BRIDGE & HIGHWAY MAINTENANCE & PRESERVATION

Vital bridge transition receives seismic protection

Yerba Buena Island Transition Structure

Owned by Caltrans and built by MCM Construction, the Yerba Buena Island (YBI) Transition Structure forms a crucial link between the world's largest Self-Anchored Suspension Span (SAS) - part of the San Francisco-Oakland Bay Bridge - and the Yerba Buena Island tunnel. The structure transitions the SAS's side-by-side road decks to the upper and lower decks of the YBI tunnel and West Span of the Bay Bridge.

Watson Bowman Acme's Wabo®MDM TransFlex expansion joint system was selected for this structure for several reasons. The system is built to withstand seismic conditions, and is capable of handling 24" of movement. The joint's design also permits access from the underside, allowing full and safe maintenance inspections and fast replacement of components if needed.

WBA's Wabo®Crete II was also added to the design to act as a sacrificial component in the event of major seismic activity, after which the Wabo®MDM TransFlex will continue to function in traffic until the header can be replaced.

WBA PRODUCTS USED

Wabo®MDM TransFlex
Multi-directional movement segmental plate expansion joint assembly

Wabo®Crete II
Elastomeric concrete

Wabo®SiliconeSeal
Two Part Silicone Joint Seal

COMPLETION

2013

San Francisco, CA

OWNER

- California Department of Transportation (Caltrans) District 4 Toll Bridge Program

CONSTRUCTION TEAM

- MCM Construction

STATS

- Length: 1,542 ft (470 m)
- 7,600 tons of steel
- 23,936 cubic meters of concrete
- 13 supports (footings and columns)