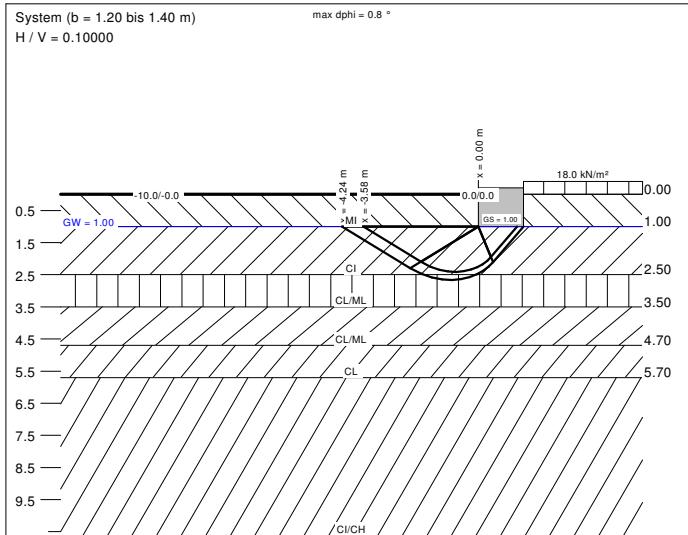


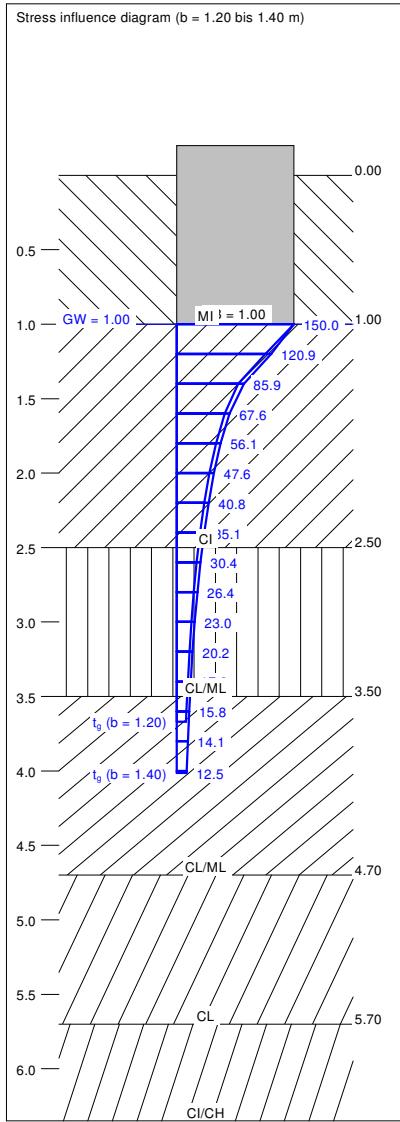
| Soil | γ [kN/m³] | γ' [kN/m³] | ϕ [°] | c [kN/m²] | E_s [MN/m²] | v [-] | Designation |
|------|------------------|-------------------|------------|-----------|---------------|-------|-------------|
| | 18.0 | 8.0 | 28.0 | 5.0 | 1.5 | 0.00 | MI |
| | 18.5 | 8.5 | 27.0 | 7.0 | 2.5 | 0.00 | CI |
| | 19.0 | 9.0 | 28.0 | 4.0 | 3.0 | 0.00 | CL/ML |
| | 19.5 | 9.5 | 28.0 | 4.0 | 3.0 | 0.00 | CL/ML |
| | 19.5 | 9.5 | 27.0 | 4.0 | 3.5 | 0.00 | CL |
| | 19.0 | 9.0 | 24.0 | 12.0 | 3.0 | 0.00 | CI/CH |



| a [m] | b [m] | Allow. σ [kN/m²] | Allow. R [kN] | s [cm] | cal ϕ [°] | cal c [kN/m²] | γ_z [kN/m³] | σ_u [kN/m²] | t_g [m] | Base LS [m] | L LS [m] | A LS [m²] | β [°] | k_e [MN/m²] |
|-------|-------|-------------------------|---------------|--------|----------------|---------------|--------------------|--------------------|-----------|-------------|----------|-----------|-------------|---------------|
| 1.20 | 1.20 | 150.0 | 216.0 | 4.60 | 27.0 | 7.00 | 8.50 | 18.00 | 3.67 | 2.41 | 5.71 | 4.17 | 0.0 | 3.3 |
| 1.40 | 1.40 | 150.0 | 294.0 | 5.27 | 27.2 | 6.26 | 8.52 | 18.00 | 4.01 | 2.66 | 6.74 | 5.80 | 0.0 | 2.8 |

$$\text{zul } \sigma = \sigma_{0,k} / (\gamma_{Gr} \cdot \gamma_{G,Q}) = \sigma_{0,k} / (1.40 \cdot 1.43) = \sigma_{0,k} / 1.99$$

Ratio of changeable(Q)/total loads(G+Q) [-] = 0.50



Initial calculation data:
STOPA
Bearing cap. equation after DIN 4017 (neu)
Partial safety factor concept
Pad footing ($a/b = 1.00$)
 $\gamma (Gr) = 1.40$
 $\gamma (G) = 1.35$
 $\gamma (Q) = 1.50$
Proportion of changeable loads = 50.0 %

H/V = 0.1000
Allow. sigma restricted to 150.00 kN/m² begrenzt
Footing base depth = 1.00 m
Groundwater = 1.00 m
Limiting depth of p = 20.0 %

Acceptable bearing pressure
Settlements

