

TERRA-MIXTM

_STRAIGHT AHEAD

Hybrid foundation »System TERRA-MIX«TM

_Building site report

_Realized: July 2010

_Building Project: Residential neighbourhood Seefeldergasse 30, A-1220 Wien

**_Awarding Authority: BWS Gemeinnützige allg. Bau-, Wohn- und
Siedlungsgenossenschaft Reg.Gen.mbH**

_Area: 3000m²



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Assignment:

For the construction of a residential neighbourhood without basements the ground should be improved. Between the top soil and the medium densely bedded gravel there is a loosely bedded intermediate layer of silty fine sand to sandy silt to a depth of 2.6m. In order to prevent grain redistribution due to fluctuating groundwater level with its to be expected settling, an excavation and backfill of lean concrete to a depth of 2.8m was foreseen.

An alternative was being looked for so as to shorten the construction time and to optimize the construction progress.

Solution:

The Hybrid-foundation „System TERRA-MIX“ was selected.

1st step:

Improving the silty fine sand and the same time respectively creating the work level with a layer strength of 45cm by means of milling a suitably with the ground harmonized binding agent into the ground. $E_{vd} > 35 \text{ MN/m}^2$.

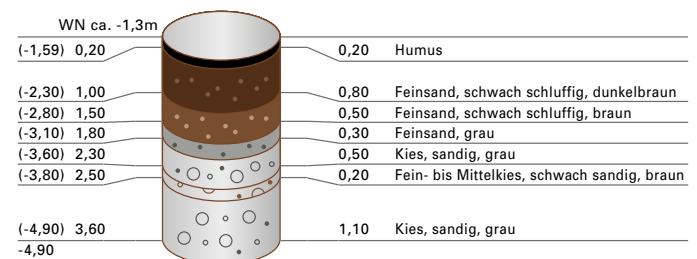
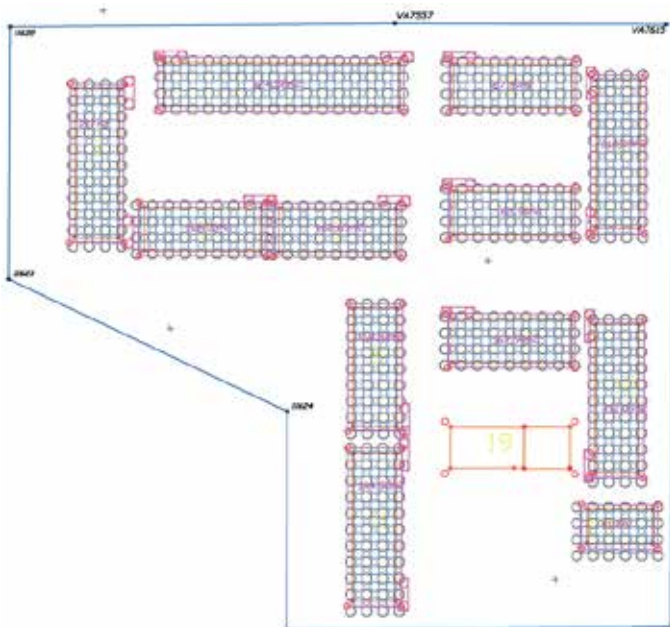


2nd step:

Impulse Compaction in several work steps and re-filling of the settling cones with binding agent improved soil.

3rd step:

Creating a frost-proof substitute base layer „System TERRA-MIX“ with a layer strength of 45cm by means of milling a suitably with the ground harmonized binding agent into the ground. This substitute layer serves as a load compensating layer above the compaction columns. $E_{vd} > 70 \text{ MN/m}^2$



Result:

By using the Hybrid-foundation „System TERRA-MIX“ the use of resources could be minimized, the construction time be shortened and a foundation version of very high quality could be established.

