



Ludwigstraße, Munich (D) Binder Injections

Employer

Landeshauptstadt München, Baureferat HA Ingenieurbau
Abt. U-Bahn und Tunnelbau, Friedenstr. 40, D-81671 München

Execution of works

Renesco GmbH Abt. Marti Geotechnik

Construction Period

February 2025 – March 2025

Contract Sum (injection only)

390.000 €

Project Description

During the implementation of the 'Radschnellweg Münchner Norden' (Munich North Bicycle Highway) project by the Civil Engineering Department of the City of Munich, cavities were discovered in the street "Ludwigstraße" beneath the existing road substructure. Further investigations using heavy dynamic probing revealed that the subsoil along the U3/U6 underground line has extremely poor bearing capacity at a depth of approx. 15m below ground level. To improve the subsoil, soil stabilisation was carried out using binder injections. For this purpose, binders had to be injected to a depth of 15m in a grid pattern over a length of approx. 35m and a width of approx. 4m.

Scope of work

After drilling through the concrete slabs of the existing road substructure, the injection lances were first inserted. The special binding agent was then injected in stages as the lances were withdrawn.

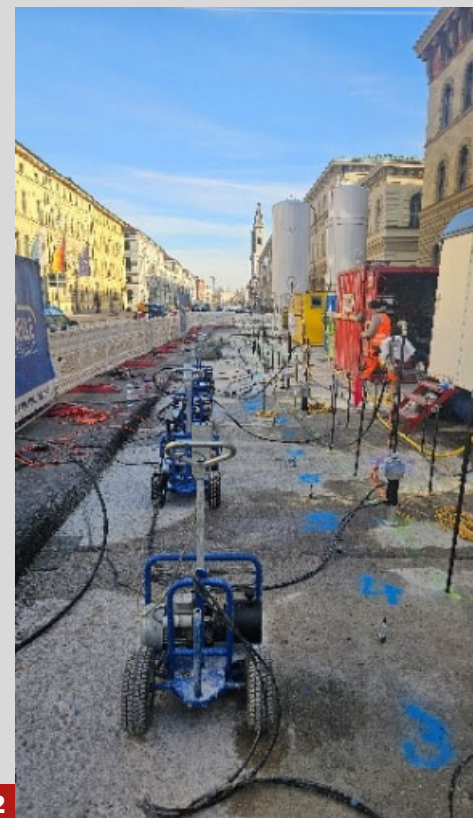
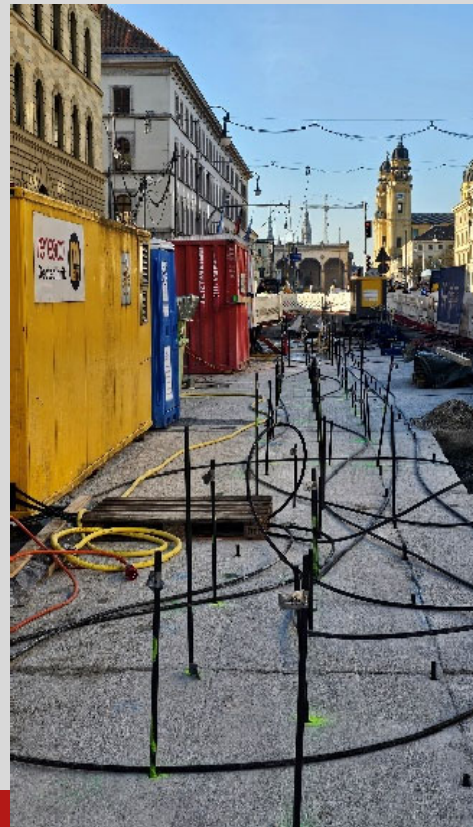
The flow rate of the suspension and the pressure were continuously measured and recorded.

The dynamic probing tests carried out after the injections showed a significant increase in the impact numbers.

Quantities

Insert 134 injection lances

Inject 180m³ of special binding agent suspension



1. Construction site with injection lances in place
2. Pull presses for removing the lances during injection