

Central fire station Basel (Switzerland)



Project description

Basel city's main fire station was built in 1943 to the design standards of the day, but was more recently determined to be susceptible to damage by earthquake. To ensure that fire and rescue services remain fully operational at all times, including in the immediate aftermath of a large earthquake, the structure had to be modified. It was decided to isolate the structure from the ground using bearings and expansion joints. All of the building's walls and columns were cut horizontally at basement level, and elastomeric bearings and isolators were placed within this cut.

mageba scope

mageba supplied 50 LASTO®BLOCK elastomeric sliding bearings (Type KGa, with $V_{max} = 300 \text{ kN}$) to support the structure, inserted in the cut basement walls. These allow the ground and the structure beneath the horizontal cut to move during an earthquake without destroying the building. To isolate the building above the cut from the ground beside the building also, an isolation corridor was constructed between cut level and ground level. To avoid a hazard and to enable fire trucks to drive in and out, mageba also supplied TENSA®SLIDE expansion joints to bridge this gap at ground level.

Highlights & facts

mageba products:

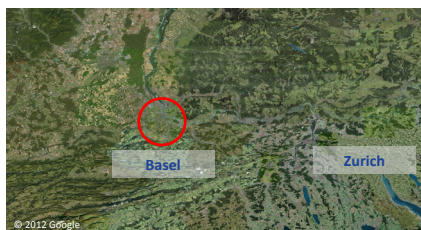
Type: LASTO®BLOCK sliding bearings of type KGa
TENSA®SLIDE sliding plate expansion joints

Installation: 2010

Structure:

City: Basel
Country: Switzerland
Type: Fire station building
Completed: 1942
Area: 44 m x 15 m

The fire station is centrally located in the city of Basel (Switzerland)



LASTO®BLOCK sliding bearings isolate the building from seismic ground movements



A TENSA®SLIDE sliding plate expansion joint bridges the gap along the building's foundations

