

## DC Tower 2: High rise, deep foundation

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# Civil engineering/ Infrastructure

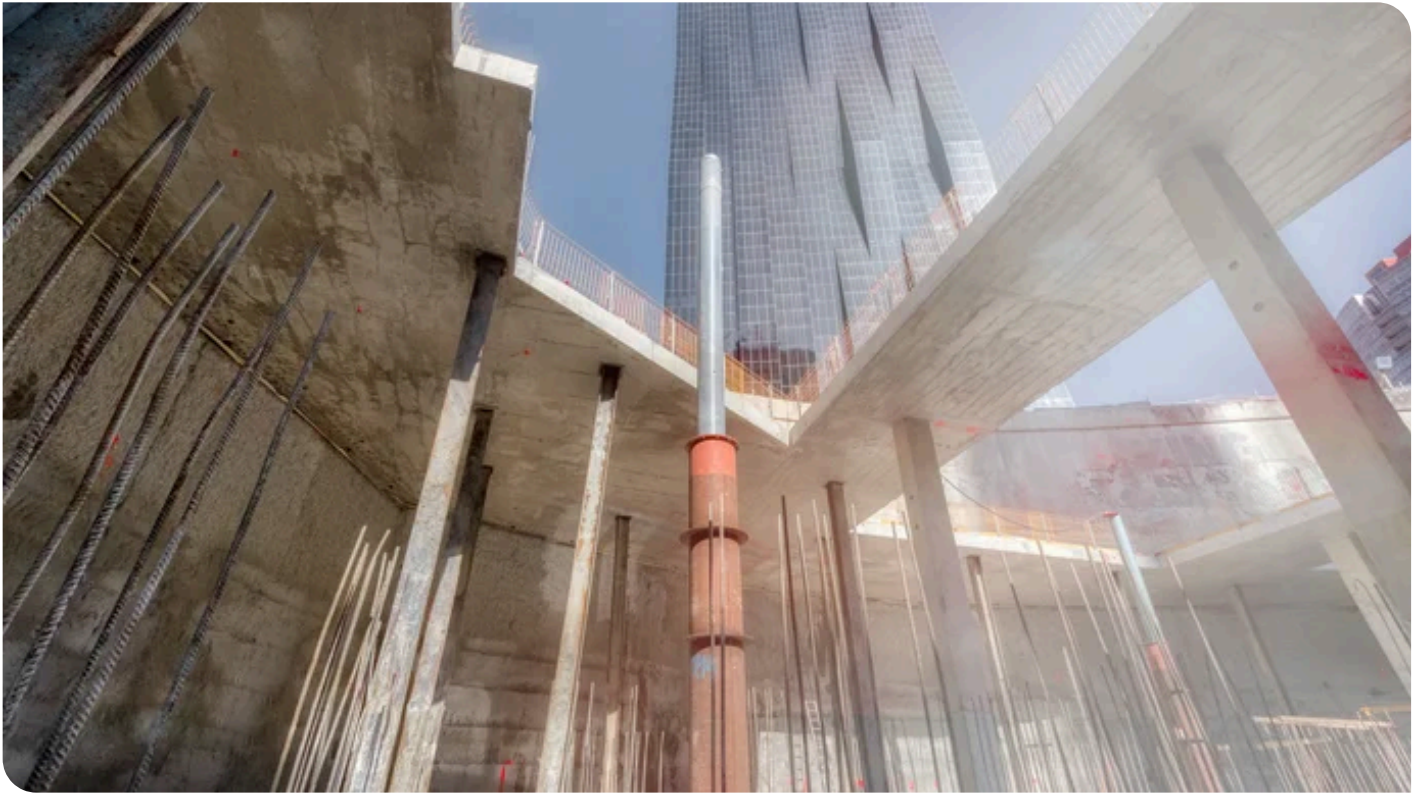


PORR's special civil engineering team dug 22.7 metres into the ground for DC Tower 2 in Vienna. This created a secure foundation for the tower.

Originally, it was supposed to be a commercial tower. A twin for DC 1. However, after DC Tower 1 and Tower 3 were completed, there was a long period of restructuring. Now DC 2 will be built as a complementary tower with additional apartments – 53 storeys high. It will have five basement levels and an additional lower floor for the 3.8m-thick floor slab. We began the special civil engineering work in March 2022 and handed over everything on schedule in May 2023. It was, however, anything but straightforward. The most challenging part was the location of what was probably the deepest private sector construction pit in Vienna. One neighbour of the construction pit was DC 1 and 3 and their connecting structure. Other neighbours were the public transport routes, such

as the A22 motorway and its feeder roads in the northwest, west, and southeast, and the U1 underground line in the east. To the south, we had to account for the adjacent 2m-wide Wien Kanal network. These placed considerable demands on the 22.7m-deep construction pit. We deployed almost the entire range of special civil engineering techniques – from vibro-compaction, anchors, diaphragm walls, dewatering, low-pressure injections, and jet grouting to building construction and excavation. Our subsidiaries and affiliated companies enabled us to provide almost all services from a single source

## A look into the construction pit



(c) PORR

## Sustainable planning

We were able to reduce the amount of concrete required by around 40% by redesigning the deep foundation elements. Our soil improvement measures included vibro-compaction and upgraded low-pressure injections. They yielded a lasting reduction in the excess use of slurry and concrete in the deep foundation and slurry walls around the construction pit. We are proud to report that we completed our work before the contract was awarded to our colleagues

in building construction. Around 20 administrative staff and roughly 100 manual labourers worked shoulder to shoulder to achieve our common goal – from the very beginning to the final concrete pour. In mid-May, PORR was then awarded the contract for the extended master builder works by S+B Bau und Plan GmbH. The official start of building construction was on 10 July. But that's another exciting story.

## PORR Special Civil Engineering at DC2

