Implenia

Reference

Sanierung Abwasseranlagen Breitenrain







SHORT DESCRIPTION

The sewer systems in Viktoriastrasse and Moserstrasse in Bern have reached their age and are being replaced.

THE PROJECT

The replacement of the sewer system is being carried out without trenches using the microtunneling method with DN 1,200. 1,215m' of microtunnel will be constructed in seven sections with lengths between 100m' and 265m'. The house connections of the individual properties to the new sewer system are made by means of DN 200 press boreholes directly out of the sewer. A total of thirteen excavation pits will be constructed as start and target shafts for the microtunneling, as well as for the subsequent construction of sewer shafts. Four excavation pits will serve as start pits and four excavation pits will serve as target pits. Five additional excavation pits will be excavated after the microtunnel has been driven through. The excavation pits generally have a depth of between 6m and 8m. In the area of Viktoriastrasse, the excavation pits are secured by bored pile walls (tangent or overcut). The shafts in Moserstrasse are secured with micro-cooling walls and steel longarines. Before the excavation pit closures could be constructed, the existing utility lines were relocated.

9 shaft structures could be prefabricated using our contractor's variant, three will be made of in-situ concrete. Some of the

prefabricated structures weigh up to 62 tons. The great advantage of prefabrication is that the manhole bed with the DN 1,200 channel is already completed, thus massively reducing the time during which the pits are open and affect traffic and pedestrians.

SERVICES IN DETAIL

- Road construction
- Pavement construction
- Sewer construction
- Pipeline construction
- Concrete construction
- Microtunneling

CHALLENGES

The traffic management in the construction site area with public transport (Bernmobil), normal traffic as well as pedestrians and cyclists are among the biggest challenges. In addition, there are the very tight space conditions as well as the groundwater occurrence on the individual installation sites in the city area.

Due to the deep excavation pits, work safety is a top priority. Therefore, the system of shaft ladders with back protection was chosen for the access.

FURTHER INFORMATION

Execution in joint venture

FF/TL/QM

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FACTS

Location	Bern , Switzerland
Status	completed
Construction volume (value of our services)	14.1 M CHF
Start of construction	May 2016
Completion	June 2018
Building owner	Tiefbauamt der Stadt Bern
ARGE	✓
Civil engineer	B+S AG

SERVICES

Power plant construction

Concrete construction

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