

## References

# FLOOD PROTECTION WESERBAHNHOF 1



Construction of a new Quay wall in front of an existing structure in the vicinity of "Weserbahnhof 1" in the City of Bremen with a length of 356 m, consisting of a combined steel sheet pile wall, anchored by inclined micropiles including equipment, super-structure as well as flood protection wall, reinforced concrete wall and steel wall.

The project included these main components:

Construction of a new quay wall in front of the existing quay wall as a combined sheet pile wall with fittings (ladders , bollards and fenders)

Installation of king-piles and sheet piles , 85 pcs each, by low-vibro hammering

Installation of back-anchoring and waling

Installation of a reinforced concrete beam A new cantilever retaining wall made of concrete steel as a flood protection wall

Installation of new flood protection steel walls

New construction of a dike opening Installation of a gravel base as a temporary surface of the lower promenade Line

construction for water and power as well as drainpipes

Dismantling of underground facilities, foundation elements and quay equipment

Dismantling of sheet pile wall Joint venture with Tiefbau GmbH Unterweser

Employer: WfB Wirtschaftsförderung Bremen GmbH

Construction Period: 2012-2013 Site: Bremen Specifications / Main Quantities: Drilling injection piles 85 pieces.

Intermediate piles 85 pieces Bearing piles 85 pieces Demolition / dismantling 10.000 m3 Earthworks 6.000 m3



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Concrete 2.000 m<sup>3</sup> Civil engineering 2.000 m

**Building Costs:** 5,2 € Mio.

**Location:** Bremen