

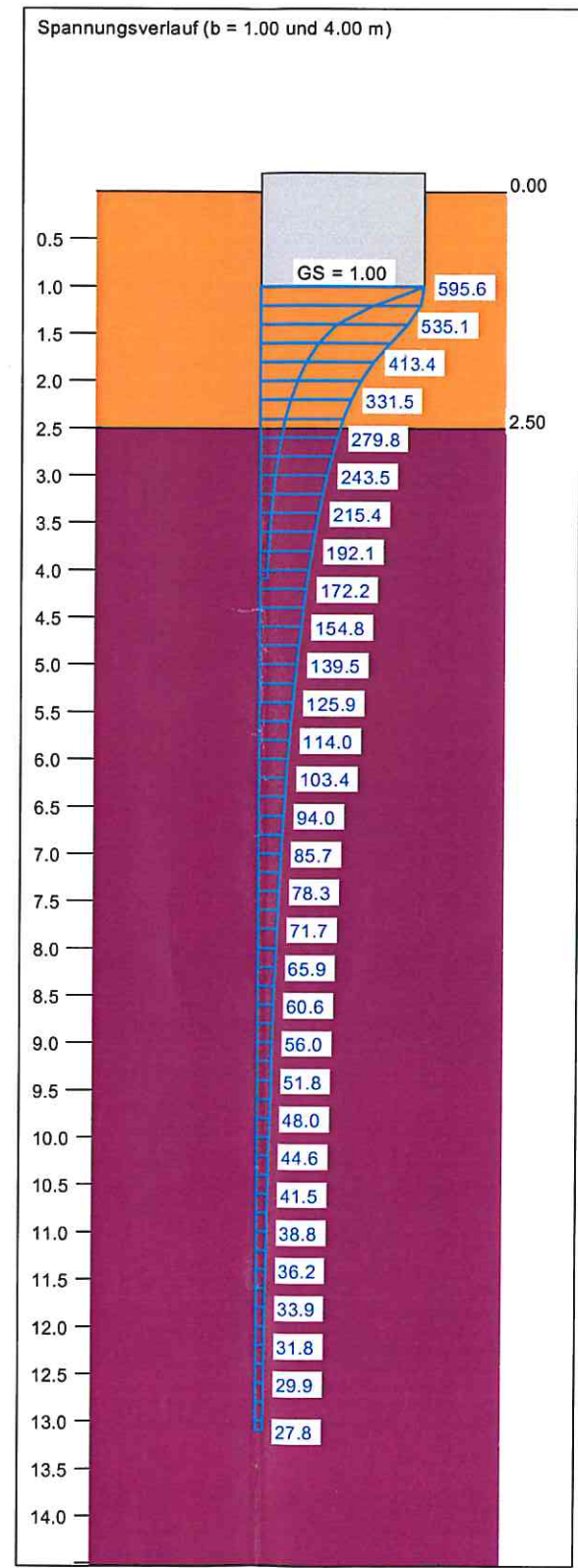
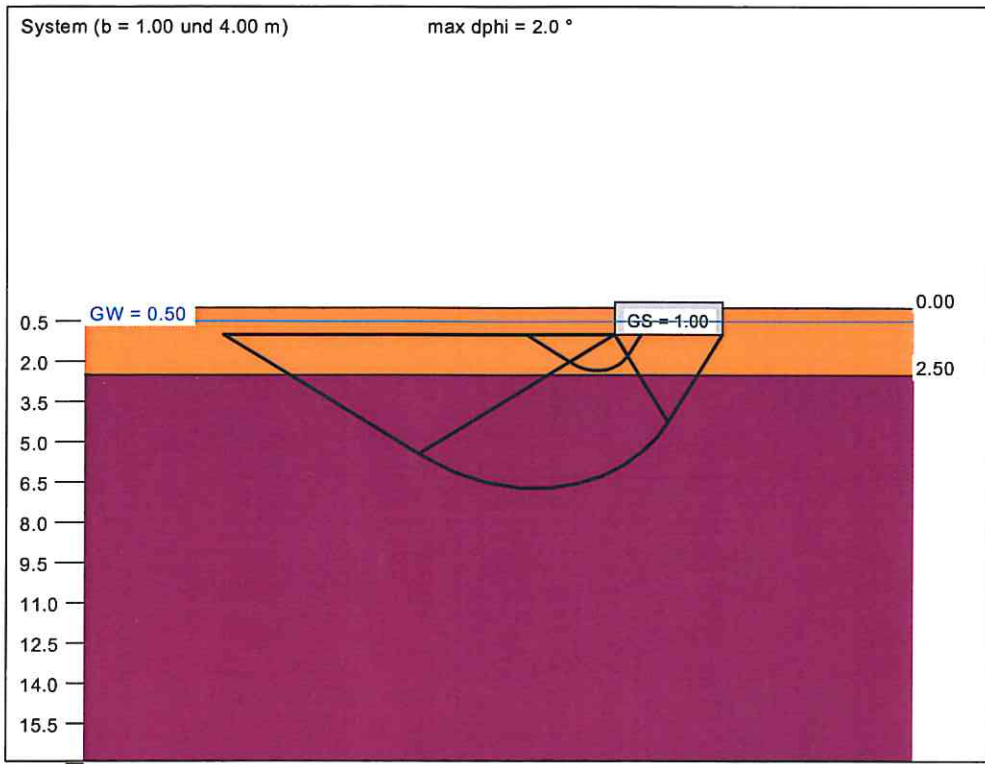


Boden	γ [kN/m ³]	γ' [kN/m ³]	φ [°]	c [kN/m ²]	E_s [MN/m ²]	ν [-]	Bezeichnung
	19.0	9.0	25.0	5.0	10.0	0.00	HB 3 Feinsande
	20.5	10.5	27.5	25.0	65.0	0.00	HB 4 Tiefere OSM



Berechnungsgrundlagen:
Norm: EC 7
BS: DIN 1054: BS-P
Grundbruchformel nach DIN 4017:2006
Teilsicherheitskonzept (EC 7)
Einzelfundament (a/b = 1.00)
 $\gamma_{R,v} = 1.40$
 $\gamma_G = 1.35$
 $\gamma_Q = 1.50$
Anteil Veränderliche Lasten = 0.500

$\gamma_{(G,Q)} = 0.500 \cdot \gamma_Q + (1 - 0.500) \cdot \gamma_G$
 $\gamma_{(G,Q)} = 1.425$
Gründungssohle = 1.00 m
Grundwasser = 0.50 m
Grenztiefe mit $\rho = 20.0$ %
Grenztiefen spannungsvariabel bestimmt

— Sohlwiderstand
— Setzungen

a [m]	b [m]	$\sigma_{R,d}$ [kN/m ²]	$R_{n,d}$ [kN]	$\sigma_{E,k}$ [kN/m ²]	s [cm]	cal φ [°]	cal c [kN/m ²]	γ_z [kN/m ²]	$\sigma_{\bar{0}}$ [kN/m ²]	l_g [m]	UK LS [m]	k_s [MN/m ²]
1.00	1.00	280.5	280.5	196.8	1.18	25.0	5.00	9.00	14.00	4.09	2.35	16.7
1.10	1.10	282.5	341.8	198.2	1.27	25.0	5.00	9.00	14.00	4.31	2.48	15.6
1.20	1.20	411.0	591.8	288.4	1.97	25.6	9.72	9.04	14.00	5.07	2.64	14.7
1.30	1.30	464.4	784.9	325.9	2.34	25.8	11.52	9.10	14.00	5.51	2.79	13.9
1.40	1.40	503.8	987.5	353.6	2.67	26.0	12.77	9.16	14.00	5.90	2.94	13.3
1.50	1.50	534.2	1202.0	374.9	2.95	26.1	13.69	9.22	14.00	6.26	3.08	12.7
1.60	1.60	561.1	1436.5	393.8	3.23	26.2	14.48	9.28	14.00	6.60	3.23	12.2
1.70	1.70	584.3	1688.6	410.0	3.48	26.3	15.14	9.33	14.00	6.92	3.37	11.8
1.80	1.80	605.4	1961.4	424.8	3.74	26.4	15.72	9.38	14.00	7.24	3.52	11.4
1.90	1.90	624.6	2254.8	438.3	3.98	26.4	16.24	9.43	14.00	7.55	3.67	11.0
2.00	2.00	642.1	2568.4	450.6	4.22	26.5	16.69	9.47	14.00	7.86	3.81	10.7
2.10	2.10	658.3	2903.3	462.0	4.45	26.5	17.10	9.51	14.00	8.15	3.96	10.4
2.20	2.20	673.5	3259.6	472.6	4.67	26.6	17.47	9.55	14.00	8.45	4.10	10.1
2.30	2.30	687.6	3637.5	482.5	4.89	26.6	17.81	9.58	14.00	8.73	4.25	9.9
2.40	2.40	700.9	4037.3	491.9	5.11	26.7	18.12	9.61	14.00	9.01	4.39	9.6
2.50	2.50	713.5	4459.2	500.7	5.32	26.7	18.40	9.64	14.00	9.29	4.54	9.4
2.60	2.60	725.4	4903.4	509.0	5.53	26.7	18.66	9.67	14.00	9.57	4.68	9.2
2.70	2.70	736.6	5370.1	516.9	5.73	26.7	18.90	9.70	14.00	9.84	4.83	9.0
2.80	2.80	747.4	5859.5	524.5	5.93	26.8	19.12	9.72	14.00	10.10	4.97	8.8
2.90	2.90	757.6	6371.8	531.7	6.13	26.8	19.33	9.75	14.00	10.37	5.12	8.7
3.00	3.00	767.5	6907.2	538.6	6.33	26.8	19.53	9.77	14.00	10.63	5.26	8.5
3.10	3.10	776.9	7466.0	545.2	6.52	26.8	19.71	9.79	14.00	10.89	5.41	8.4
3.20	3.20	786.0	8048.3	551.6	6.71	26.9	19.88	9.81	14.00	11.14	5.55	8.2
3.30	3.30	794.7	8654.4	557.7	6.90	26.9	20.03	9.83	14.00	11.39	5.70	8.1
3.40	3.40	803.2	9284.5	563.6	7.09	26.9	20.18	9.85	14.00	11.64	5.85	7.9
3.50	3.50	811.3	9938.8	569.4	7.28	26.9	20.32	9.86	14.00	11.89	5.99	7.8
3.60	3.60	819.2	10617.4	574.9	7.46	26.9	20.46	9.88	14.00	12.14	6.14	7.7
3.70	3.70	826.9	11320.7	580.3	7.64	27.0	20.58	9.89	14.00	12.38	6.28	7.6
3.80	3.80	834.4	12048.9	585.5	7.82	27.0	20.70	9.91	14.00	12.62	6.43	7.5
3.90	3.90	841.7	12802.0	590.7	8.00	27.0	20.81	9.92	14.00	12.86	6.57	7.4
4.00	4.00	848.8	13580.4	595.6	8.18	27.0	20.92	9.94	14.00	13.10	6.72	7.3

$\sigma_{E,k} = \sigma_{\text{oi,k}} / (\gamma_{R,v} \cdot \gamma_{(G,Q)}) = \sigma_{\text{oi,k}} / (1.40 \cdot 1.43) = \sigma_{\text{oi,k}} / 1.99$ (für Setzungen)
Verhältnis Veränderliche(Q)/Gesamtlasten(G+Q) [-] = 0.50

