

How an Architectural Gem from 1900 Became “Building of the Year 2020”: Alter Wall 2-32 at the Heart of Hamburg, Germany

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Abstract

The listed building complex Alter Wall 2-32 built in 1910 is located at the heart of Hamburg between the landmark City Hall and the canal Alsterfleet tunneled by the railway. During the extensive revitalisation and structural expansion the historic building substance had to be preserved and reused for load bearing as extensively as possible. The listed historic facades were secured by a spatial steel structure, which was reintegrated for load transfer after the erection of the new supporting structure. Behind the historic facades five new basement floors were built under the protection of a deep trough pit withstanding high water pressures and avoiding any but slightest deformation during the excavation process. About 10.000 m² of retail space and around 18.000 m² of office space were created. For these efforts the planning team won the “Building of the Year Award” in 2020.

Keywords: Listed buildings, deformation, trough building pit, diaphragm walls, plug-in girders, multi-layer bracing, spatial steel construction, wooden piles, pedestrian bridge

1 Listed Inner City Building Complex

The building complex Alter Wall is situated on the namegiving vibrant major city boulevard in the immediate vicinity of Hamburg’s City Hall and Stock Exchange. It stands in the tradition of the traditional merchants’ office buildings from the turn of the last century, characterized by rich architectural details that made it one of the most expensive building complexes of that time. It was built between 1905 and 1910. (Fig. 1)

The row of listed buildings from house 2-32 were originally used as merchants’ offices and later by a bank. Houses 2-8 are fully listed buildings. For the buildings 10-32 a core renovation was carried out, whereby the listed facades on the street side had to be completely preserved. The constructions behind the listed facades of buildings 10-32 could not be preserved and reused due to different



Figure 1. Hamburg, Alter Wall, about 1910

levels and insufficient load-bearing capacity of the ceilings. An eight storey new building was erected behind the historic facade, based on a five storey public underground car park.

The new development comprises around 10.000 m² of retail space and around 18.000 m² of office space.