

Central Bus Terminal Witten

Project Owner:

City of Witten

Client:

H. Klostermann Baugesellschaft mbH

Quick Info:

The redesign of the train station and the adjacent central bus terminal in Witten was carried out in the course of an international architecture competition.

Technical Information:

System:	TITAN-Micropile 103/78; temporary strand anchor 4 x 0,6"
Quantity:	58 pcs. TITAN 103/78; 8 pcs. Strand anchor
Length:	28,50 – 31,50 m (TITAN 103/78); 18,50 – 22,50 m (strand anchor)
Service Load:	700 kN (TITAN 103/78); 396 kN (strand anchor)
Test Load:	1400 kN (TITAN 103/78); 594 kN (strand anchor)
Technique:	rotary flush drilling
Building Ground:	sand, grit, rock
Time Frame of Works:	October – November 2010 (TITAN 103/78); March 2011 (strand anchor)

It was our job to secure a retaining wall with TITAN-Micropiles in order to bridge a 5 m level difference from the railway tracks to street level. Precious space for erecting a central bus terminal could be gained by eliminating the railway embankment with a tie-back auger pile wall. The new terminal was planned as a circumnavigable platform with an impressive steel structure topped by an approx. 800 m² glass roof. Our part in this endeavour consisted of producing the tie-back anchors for the auger pile wall as well as for the temporary soldier pile wall lining along the railway. First, we produced test piles and conducted suitability tests in order to specify the anchoring elements further. The TITAN-Micropile system was selected because individual pile lengths could be adjusted at ease, when our drill crew would notice variances in the load bearing soil layers; a circumstance that was expected given conflicting results from soil testing. Thus, worse than expected soil conditions could be met by simply adding (coupling) another 3 m long TITAN-casing and drilling the extended TITAN-pile into the load bearing soil layers. Image 1 depicts a side cut of the installed temporary strand anchors. Image 2 shows our drill works for anchoring the auger pile wall along the railway tracks.

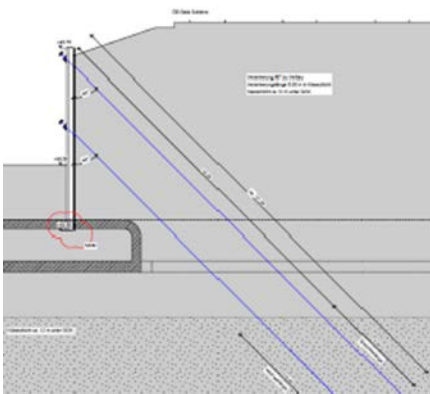


Image 1



Image 2