2. CONSTRUCTION STAGE: 1,500 M VITRIFIED CLAY PIPES OF DN 300

ÖHRINGEN MUNICIPALITY DEVELOPS LIMES PARK

Horst Dratsdrummer, Steinzeug-Keramo GmbH

The slightly twisting road courses represent an unusual feature

THE AUTHORITIES OPTED TO CONSTRUCT SEVERAL EXTENDED CURVES

Öhringen, with its almost 23,000 residents, is the largest city in the Hohenlohe district, an area rich in fortresses and castles between Swabia and Franconia. Its origin, with the Vicus Aurelianus directly on the limes, the longest archaeological monument in Europe, stretches back to the Roman era. This city on the River Ohrn has occupied a prominent position throughout history, whether as Roman settlement, former royal residence, major administrative center or district headquarters. Öhringen has named a large new residential estate after the famous Roman border fortification: Limes Park. Different phases of construction are taking place in stages over 105 ha "that will point the way for the future development of Öhringen as a place to live."

START OF CONSTRUCTION STAGE B

Development work in Limes Park – Construction stage B began exactly on time last year. Thirty-four one- and two-story single-family homes are being built here covering around 6.7 ha, as well as 28 apartments in two- or three-story buildings, for which the underground infrastructure first has to be created.

RAISE, CONSTRUCT AT DEPTH AND LAY CURVES

Construction of the sewer system network is being carried out according to plans drawn up by Weber Engineers GmbH, with a so-called "internal and external development". The go-ahead was given in February 2015. As the entire construction site is under the groundwater level, the lots to be built on were raised up to three meters beforehand, with precipitation being drained into a storage reservoir. For this reason, the wastewater pipes were constructed at a depth of between 3 m and 6 m.

An unusual feature was presented by the slightly twisting roads that normally demand a change in direction in the sewer and thus the installation of a manhole. In order to avoid additional work and to save costs, the authorities opted for constructing several extended curves.

INTERNAL AND EXTERNAL DEVELOPMENT

The "external development" occurred with the construction of a vitrified clay pipe sewer ca. 400 m long of nominal size 300. The "internal development, which is currently under construction comprises a sewer approximately 1,100 m long made of vitrified clay pipe of the same diameter.

The sewer construction works were to be completed in December last year. The costs budgeted of ca. € 3 million were financed by current resources. Öhringen municipality has set an amortization period of 60 years. That this period may be considerably extended is already known, because vitrified clay pipes have been trustworthy since time immemorial.

- Development of construction site covering a total of 105 ha
- Avoidance of additional works/costs through intelligent use of construction elements
- Öhringen has long relied on vitrified clay

Client: Öhringen Municipality | **Planning:** Weber-Ingenieure GmbH, Pforzheim | **Construction:** Schneider GmbH & Co. KG, Öhringen, Leonhard Weiss GmbH & Co.KG, Bad Mergentheim