4108.1 Xr: -0.0 | | | | | |
| | | | m | m | | | |

B.G.2: Verdeelde veranderlijke belasting**B.G.2: VERDEELDE VERANDERLIJKE BELASTING**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|-------------------|-------------|------------------------------------|--------------|-------------|----------|----------------|--------------|
| q | 38.5 (q8) | 38.5 (q8) | 25.60 | 64.00 (L) | | Z S1 | |
| q | 38.5 (q9) | 38.5 (q9) | 0.00 | 25.60 | | Z S3 | |
| q | 38.5 (q10) | 38.5 (q10) | 25.60 | 64.00 (L) | | Z S3 | |
| q | 38.5 (q11) | 38.5 (q11) | 25.00 | 35.00 (L) | | Z S4 | |
| q | 42.0 (q12) | 42.0 (q12) | 0.00 | 35.00 (L) | | Z S2 | |
| q | 49.5 (q13) | 49.5 (q13) | 0.00 | 25.60 | | Z S1 | |
| q | 49.5 (q14) | 49.5 (q14) | 0.00 | 25.00 | | Z S4 | |
| Som lasten | | Z: 8302.1 Xr: -0.0 Yr: -0.0 | | | | | |
| | | | m | m | | | |

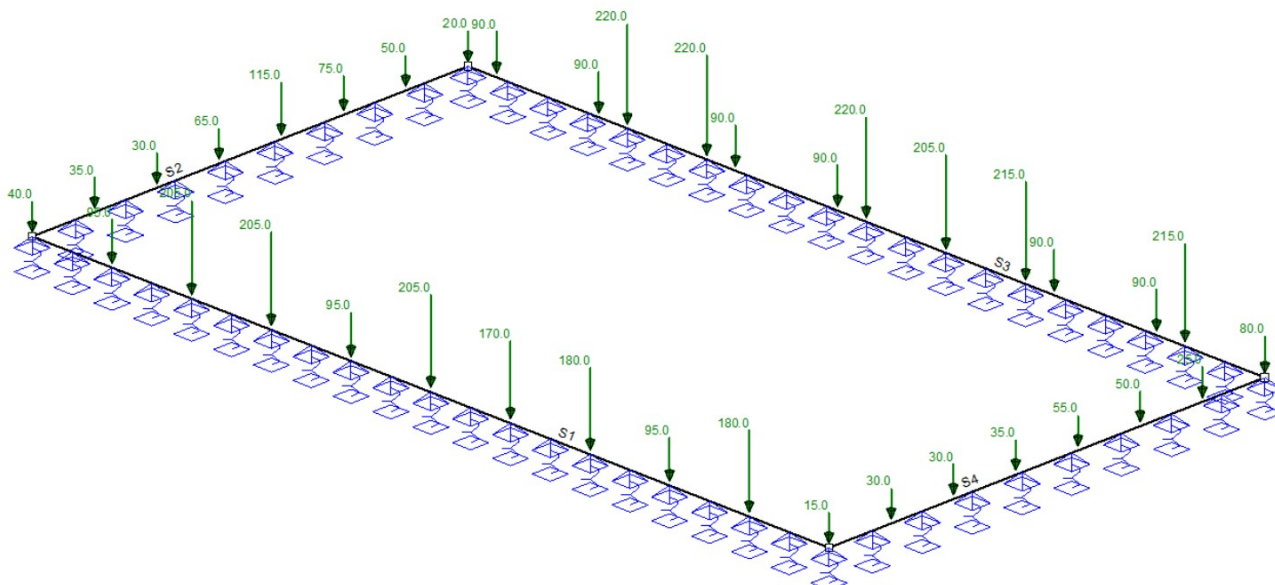
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



B.G.3: Fd max staal



B.G.3: FD MAX STAAL

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoep | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| F | 180.0 | | 6.40 | | Z | S1 | |
| F | 95.0 | | 12.80 | | Z | S1 | |
| F | 180.0 | | 19.20 | | Z | S1 | |
| F | 170.0 | | 25.60 | | Z | S1 | |
| F | 205.0 | | 32.00 | | Z | S1 | |
| F | 95.0 | | 38.40 | | Z | S1 | |
| F | 205.0 | | 44.80 | | Z | S1 | |
| F | 205.0 | | 51.20 | | Z | S1 | |
| F | 95.0 | | 57.60 | | Z | S1 | |
| F | 215.0 | | 6.40 | | Z | S3 | |
| F | 215.0 | | 19.20 | | Z | S3 | |
| F | 205.0 | | 25.60 | | Z | S3 | |
| F | 220.0 | | 32.00 | | Z | S3 | |
| F | 220.0 | | 44.80 | | Z | S3 | |
| F | 220.0 | | 51.20 | | Z | S3 | |
| N | 15.0 | | | | Z | K1 | |
| F | 30.0 | | 5.00 | | Z | S4 | |
| F | 30.0 | | 10.00 | | Z | S2,S4 | |
| F | 35.0 | | 15.00 | | Z | S4 | |
| F | 55.0 | | 20.00 | | Z | S4 | |
| F | 50.0 | | 25.00 | | Z | S4 | |
| F | 25.0 | | 30.00 | | Z | S4 | |
| N | 80.0 | | | | Z | K4 | |
| N | 40.0 | | | | Z | K2 | |
| F | 35.0 | | 5.00 | | Z | S2 | |
| F | 65.0 | | 15.00 | | Z | S2 | |
| F | 115.0 | | 20.00 | | Z | S2 | |
| F | 75.0 | | 25.00 | | Z | S2 | |
| F | 50.0 | | 30.00 | | Z | S2 | |
| N | 20.0 | | | | Z | K3 | |
| F | 90.0 | | 8.70 | | Z | S3 | |
| F | 90.0 | | 16.90 | | Z | S3 | |
| F | 90.0 | | 34.30 | | Z | S3 | |
| F | 90.0 | | 42.50 | | Z | S3 | |
| F | 90.0 | | 53.50 | | Z | S3 | |
| F | 90.0 | | 61.70 | | Z | S3 | |

m

m

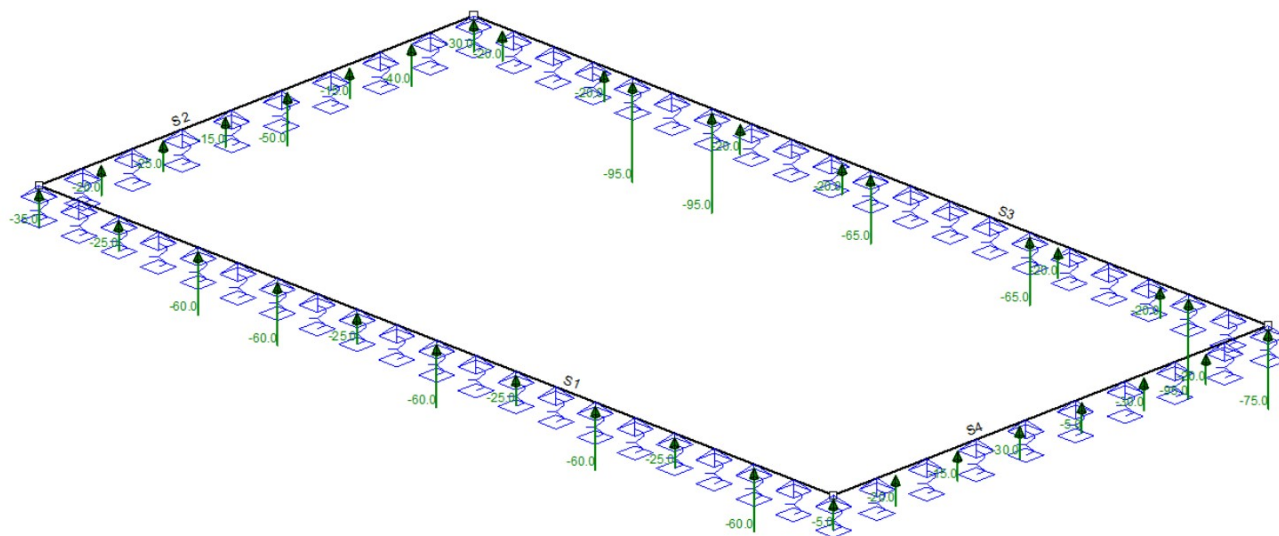
Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop | Omschrijving |
|------------|-------------|------------|--------------|-------------|----------|----------------|--------------|
| Som lasten | | Z: 4015.0 | | | | | |
| | | | m | m | | | |

B.G.4: F_d max staal trek



B.G.4: FD MAX STAAL TREK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaaf of knoop | Omschrijving |
|------|-------------|------------|--------------|-------------|----------|-----------------|--------------|
| F | -60.0 | | 6.40 | | Z | S1 | |
| F | -25.0 | | 12.80 | | Z | S1 | |
| F | -60.0 | | 19.20 | | Z | S1 | |
| F | -25.0 | | 25.60 | | Z | S1 | |
| F | -60.0 | | 32.00 | | Z | S1 | |
| F | -25.0 | | 38.40 | | Z | S1 | |
| F | -60.0 | | 44.80 | | Z | S1 | |
| F | -60.0 | | 51.20 | | Z | S1 | |
| F | -25.0 | | 57.60 | | Z | S1 | |
| F | -95.0 | | 6.40 | | Z | S3 | |
| F | -65.0 | | 19.20 | | Z | S3 | |
| F | -65.0 | | 32.00 | | Z | S3 | |
| F | -95.0 | | 44.80 | | Z | S3 | |
| F | -95.0 | | 51.20 | | Z | S3 | |
| N | -5.0 | | | | Z | K1 | |
| F | -20.0 | | 5.00 | | Z | S2,S4 | |
| F | -15.0 | | 10.00 | | Z | S4 | |
| F | -30.0 | | 15.00 | | Z | S4 | |
| F | -5.0 | | 20.00 | | Z | S4 | |
| F | -30.0 | | 25.00 | | Z | S4 | |
| F | -20.0 | | 30.00 | | Z | S4 | |
| N | -75.0 | | | | Z | K4 | |
| N | -35.0 | | | | Z | K2 | |
| F | -25.0 | | 10.00 | | Z | S2 | |
| F | -15.0 | | 15.00 | | Z | S2 | |
| F | -50.0 | | 20.00 | | Z | S2 | |
| F | -15.0 | | 25.00 | | Z | S2 | |
| F | -40.0 | | 30.00 | | Z | S2 | |
| N | -30.0 | | | | Z | K3 | |
| F | -20.0 | | 8.70 | | Z | S3 | |
| F | -20.0 | | 16.90 | | Z | S3 | |
| F | -20.0 | | 34.30 | | Z | S3 | |
| F | -20.0 | | 42.50 | | Z | S3 | |

Projectnummer
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bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm

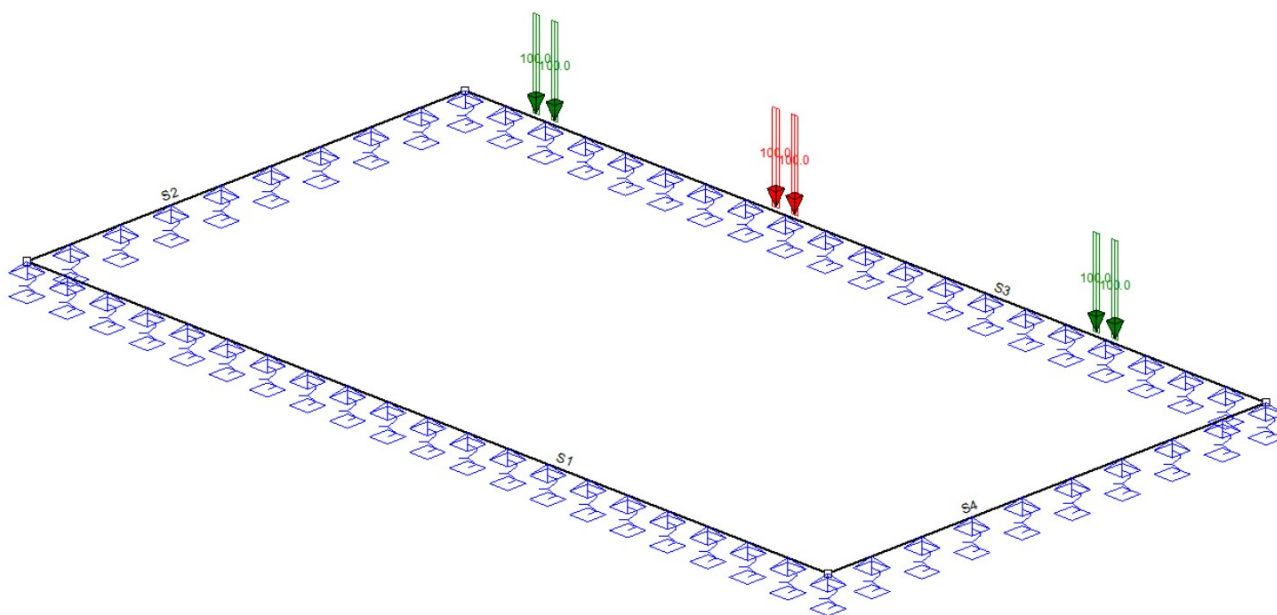


| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | StAAF of knoop | Omschrijving |
|-------------------|-------------|-------------------|--------------|-------------|----------|----------------|--------------|
| F | -20.0 | | 53.50 | | Z | S3 | |
| F | -20.0 | | 61.70 | | Z | S3 | |
| Som lasten | | Z: -1365.0 | | | | | |

m

m

B.G.5: Aslasten 1



B.G.5: ASLASTEN 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | StAAF of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | 100.0 | 100.0 | 11.80 | 12.30 | Z | S3 | |
| q | 100.0 | 100.0 | 13.30 | 13.80 | Z | S3 | |
| q | 100.0 | 100.0 | 37.40 | 37.90 | Z | S3 | |
| q | 100.0 | 100.0 | 38.90 | 39.40 | Z | S3 | |
| q | 100.0 | 100.0 | 56.60 | 57.10 | Z | S3 | |
| q | 100.0 | 100.0 | 58.10 | 58.60 | Z | S3 | |
| Som lasten | | Z: 300.0 | | | | | |

m

m

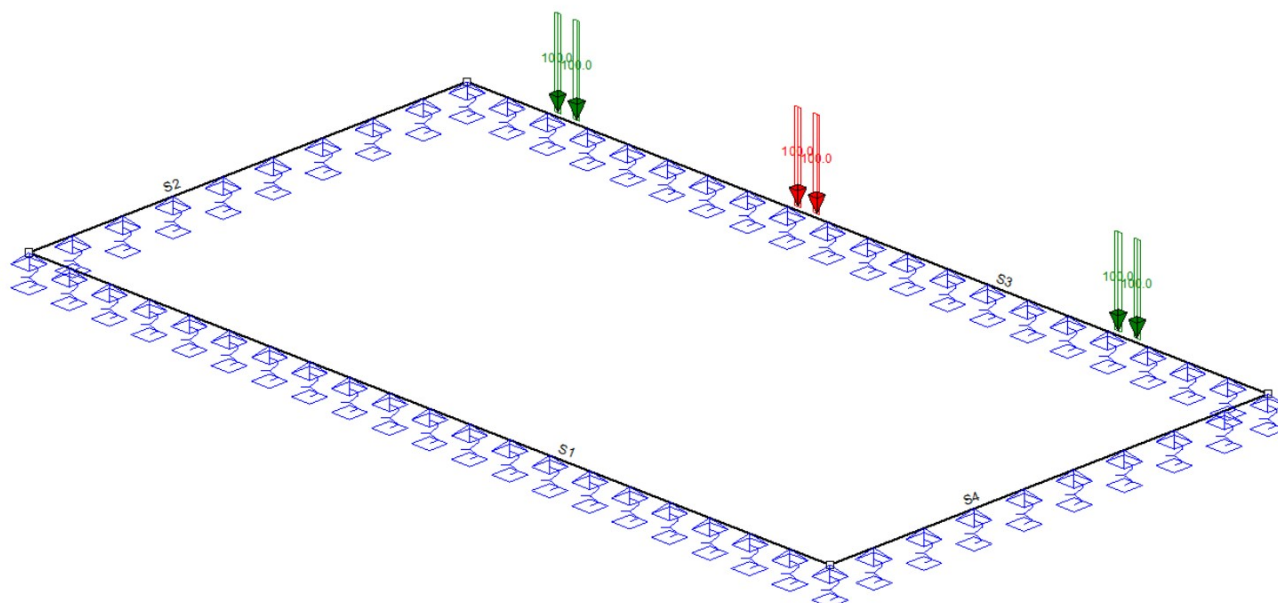
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



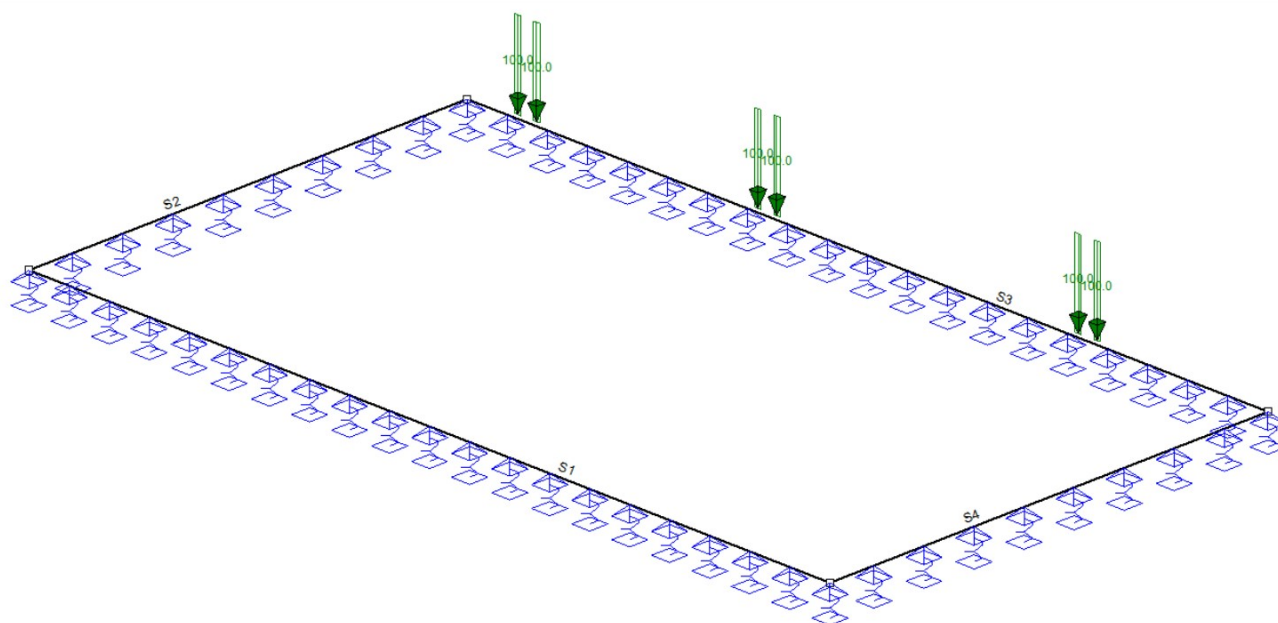
B.G.6: Aslasten 2



B.G.6: ASLASTEN 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staat of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|----------------|--------------|
| q | 100.0 | 100.0 | 10.20 | 10.70 | Z | S3 | |
| q | 100.0 | 100.0 | 11.70 | 12.20 | Z | S3 | |
| q | 100.0 | 100.0 | 35.80 | 36.30 | Z | S3 | |
| q | 100.0 | 100.0 | 37.30 | 37.80 | Z | S3 | |
| q | 100.0 | 100.0 | 55.00 | 55.50 | Z | S3 | |
| q | 100.0 | 100.0 | 56.50 | 57.00 | Z | S3 | |
| Som lasten | | Z: 300.0 | | | | | |
| | | | m | m | | | |

B.G.7: Aslasten 3



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm

**B.G.7: ASLASTEN 3**

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaft of knoop | Omschrijving |
|-------------------|-------------|-----------------|--------------|-------------|----------|-----------------|--------------|
| q | 100.0 | 100.0 | 13.40 | 13.90 | Z | S3 | |
| q | 100.0 | 100.0 | 14.90 | 15.40 | Z | S3 | |
| q | 100.0 | 100.0 | 39.00 | 39.50 | Z | S3 | |
| q | 100.0 | 100.0 | 40.50 | 41.00 | Z | S3 | |
| q | 100.0 | 100.0 | 58.20 | 58.70 | Z | S3 | |
| q | 100.0 | 100.0 | 59.70 | 60.20 | Z | S3 | |
| Som lasten | | Z: 300.0 | | | | | |
| | | | m | m | | | |

BELASTINGSCOMBINATIES**Fundamenteel**

| 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 | 1.08 | 1.22 | 0.90 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Verdeelde veranderlijk... | 1.35 | 1.35 | | | | |
| B.G.3 | Fd max staal | 1.00 | 0.70 | | 1.00 | 1.00 | 1.00 |
| B.G.4 | Fd max staal trek | | | 1.00 | | | |
| B.G.5 | Aslasten 1 | | | | 1.35 | | |
| B.G.6 | Aslasten 2 | | | | | 1.35 | |
| B.G.7 | Aslasten 3 | | | | | | 1.35 |

Karakteristiek

| 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 veranderlijk... | | 1.00 | | | | |
| B.G.3 | Fd max staal | | 1.00 | | 1.00 | 1.00 | 1.00 |
| B.G.4 | Fd max staal trek | | | 1.00 | | | |
| B.G.5 | Aslasten 1 | | | | 1.00 | | |
| B.G.6 | Aslasten 2 | | | | | 1.00 | |
| B.G.7 | Aslasten 3 | | | | | | 1.00 |

UITGANGSPUNTEN VAN DE ANALYSE

Geavanceerde Analyse
 Torsie reduceren

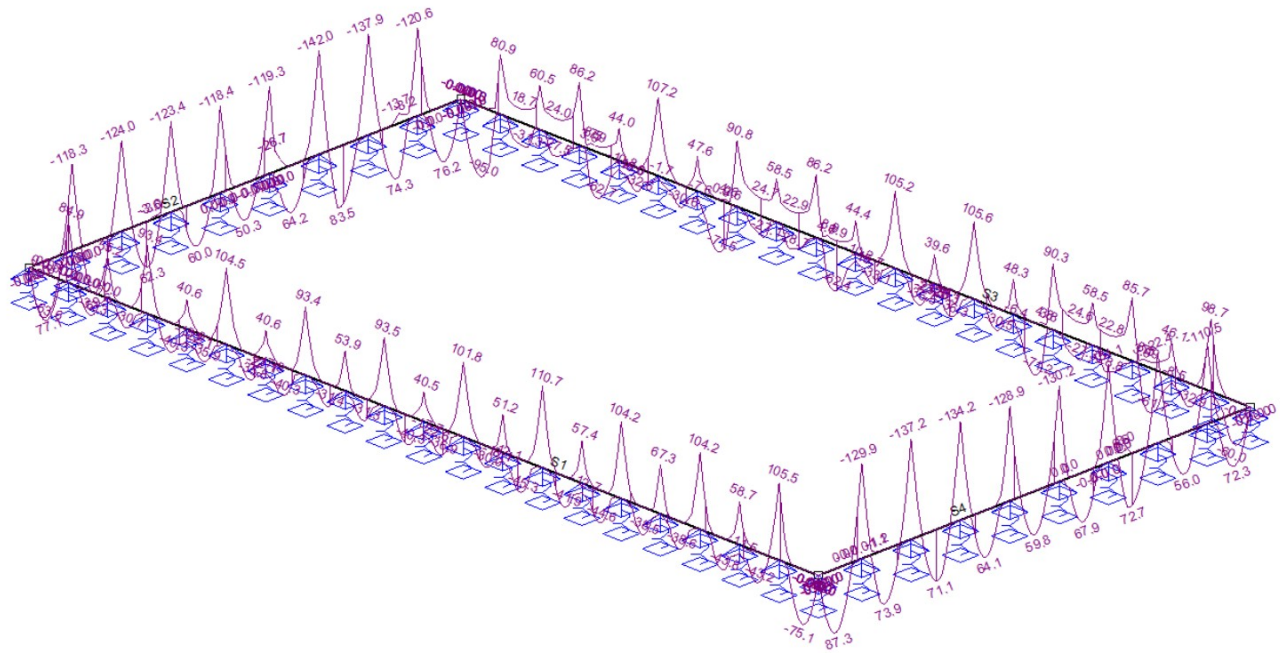
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

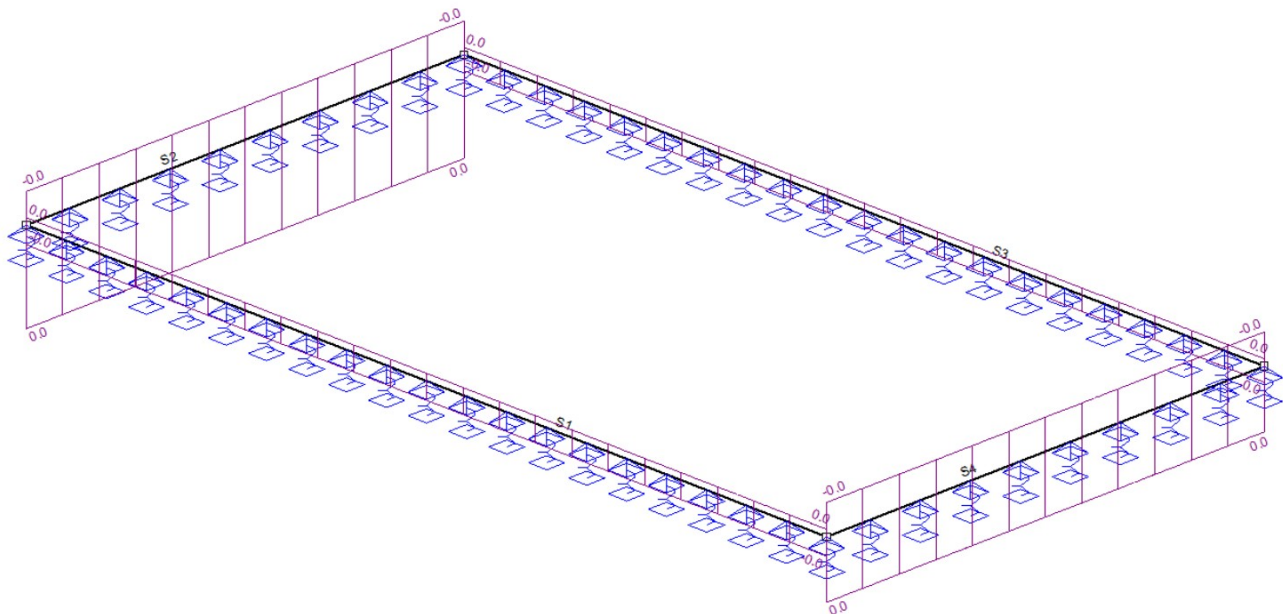
Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Momenten (My)



Fu.C. Omhullende Torsiemomenten

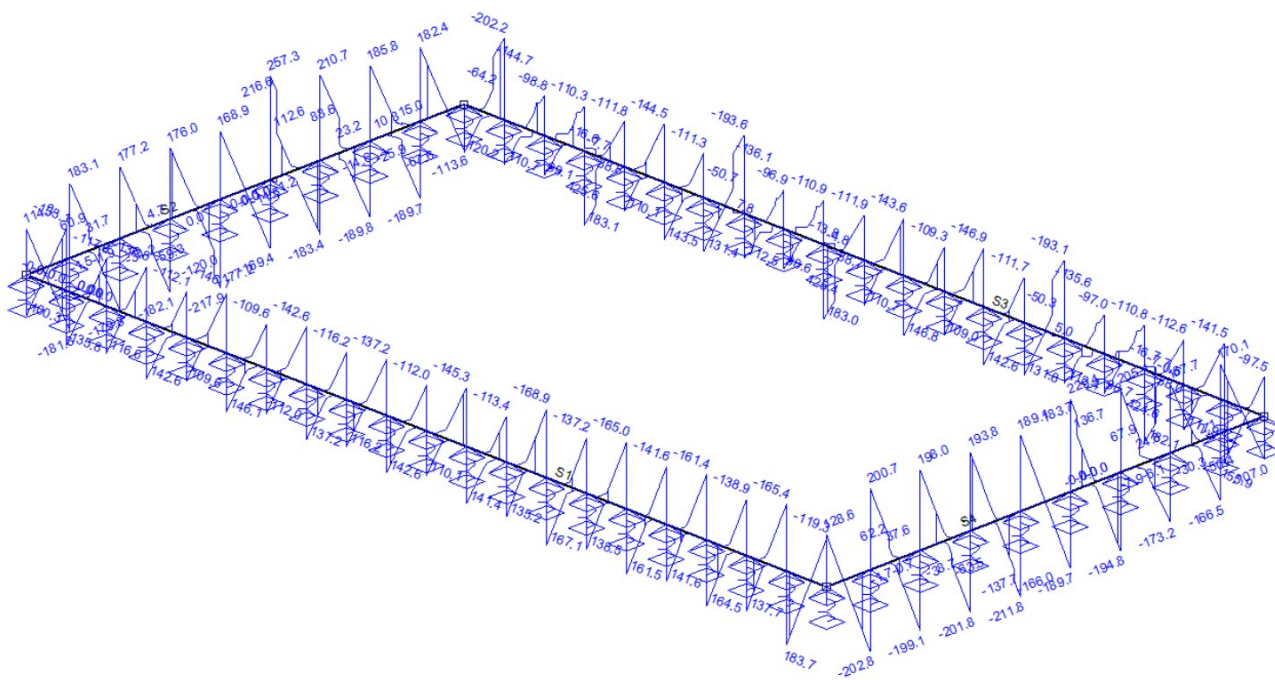


Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

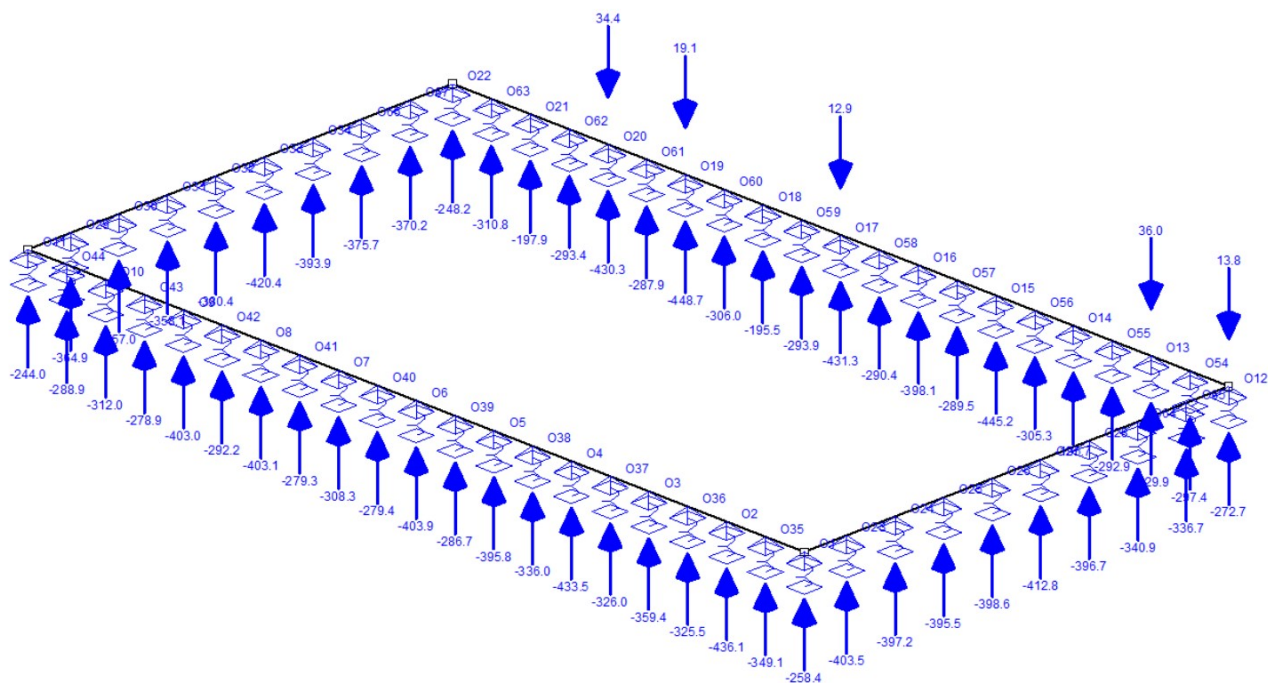
Eenheden: m, mm, kN, kNm



Fu.C. Omhullende Dwarskracht (Vz)



Fu.C. Omhullende Oplegreacties



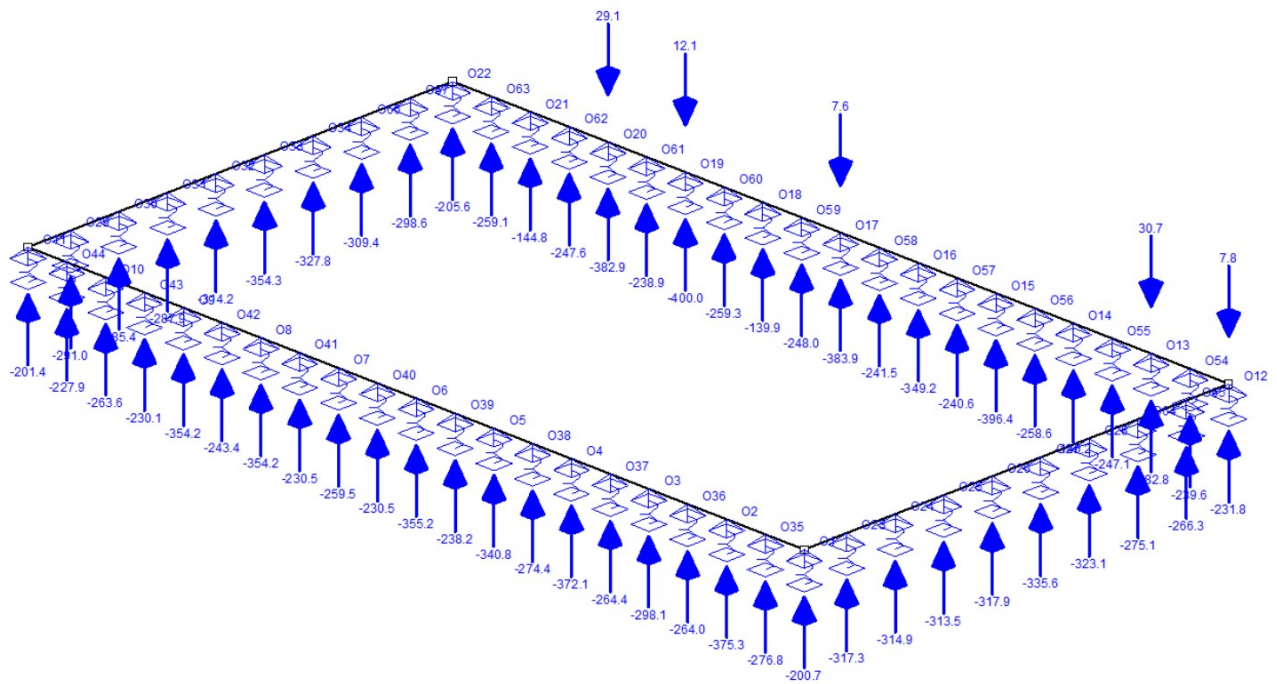
Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving



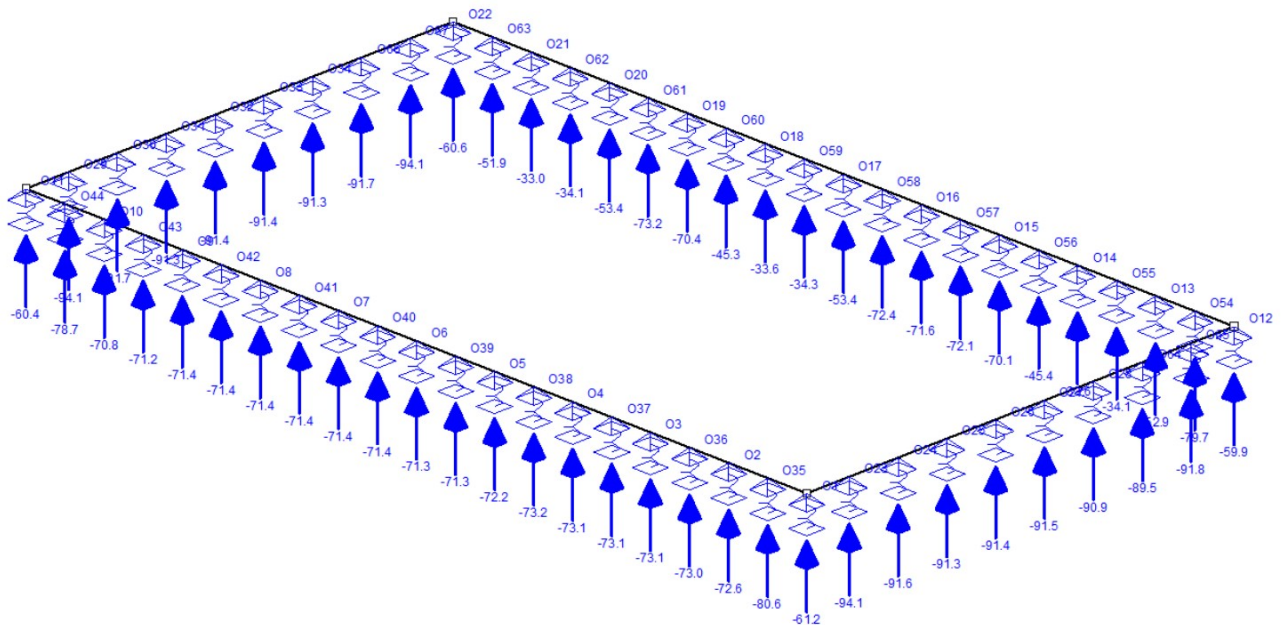
Eenheden: m, mm, kN, kNm



Ka.C. Omhullende Oplegreacties



Ka.C.(w1) Oplegreacties



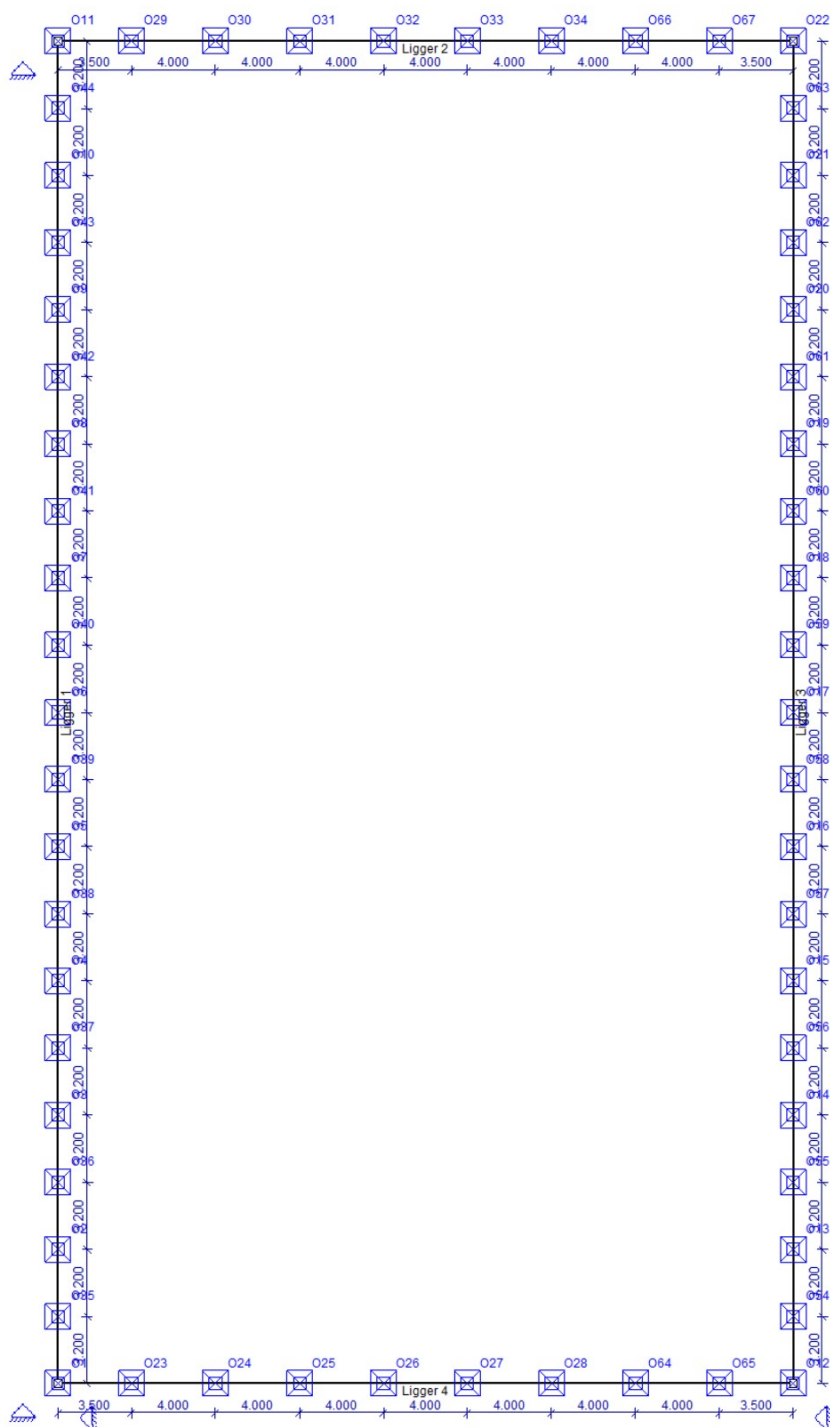
Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Betondefinitie



BETON EIGENSCHAPPEN(NEN-EN1992-1-1:2015\NB:2016)

| Naam | Waarde | Eenheden | Naam | Waarde | Eenheden |
|--------------------|--------|----------|--------|---------------------------|----------|
| Hoek drukdiagonaal | 21.80 | ° | Scheur | Afstand+diameter (#7.3.3) | |

CONSTRUCTIEDELEN

| Staal | Profiel | Omschrijving | Materiaal | Constr.Dl. | Type | Begin | Eind | Extra begin | Extra eind | Groep |
|-------|---------|--------------|-----------|------------|--------|-------|-------|-------------|------------|-------|
| S1 | P1 | 400 x 500 | C20/25 | Ligger 1 | Ligger | 0.00 | 64.00 | 0.20 | 0.20 | G1 |
| S2 | P1 | 400 x 500 | C20/25 | Ligger 2 | Ligger | 0.00 | 35.00 | 0.20 | 0.20 | G1 |
| | | | | | | m | m | m | m | |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



| Staaf | Profiel | Omschrijving | Materiaal | Constr.Dl. | Type | Begin | Eind | Extra begin | Extra eind | Groep |
|-------|---------|--------------|-----------|------------|--------|-------|-------|-------------|------------|-------|
| S3 | P1 | 400 x 500 | C20/25 | Ligger 3 | Ligger | 0.00 | 64.00 | 0.20 | 0.20 | G1 |
| S4 | P1 | 400 x 500 | C20/25 | Ligger 4 | Ligger | 0.00 | 35.00 | 0.20 | 0.20 | G1 |
| | | | | | | m | m | m | m | |

GROEPEN

| Groep | Type | Fabric. | L1 | L2 | Staal | N.Kor. | Stortsl. | Scheur | Toetsing |
|-------|--------|---------|-----|-----|-------|--------|----------|--------|--|
| G1 | Ligger | I.h.w. | N/B | N/B | B500B | 31.5 | 0.0 | Ja | b,min 400 >= 100 NEN-EN1992-1-1#9.2(1) |
| | | | m | m | | mm | mm | | mm |

KRUIPCOEFF.

| Groep | Cement | Klasse | Rel.V.(%) | Ouderdom | Tijd T | Kruipcoeff. Type | Kruipcoeff. |
|-------|--------|--------|-----------|----------|----------|------------------|-------------|
| G1 | S | A | 60 | 28 Dagen | 50 Jaren | Berekend | 2.62 |

DEKKING BOVEN

| Groep | Mil. | Constr.klasse | Ruw | Meting | Cmin. | Cnom. | Ctoe. |
|-------|------|---------------|-----|---------|-------|-------|-------|
| G1 | S4 | XC2 | Ja | Normaal | 30 | 35 | 35 |
| | | | | | mm | mm | mm |

DEKKING ONDER

| Groep | Mil. | Constr.klasse | Ruw | Meting | Cmin. | Cnom. | Ctoe. |
|-------|------|---------------|-----|---------|-------|-------|-------|
| G1 | S4 | XC2 | Ja | Normaal | 30 | 35 | 35 |
| | | | | | mm | mm | mm |

DEKKING ZIJDE

| Groep | Mil. | Constr.klasse | Ruw | Meting | Cmin. | Cnom. | Ctoe. |
|-------|------|---------------|-----|---------|-------|-------|-------|
| G1 | S4 | XC2 | Ja | Normaal | 30 | 35 | 35 |
| | | | | | mm | mm | mm |

OPLEGGINGEN

| Positie | Constr.Dl. | Label | Type | Afmeting | M _{pf} | M _{pf} boven | M _{pf} ond. | Dwarskr. | Moment |
|---------|------------|------------|------------|----------|-----------------|-----------------------|----------------------|---------------|---------------|
| 0.00 | Ligger 1 | O1 | Vierk.paal | 0.25 | Ja | 11.3 | 0.0 | Afgetopt | Niet afgetopt |
| 0.00 | | S4 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| 3.20 | | O35 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 6.40 | | O2 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 9.60 | | O36 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 12.80 | | O3 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 16.00 | | O37 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 19.20 | | O4 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 22.40 | | O38 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 25.60 | | O5 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 28.80 | | O39 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 32.00 | | O6 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 35.20 | | O40 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 38.40 | | O7 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 41.60 | | O41 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 44.80 | | O8 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 48.00 | | O42 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 51.20 | | O9 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 54.40 | | O43 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 57.60 | | O10 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 60.80 | | O44 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 64.00 | O11 | Vierk.paal | 0.25 | Ja | 9.5 | 0.0 | Afgetopt | Niet afgetopt | |
| 64.00 | S2 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt | |
| 0.00 | Ligger 2 | S1 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| m | | | | m | | kNm | kNm | | |

Projectnummer
 Projectomschrijving
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 Constructeur
 Omschrijving



Eenheden: m, mm, kN, kNm



| Positie | Constr.Dl. | Label | Type | Afmeting | M _{pf} | M _{pf} boven | M _{pf} ond. | Dwarskr. | Moment |
|---------|------------|-------|------------|----------|-----------------|-----------------------|----------------------|----------|---------------|
| 3.50 | | O29 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 7.50 | | O30 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 11.50 | | O31 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 15.50 | | O32 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 19.50 | | O33 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 23.50 | | O34 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 27.50 | | O66 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 31.50 | | O67 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 35.00 | | S3 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| 0.00 | Ligger 3 | O12 | Vierk.paal | 0.25 | Ja | 9.0 | 0.0 | Afgetopt | Niet afgetopt |
| 0.00 | | S4 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| 3.20 | | O54 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 6.40 | | O13 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 9.60 | | O55 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 12.80 | | O14 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 16.00 | | O56 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 19.20 | | O15 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 22.40 | | O57 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 25.60 | | O16 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 28.80 | | O58 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 32.00 | | O17 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 35.20 | | O59 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 38.40 | | O18 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 41.60 | | O60 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 44.80 | | O19 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 48.00 | | O61 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 51.20 | | O20 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 54.40 | | O62 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 57.60 | | O21 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 60.80 | | O63 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 64.00 | | O22 | Vierk.paal | 0.25 | Ja | 14.2 | 0.0 | Afgetopt | Niet afgetopt |
| 64.00 | | S2 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| 0.00 | Ligger 4 | S1 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| 3.50 | | O23 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 7.50 | | O24 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 11.50 | | O25 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 15.50 | | O26 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 19.50 | | O27 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 23.50 | | O28 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 27.50 | | O64 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 31.50 | | O65 | Vierk.paal | 0.25 | N/B | | | Afgetopt | Niet afgetopt |
| 35.00 | | S3 | Vierk.paal | 0.40 | Nee | | | Afgetopt | Niet afgetopt |
| m | | | | m | | kNm | kNm | | |

DOORSNEDE BOVENWAPENING

Ligger 1

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-----------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 0.00 | 11.3 | M _{pf} | 4R12 | 58 | 452 | | | | | 24.9 | 300 | |
| 3.20 | 105.5 | | 4R12 | 2R12 | 568 | 679 | | | | 15.2 | 219 | |
| 6.40 | 58.7 | | 4R12 | | 308 | 452 | | | | 8.6 | 128 | |
| 9.60 | 104.2 | | 4R12 | 2R12 | 561 | 679 | | | | 19.5 | 250 | |
| 12.80 | 67.3 | | 4R12 | | 355 | 452 | | | | 8.8 | 132 | |
| 16.00 | 104.2 | | 4R12 | 2R12 | 561 | 679 | | | | 19.3 | 249 | |
| 19.20 | 57.4 | | 4R12 | | 301 | 452 | | | | 8.7 | 131 | |
| 22.40 | 110.7 | | 4R12 | 2R12 | 598 | 679 | | | | 19.6 | 252 | |
| 25.60 | 51.2 | | 4R12 | | 268 | 452 | | | | 10.0 | 161 | |
| 28.80 | 101.8 | | 4R12 | 2R12 | 547 | 679 | | | | 23.3 | 285 | |
| 32.00 | 40.5 | | 4R12 | | 211 | 452 | | | | 11.8 | 190 | |
| 35.20 | 93.5 | | 4R12 | 2R12 | 500 | 679 | | | | 23.6 | 288 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

Projectnummer J
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever J
 Constructeur J
 Omschrijving

Eenheden: m, mm, kN, kNm



| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|---------------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 38.40 | 53.9 | 4R12 | | 282 | 452 | | | | | 11.8 | 189 | |
| 41.60 | 93.4 | 4R12 | 2R12 | 500 | 679 | | | | | 23.6 | 288 | |
| 44.80 | 40.6 | 4R12 | | 211 | 452 | | | | | 11.8 | 189 | |
| 48.00 | 104.5 | 4R12 | 2R12 | 562 | 679 | | | | | 23.6 | 288 | |
| 51.20 | 40.6 | 4R12 | | 211 | 452 | | | | | 11.8 | 189 | |
| 54.40 | 93.4 | 4R12 | 2R12 | 500 | 679 | | | | | 23.7 | 289 | |
| 57.60 | 55.2 | 4R12 | | 290 | 452 | | | | | 11.6 | 186 | |
| 60.80 | 84.9 | 4R12 | 2R12 | 452 | 679 | | | | | 20.7 | 261 | |
| 64.00 | 9.5 M _{pf} | 4R12 | | 49 | 452 | | | | | 24.9 | 300 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE ONDERWAPENING

Ligger 1

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 1.26 | 75.1 | 4R12 | | 398 | 452 | | | | | 8.9 | 137 | |
| 5.00 | 43.2 | 4R12 | | 225 | 452 | | | | | 24.9 | 300 | |
| 7.80 | 43.8 | 4R12 | | 228 | 452 | | | | | 24.9 | 300 | |
| 11.30 | 38.6 | 4R12 | | 201 | 452 | | | | | 24.9 | 300 | |
| 14.30 | 38.5 | 4R12 | | 200 | 452 | | | | | 24.9 | 300 | |
| 17.80 | 44.6 | 4R12 | | 233 | 452 | | | | | 24.9 | 300 | |
| 20.65 | 41.9 | 4R12 | | 218 | 452 | | | | | 24.9 | 300 | |
| 24.17 | 45.3 | 4R12 | | 236 | 452 | | | | | 24.9 | 300 | |
| 27.03 | 30.0 | 4R12 | | 155 | 452 | | | | | 24.9 | 300 | |
| 30.71 | 36.9 | 4R12 | | 192 | 452 | | | | | 24.9 | 300 | |
| 33.32 | 40.3 | 4R12 | | 210 | 452 | | | | | 24.9 | 300 | |
| 36.93 | 31.3 | 4R12 | | 162 | 452 | | | | | 24.9 | 300 | |
| 39.87 | 31.4 | 4R12 | | 162 | 452 | | | | | 24.9 | 300 | |
| 43.48 | 40.3 | 4R12 | | 210 | 452 | | | | | 24.9 | 300 | |
| 46.08 | 35.8 | 4R12 | | 186 | 452 | | | | | 24.9 | 300 | |
| 49.92 | 35.9 | 4R12 | | 186 | 452 | | | | | 24.9 | 300 | |
| 52.52 | 40.3 | 4R12 | | 210 | 452 | | | | | 24.9 | 300 | |
| 56.13 | 30.7 | 4R12 | | 159 | 452 | | | | | 24.9 | 300 | |
| 59.04 | 32.3 | 4R12 | | 168 | 452 | | | | | 24.9 | 300 | |
| 62.73 | 63.6 | 4R12 | | 335 | 452 | | | | | 12.0 | 194 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE FLANKWAPENING

Ligger 1

| Positie | M _x | Basis | bijleg | A _{s,ben} | A _{s,toegepast} |
|---------|----------------|-------|--------|--------------------|--------------------------|
| 0.00 | 0.0 | R8 | | 0 | 50 |
| m | kNm | | | mm ² | mm ² |

DOORSNEDE BEUGELWAPENING

Ligger 1

| Positie | Zijde | V _{Ed} | Basis | Totaal | A _{s,benV} | A _{s,benT} | A _{s,toegepast} | V _{Rd,c} | V _{Rd} | V _{Rdi} | V _{Edi} |
|---------|--------|-----------------|--------|--------|---------------------|---------------------|--------------------------|-------------------|-----------------|------------------|------------------|
| 0.58 | Rechts | 64.8 | R8-300 | R8-300 | 150 | 0 | 335 | 61.7 | 144.7 | | |
| 2.62 | Links | 129.2 | R8-300 | R8-300 | 306 | 0 | 335 | 70.7 | 141.5 | | |
| 3.78 | Rechts | 112.3 | R8-300 | R8-300 | 266 | 0 | 335 | 70.7 | 141.5 | | |
| 5.82 | Links | 83.1 | R8-300 | R8-300 | 192 | 0 | 335 | 61.7 | 144.7 | | |
| 6.98 | Rechts | 84.4 | R8-300 | R8-300 | 195 | 0 | 335 | 61.7 | 144.7 | | |
| 9.02 | Links | 111.8 | R8-300 | R8-300 | 265 | 0 | 335 | 70.7 | 141.5 | | |
| 10.18 | Rechts | 107.9 | R8-300 | R8-300 | 255 | 0 | 335 | 70.7 | 141.5 | | |
| 12.22 | Links | 87.1 | R8-300 | R8-300 | 202 | 0 | 335 | 61.7 | 144.7 | | |
| 13.38 | Rechts | 87.0 | R8-300 | R8-300 | 202 | 0 | 335 | 61.7 | 144.7 | | |
| 15.42 | Links | 107.9 | R8-300 | R8-300 | 255 | 0 | 335 | 70.7 | 141.5 | | |
| 16.58 | Rechts | 112.3 | R8-300 | R8-300 | 266 | 0 | 335 | 70.7 | 141.5 | | |
| 18.62 | Links | 83.9 | R8-300 | R8-300 | 194 | 0 | 335 | 61.7 | 144.7 | | |
| 19.78 | Rechts | 82.6 | R8-300 | R8-300 | 191 | 0 | 335 | 61.7 | 144.7 | | |
| 21.82 | Links | 114.4 | R8-300 | R8-300 | 271 | 0 | 335 | 70.7 | 141.5 | | |
| m | | kN | | | mm ² | mm ² | mm ² | kN | kN | kN | kN |

Projectnummer
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Omschrijving

bedrijfsloods Parlevliet Agro

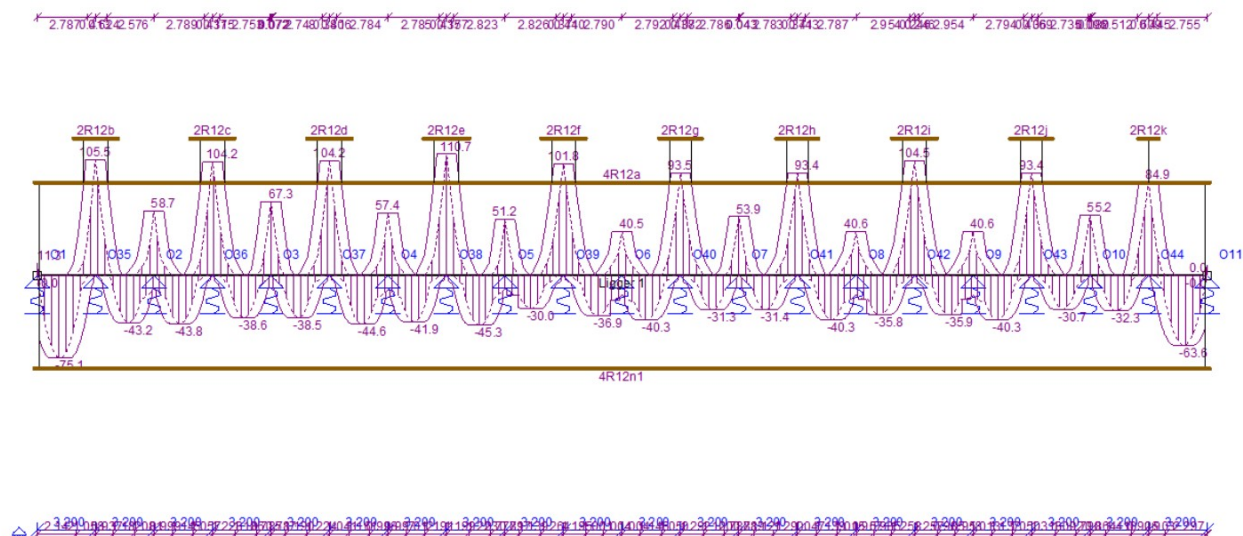
Eenheden: m, mm, kN, kNm



| Positie | Zijde | V _{Ed} | Basis | Totaal | A _{s,benV} | A _{s,benT} | A _{s,toegepast} | V _{Rd,c} | V _{Rd} | V _{Rdi} | V _{Edi} |
|----------|--------|-----------------|--------|--------|-----------------------|-----------------------|--------------------------|-------------------|-----------------|------------------|------------------|
| 22.98 | Rechts | 116.2 | R8-300 | R8-300 | 275 | 0 | 335 | 70.7 | 141.5 | | |
| 25.02 | Links | 80.7 | R8-300 | R8-300 | 187 | 0 | 335 | 61.7 | 144.7 | | |
| 26.18 | Rechts | 67.8 | R8-300 | R8-300 | 157 | 0 | 335 | 61.7 | 144.7 | | |
| 28.22 | Links | 97.6 | R8-300 | R8-300 | 231 | 0 | 335 | 70.7 | 141.5 | | |
| 29.38 | Rechts | 101.4 | R8-300 | R8-300 | 240 | 0 | 335 | 70.7 | 141.5 | | |
| 31.42 | Links | 64.5 | R8-300 | R8-300 | 149 | 0 | 335 | 61.7 | 144.7 | | |
| 32.58 | Rechts | 66.4 | R8-300 | R8-300 | 154 | 0 | 335 | 61.7 | 144.7 | | |
| 34.62 | Links | 98.8 | R8-300 | R8-300 | 234 | 0 | 335 | 70.7 | 141.5 | | |
| 35.78 | Rechts | 92.9 | R8-300 | R8-300 | 220 | 0 | 335 | 70.7 | 141.5 | | |
| 37.82 | Links | 70.6 | R8-300 | R8-300 | 163 | 0 | 335 | 61.7 | 144.7 | | |
| 38.98 | Rechts | 70.6 | R8-300 | R8-300 | 163 | 0 | 335 | 61.7 | 144.7 | | |
| 41.02 | Links | 92.9 | R8-300 | R8-300 | 220 | 0 | 335 | 70.7 | 141.5 | | |
| 42.18 | Rechts | 98.8 | R8-300 | R8-300 | 234 | 0 | 335 | 70.7 | 141.5 | | |
| 44.22 | Links | 66.4 | R8-300 | R8-300 | 154 | 0 | 335 | 61.7 | 144.7 | | |
| 45.38 | Rechts | 64.0 | R8-300 | R8-300 | 148 | 0 | 335 | 61.7 | 144.7 | | |
| 47.42 | Links | 102.3 | R8-300 | R8-300 | 242 | 0 | 335 | 70.7 | 141.5 | | |
| 48.58 | Rechts | 102.3 | R8-300 | R8-300 | 242 | 0 | 335 | 70.7 | 141.5 | | |
| 50.62 | Links | 64.0 | R8-300 | R8-300 | 148 | 0 | 335 | 61.7 | 144.7 | | |
| 51.78 | Rechts | 66.4 | R8-300 | R8-300 | 154 | 0 | 335 | 61.7 | 144.7 | | |
| 53.82 | Links | 98.8 | R8-300 | R8-300 | 234 | 0 | 335 | 70.7 | 141.5 | | |
| 54.98 | Rechts | 92.4 | R8-300 | R8-300 | 219 | 0 | 335 | 70.7 | 141.5 | | |
| 57.02 | Links | 71.0 | R8-300 | R8-300 | 164 | 0 | 335 | 61.7 | 144.7 | | |
| 58.18 | Rechts | 72.0 | R8-300 | R8-300 | 167 | 0 | 335 | 61.7 | 144.7 | | |
| 60.22 | Links | 90.2 | R8-300 | R8-300 | 214 | 0 | 335 | 70.7 | 141.5 | | |
| 61.38 | Rechts | 107.5 | R8-300 | R8-300 | 254 | 0 | 335 | 70.7 | 141.5 | | |
| 63.42 | Links | 54.7 | R8-300 | R8-300 | 127 | 0 | 335 | 61.7 | 144.7 | | |
| m | | kN | | | mm² | mm² | mm² | kN | kN | kN | kN |

Langswap. (Afbouw)

Ligger 1



Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

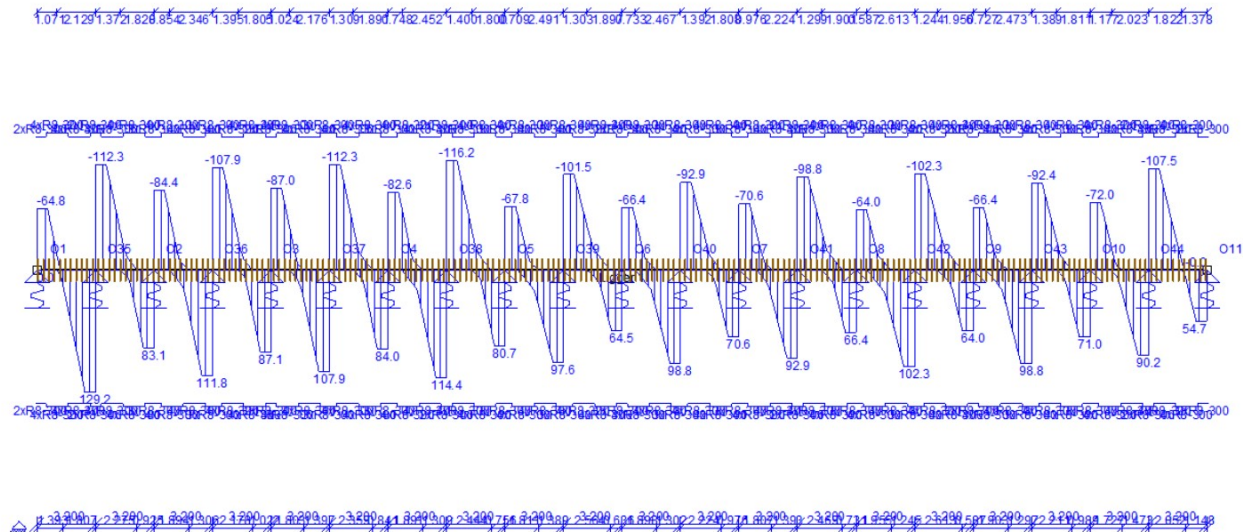
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



Dwarskrachtwap. (Afbouw)

Ligger 1



DOORSNEDE BOVENWAPENING

Ligger 2

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 3.50 | 118.3 | 4R12 | 2R16 | 644 | 855 | | | | | 14.9 | 220 | |
| 7.50 | 124.0 | 4R12 | 2R16 | 677 | 855 | | | | | 13.8 | 212 | |
| 10.00 | 3.6 | 4R12 | | 18 | 452 | | | | | 24.9 | 300 | |
| 11.50 | 123.4 | 4R12 | 2R16 | 673 | 855 | | | | | 14.2 | 215 | |
| 15.50 | 118.4 | 4R12 | 2R16 | 644 | 855 | | | | | 14.2 | 214 | |
| 19.50 | 119.3 | 4R12 | 2R16 | 649 | 855 | | | | | 14.2 | 214 | |
| 20.00 | 26.7 | 4R12 | 2R16 | 138 | 855 | | | | | 24.4 | 300 | |
| 23.50 | 142.0 | 4R12 | 2R16 | 784 | 855 | | | | | 14.2 | 215 | |
| 27.50 | 137.9 | 4R12 | 2R16 | 759 | 855 | | | | | 13.8 | 212 | |
| 30.00 | 13.7 | 4R12 | | 70 | 452 | | | | | 24.9 | 300 | |
| 31.50 | 120.6 | 4R12 | 2R16 | 657 | 855 | | | | | 14.9 | 220 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE ONDERWAPENING

Ligger 2

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 1.35 | 77.1 | 4R12 | 2R12 | 409 | 679 | | | | | 19.5 | 250 | |
| 5.32 | 69.6 | 4R12 | 2R12 | 368 | 679 | | | | | 24.9 | 300 | |
| 9.64 | 62.3 | 4R12 | 2R12 | 328 | 679 | | | | | 24.9 | 300 | |
| 13.58 | 60.0 | 4R12 | | 315 | 452 | | | | | 18.6 | 244 | |
| 17.50 | 50.3 | 4R12 | | 263 | 452 | | | | | 18.2 | 241 | |
| 21.25 | 64.2 | 4R12 | | 338 | 452 | | | | | 20.0 | 255 | |
| 25.17 | 83.5 | 4R12 | 2R12 | 445 | 679 | | | | | 24.9 | 300 | |
| 29.78 | 74.3 | 4R12 | 2R12 | 393 | 679 | | | | | 24.9 | 300 | |
| 33.66 | 76.2 | 4R12 | 2R12 | 404 | 679 | | | | | 19.5 | 250 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE FLANKWAPENING

Ligger 2

| Positie | M _x Basis | bijleg | A _{s,ben} | A _{s,toegepast} |
|---------|----------------------|--------|--------------------|--------------------------|
| 0.00 | 0.0 R8 | | 0 | 50 |
| m | kNm | | mm ² | mm ² |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



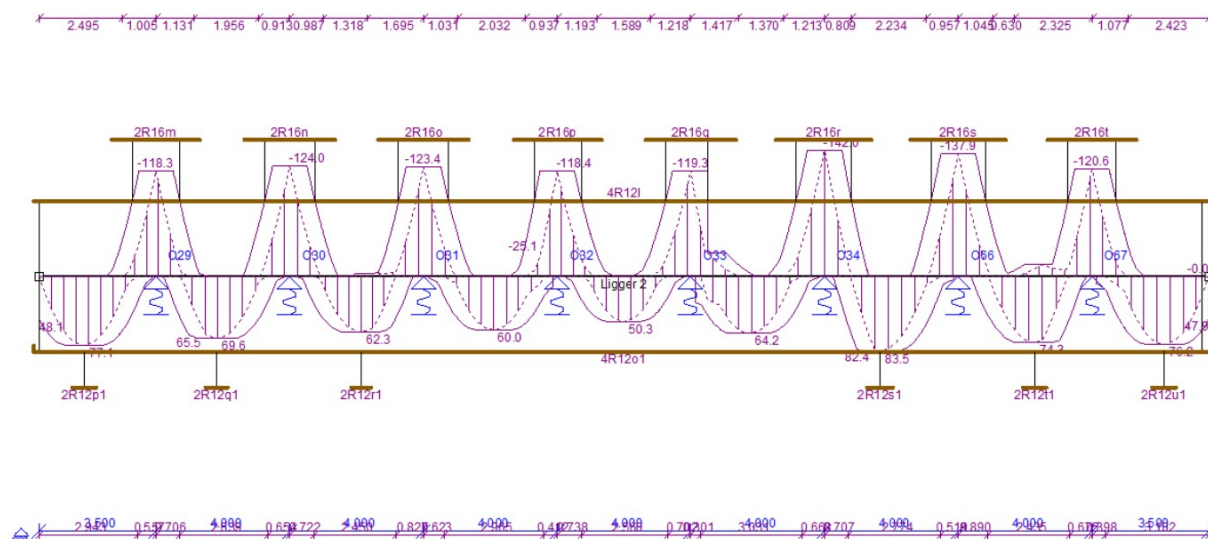
DOORSNEDE BEUGELWAPENING

Ligger 2

| Positie | Zijde | V _{Ed} | Basis | Totaal | A _{s,benV} | A _{s,benT} | A _{s,toegepast} | V _{Rd,c} | V _{Rd} | V _{Rdi} | V _{Edi} |
|----------|--------|-----------------|--------|--------|-----------------------|-----------------------|--------------------------|-------------------|-----------------|------------------|------------------|
| 0.20 | Rechts | 97.3 | R8-300 | R8-300 | 230 | 0 | 335 | 61.7 | 141.5 | | |
| 2.92 | Links | 133.2 | R8-300 | R8-300 | 322 | 0 | 335 | 76.2 | 138.7 | | |
| 4.08 | Rechts | 136.2 | R8-300 | R8-300 | 329 | 0 | 335 | 76.2 | 138.7 | | |
| 6.92 | Links | 131.1 | R8-300 | R8-300 | 317 | 0 | 335 | 76.2 | 138.7 | | |
| 8.08 | Rechts | 128.6 | R8-300 | R8-300 | 311 | 0 | 335 | 76.2 | 138.7 | | |
| 10.92 | Links | 134.6 | R8-300 | R8-300 | 325 | 0 | 335 | 76.2 | 138.7 | | |
| 12.08 | Rechts | 127.4 | R8-300 | R8-300 | 308 | 0 | 335 | 76.2 | 138.7 | | |
| 14.92 | Links | 113.6 | R8-300 | R8-300 | 275 | 0 | 335 | 76.2 | 138.7 | | |
| 16.08 | Rechts | 120.3 | R8-300 | R8-300 | 291 | 0 | 335 | 76.2 | 138.7 | | |
| 18.92 | Links | 120.7 | R8-300 | R8-300 | 292 | 0 | 335 | 76.2 | 138.7 | | |
| 20.08 | Rechts | 106.2 | R8-300 | R8-300 | 246 | 0 | 335 | 61.7 | 144.7 | | |
| 22.92 | Links | 136.4 | R8-300 | R8-300 | 329 | 0 | 335 | 76.2 | 138.7 | | |
| 24.08 | Rechts | 163.9 | R8-300 | R8-150 | 396 | 0 | 670 | 76.2 | 277.4 | | |
| 26.92 | Links | 143.1 | R8-300 | R8-150 | 346 | 0 | 670 | 76.2 | 277.4 | | |
| 28.08 | Rechts | 139.0 | R8-300 | R8-150 | 336 | 0 | 670 | 76.2 | 277.4 | | |
| 30.92 | Links | 142.9 | R8-300 | R8-150 | 345 | 0 | 670 | 76.2 | 277.4 | | |
| 32.08 | Rechts | 133.8 | R8-300 | R8-300 | 323 | 0 | 335 | 76.2 | 138.7 | | |
| 34.80 | Links | 96.7 | R8-300 | R8-300 | 229 | 0 | 335 | 61.7 | 141.5 | | |
| m | | kN | | | mm² | mm² | mm² | kN | kN | kN | kN |

Langswap. (Afbouw)

Ligger 2



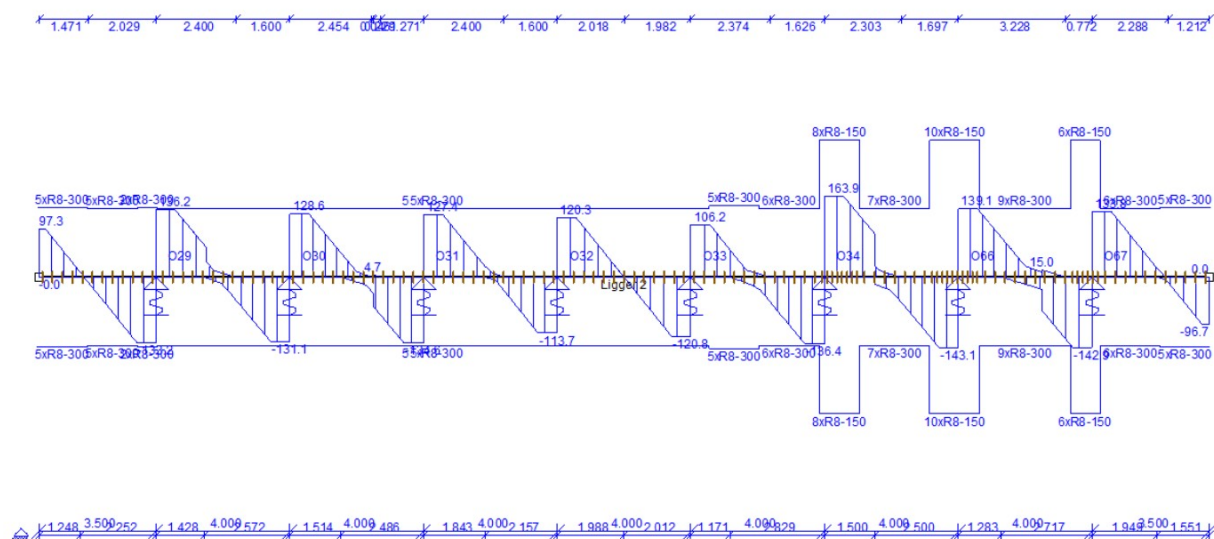
Projectnummer [REDACTED]
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever [REDACTED]
 Constructeur [REDACTED]
 Omschrijving [REDACTED]

Eenheden: m, mm, kN, kNm



Dwarskrachtwap. (Afbouw)

Ligger 2



DOORSNEDE BOVENWAPENING

Ligger 3

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|----------|-----------------|-----------------|--------|-----------------------|--------------------------|---------------|--------|-----------------------|--------------------------|-------------------------|------------------|----------|
| 0.00 | 9.0 | M _{pf} | 4R12 | 46 | 452 | | | | | 24.9 | 300 | |
| 3.20 | 98.7 | | 4R12 | 2R12 | 529 | 679 | | | | 21.2 | 266 | |
| 6.40 | 46.1 | | 4R12 | | 241 | 452 | | | | 14.7 | 216 | |
| 8.70 | 8.5 | | 4R12 | | 44 | 452 | | | | 24.9 | 300 | |
| 9.60 | 85.7 | | 4R12 | 2R12 | 456 | 679 | | | | 24.9 | 300 | |
| 12.80 | 58.5 | | 4R12 | | 307 | 452 | | | | 19.6 | 252 | |
| 16.00 | 90.3 | | 4R12 | 2R12 | 483 | 679 | | | | 24.9 | 300 | |
| 16.90 | 4.8 | | 4R12 | | 25 | 452 | | | | 24.9 | 300 | |
| 19.20 | 48.3 | | 4R12 | | 252 | 452 | | | | 12.7 | 202 | |
| 22.40 | 105.6 | | 4R12 | 2R12 | 569 | 679 | | | | 23.5 | 287 | |
| 25.60 | 39.6 | | 4R12 | | 206 | 452 | | | | 11.7 | 188 | |
| 28.80 | 105.2 | | 4R12 | 2R12 | 566 | 679 | | | | 23.9 | 291 | |
| 32.00 | 44.4 | | 4R12 | | 231 | 452 | | | | 15.2 | 220 | |
| 34.30 | 8.9 | | 4R12 | | 45 | 452 | | | | 24.9 | 300 | |
| 35.20 | 86.2 | | 4R12 | 2R12 | 459 | 679 | | | | 24.9 | 300 | |
| 38.40 | 58.5 | | 4R12 | | 307 | 452 | | | | 19.6 | 252 | |
| 41.60 | 90.8 | | 4R12 | 2R12 | 485 | 679 | | | | 24.9 | 300 | |
| 42.50 | 4.6 | | 4R12 | | 23 | 452 | | | | 24.9 | 300 | |
| 44.80 | 47.6 | | 4R12 | | 248 | 452 | | | | 12.6 | 201 | |
| 48.00 | 107.2 | | 4R12 | 2R12 | 578 | 679 | | | | 23.8 | 290 | |
| 51.20 | 44.0 | | 4R12 | | 229 | 452 | | | | 15.2 | 219 | |
| 53.50 | 8.5 | | 4R12 | | 43 | 452 | | | | 24.9 | 300 | |
| 54.40 | 86.2 | | 4R12 | 2R12 | 459 | 679 | | | | 24.9 | 300 | |
| 57.60 | 60.5 | | 4R12 | | 318 | 452 | | | | 19.3 | 249 | |
| 60.80 | 80.9 | | 4R12 | 2R12 | 430 | 679 | | | | 23.0 | 283 | |
| 64.00 | 14.2 | M _{pf} | 4R12 | | 73 | 452 | | | | 24.9 | 300 | |
| m | kNm | | | mm² | mm² | | | mm² | mm² | mm | mm | |

DOORSNEDE ONDERWAPENING

Ligger 3

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 1.23 | 60.0 | 4R12 | | 315 | 452 | | | | | 12.0 | 193 | |
| 4.99 | 32.9 | 4R12 | | 171 | 452 | | | | | 24.9 | 300 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

Projectnummer
 Projectomschrijving
 Opdrachtgever
 Constructeur
 Omschrijving

Eenheden: m, mm, kN, kNm



| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 8.16 | 61.7 | 4R12 | | 325 | 452 | | | | | 24.9 | 300 | |
| 11.72 | 28.8 | 4R12 | | 149 | 452 | | | | | 24.9 | 300 | |
| 13.87 | 27.3 | 4R12 | | 141 | 452 | | | | | 24.9 | 300 | |
| 17.50 | 71.2 | 4R12 | | 376 | 452 | | | | | 24.9 | 300 | |
| 20.61 | 30.5 | 4R12 | | 158 | 452 | | | | | 24.9 | 300 | |
| 24.33 | 36.3 | 4R12 | | 188 | 452 | | | | | 24.9 | 300 | |
| 26.87 | 36.5 | 4R12 | | 189 | 452 | | | | | 24.9 | 300 | |
| 30.60 | 33.1 | 4R12 | | 171 | 452 | | | | | 24.9 | 300 | |
| 33.75 | 62.4 | 4R12 | | 329 | 452 | | | | | 24.9 | 300 | |
| 37.32 | 28.7 | 4R12 | | 148 | 452 | | | | | 24.9 | 300 | |
| 39.47 | 27.1 | 4R12 | | 140 | 452 | | | | | 24.9 | 300 | |
| 43.11 | 71.5 | 4R12 | | 378 | 452 | | | | | 24.9 | 300 | |
| 46.21 | 30.6 | 4R12 | | 158 | 452 | | | | | 24.9 | 300 | |
| 49.81 | 32.6 | 4R12 | | 169 | 452 | | | | | 24.9 | 300 | |
| 52.94 | 62.7 | 4R12 | | 330 | 452 | | | | | 24.9 | 300 | |
| 56.52 | 27.5 | 4R12 | | 142 | 452 | | | | | 24.9 | 300 | |
| 58.80 | 31.3 | 4R12 | | 162 | 452 | | | | | 24.9 | 300 | |
| 62.42 | 95.0 | 4R12 | 2R12 | 509 | 679 | | | | | 24.9 | 300 | |
| m kNm | | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE FLANKWAPENING

Ligger 3

| Positie | M _x Basis | bijleg | A _{s,ben} | A _{s,toegepast} |
|---------|----------------------|--------|--------------------|--------------------------|
| 3.20 | 0.0 R8 | | 0 | 50 |
| m | kNm | | mm ² | mm ² |

DOORSNEDE BEUGELWAPENING

Ligger 3

| Positie | Zijde | V _{Ed} | Basis | Totaal | A _{s,benV} | A _{s,benT} | A _{s,toegepast} | V _{Rd,c} | V _{Rd} | V _{Rdi} | V _{Edi} |
|---------|--------|-----------------|--------|--------|---------------------|---------------------|--------------------------|-------------------|-----------------|------------------|------------------|
| 0.58 | Rechts | 51.9 | R8-300 | R8-300 | 120 | 0 | 335 | 61.7 | 144.7 | | |
| 2.62 | Links | 110.3 | R8-300 | R8-300 | 261 | 0 | 335 | 70.7 | 141.5 | | |
| 3.78 | Rechts | 97.1 | R8-300 | R8-300 | 230 | 0 | 335 | 70.7 | 141.5 | | |
| 5.82 | Links | 66.3 | R8-300 | R8-300 | 153 | 0 | 335 | 61.7 | 144.7 | | |
| 6.98 | Rechts | 75.6 | R8-300 | R8-300 | 175 | 0 | 335 | 61.7 | 144.7 | | |
| 9.02 | Links | 145.3 | R8-300 | R8-150 | 336 | 0 | 670 | 61.7 | 289.5 | | |
| 10.18 | Rechts | 88.3 | R8-300 | R8-300 | 209 | 0 | 335 | 70.7 | 141.5 | | |
| 12.22 | Links | 71.2 | R8-300 | R8-300 | 165 | 0 | 335 | 61.7 | 144.7 | | |
| 13.38 | Rechts | 69.8 | R8-300 | R8-300 | 162 | 0 | 335 | 61.7 | 144.7 | | |
| 15.42 | Links | 89.7 | R8-300 | R8-300 | 212 | 0 | 335 | 70.7 | 141.5 | | |
| 16.58 | Rechts | 156.3 | R8-300 | R8-150 | 362 | 0 | 670 | 61.7 | 289.5 | | |
| 18.62 | Links | 86.2 | R8-300 | R8-300 | 200 | 0 | 335 | 61.7 | 144.7 | | |
| 19.78 | Rechts | 66.1 | R8-300 | R8-300 | 153 | 0 | 335 | 61.7 | 144.7 | | |
| 21.82 | Links | 98.8 | R8-300 | R8-300 | 234 | 0 | 335 | 70.7 | 141.5 | | |
| 22.98 | Rechts | 103.1 | R8-300 | R8-300 | 244 | 0 | 335 | 70.7 | 141.5 | | |
| 25.02 | Links | 63.4 | R8-300 | R8-300 | 147 | 0 | 335 | 61.7 | 144.7 | | |
| 26.18 | Rechts | 63.6 | R8-300 | R8-300 | 147 | 0 | 335 | 61.7 | 144.7 | | |
| 28.22 | Links | 103.0 | R8-300 | R8-300 | 244 | 0 | 335 | 70.7 | 141.5 | | |
| 29.38 | Rechts | 99.8 | R8-300 | R8-300 | 236 | 0 | 335 | 70.7 | 141.5 | | |
| 31.42 | Links | 65.1 | R8-300 | R8-300 | 151 | 0 | 335 | 61.7 | 144.7 | | |
| 32.58 | Rechts | 74.7 | R8-300 | R8-300 | 173 | 0 | 335 | 61.7 | 144.7 | | |
| 34.62 | Links | 146.1 | R8-300 | R8-150 | 338 | 0 | 670 | 61.7 | 289.5 | | |
| 35.78 | Rechts | 88.4 | R8-300 | R8-300 | 209 | 0 | 335 | 70.7 | 141.5 | | |
| 37.82 | Links | 71.1 | R8-300 | R8-300 | 165 | 0 | 335 | 61.7 | 144.7 | | |
| 38.98 | Rechts | 69.6 | R8-300 | R8-300 | 161 | 0 | 335 | 61.7 | 144.7 | | |
| 41.02 | Links | 89.8 | R8-300 | R8-300 | 213 | 0 | 335 | 70.7 | 141.5 | | |
| 42.18 | Rechts | 156.8 | R8-300 | R8-150 | 363 | 0 | 670 | 61.7 | 289.5 | | |
| 44.22 | Links | 85.8 | R8-300 | R8-300 | 199 | 0 | 335 | 61.7 | 144.7 | | |
| 45.38 | Rechts | 65.6 | R8-300 | R8-300 | 152 | 0 | 335 | 61.7 | 144.7 | | |
| 47.42 | Links | 99.6 | R8-300 | R8-300 | 236 | 0 | 335 | 70.7 | 141.5 | | |
| 48.58 | Rechts | 100.6 | R8-300 | R8-300 | 238 | 0 | 335 | 70.7 | 141.5 | | |
| m | | kN | | | mm ² | mm ² | mm ² | kN | kN | kN | kN |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

bedrijfsloods Parlevliet Agro

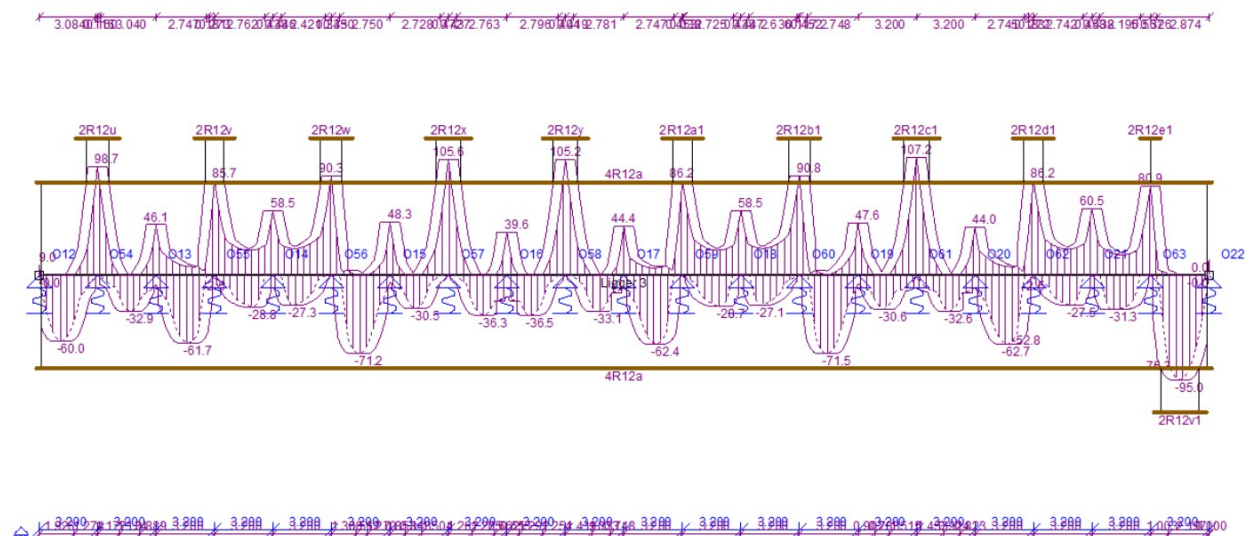
Eenheden: m, mm, kN, kNm



| Positie | Zijde | V_{Ed} | Basis | Totaal | $A_{s,benV}$ | $A_{s,benT}$ | $A_{s,toegepast}$ | $V_{Rd,c}$ | V_{Rd} | V_{Rdi} | V_{Edi} |
|----------|--------|-----------|--------|--------|-----------------------|-----------------------|-----------------------|------------|-----------|-----------|-----------|
| 50.62 | Links | 64.5 | R8-300 | R8-300 | 149 | 0 | 335 | 61.7 | 144.7 | | |
| 51.78 | Rechts | 74.6 | R8-300 | R8-300 | 173 | 0 | 335 | 61.7 | 144.7 | | |
| 53.82 | Links | 146.3 | R8-300 | R8-150 | 339 | 0 | 670 | 61.7 | 289.5 | | |
| 54.98 | Rechts | 87.9 | R8-300 | R8-300 | 208 | 0 | 335 | 70.7 | 141.5 | | |
| 57.02 | Links | 71.5 | R8-300 | R8-300 | 166 | 0 | 335 | 61.7 | 144.7 | | |
| 58.18 | Rechts | 75.0 | R8-300 | R8-300 | 174 | 0 | 335 | 61.7 | 144.7 | | |
| 60.22 | Links | 84.5 | R8-300 | R8-300 | 200 | 0 | 335 | 70.7 | 141.5 | | |
| 61.38 | Rechts | 165.4 | R8-300 | R8-150 | 392 | 0 | 670 | 61.7 | 283.1 | | |
| 63.42 | Links | 76.4 | R8-300 | R8-300 | 181 | 0 | 335 | 61.7 | 141.5 | | |
| m | | kN | | | mm² | mm² | mm² | kN | kN | kN | kN |

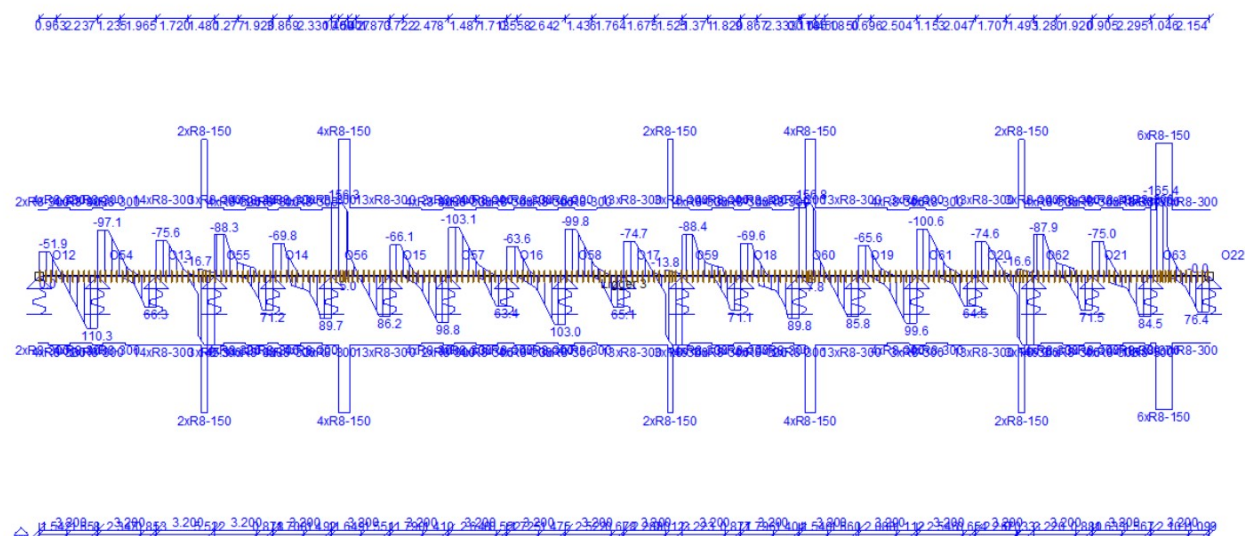
Langswap. (Afbouw)


Ligger 3



Dwarskrachtwap. (Afbouw)

Ligger 3



Projectnummer 
 Projectomschrijving bedrijfsloods Parlevliet Agro
 Opdrachtgever 
 Constructeur 
 Omschrijving

Eenheden: m, mm, kN, kNm

**DOORSNEDE BOVENWAPENING**

Ligger 4

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 3.50 | 129.9 | 4R12 | 2R16 | 711 | 855 | | | | | 11.4 | 187 | |
| 5.00 | 1.2 | 4R12 | | 6 | 452 | | | | | 24.9 | 300 | |
| 7.50 | 137.2 | 4R12 | 2R16 | 755 | 855 | | | | | 11.0 | 180 | |
| 11.50 | 134.2 | 4R12 | 2R16 | 737 | 855 | | | | | 11.2 | 183 | |
| 15.50 | 128.9 | 4R12 | 2R16 | 706 | 855 | | | | | 11.1 | 183 | |
| 19.50 | 130.2 | 4R12 | 2R16 | 713 | 855 | | | | | 11.0 | 180 | |
| 23.50 | 134.1 | 4R12 | 2R16 | 736 | 855 | | | | | 12.3 | 201 | |
| 25.00 | 8.0 | 4R12 | | 41 | 452 | | | | | 24.9 | 300 | |
| 27.50 | 122.4 | 4R12 | 2R16 | 668 | 855 | | | | | 15.1 | 221 | |
| 31.50 | 110.5 | 4R12 | 2R16 | 599 | 855 | | | | | 17.3 | 237 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE ONDERWAPENING

Ligger 4

| Positie | M _{Ed} | Hoofd Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Verdeel Basis | bijleg | A _{s,ben} | A _{s,toegepast} | Scheur D _{max} | S _{max} | Toetsing |
|---------|-----------------|-------------|--------|--------------------|--------------------------|---------------|--------|--------------------|--------------------------|-------------------------|------------------|----------|
| 1.36 | 87.3 | 4R12 | 2R12 | 466 | 679 | | | | | 15.6 | 223 | |
| 5.35 | 73.9 | 4R12 | 2R12 | 391 | 679 | | | | | 24.9 | 300 | |
| 9.63 | 71.1 | 4R12 | 2R12 | 376 | 679 | | | | | 24.9 | 300 | |
| 13.55 | 64.1 | 4R12 | | 337 | 452 | | | | | 14.4 | 214 | |
| 17.50 | 59.8 | 4R12 | | 314 | 452 | | | | | 14.5 | 214 | |
| 21.44 | 67.9 | 4R12 | | 358 | 452 | | | | | 12.6 | 201 | |
| 25.23 | 72.7 | 4R12 | 2R12 | 385 | 679 | | | | | 24.9 | 300 | |
| 29.62 | 56.0 | 4R12 | 2R12 | 293 | 679 | | | | | 24.9 | 300 | |
| 33.65 | 72.3 | 4R12 | 2R12 | 382 | 679 | | | | | 21.1 | 265 | |
| m | kNm | | | mm ² | mm ² | | | mm ² | mm ² | mm | mm | |

DOORSNEDE FLANKWAPENING

Ligger 4

| Positie | M _x | Basis | bijleg | A _{s,ben} | A _{s,toegepast} |
|---------|----------------|-------|--------|--------------------|--------------------------|
| 0.00 | 0.0 | R8 | | 0 | 50 |
| m | kNm | | | mm ² | mm ² |

DOORSNEDE BEUGELWAPENING

Ligger 4

| Positie | Zijde | V _{Ed} | Basis | Totaal | A _{s,benV} | A _{s,benT} | A _{s,toegepast} | V _{Rd,c} | V _{Rd} | V _{Rdi} | V _{Edi} |
|---------|--------|-----------------|--------|--------|---------------------|---------------------|--------------------------|-------------------|-----------------|------------------|------------------|
| 0.20 | Rechts | 109.7 | R8-300 | R8-300 | 260 | 0 | 335 | 61.7 | 141.5 | | |
| 2.92 | Links | 148.4 | R8-300 | R8-150 | 358 | 0 | 670 | 76.2 | 277.4 | | |
| 4.08 | Rechts | 146.9 | R8-300 | R8-150 | 355 | 0 | 670 | 76.2 | 277.4 | | |
| 6.92 | Links | 144.7 | R8-300 | R8-150 | 349 | 0 | 670 | 76.2 | 277.4 | | |
| 8.08 | Rechts | 143.6 | R8-300 | R8-150 | 347 | 0 | 670 | 76.2 | 277.4 | | |
| 10.92 | Links | 148.2 | R8-300 | R8-150 | 358 | 0 | 670 | 76.2 | 277.4 | | |
| 12.08 | Rechts | 139.3 | R8-300 | R8-150 | 337 | 0 | 670 | 76.2 | 277.4 | | |
| 14.92 | Links | 130.6 | R8-300 | R8-300 | 315 | 0 | 335 | 76.2 | 138.7 | | |
| 16.08 | Rechts | 134.6 | R8-300 | R8-300 | 325 | 0 | 335 | 76.2 | 138.7 | | |
| 18.92 | Links | 135.3 | R8-300 | R8-300 | 327 | 0 | 335 | 76.2 | 138.7 | | |
| 20.08 | Rechts | 129.6 | R8-300 | R8-300 | 313 | 0 | 335 | 76.2 | 138.7 | | |
| 22.92 | Links | 140.3 | R8-300 | R8-150 | 339 | 0 | 670 | 76.2 | 277.4 | | |
| 24.08 | Rechts | 152.5 | R8-300 | R8-150 | 368 | 0 | 670 | 76.2 | 277.4 | | |
| 26.92 | Links | 128.6 | R8-300 | R8-300 | 311 | 0 | 335 | 76.2 | 138.7 | | |
| 28.08 | Rechts | 122.2 | R8-300 | R8-300 | 295 | 0 | 335 | 76.2 | 138.7 | | |
| 30.92 | Links | 121.0 | R8-300 | R8-300 | 292 | 0 | 335 | 76.2 | 138.7 | | |
| 32.08 | Rechts | 124.6 | R8-300 | R8-300 | 301 | 0 | 335 | 76.2 | 138.7 | | |
| 34.80 | Links | 91.1 | R8-300 | R8-300 | 216 | 0 | 335 | 61.7 | 141.5 | | |
| m | | kN | | | mm ² | mm ² | mm ² | kN | kN | kN | kN |

Projectnummer
Projectomschrijving
Opdrachtgever
Constructeur
Omschrijving

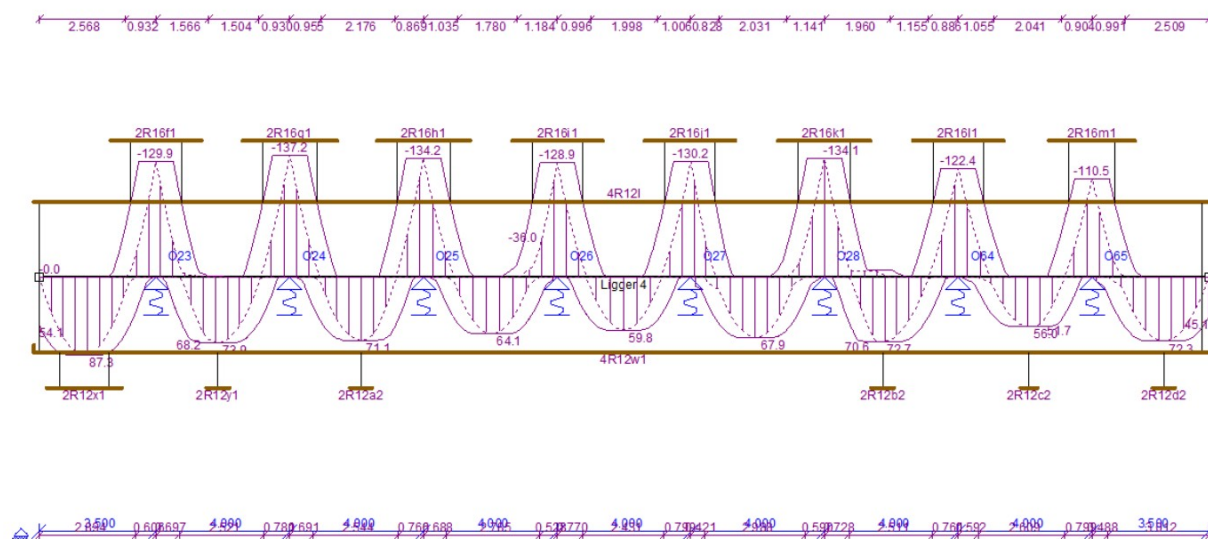
bedrijfsloods Parlevliet Agro

Eenheden: m, mm, kN, kNm



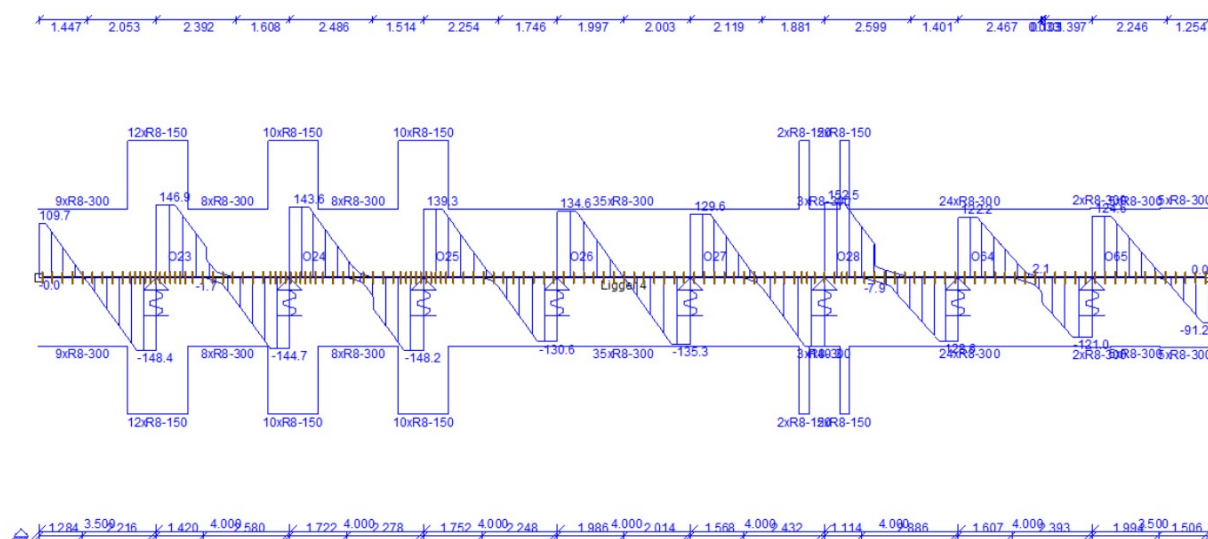
Langswap. (Afbouw)

Ligger 4



Dwarskrachtwap. (Afbouw)

Ligger 4



| | | | |
|----------------------------|--|----------------------|-----------------------|
| | | | |
| Projectomschrijving | bedrijfsloods Parlevliet Agro | Projectnummer | |
| Onderdeel | | Constructeur | |
| Opdrachtgever | Hanse BV | Eenheden | m, mm, kN, kNm |
| Bestand | P:\Projecten van 18800-41798\berек\sond\41798-1 Ontwerp funderingspalen.mxf | | |

1. VLOERPAAL KISTENBEWARING FD = 365 kN (NEN-EN1997-1:2016/NB:2016)

ALGEMENE GEGEVENS

| | |
|--|-----------------------|
| Modus | Ontwerp |
| Paal | Alleenstaand |
| Gem. Almere | Nee |
| Gebouw type | Niet stijf |
| U.G.T. $F_{c,d}$ | 365.0 kN |
| G.G.T. $F_{c,rep}$ | 250.0 kN |
| $P_{sur,rep}$ | 0.0 kN/m ² |
| Partieele capaciteitsfactor: γ_b | 1.20 |
| Partieele capaciteitsfactor: $\gamma_{f,nk}$ | 1.00 |

GEGEVENS PAAL

PAALSYSTEEM

| | | | |
|-----------------------------|--|---------------------------------|-------|
| Type paal | Beton | α_p | 0.700 |
| Specificatie | Geprefabriceerd; Gladde paal met constante vierkante dwarsafmeting | α_s | 0.010 |
| Installatie | Geheid | | |
| Paal afmeting d | 250 mm | α_s (Klei; Zwak zandig) | 0.020 |
| Paal equ. diam. d_{eq} | 282 mm | α_s (Klei; Sterk zandig) | 0.020 |
| Paal drsn. opp. A | 62500 mm ² | α_s (Klei; Organisch) | 0.020 |
| Paalvoet drsn. opp. A | 62500 mm ² | α_s (Klei; Zwak zandig) | 0.020 |
| Omtrek profiel O_s | 1000 mm | α_s (Klei; Sterk zandig) | 0.020 |
| E-mod | 20000 N/mm ² | α_s (Klei; Organisch) | 0.020 |
| | | α_s (Klei; Zwak zandig) | 0.030 |
| Niveau onderkant fundering | -0.250 m | α_s (Leem; Zwak zandig) | 0.025 |
| Begin traject draagvermogen | -8.000 m | α_s (Klei; Sterk zandig) | 0.030 |
| Einde traject draagvermogen | -12.000 m | α_s (Klei; Organisch) | 0.030 |
| Traject interval | 0.250 m | | |

SONDERINGSDIAGRAMMEN

| | |
|--------------------|------|
| OCR | 1.00 |
| Ontgraven | Nee |
| Aantal sonderingen | 4 |

Sondeerdiagram

S1 bestaande bebouwing.jpg
S2 bestaande bebouwing.jpg
S3 bestaande bebouwing.jpg
S4 bestaande bebouwing.jpg

SAMENVATTING RESULTATEN PER DIEPTE

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|--------------|--------------|-----------|-----------|-----------|---------------|----------|
| -8.000 | 1 | 1.390 | 1.390 | 135.65 | 81.57 | 217.22 | 365.00 | Niet Ok |
| -8.250 | 1 | 1.390 | 1.390 | 141.72 | 91.81 | 233.52 | 365.00 | Niet Ok |
| -8.500 | 1 | 1.390 | 1.390 | 143.33 | 101.39 | 244.72 | 365.00 | Niet Ok |
| -8.750 | 4 | 1.280 | 1.030 | 175.55 | 156.65 | 332.20 | 365.00 | Niet Ok |
| -9.000 | 4 | 1.280 | 1.030 | 202.82 | 163.22 | 366.04 | 365.00 | Ok |
| -9.250 | 1 | 1.390 | 1.390 | 145.49 | 140.68 | 286.17 | 365.00 | Niet Ok |
| -9.500 | 1 | 1.390 | 1.390 | 140.12 | 163.16 | 303.28 | 365.00 | Niet Ok |
| -9.750 | 1 | 1.390 | 1.390 | 141.30 | 185.64 | 326.94 | 365.00 | Niet Ok |
| -10.000 | 1 | 1.390 | 1.390 | 150.06 | 208.12 | 358.18 | 365.00 | Niet Ok |
| -10.250 | 1 | 1.390 | 1.390 | 157.64 | 230.60 | 388.24 | 365.00 | Niet Ok |
| -10.500 | 1 | 1.390 | 1.390 | 205.43 | 252.93 | 458.36 | 365.00 | Ok |
| -10.750 | 1 | 1.390 | 1.390 | 274.70 | 269.21 | 543.90 | 365.00 | Ok |
| m | | | | kN | kN | kN | kN | |

| | | |
|--|--|--|
| | | |
|--|--|--|

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|---------|--------------|-----------|-----------|-----------|---------------|----------|
| -11.000 | 1 | 1.390 | 1.390 | 321.09 | 291.69 | 612.78 | 365.00 | Ok |
| -11.250 | 1 | 1.390 | 1.390 | 323.62 | 314.17 | 637.79 | 365.00 | Ok |
| -11.500 | 1 | 1.390 | 1.390 | 279.42 | 336.65 | 616.07 | 365.00 | Ok |
| -11.750 | 1 | 1.390 | 1.390 | 253.30 | 365.50 | 618.79 | 365.00 | Ok |
| -12.000 | 1 | 1.390 | 1.390 | 242.87 | 387.98 | 630.85 | 365.00 | Ok |
| m | | | | kN | kN | kN | kN | |

SAMENVATTING RESULTATEN PER DIAGRAM

| Niveau paalvoet | $Y_{f,nk}$ | $F_{nk,d}$ | $F_{c,tot}$ | ξ_3 | ξ_4 | $R_{b,cal,max,d}$ | $R_{s,cal,max,d}$ | $R_{c,d}$ | $F_{c,netto}$ | Controle |
|-----------------------------------|------------|------------|-------------|-------------|-------------|-------------------|-------------------|-----------|---------------|----------|
| S1 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 199.89 | 130.67 | 330.56 | 288.85 | Niet Ok |
| -8.250 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 204.79 | 144.38 | 349.17 | 307.46 | Niet Ok |
| -8.500 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 174.11 | 157.81 | 331.92 | 290.21 | Niet Ok |
| -8.750 | 1.00 | 41.71 | 406.71 | 1.28 | 1.03 | 169.54 | 186.30 | 355.84 | 314.13 | Niet Ok |
| -9.000 | 1.00 | 41.71 | 406.71 | 1.28 | 1.03 | 202.82 | 253.82 | 456.63 | 414.92 | Ok |
| -9.250 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 145.49 | 203.58 | 349.07 | 307.36 | Niet Ok |
| -9.500 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 140.12 | 215.77 | 355.89 | 314.18 | Niet Ok |
| -9.750 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 141.30 | 224.79 | 366.09 | 324.38 | Niet Ok |
| -10.000 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 150.06 | 233.48 | 383.55 | 341.84 | Niet Ok |
| -10.250 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 157.64 | 242.93 | 400.57 | 358.86 | Niet Ok |
| -10.500 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 205.43 | 252.93 | 458.36 | 416.65 | Ok |
| -10.750 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 274.70 | 269.21 | 543.90 | 502.19 | Ok |
| -11.000 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 321.09 | 291.69 | 612.78 | 571.07 | Ok |
| -11.250 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 323.62 | 314.17 | 637.79 | 596.08 | Ok |
| -11.500 | 1.00 | 41.71 | 406.71 | 1.39 | 1.39 | 303.70 | 336.65 | 640.35 | 598.64 | Ok |
| S2 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 149.44 | 124.64 | 274.08 | 227.40 | Niet Ok |
| -8.250 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 149.29 | 138.44 | 287.73 | 241.05 | Niet Ok |
| -8.500 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 154.19 | 149.13 | 303.31 | 256.63 | Niet Ok |
| -8.750 | 1.00 | 46.68 | 411.68 | 1.28 | 1.03 | 170.37 | 172.41 | 342.78 | 296.10 | Niet Ok |
| -9.000 | 1.00 | 46.68 | 411.68 | 1.28 | 1.03 | 211.65 | 229.93 | 441.58 | 394.90 | Ok |
| -9.250 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 149.51 | 180.63 | 330.14 | 283.46 | Niet Ok |
| -9.500 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 163.41 | 189.27 | 352.68 | 306.00 | Niet Ok |
| -9.750 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 195.68 | 199.58 | 395.27 | 348.59 | Niet Ok |
| -10.000 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 237.06 | 214.00 | 451.06 | 404.38 | Ok |
| -10.250 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 304.63 | 232.31 | 536.94 | 490.26 | Ok |
| -10.500 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 358.41 | 254.56 | 612.97 | 566.29 | Ok |
| -10.750 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 401.71 | 277.05 | 678.75 | 632.07 | Ok |
| -11.000 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 386.51 | 299.53 | 686.04 | 639.36 | Ok |
| -11.250 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 328.57 | 322.01 | 650.58 | 603.90 | Ok |
| -11.500 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 279.42 | 344.49 | 623.91 | 577.23 | Ok |
| -11.750 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 253.30 | 366.97 | 620.27 | 573.59 | Ok |
| -12.000 | 1.00 | 46.68 | 411.68 | 1.39 | 1.39 | 242.87 | 389.46 | 632.33 | 585.65 | Ok |
| S3 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 135.65 | 81.57 | 217.22 | 172.97 | Niet Ok |
| -8.250 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 141.72 | 91.81 | 233.52 | 189.27 | Niet Ok |
| -8.500 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 143.33 | 101.39 | 244.72 | 200.47 | Niet Ok |
| -8.750 | 1.00 | 44.25 | 409.25 | 1.28 | 1.03 | 182.91 | 119.21 | 302.12 | 257.87 | Niet Ok |
| -9.000 | 1.00 | 44.25 | 409.25 | 1.28 | 1.03 | 317.97 | 163.22 | 481.19 | 436.94 | Ok |
| -9.250 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 327.77 | 140.68 | 468.44 | 424.19 | Ok |
| -9.500 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 428.01 | 163.16 | 591.16 | 546.91 | Ok |
| -9.750 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 492.96 | 185.64 | 678.60 | 634.35 | Ok |
| -10.000 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 529.99 | 208.12 | 738.11 | 693.86 | Ok |
| -10.250 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 562.05 | 230.60 | 792.65 | 748.40 | Ok |
| -10.500 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 540.99 | 253.09 | 794.07 | 749.82 | Ok |
| -10.750 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 555.58 | 275.57 | 831.15 | 786.90 | Ok |
| -11.000 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 562.05 | 298.05 | 860.10 | 815.85 | Ok |
| -11.250 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 562.05 | 320.53 | 882.58 | 838.33 | Ok |
| -11.500 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 562.05 | 343.01 | 905.06 | 860.81 | Ok |
| -11.750 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 562.05 | 365.50 | 927.55 | 883.30 | Ok |
| -12.000 | 1.00 | 44.25 | 409.25 | 1.39 | 1.39 | 551.01 | 387.98 | 938.99 | 894.74 | Ok |

| | | |
|--|--|--|
| | | |
|--|--|--|

S4 bestaande bebouwing.jpg

| | | | | | | | | | | |
|----------|------|-----------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|---------|
| -8.000 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 161.45 | 102.08 | 263.53 | 220.67 | Niet Ok |
| -8.250 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 162.62 | 113.47 | 276.10 | 233.24 | Niet Ok |
| -8.500 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 166.39 | 126.13 | 292.53 | 249.67 | Niet Ok |
| -8.750 | 1.00 | 42.86 | 407.86 | 1.28 | 1.03 | 179.37 | 148.68 | 328.06 | 285.20 | Niet Ok |
| -9.000 | 1.00 | 42.86 | 407.86 | 1.28 | 1.03 | 253.08 | 197.82 | 450.90 | 408.04 | Ok |
| -9.250 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 251.99 | 159.08 | 411.07 | 368.21 | Ok |
| -9.500 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 323.42 | 180.27 | 503.68 | 460.82 | Ok |
| -9.750 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 371.40 | 202.75 | 574.15 | 531.29 | Ok |
| -10.000 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 389.54 | 225.23 | 614.77 | 571.91 | Ok |
| -10.250 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 407.32 | 247.71 | 655.03 | 612.17 | Ok |
| -10.500 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 431.12 | 270.19 | 701.31 | 658.45 | Ok |
| -10.750 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 405.09 | 292.68 | 697.76 | 654.90 | Ok |
| -11.000 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 383.43 | 315.16 | 698.58 | 655.72 | Ok |
| -11.250 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 384.12 | 336.28 | 720.40 | 677.54 | Ok |
| -11.500 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 378.43 | 356.53 | 734.97 | 692.11 | Ok |
| -11.750 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 375.61 | 376.79 | 752.40 | 709.54 | Ok |
| -12.000 | 1.00 | 42.86 | 407.86 | 1.39 | 1.39 | 389.23 | 397.05 | 786.28 | 743.42 | Ok |
| m | | kN | kN | | | kN | kN | kN | kN | |

2. VLOERPAAL LOSSE STORT FD = 320 KN (NEN-EN1997-1:2016/NB:2016)

ALGEMENE GEGEVENS

| | |
|--|-----------------------|
| Modus | Ontwerp |
| Paal | Alleenstaand |
| Gem. Almere | Nee |
| Gebouw type | Niet stijf |
| U.G.T. $F_{c,d}$ | 320.0 kN |
| G.G.T. $F_{c,rep}$ | 250.0 kN |
| $P_{sur,rep}$ | 0.0 kN/m ² |
| Partieele capaciteitsfactor: γ_b | 1.20 |
| Partieele capaciteitsfactor: $\gamma_{f,nk}$ | 1.00 |

GEGEVENS PAAL

PAALSYSTEEM

| | | | |
|-----------------------------|--|---------------------------------|-------|
| Type paal | Beton | α_p | 0.700 |
| Specificatie | Geprefabriceerd; Gladde paal met constante vierkante dwarsafmeting | α_s | 0.010 |
| Installatie | Geheid | | |
| Paal afmeting d | 250 mm | α_s (Klei; Zwak zandig) | 0.020 |
| Paal equ. diam. d_{eq} | 282 mm | α_s (Klei; Sterk zandig) | 0.020 |
| Paal drsn. opp. A | 62500 mm ² | α_s (Klei; Organisch) | 0.020 |
| Paalvoet drsn. opp. A | 62500 mm ² | α_s (Klei; Zwak zandig) | 0.020 |
| Omtrek profiel O_s | 1000 mm | α_s (Klei; Sterk zandig) | 0.020 |
| E-mod | 20000 N/mm ² | α_s (Klei; Organisch) | 0.020 |
| | | α_s (Klei; Zwak zandig) | 0.030 |
| Niveau onderkant fundering | -0.200 m | α_s (Leem; Zwak zandig) | 0.025 |
| Begin traject draagvermogen | -8.000 m | α_s (Klei; Sterk zandig) | 0.030 |
| Einde traject draagvermogen | -12.000 m | α_s (Klei; Organisch) | 0.030 |
| Traject interval | 0.250 m | | |

SONDERINGSDIAGRAMMEN

| | |
|--------------------|------|
| OCR | 1.00 |
| Ontgraven | Nee |
| Aantal sonderingen | 4 |

Sondeerdiagram

S1 bestaande bebouwing.jpg
 S2 bestaande bebouwing.jpg
 S3 bestaande bebouwing.jpg
 S4 bestaande bebouwing.jpg

SAMENVATTING RESULTATEN PER DIEPTE

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|--------------|--------------|-----------|-----------|-----------|---------------|----------|
| -8.000 | 1 | 1.390 | 1.390 | 135.65 | 81.57 | 217.22 | 320.00 | Niet Ok |
| -8.250 | 1 | 1.390 | 1.390 | 141.72 | 91.81 | 233.52 | 320.00 | Niet Ok |
| -8.500 | 1 | 1.390 | 1.390 | 143.33 | 101.39 | 244.72 | 320.00 | Niet Ok |
| -8.750 | 4 | 1.280 | 1.030 | 175.55 | 156.65 | 332.20 | 320.00 | Niet Ok |
| -9.000 | 4 | 1.280 | 1.030 | 202.82 | 163.22 | 366.04 | 320.00 | Ok |
| -9.250 | 1 | 1.390 | 1.390 | 145.49 | 140.68 | 286.17 | 320.00 | Niet Ok |
| -9.500 | 1 | 1.390 | 1.390 | 140.12 | 163.16 | 303.28 | 320.00 | Niet Ok |
| -9.750 | 1 | 1.390 | 1.390 | 141.30 | 185.64 | 326.94 | 320.00 | Ok |
| -10.000 | 1 | 1.390 | 1.390 | 150.06 | 208.12 | 358.18 | 320.00 | Ok |
| -10.250 | 1 | 1.390 | 1.390 | 157.64 | 230.60 | 388.24 | 320.00 | Ok |
| -10.500 | 1 | 1.390 | 1.390 | 205.43 | 252.93 | 458.36 | 320.00 | Ok |
| -10.750 | 1 | 1.390 | 1.390 | 274.70 | 269.21 | 543.90 | 320.00 | Ok |
| m | | | | kN | kN | kN | kN | |

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|---------|--------------|-----------|-----------|-----------|---------------|----------|
| -11.000 | 1 | 1.390 | 1.390 | 321.09 | 291.69 | 612.78 | 320.00 | Ok |
| -11.250 | 1 | 1.390 | 1.390 | 323.62 | 314.17 | 637.79 | 320.00 | Ok |
| -11.500 | 1 | 1.390 | 1.390 | 279.42 | 336.65 | 616.07 | 320.00 | Ok |
| -11.750 | 1 | 1.390 | 1.390 | 253.30 | 365.50 | 618.79 | 320.00 | Ok |
| -12.000 | 1 | 1.390 | 1.390 | 242.87 | 387.98 | 630.85 | 320.00 | Ok |
| m | | | | kN | kN | kN | kN | |

SAMENVATTING RESULTATEN PER DIAGRAM

| Niveau paalvoet | $Y_{f,nk}$ | $F_{nk,d}$ | $F_{c,tot}$ | ξ_3 | ξ_4 | $R_{b,cal,max,d}$ | $R_{s,cal,max,d}$ | $R_{c,d}$ | $F_{c,netto}$ | Controle |
|-----------------------------------|------------|------------|-------------|-------------|-------------|-------------------|-------------------|-----------|---------------|----------|
| S1 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 199.89 | 130.67 | 330.56 | 288.85 | Niet Ok |
| -8.250 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 204.79 | 144.38 | 349.17 | 307.46 | Niet Ok |
| -8.500 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 174.11 | 157.81 | 331.92 | 290.21 | Niet Ok |
| -8.750 | 1.00 | 41.71 | 361.71 | 1.28 | 1.03 | 169.54 | 186.30 | 355.84 | 314.13 | Niet Ok |
| -9.000 | 1.00 | 41.71 | 361.71 | 1.28 | 1.03 | 202.82 | 253.82 | 456.63 | 414.92 | Ok |
| -9.250 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 145.49 | 203.58 | 349.07 | 307.36 | Niet Ok |
| -9.500 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 140.12 | 215.77 | 355.89 | 314.18 | Niet Ok |
| -9.750 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 141.30 | 224.79 | 366.09 | 324.38 | Ok |
| -10.000 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 150.06 | 233.48 | 383.55 | 341.84 | Ok |
| -10.250 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 157.64 | 242.93 | 400.57 | 358.86 | Ok |
| -10.500 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 205.43 | 252.93 | 458.36 | 416.65 | Ok |
| -10.750 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 274.70 | 269.21 | 543.90 | 502.19 | Ok |
| -11.000 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 321.09 | 291.69 | 612.78 | 571.07 | Ok |
| -11.250 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 323.62 | 314.17 | 637.79 | 596.08 | Ok |
| -11.500 | 1.00 | 41.71 | 361.71 | 1.39 | 1.39 | 303.70 | 336.65 | 640.35 | 598.64 | Ok |
| S2 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 149.44 | 124.64 | 274.08 | 227.40 | Niet Ok |
| -8.250 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 149.29 | 138.44 | 287.73 | 241.05 | Niet Ok |
| -8.500 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 154.19 | 149.13 | 303.31 | 256.63 | Niet Ok |
| -8.750 | 1.00 | 46.68 | 366.68 | 1.28 | 1.03 | 170.37 | 172.41 | 342.78 | 296.10 | Niet Ok |
| -9.000 | 1.00 | 46.68 | 366.68 | 1.28 | 1.03 | 211.65 | 229.93 | 441.58 | 394.90 | Ok |
| -9.250 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 149.51 | 180.63 | 330.14 | 283.46 | Niet Ok |
| -9.500 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 163.41 | 189.27 | 352.68 | 306.00 | Niet Ok |
| -9.750 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 195.68 | 199.58 | 395.27 | 348.59 | Ok |
| -10.000 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 237.06 | 214.00 | 451.06 | 404.38 | Ok |
| -10.250 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 304.63 | 232.31 | 536.94 | 490.26 | Ok |
| -10.500 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 358.41 | 254.56 | 612.97 | 566.29 | Ok |
| -10.750 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 401.71 | 277.05 | 678.75 | 632.07 | Ok |
| -11.000 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 386.51 | 299.53 | 686.04 | 639.36 | Ok |
| -11.250 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 328.57 | 322.01 | 650.58 | 603.90 | Ok |
| -11.500 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 279.42 | 344.49 | 623.91 | 577.23 | Ok |
| -11.750 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 253.30 | 366.97 | 620.27 | 573.59 | Ok |
| -12.000 | 1.00 | 46.68 | 366.68 | 1.39 | 1.39 | 242.87 | 389.46 | 632.33 | 585.65 | Ok |
| S3 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 135.65 | 81.57 | 217.22 | 172.97 | Niet Ok |
| -8.250 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 141.72 | 91.81 | 233.52 | 189.27 | Niet Ok |
| -8.500 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 143.33 | 101.39 | 244.72 | 200.47 | Niet Ok |
| -8.750 | 1.00 | 44.25 | 364.25 | 1.28 | 1.03 | 182.91 | 119.21 | 302.12 | 257.87 | Niet Ok |
| -9.000 | 1.00 | 44.25 | 364.25 | 1.28 | 1.03 | 317.97 | 163.22 | 481.19 | 436.94 | Ok |
| -9.250 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 327.77 | 140.68 | 468.44 | 424.19 | Ok |
| -9.500 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 428.01 | 163.16 | 591.16 | 546.91 | Ok |
| -9.750 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 492.96 | 185.64 | 678.60 | 634.35 | Ok |
| -10.000 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 529.99 | 208.12 | 738.11 | 693.86 | Ok |
| -10.250 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 562.05 | 230.60 | 792.65 | 748.40 | Ok |
| -10.500 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 540.99 | 253.09 | 794.07 | 749.82 | Ok |
| -10.750 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 555.58 | 275.57 | 831.15 | 786.90 | Ok |
| -11.000 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 562.05 | 298.05 | 860.10 | 815.85 | Ok |
| -11.250 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 562.05 | 320.53 | 882.58 | 838.33 | Ok |
| -11.500 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 562.05 | 343.01 | 905.06 | 860.81 | Ok |
| -11.750 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 562.05 | 365.50 | 927.55 | 883.30 | Ok |
| -12.000 | 1.00 | 44.25 | 364.25 | 1.39 | 1.39 | 551.01 | 387.98 | 938.99 | 894.74 | Ok |

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S4 bestaande bebouwing.jpg

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|----------|------|-----------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|---------|
| -8.000 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 161.45 | 102.08 | 263.53 | 220.67 | Niet Ok |
| -8.250 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 162.62 | 113.47 | 276.10 | 233.24 | Niet Ok |
| -8.500 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 166.39 | 126.13 | 292.53 | 249.67 | Niet Ok |
| -8.750 | 1.00 | 42.86 | 362.86 | 1.28 | 1.03 | 179.37 | 148.68 | 328.06 | 285.20 | Niet Ok |
| -9.000 | 1.00 | 42.86 | 362.86 | 1.28 | 1.03 | 253.08 | 197.82 | 450.90 | 408.04 | Ok |
| -9.250 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 251.99 | 159.08 | 411.07 | 368.21 | Ok |
| -9.500 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 323.42 | 180.27 | 503.68 | 460.82 | Ok |
| -9.750 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 371.40 | 202.75 | 574.15 | 531.29 | Ok |
| -10.000 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 389.54 | 225.23 | 614.77 | 571.91 | Ok |
| -10.250 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 407.32 | 247.71 | 655.03 | 612.17 | Ok |
| -10.500 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 431.12 | 270.19 | 701.31 | 658.45 | Ok |
| -10.750 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 405.09 | 292.68 | 697.76 | 654.90 | Ok |
| -11.000 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 383.43 | 315.16 | 698.58 | 655.72 | Ok |
| -11.250 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 384.12 | 336.28 | 720.40 | 677.54 | Ok |
| -11.500 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 378.43 | 356.53 | 734.97 | 692.11 | Ok |
| -11.750 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 375.61 | 376.79 | 752.40 | 709.54 | Ok |
| -12.000 | 1.00 | 42.86 | 362.86 | 1.39 | 1.39 | 389.23 | 397.05 | 786.28 | 743.42 | Ok |
| m | | kN | kN | | | kN | kN | kN | kN | |

3. BALKPAAL FD = 300 KN (NEN-EN1997-1:2016/NB:2016)

ALGEMENE GEGEVENS

| | |
|--|-----------------------|
| Modus | Ontwerp |
| Paal | Alleenstaand |
| Gem. Almere | Nee |
| Gebouw type | Niet stijf |
| U.G.T. $F_{c,d}$ | 300.0 kN |
| G.G.T. $F_{c,rep}$ | 250.0 kN |
| $P_{sur,rep}$ | 0.0 kN/m ² |
| Partieele capaciteitsfactor: γ_b | 1.20 |
| Partieele capaciteitsfactor: $\gamma_{f,nk}$ | 1.00 |

GEGEVENS PAAL

PAALSYSTEEM

| | | | |
|-----------------------------|--|---------------------------------|-------|
| Type paal | Beton | α_p | 0.700 |
| Specificatie | Geprefabriceerd; Gladde paal met constante vierkante dwarsafmeting | α_s | 0.010 |
| Installatie | Geheid | | |
| Paal afmeting d | 250 mm | α_s (Klei; Zwak zandig) | 0.020 |
| Paal equ. diam. d_{eq} | 282 mm | α_s (Klei; Sterk zandig) | 0.020 |
| Paal drsn. opp. A | 62500 mm ² | α_s (Klei; Organisch) | 0.020 |
| Paalvoet drsn. opp. A | 62500 mm ² | α_s (Klei; Zwak zandig) | 0.020 |
| Omtrek profiel O_s | 1000 mm | α_s (Klei; Sterk zandig) | 0.020 |
| E-mod | 20000 N/mm ² | α_s (Klei; Organisch) | 0.020 |
| | | α_s (Klei; Zwak zandig) | 0.030 |
| Niveau onderkant fundering | -0.700 m | α_s (Leem; Zwak zandig) | 0.025 |
| Begin traject draagvermogen | -8.000 m | α_s (Klei; Sterk zandig) | 0.030 |
| Einde traject draagvermogen | -12.000 m | α_s (Klei; Organisch) | 0.030 |
| Traject interval | 0.250 m | | |

SONDERINGSDIAGRAMMEN

| | |
|--------------------|------|
| OCR | 1.00 |
| Ontgraven | Nee |
| Aantal sonderingen | 4 |

Sondeerdiagram

S1 bestaande bebouwing.jpg
 S2 bestaande bebouwing.jpg
 S3 bestaande bebouwing.jpg
 S4 bestaande bebouwing.jpg

SAMENVATTING RESULTATEN PER DIEPTE

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|--------------|--------------|-----------|-----------|-----------|---------------|----------|
| -8.000 | 1 | 1.390 | 1.390 | 135.65 | 81.57 | 217.22 | 300.00 | Niet Ok |
| -8.250 | 1 | 1.390 | 1.390 | 141.72 | 91.81 | 233.52 | 300.00 | Niet Ok |
| -8.500 | 1 | 1.390 | 1.390 | 143.33 | 101.39 | 244.72 | 300.00 | Niet Ok |
| -8.750 | 4 | 1.280 | 1.030 | 175.55 | 156.65 | 332.20 | 300.00 | Niet Ok |
| -9.000 | 4 | 1.280 | 1.030 | 202.82 | 163.22 | 366.04 | 300.00 | Ok |
| -9.250 | 1 | 1.390 | 1.390 | 145.49 | 140.68 | 286.17 | 300.00 | Niet Ok |
| -9.500 | 1 | 1.390 | 1.390 | 140.12 | 163.16 | 303.28 | 300.00 | Ok |
| -9.750 | 1 | 1.390 | 1.390 | 141.30 | 185.64 | 326.94 | 300.00 | Ok |
| -10.000 | 1 | 1.390 | 1.390 | 150.06 | 208.12 | 358.18 | 300.00 | Ok |
| -10.250 | 1 | 1.390 | 1.390 | 157.64 | 230.60 | 388.24 | 300.00 | Ok |
| -10.500 | 1 | 1.390 | 1.390 | 205.43 | 252.93 | 458.36 | 300.00 | Ok |
| -10.750 | 1 | 1.390 | 1.390 | 274.70 | 269.21 | 543.90 | 300.00 | Ok |
| m | | | | kN | kN | kN | kN | |

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| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|---------|--------------|-----------|-----------|-----------|---------------|----------|
| -11.000 | 1 | 1.390 | 1.390 | 321.09 | 291.69 | 612.78 | 300.00 | Ok |
| -11.250 | 1 | 1.390 | 1.390 | 323.62 | 314.17 | 637.79 | 300.00 | Ok |
| -11.500 | 1 | 1.390 | 1.390 | 279.42 | 336.65 | 616.07 | 300.00 | Ok |
| -11.750 | 1 | 1.390 | 1.390 | 253.30 | 365.50 | 618.79 | 300.00 | Ok |
| -12.000 | 1 | 1.390 | 1.390 | 242.87 | 387.98 | 630.85 | 300.00 | Ok |
| m | | | | kN | kN | kN | kN | |

SAMENVATTING RESULTATEN PER DIAGRAM

| Niveau paalvoet | $Y_{f,nk}$ | $F_{nk,d}$ | $F_{c,tot}$ | ξ_3 | ξ_4 | $R_{b,cal,max,d}$ | $R_{s,cal,max,d}$ | $R_{c,d}$ | $F_{c,netto}$ | Controle |
|-----------------------------------|------------|------------|-------------|-------------|-------------|-------------------|-------------------|-----------|---------------|----------|
| S1 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 199.89 | 130.67 | 330.56 | 288.85 | Niet Ok |
| -8.250 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 204.79 | 144.38 | 349.17 | 307.46 | Ok |
| -8.500 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 174.11 | 157.81 | 331.92 | 290.21 | Niet Ok |
| -8.750 | 1.00 | 41.71 | 341.71 | 1.28 | 1.03 | 169.54 | 186.30 | 355.84 | 314.13 | Ok |
| -9.000 | 1.00 | 41.71 | 341.71 | 1.28 | 1.03 | 202.82 | 253.82 | 456.63 | 414.92 | Ok |
| -9.250 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 145.49 | 203.58 | 349.07 | 307.36 | Ok |
| -9.500 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 140.12 | 215.77 | 355.89 | 314.18 | Ok |
| -9.750 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 141.30 | 224.79 | 366.09 | 324.38 | Ok |
| -10.000 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 150.06 | 233.48 | 383.55 | 341.84 | Ok |
| -10.250 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 157.64 | 242.93 | 400.57 | 358.86 | Ok |
| -10.500 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 205.43 | 252.93 | 458.36 | 416.65 | Ok |
| -10.750 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 274.70 | 269.21 | 543.90 | 502.19 | Ok |
| -11.000 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 321.09 | 291.69 | 612.78 | 571.07 | Ok |
| -11.250 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 323.62 | 314.17 | 637.79 | 596.08 | Ok |
| -11.500 | 1.00 | 41.71 | 341.71 | 1.39 | 1.39 | 303.70 | 336.65 | 640.35 | 598.64 | Ok |
| S2 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 149.44 | 124.64 | 274.08 | 227.47 | Niet Ok |
| -8.250 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 149.29 | 138.44 | 287.73 | 241.12 | Niet Ok |
| -8.500 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 154.19 | 149.13 | 303.31 | 256.70 | Niet Ok |
| -8.750 | 1.00 | 46.61 | 346.61 | 1.28 | 1.03 | 170.37 | 172.41 | 342.78 | 296.17 | Niet Ok |
| -9.000 | 1.00 | 46.61 | 346.61 | 1.28 | 1.03 | 211.65 | 229.93 | 441.58 | 394.97 | Ok |
| -9.250 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 149.51 | 180.63 | 330.14 | 283.53 | Niet Ok |
| -9.500 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 163.41 | 189.27 | 352.68 | 306.07 | Ok |
| -9.750 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 195.68 | 199.58 | 395.27 | 348.66 | Ok |
| -10.000 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 237.06 | 214.00 | 451.06 | 404.45 | Ok |
| -10.250 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 304.63 | 232.31 | 536.94 | 490.33 | Ok |
| -10.500 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 358.41 | 254.56 | 612.97 | 566.36 | Ok |
| -10.750 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 401.71 | 277.05 | 678.75 | 632.14 | Ok |
| -11.000 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 386.51 | 299.53 | 686.04 | 639.43 | Ok |
| -11.250 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 328.57 | 322.01 | 650.58 | 603.97 | Ok |
| -11.500 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 279.42 | 344.49 | 623.91 | 577.30 | Ok |
| -11.750 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 253.30 | 366.97 | 620.27 | 573.66 | Ok |
| -12.000 | 1.00 | 46.61 | 346.61 | 1.39 | 1.39 | 242.87 | 389.46 | 632.33 | 585.72 | Ok |
| S3 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 135.65 | 81.57 | 217.22 | 173.54 | Niet Ok |
| -8.250 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 141.72 | 91.81 | 233.52 | 189.84 | Niet Ok |
| -8.500 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 143.33 | 101.39 | 244.72 | 201.03 | Niet Ok |
| -8.750 | 1.00 | 43.69 | 343.69 | 1.28 | 1.03 | 182.91 | 119.21 | 302.12 | 258.44 | Niet Ok |
| -9.000 | 1.00 | 43.69 | 343.69 | 1.28 | 1.03 | 317.97 | 163.22 | 481.19 | 437.50 | Ok |
| -9.250 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 327.77 | 140.68 | 468.44 | 424.76 | Ok |
| -9.500 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 428.01 | 163.16 | 591.16 | 547.48 | Ok |
| -9.750 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 492.96 | 185.64 | 678.60 | 634.91 | Ok |
| -10.000 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 529.99 | 208.12 | 738.11 | 694.42 | Ok |
| -10.250 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 562.05 | 230.60 | 792.65 | 748.97 | Ok |
| -10.500 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 540.99 | 253.09 | 794.07 | 750.39 | Ok |
| -10.750 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 555.58 | 275.57 | 831.15 | 787.46 | Ok |
| -11.000 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 562.05 | 298.05 | 860.10 | 816.41 | Ok |
| -11.250 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 562.05 | 320.53 | 882.58 | 838.90 | Ok |
| -11.500 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 562.05 | 343.01 | 905.06 | 861.38 | Ok |
| -11.750 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 562.05 | 365.50 | 927.55 | 883.86 | Ok |
| -12.000 | 1.00 | 43.69 | 343.69 | 1.39 | 1.39 | 551.01 | 387.98 | 938.99 | 895.30 | Ok |

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S4 bestaande bebouwing.jpg

| | | | | | | | | | | |
|----------|------|-----------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|---------|
| -8.000 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 161.45 | 102.08 | 263.53 | 221.23 | Niet Ok |
| -8.250 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 162.62 | 113.47 | 276.10 | 233.80 | Niet Ok |
| -8.500 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 166.39 | 126.13 | 292.53 | 250.23 | Niet Ok |
| -8.750 | 1.00 | 42.30 | 342.30 | 1.28 | 1.03 | 179.37 | 148.68 | 328.06 | 285.76 | Niet Ok |
| -9.000 | 1.00 | 42.30 | 342.30 | 1.28 | 1.03 | 253.08 | 197.82 | 450.90 | 408.60 | Ok |
| -9.250 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 251.99 | 159.08 | 411.07 | 368.78 | Ok |
| -9.500 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 323.42 | 180.27 | 503.68 | 461.38 | Ok |
| -9.750 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 371.40 | 202.75 | 574.15 | 531.85 | Ok |
| -10.000 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 389.54 | 225.23 | 614.77 | 572.47 | Ok |
| -10.250 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 407.32 | 247.71 | 655.03 | 612.73 | Ok |
| -10.500 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 431.12 | 270.19 | 701.31 | 659.01 | Ok |
| -10.750 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 405.09 | 292.68 | 697.76 | 655.46 | Ok |
| -11.000 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 383.43 | 315.16 | 698.58 | 656.29 | Ok |
| -11.250 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 384.12 | 336.28 | 720.40 | 678.10 | Ok |
| -11.500 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 378.43 | 356.53 | 734.97 | 692.67 | Ok |
| -11.750 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 375.61 | 376.79 | 752.40 | 710.11 | Ok |
| -12.000 | 1.00 | 42.30 | 342.30 | 1.39 | 1.39 | 389.23 | 397.05 | 786.28 | 743.98 | Ok |
| m | | kN | kN | | | kN | kN | kN | kN | |

4. BALKPAAL FD = 450 KN (NEN-EN1997-1:2016/NB:2016)

ALGEMENE GEGEVENS

| | |
|--|-----------------------|
| Modus | Ontwerp |
| Paal | Alleenstaand |
| Gem. Almere | Nee |
| Gebouw type | Niet stijf |
| U.G.T. $F_{c,d}$ | 450.0 kN |
| G.G.T. $F_{c,rep}$ | 300.0 kN |
| $P_{sur,rep}$ | 0.0 kN/m ² |
| Partieele capaciteitsfactor: γ_b | 1.20 |
| Partieele capaciteitsfactor: $\gamma_{f,nk}$ | 1.00 |

GEGEVENS PAAL

PAALSYSTEEM

| | | | |
|-----------------------------|--|---------------------------------|-------|
| Type paal | Beton | α_p | 0.700 |
| Specificatie | Geprefabriceerd; Gladde paal met constante vierkante dwarsafmeting | α_s | 0.010 |
| Installatie | Geheid | | |
| Paal afmeting d | 250 mm | α_s (Klei; Zwak zandig) | 0.020 |
| Paal equ. diam. d_{eq} | 282 mm | α_s (Klei; Sterk zandig) | 0.020 |
| Paal drsn. opp. A | 62500 mm ² | α_s (Klei; Organisch) | 0.020 |
| Paalvoet drsn. opp. A | 62500 mm ² | α_s (Klei; Zwak zandig) | 0.020 |
| Omtrek profiel O_s | 1000 mm | α_s (Klei; Sterk zandig) | 0.020 |
| E-mod | 20000 N/mm ² | α_s (Klei; Organisch) | 0.020 |
| | | α_s (Klei; Zwak zandig) | 0.030 |
| Niveau onderkant fundering | -0.700 m | α_s (Leem; Zwak zandig) | 0.025 |
| Begin traject draagvermogen | -8.000 m | α_s (Klei; Sterk zandig) | 0.030 |
| Einde traject draagvermogen | -12.000 m | α_s (Klei; Organisch) | 0.030 |
| Traject interval | 0.250 m | | |

SONDERINGSDIAGRAMMEN

| | |
|--------------------|------|
| OCR | 1.00 |
| Ontgraven | Nee |
| Aantal sonderingen | 4 |

Sondeerdiagram

S1 bestaande bebouwing.jpg
 S2 bestaande bebouwing.jpg
 S3 bestaande bebouwing.jpg
 S4 bestaande bebouwing.jpg

SAMENVATTING RESULTATEN PER DIEPTE

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|--------------|--------------|-----------|-----------|-----------|---------------|----------|
| -8.000 | 1 | 1.390 | 1.390 | 135.65 | 81.57 | 217.22 | 450.00 | Niet Ok |
| -8.250 | 1 | 1.390 | 1.390 | 141.72 | 91.81 | 233.52 | 450.00 | Niet Ok |
| -8.500 | 1 | 1.390 | 1.390 | 143.33 | 101.39 | 244.72 | 450.00 | Niet Ok |
| -8.750 | 4 | 1.280 | 1.030 | 175.55 | 156.65 | 332.20 | 450.00 | Niet Ok |
| -9.000 | 4 | 1.280 | 1.030 | 202.82 | 163.22 | 366.04 | 450.00 | Niet Ok |
| -9.250 | 1 | 1.390 | 1.390 | 145.49 | 140.68 | 286.17 | 450.00 | Niet Ok |
| -9.500 | 1 | 1.390 | 1.390 | 140.12 | 163.16 | 303.28 | 450.00 | Niet Ok |
| -9.750 | 1 | 1.390 | 1.390 | 141.30 | 185.64 | 326.94 | 450.00 | Niet Ok |
| -10.000 | 1 | 1.390 | 1.390 | 150.06 | 208.12 | 358.18 | 450.00 | Niet Ok |
| -10.250 | 1 | 1.390 | 1.390 | 157.64 | 230.60 | 388.24 | 450.00 | Niet Ok |
| -10.500 | 1 | 1.390 | 1.390 | 205.43 | 252.93 | 458.36 | 450.00 | Niet Ok |
| -10.750 | 1 | 1.390 | 1.390 | 274.70 | 269.21 | 543.90 | 450.00 | Ok |
| m | | | | kN | kN | kN | kN | |

| Niveau paalvoet | Aantal sonderingen | ξ_3 | ξ_4 | $R_{b,d}$ | $R_{s,d}$ | $R_{c,d}$ | UGT $F_{c,d}$ | Controle |
|-----------------|--------------------|---------|--------------|-----------|-----------|-----------|---------------|----------|
| -11.000 | 1 | 1.390 | 1.390 | 321.09 | 291.69 | 612.78 | 450.00 | Ok |
| -11.250 | 1 | 1.390 | 1.390 | 323.62 | 314.17 | 637.79 | 450.00 | Ok |
| -11.500 | 1 | 1.390 | 1.390 | 279.42 | 336.65 | 616.07 | 450.00 | Ok |
| -11.750 | 1 | 1.390 | 1.390 | 253.30 | 365.50 | 618.79 | 450.00 | Ok |
| -12.000 | 1 | 1.390 | 1.390 | 242.87 | 387.98 | 630.85 | 450.00 | Ok |
| m | | | | kN | kN | kN | kN | |

SAMENVATTING RESULTATEN PER DIAGRAM

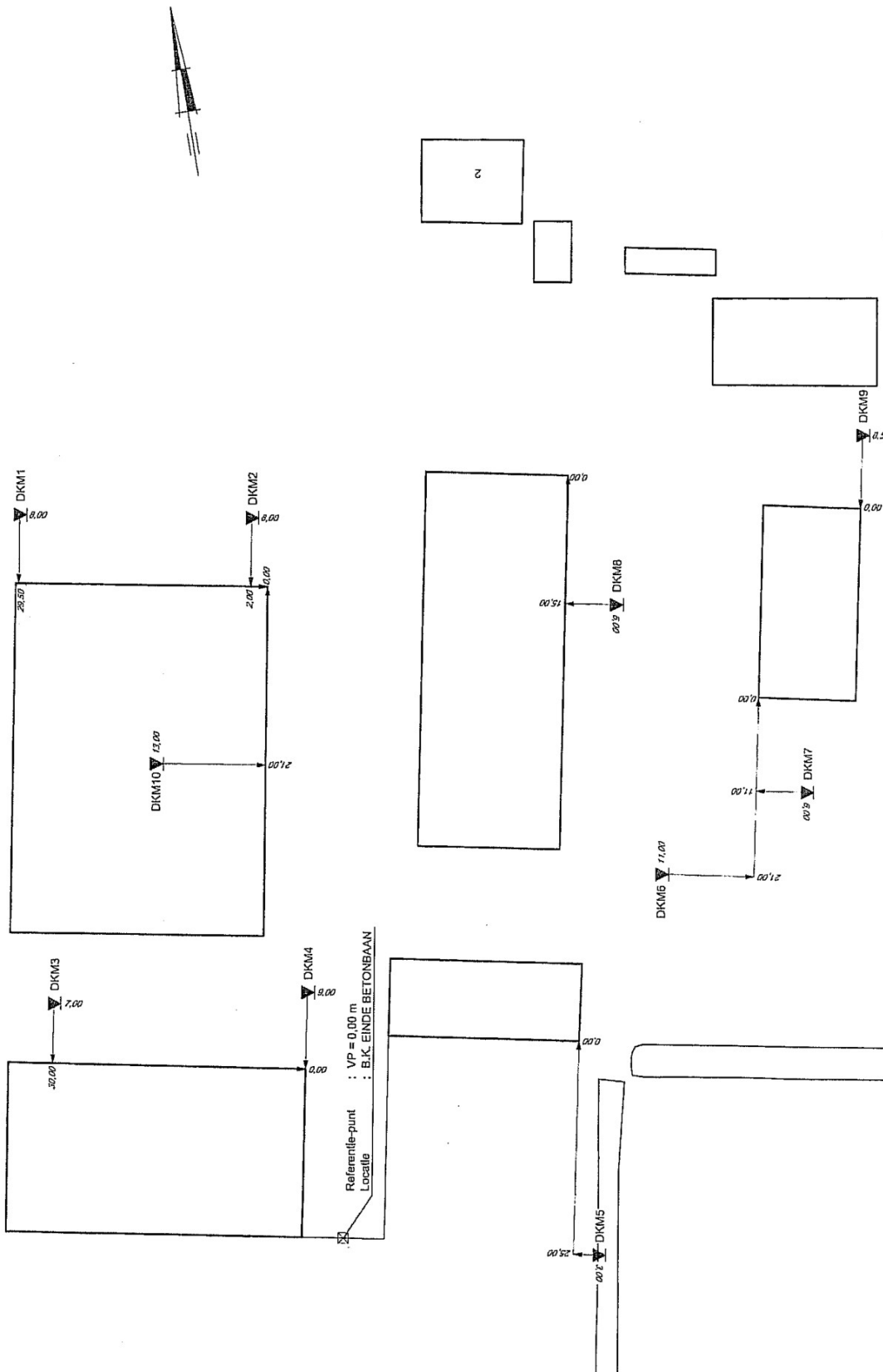
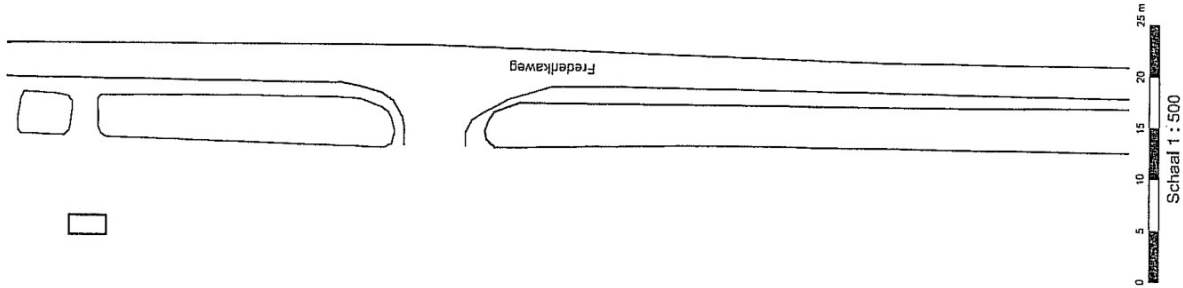
| Niveau paalvoet | $Y_{f,nk}$ | $F_{nk,d}$ | $F_{c,tot}$ | ξ_3 | ξ_4 | $R_{b,cal,max,d}$ | $R_{s,cal,max,d}$ | $R_{c,d}$ | $F_{c,netto}$ | Controle |
|-----------------------------------|------------|------------|-------------|-------------|-------------|-------------------|-------------------|-----------|---------------|----------|
| S1 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 199.89 | 130.67 | 330.56 | 288.85 | Niet Ok |
| -8.250 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 204.79 | 144.38 | 349.17 | 307.46 | Niet Ok |
| -8.500 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 174.11 | 157.81 | 331.92 | 290.21 | Niet Ok |
| -8.750 | 1.00 | 41.71 | 491.71 | 1.28 | 1.03 | 169.54 | 186.30 | 355.84 | 314.13 | Niet Ok |
| -9.000 | 1.00 | 41.71 | 491.71 | 1.28 | 1.03 | 202.82 | 253.82 | 456.63 | 414.92 | Niet Ok |
| -9.250 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 145.49 | 203.58 | 349.07 | 307.36 | Niet Ok |
| -9.500 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 140.12 | 215.77 | 355.89 | 314.18 | Niet Ok |
| -9.750 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 141.30 | 224.79 | 366.09 | 324.38 | Niet Ok |
| -10.000 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 150.06 | 233.48 | 383.55 | 341.84 | Niet Ok |
| -10.250 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 157.64 | 242.93 | 400.57 | 358.86 | Niet Ok |
| -10.500 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 205.43 | 252.93 | 458.36 | 416.65 | Niet Ok |
| -10.750 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 274.70 | 269.21 | 543.90 | 502.19 | Ok |
| -11.000 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 321.09 | 291.69 | 612.78 | 571.07 | Ok |
| -11.250 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 323.62 | 314.17 | 637.79 | 596.08 | Ok |
| -11.500 | 1.00 | 41.71 | 491.71 | 1.39 | 1.39 | 303.70 | 336.65 | 640.35 | 598.64 | Ok |
| S2 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 149.44 | 124.64 | 274.08 | 227.47 | Niet Ok |
| -8.250 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 149.29 | 138.44 | 287.73 | 241.12 | Niet Ok |
| -8.500 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 154.19 | 149.13 | 303.31 | 256.70 | Niet Ok |
| -8.750 | 1.00 | 46.61 | 496.61 | 1.28 | 1.03 | 170.37 | 172.41 | 342.78 | 296.17 | Niet Ok |
| -9.000 | 1.00 | 46.61 | 496.61 | 1.28 | 1.03 | 211.65 | 229.93 | 441.58 | 394.97 | Niet Ok |
| -9.250 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 149.51 | 180.63 | 330.14 | 283.53 | Niet Ok |
| -9.500 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 163.41 | 189.27 | 352.68 | 306.07 | Niet Ok |
| -9.750 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 195.68 | 199.58 | 395.27 | 348.66 | Niet Ok |
| -10.000 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 237.06 | 214.00 | 451.06 | 404.45 | Niet Ok |
| -10.250 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 304.63 | 232.31 | 536.94 | 490.33 | Ok |
| -10.500 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 358.41 | 254.56 | 612.97 | 566.36 | Ok |
| -10.750 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 401.71 | 277.05 | 678.75 | 632.14 | Ok |
| -11.000 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 386.51 | 299.53 | 686.04 | 639.43 | Ok |
| -11.250 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 328.57 | 322.01 | 650.58 | 603.97 | Ok |
| -11.500 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 279.42 | 344.49 | 623.91 | 577.30 | Ok |
| -11.750 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 253.30 | 366.97 | 620.27 | 573.66 | Ok |
| -12.000 | 1.00 | 46.61 | 496.61 | 1.39 | 1.39 | 242.87 | 389.46 | 632.33 | 585.72 | Ok |
| S3 bestaande bebouwing.jpg | | | | | | | | | | |
| -8.000 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 135.65 | 81.57 | 217.22 | 173.54 | Niet Ok |
| -8.250 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 141.72 | 91.81 | 233.52 | 189.84 | Niet Ok |
| -8.500 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 143.33 | 101.39 | 244.72 | 201.03 | Niet Ok |
| -8.750 | 1.00 | 43.69 | 493.69 | 1.28 | 1.03 | 182.91 | 119.21 | 302.12 | 258.44 | Niet Ok |
| -9.000 | 1.00 | 43.69 | 493.69 | 1.28 | 1.03 | 317.97 | 163.22 | 481.19 | 437.50 | Niet Ok |
| -9.250 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 327.77 | 140.68 | 468.44 | 424.76 | Niet Ok |
| -9.500 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 428.01 | 163.16 | 591.16 | 547.48 | Ok |
| -9.750 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 492.96 | 185.64 | 678.60 | 634.91 | Ok |
| -10.000 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 529.99 | 208.12 | 738.11 | 694.42 | Ok |
| -10.250 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 562.05 | 230.60 | 792.65 | 748.97 | Ok |
| -10.500 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 540.99 | 253.09 | 794.07 | 750.39 | Ok |
| -10.750 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 555.58 | 275.57 | 831.15 | 787.46 | Ok |
| -11.000 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 562.05 | 298.05 | 860.10 | 816.41 | Ok |
| -11.250 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 562.05 | 320.53 | 882.58 | 838.90 | Ok |
| -11.500 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 562.05 | 343.01 | 905.06 | 861.38 | Ok |
| -11.750 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 562.05 | 365.50 | 927.55 | 883.86 | Ok |
| -12.000 | 1.00 | 43.69 | 493.69 | 1.39 | 1.39 | 551.01 | 387.98 | 938.99 | 895.30 | Ok |

| | | |
|--|--|--|
| | | |
|--|--|--|

S4 bestaande bebouwing.jpg

| | | | | | | | | | | |
|----------|------|-----------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|---------|
| -8.000 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 161.45 | 102.08 | 263.53 | 221.23 | Niet Ok |
| -8.250 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 162.62 | 113.47 | 276.10 | 233.80 | Niet Ok |
| -8.500 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 166.39 | 126.13 | 292.53 | 250.23 | Niet Ok |
| -8.750 | 1.00 | 42.30 | 492.30 | 1.28 | 1.03 | 179.37 | 148.68 | 328.06 | 285.76 | Niet Ok |
| -9.000 | 1.00 | 42.30 | 492.30 | 1.28 | 1.03 | 253.08 | 197.82 | 450.90 | 408.60 | Niet Ok |
| -9.250 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 251.99 | 159.08 | 411.07 | 368.78 | Niet Ok |
| -9.500 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 323.42 | 180.27 | 503.68 | 461.38 | Ok |
| -9.750 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 371.40 | 202.75 | 574.15 | 531.85 | Ok |
| -10.000 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 389.54 | 225.23 | 614.77 | 572.47 | Ok |
| -10.250 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 407.32 | 247.71 | 655.03 | 612.73 | Ok |
| -10.500 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 431.12 | 270.19 | 701.31 | 659.01 | Ok |
| -10.750 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 405.09 | 292.68 | 697.76 | 655.46 | Ok |
| -11.000 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 383.43 | 315.16 | 698.58 | 656.29 | Ok |
| -11.250 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 384.12 | 336.28 | 720.40 | 678.10 | Ok |
| -11.500 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 378.43 | 356.53 | 734.97 | 692.67 | Ok |
| -11.750 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 375.61 | 376.79 | 752.40 | 710.11 | Ok |
| -12.000 | 1.00 | 42.30 | 492.30 | 1.39 | 1.39 | 389.23 | 397.05 | 786.28 | 743.98 | Ok |
| m | | kN | kN | | | kN | kN | kN | kN | |

TUUSSE



SITUATIE MET SONDEERPUNTEN
NIEUWBOUW LOODSEN AAN DE FREDERIKAWEG 2 EN DE KORENWEI 1
TE RILLAND

Opdr. : 7010-0120-000
Bijl. : 1.1



| | |
|--|----------------------------------|
| | |
| | (8) ZAND, vast / ZAND, kleiig |
| | (7) ZAND tot ZAND, grindig |
| | (4) KLEI, siltig / LEEM |
| | (4) KLEI, siltig / LEEM |
| | (4) KLEI, siltig / LEEM |
| | (10) VEEN of POTKLEI |
| | (3) KLEI, zwak siltig tot siltig |
| | |
| | (6) ZAND, zwak siltig tot siltig |
| | |
| | (6) ZAND, zwak siltig tot siltig |

Sondenng volgens norm NEN 5140, klasse 2
conustype cilindrisch elektrisch, 1500 mm
a afwijking van de vertikaal



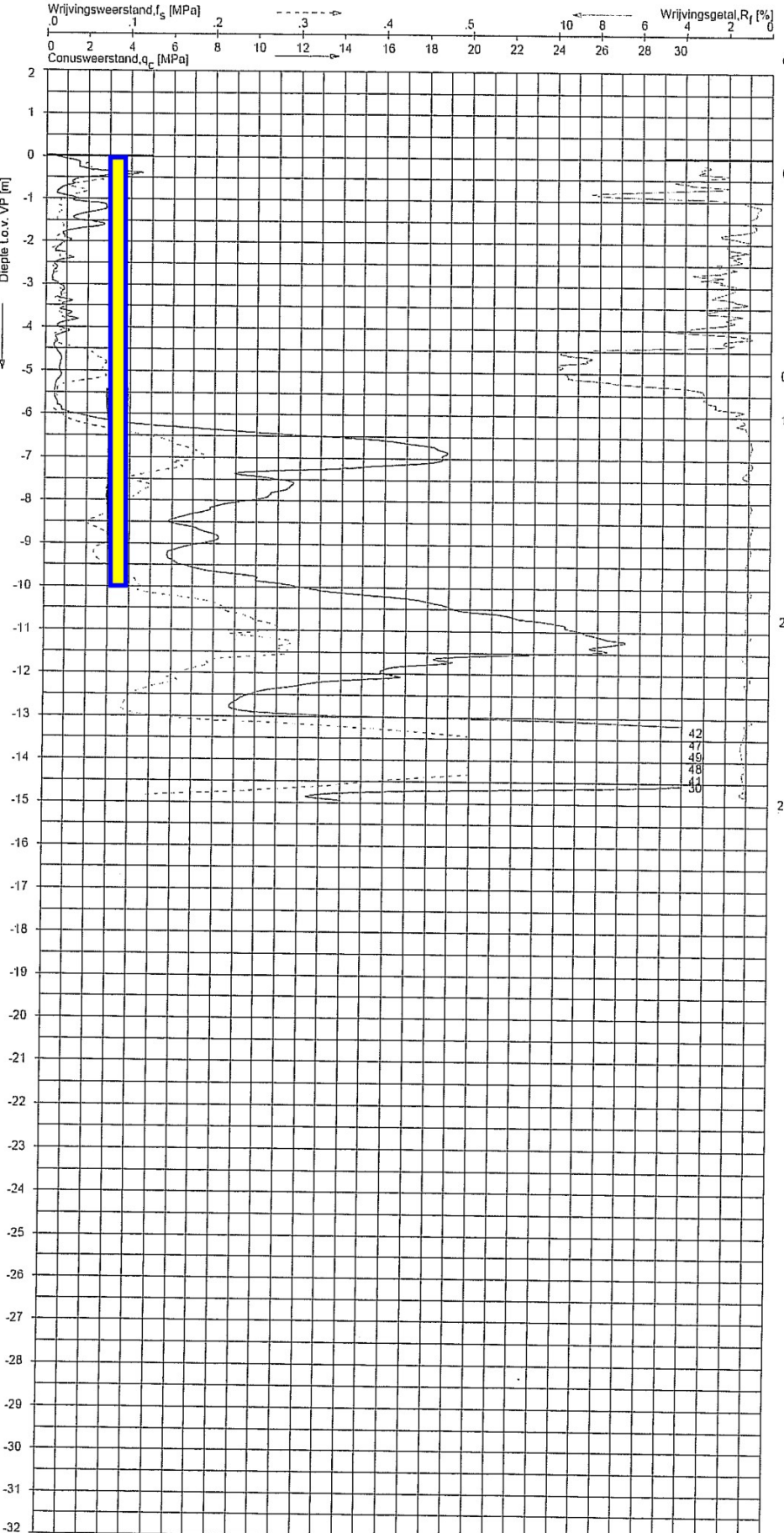
Sond. DKM6



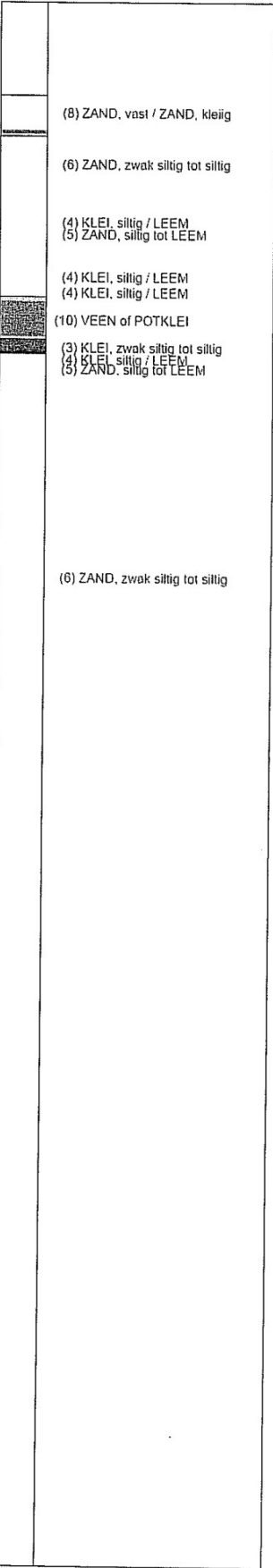
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7010-0120-000

DKM7 - 1



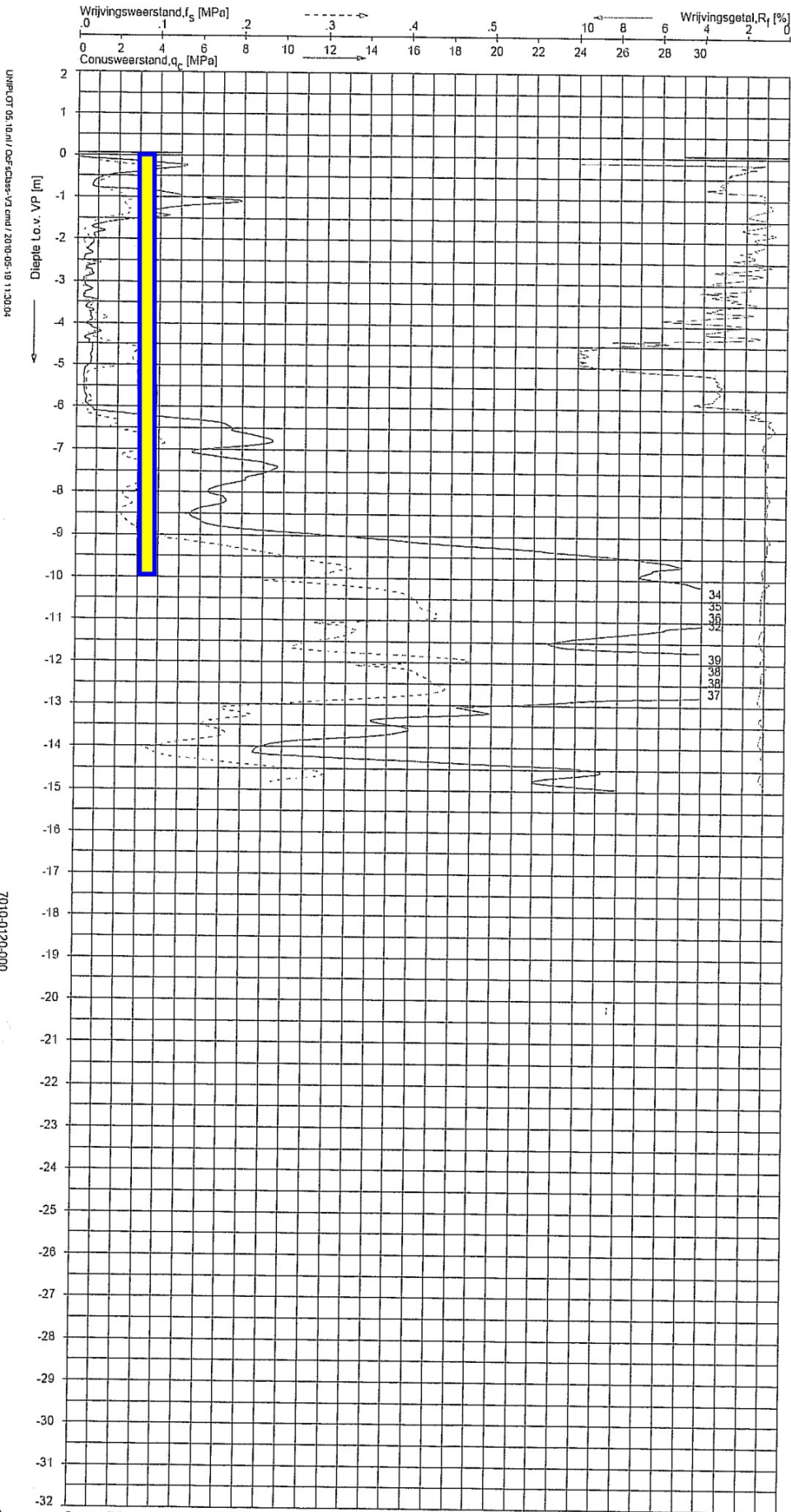
CPT data classificatie - indicatief
Classificatie gebaseerd op genormaliseerde
conusweerstand en wrijvingsgetal.
(Robertson 1990, NL corr.)
Geldig onder grondwaterpeil.



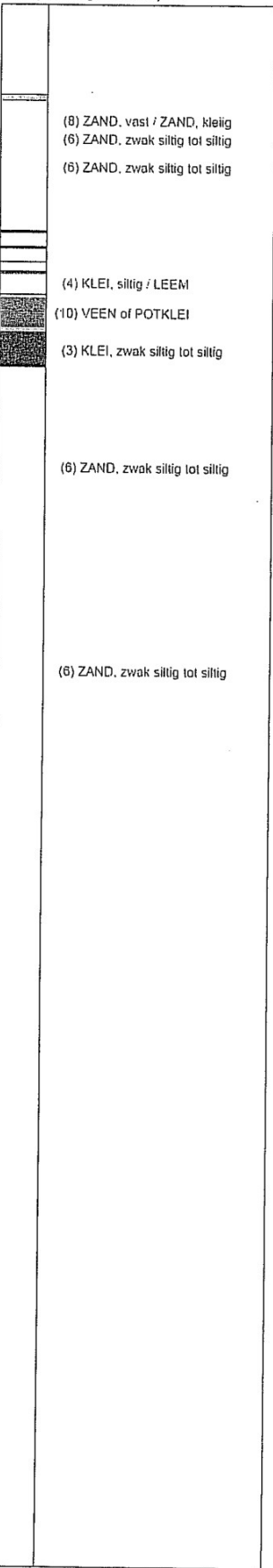
Opp.: CV/ d.d. 10-May-2010 conus: F7.5CKE2HAB X= Sondering volgens norm NEN 5140, klasse 2
Gel.: VALKF d.d. 2010-05-18 MV=VP +0.03 m Y= conustype cilindrisch elektisch, 1500 mm
α afwijking van de verticaal

SONDERING MET PLAATSELIJKE KLEEFMETING
NIEUWBOUW LOODSEN AAN DE FREDERIKAWEG 2 EN DE KORENWEI 1
TE RILLAND

Opdr. S
Sond. DKM7



CPT data classificatie - indicatief
Classificatie gebaseerd op genormaliseerde
conusweerstand en wrijvingsgetal.
(Robertson 1990, NL corr.)
Geldig onder grondwaterpeil.



Opdr.: CVI d.d. 10-May-2010 conus: F7.5CKE2HAB X =
Gel.: VALKF d.d. 2010-05-19 MV = VP +0.05 m Y =
Sondering volgens norm NEN 5140, klasse 2
conus type cilindrisch elektrisch, 1500 mm
a afwijking van de verkast

SONDERING MET PLAATSELIJKE KLEEFMETING
NIEUWBOUW LOODSEN AAN DE FREDERIKAWEG 2 EN DE KORENWEI 1
TE RILLAND

Opdr. **DKMB**
Sond. **DKMB**

UNIPLOT 05.10.nl / CDF-Client-V3.cml / 2010-05-19 11:30:04

7010-0120-000

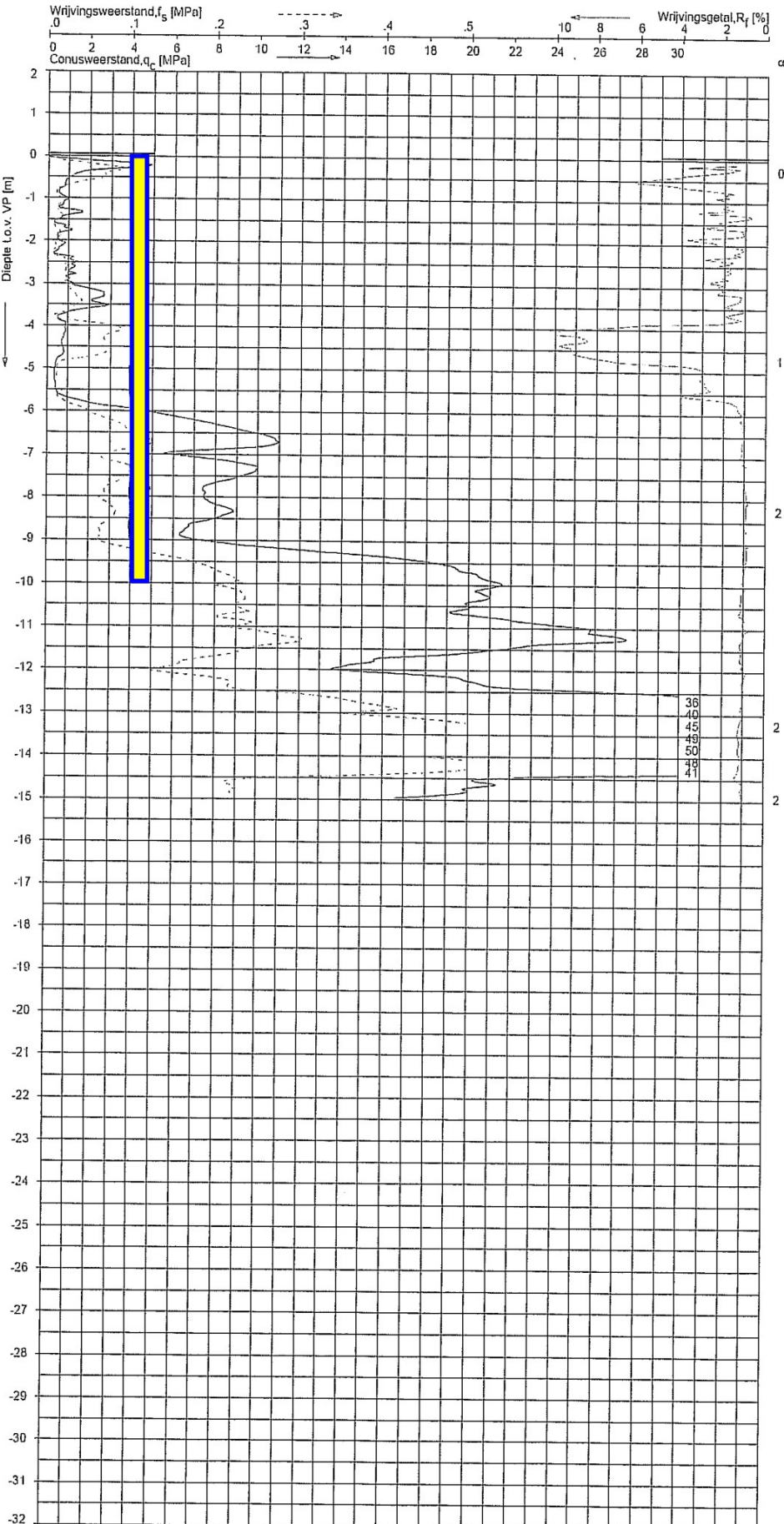
DKMB - 1



UNIPLOT 05.10/nl/Of-fclass-VI.cml / 2010-05-19 11:30:04

7010-0120-000

DKM9 - 1



CPT data classificatie - indicatief
Classificatie gebaseerd op genormaliseerde
conusweerstand en wrijvingsgetal.
(Robertson 1990, NL corr.)
Geldig onder grondwaterpeil.

| | |
|--|----------------------------------|
| | (8) ZAND, vast / ZAND, kleilig |
| | (8) ZAND, zwak siltig tot siltig |
| | (10) VEEN of POTKLEI |
| | (3) KLEI, zwak siltig tot siltig |
| | (6) ZAND, zwak siltig tot siltig |

Opg.: CVI d.d. 10-May-2010 conus: F7.5CKE2HAB X =
Gel.: VALKF d.d. 2010-05-19 MV = VP +0.06 m Y =
SONDERING MET PLAATSELIJKE KLEEFMETING
NIEUWBOUW LOODSEN AAN DE FREDERIKAWEG 2 EN DE KORENWEI 1
TE RILLAND

Opdr.
Sond.



S

Toelichting grondslagen

In dit document kunt u secties vinden die onleesbaar zijn gemaakt. Deze informatie is achterwege gelaten op basis van de Wet open overheid (Woo). De letter die hierbij is vermeld correspondeert met de bijbehorende grondslag in onderstaand overzicht.

J Art. 5.1 lid 2 sub e

Het belang van de openbaarmaking van deze informatie weegt niet op tegen het belang van de eerbiediging van de persoonlijke levenssfeer van betrokkenen

S Art. 5.2 lid 2

De informatie uit documenten betreft tot personen te herleiden gegevens, met betrekking tot door het bestuursorgaan, met het oog op een goede en democratische bestuursvoering, verstrekte informatie die kwalificeert als persoonlijke beleidsopvattingen