

Specialist Press Release

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Bauer Spezialtiefbau installs foundation piles for new office and administration building in Dortmund

Dortmund, Germany – The site of the former blast furnace plant PHOENIX-West in the district of Hoerde, Dortmund, is now home to the 115 ha technology and service location PHOENIX West. Construction of a new four-story office and administration building for the transmission system operator Amprion GmbH is currently underway on Robert Schuman Strasse.

BAUER Spezialtiefbau GmbH was commissioned by Ten Brinke Bau GmbH & Co. KG with installation of foundation piles for the office and administration building – a total of 301 piles with a diameter of 880 mm and a length of up to 24 m.

"This is not a standard task," says Site Manager Mike Schwermer, "because there is evidence of mining activities close to the surface. There is also a tunnel system in the construction soil but the exact location is not known. For these reasons we need to expect cavities in the area of the pile foundations." The construction site is also located in a bomb disposal area, meaning that extensive preliminary mining surveys had to be carried out during execution using flush drilling and munition investigation (probe and exploratory drilling). For this reason, Bauer Spezialtiefbau carried out exploration drilling with a total length of 6,500 m in advance. In total, the munition exploratory drilling had a length of 10,000 m.

The construction soil consists of backfill material consisting of brick rubble, slag and ash in varying compositions down to a depth of approx. 11 m as well as building remains and old foundations. Below this layer is quaternary stream sedimentation in the form of silt, sand and gravel, followed by a degraded and weathered zone of Carboniferous bedrock. The embedment layer for piles is the Carboniferous bedrock that consists of clay and secondary sandstones. These sandstones have very high strengths of more than 250 MN/m². In addition to this, there are also coal layers (seams) up to 2 m thick embedded in the pile layer, which cannot be used as a bearing layer. For this reason, the work also includes an inspection and adjustment of pile statics during execution. Due to the scheduled construction period, a BG 30 and BG 26 drill rig are being used simultaneously. Drilling work for the munition and mining explorations is being carried out at the same time.

Piling works executed by Bauer were already completed in September, remaining works will be finished in October 2021. Until beginning of 2023, around 680 new workplaces will be created in an office space of around 16,000 m². The associated underground garage has around 230 parking spaces in a space of around 7,200 m².



Images: 2021-10_BAUER_Amprion_Dortmund ...



(1) A total of 301 piles with a diameter of 880 mm and a length of up to 24 m were installed.



(2) A BAUER BG 30 and a BG 26 were used simultaneously.

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About BAUER Spezialtiefbau Group

BAUER Spezialtiefbau GmbH, the original parent company of the BAUER Group, has been a major driving force in the development of specialist foundation engineering. It carries out all of the customary processes of foundation engineering, primarily for excavation pits, foundations, cut-off walls and ground improvements on a worldwide basis. In doing so, BAUER Spezialtiefbau GmbH works closely together with their over 50 subsidiaries and branches across the globe. Regional networks around the world allow for the quick and flexible application of machines, teams and expertise. Bauer Spezialtiefbau offers their customers individual, creative and economical specialist foundation engineering solutions for demanding construction projects, from planning through to execution. More at <u>bst.bauer.de</u>



About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. With over 110 subsidiaries, Bauer can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Construction, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water, oil and gas. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2020, it employed about 11,000 people in around 70 countries and achieved total Group revenues of EUR 1.5 billion. BAUER Aktiengesellschaft is listed in the Prime Standard of the German Stock Exchange. More information can be found at <u>www.bauer.de</u>. Follow us on <u>Facebook</u>, <u>LinkedIn</u> and <u>YouTube</u>!