

Analysis of settlement with improvement through stone columns

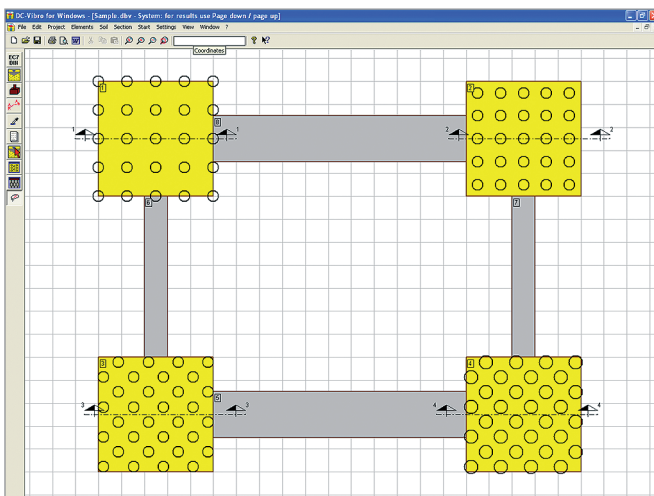
DC-Vibro

- Analysis of the soil improvement with the approach by Priebe, bearing capacity analysis acc. to Eurocode 7, DIN 1054:2010, DIN 4017:2006, SIA 267, OENORM B 4435-2
- German, English, French, Romanian language
- Any number of footings with individual soil layers for every analysis section
- Single, strip and circular footings as well as infinite load area
- Different load cases
- Variable soil layers with different column diameters
- Column parameters defined per layer, e.g. for mortar injected stone columns

Depth	Foundation stress	Superimposed stress from soil	Stress ratio Found./Soil	s without improvement for Foundation	s infinite load area with improv.	Factor footing	Settlement of footing with improv.
[m]	σ_f [kN/m ²]	σ_a [kN/m ²]		[mm]	[mm]	[%]	[mm]
0.50	275.00	9.50	28.95	0.00	0.00	100.00	0.00
1.50	190.85	28.50	6.70	9.88	5.95	89.17	5.31
2.50	129.18	47.50	2.72	19.13	7.04	76.63	5.40
3.00	112.42	57.00	1.97	7.51	3.52	67.06	2.36
4.00	88.71	66.00	1.34	12.43	6.60	58.06	3.83
5.00	71.47	75.00	0.95	7.95	11.96	31.50	3.77
5.50	64.39	79.50	0.81	3.39	5.98	26.00	1.55
6.50	52.62	91.00	0.58	1.94	4.22	36.00	1.52
7.00	47.72	96.75	0.49	0.83	2.11	30.13	0.64
8.00	39.55	108.25	0.37	1.45	9.17	100.00	1.45
9.00	33.11	119.75	0.28	1.20	9.17	100.00	1.20
10.00	27.99	131.25	0.21	1.01	9.17	100.00	1.01
11.00	23.90	142.75	0.17	0.86	9.17	100.00	0.86
Sum				67.60	84.04		28.90

Improvement of the settlement

- Column arrangement in a triangular or rectangular grid with different distances
- Immediate display of the arrangement by preview function
- Calculation of the settlement with improvement, optionally comparison without improvement
- Calculation of the bearing capacity with and without improvement
- Fast editing of the parameters by jumping from the results to the input
- Clear display of results with section graphics
- Display of the stresses and settlements in a diagram



Top view of footings with column grid

