

# LOADTEST

## The Rajiv Gandhi (Bandra-Worli) Sea Link Project, Mumbai



Project: **Rajiv Gandhi** (formerly known as Bandra-Worli) **Sea Link**  
Location: Mumbai, India  
Client: Hindustan Construction Company

Project Description: The Rajiv Gandhi (Bandra-Worli) Sea Link will become an eight-lane, 4.7km bridge connecting the province of Bandra and the western suburbs of Mumbai with Worli and the rest of Mumbai, India. The sea link consists of approach viaducts and two aesthetically pleasing cable-stayed bridges supported by a single tower. The project's salient features are numerous:



- An 8-lane bridge with 2 lanes dedicated for buses.
- Single tower supported 500 meters long Cable Stayed Bridge at Bandra Channel and Twin tower supported 350 m Cable Stayed Bridge at Worli Channel for each carriageway.
- An intelligent bridge with state-of-the-art systems for traffic monitoring, surveillance, information and guidance, instrumentation, emergency support etc.
- Unique bridge design for the Link Bridge to emerge as a landmark structure in the city.
- Modern toll plaza of 16 lanes with automated toll collection system.
- Development of promenade and landscaping to enhance the environment.



Under construction, May 2008



Lower level O-cell arrangement



Upper level O-cell arrangement



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The main developer of the project, the Maharashtra State Road Development Corporation Ltd. (MSRDC), awarded the construction contract to the HCC (Hindustan Construction Company) and its foreign partner, the China Harbour Engineering Corporation.

The load tests were the first O-cell bi-directional load tests performed in India. Three multilevel and one single level O-cell bi-directional load tests served to validate the design assumptions and provided key data in selection the final toe elevations for the working piles. Due to the highly variable subsurface geology, final design was performed on a pier by pier basis. At the main Pylon, the results of the load tests allowed the pile lengths to be shortened to approximately one-half the lengths estimated during the preliminary design, resulting in a saving in excess of 500 m in total pile length.

The bridge opened July 1, 2009.



Source: [bandraworlisealink.com](http://bandraworlisealink.com)

