

Niels Bohr Building

Construction pit and shell structure



AARSLEFF

Per Aarsleff A/S is constructing a 52,000-square metre-large shell structure for the extension of the North Campus in Copenhagen. The project is carried out as a trade contract for the Danish Building & Property Agency and involves the establishment and operation of the construction site, execution of the construction pit and construction of the shell structure.

Complex structure as two separate buildings

The shell structure will be constructed as two separate buildings on either side of the road Jagtvej. The two buildings will be linked by a tunnel beneath the road of Jagtvej and a skywalk at the third-floor level. The buildings will be constructed with a partial basement and up to approx. 23 metres in height above ground level.

The shell structure of building 1 consists of a basement cast in situ and six storeys, primarily constructed with concrete

and steel elements. The shell structure for building 2 primarily consists of elements on all storeys. The pedestrian tunnel beneath the road of Jagtvej is to be cast in situ, whereas the skywalk is to be constructed as a steel structure.

The operation of the joint construction site comprises all joint facilities in and around the building for up to 500 workmen working at the site during the construction period.

First work phase completed

At the end of 2014, we completed the sheet piling for building 1 and most of the construction pit excavation. Also, we have commenced the concrete work. In the beginning of 2015, we will start the excavation of contaminated soil related to the work for building 2 and the tunnel work.

We expect to complete our work for the Niels Bohr Building in the spring of 2019.



Data

- 51,768 m² of gross floor area
- 285,000 tons of excavation of partly contaminated soil
- 1,620 m² of sheet pile wall
- 33,000 m² of formwork
- 1,950 tons of reinforcement
- 20,500 m³ of concrete
- 9,300 elements.

Client

The Danish Building & Property Agency

Contractor

Aarsleff, Construction and Piling

Type of contract

Trade contract

Consultants

Rambøll Danmark A/S
Vilhelm Lauritzen A/S
Christensen & Co A/S
GHB Landskabsarkitekter A/S

Construction period

August 2014-february 2019

Contract value

DKK 375 million

Contact

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