



## SITE REPORT



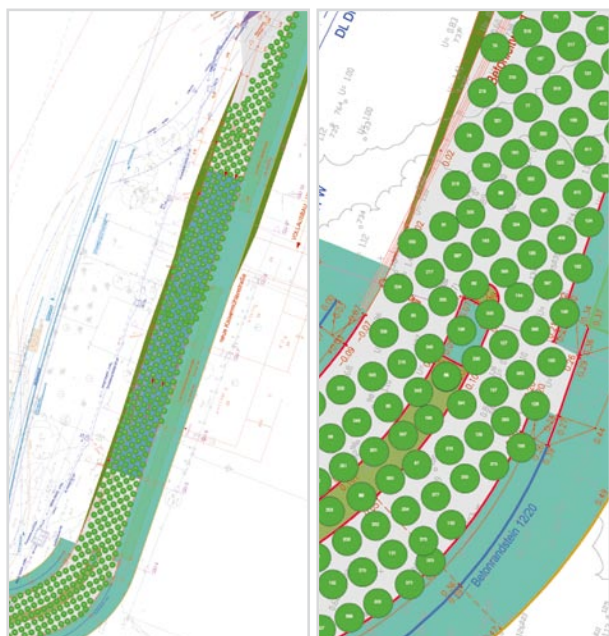
CONSTRUCTED: AUGUST 2007  
PROJECT: A-1220 WIEN, NEUBAU KAISERMÜHLENSTRASSE  
OWNER: ÖBB-INFRASTRUKTUR BAU AG / WIENER LINIEN  
GEOTECHNICS: GEOTECHNIK ADAM ZT GMBH.  
AREA: 2036 m<sup>2</sup>

## Job Definition:

In the course of reconstruction of the railway station "Stadlau" it was necessary to realign the "Kaisermühlstraße". The new roadway was to be constructed over several meters of underlying loose fill of slag, sand and gravel.

On account of the low relative density of the fill an improvement of the subsoil was required. The following alternative methods of soil improvement were proposed:

- Excavate the whole loose material and build up the excavation in layers of dense soil
- Vibro compaction
- Impact Compaction



## Solution:

For economic reasons and technical equivalence it was decided to use the low-resource system of Rapid Impact Compaction by **TERRA-MIX**. After the construction of a trial area for the purpose of calibration the exact layout and number of compaction passes was established in conjunction with the geotechnical engineer (**GEOTECHNIK ADAM ZT GmbH**)

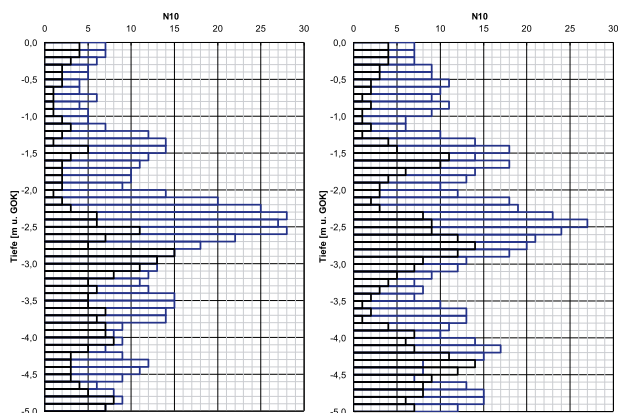
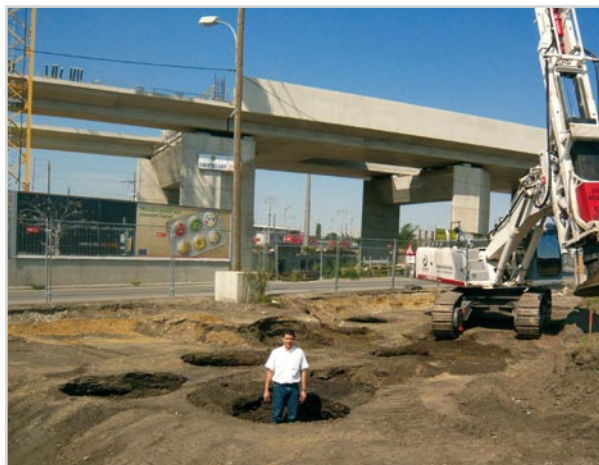
## Vibrations:

Special attention was given to the vibrations occurring during the Rapid Impact Compaction as the compaction work was carried out in the close proximity of structural foundations of the bridge and the railway station "Stadlau". The vibrations noted at the nearby structures were so small that further vibration measurements could be dispensed with.

## Results:

On account of a volume reduction **over more than 20 m** and a proven depth of compaction of **over 5 m** the compaction work can be considered as being highly effective.

If one compares the result of the heavy penetration test (black line) before and after the Rapid Impact Compaction (blue line) one can observe a doubling or more of the mean values of the test results.



**TERRA-MIX**

WE COMPACT SOILS .....

**TERRA-MIX Bodenstabilisierungs GmbH**  
 Schönaich 96, A-8521 Wettmannstätten  
[www.terra-mix.com](http://www.terra-mix.com)

Tel.: +43 (0) 3185 / 307 22  
 Fax: +43 (0) 3185 / 307 22-30  
 E-Mail: [mail@terra-mix.com](mailto:mail@terra-mix.com)

