



DSI References



Reference Details

Owners Bangalore Metro Rail Corporation Ltd., Bangalore, India ; Bangalore Development Authority, Bangalore, India +++

Consultants STUP Consultants Pvt. Ltd., Bangalore, India +++ **General Contractor** ECCI Ltd., Bangalore, India +++

Subcontractor GRIPS INDIA, Bangalore, India

DSI Unit DSI Group Headquarter Operations, Munich, Germany

DSI Scope Supply of 182 Ø40mm double corrosion protected *GEWI*® Piles; supply and installation of 3 test piles

with increased steel tendons; rental of equipment; technical assistance



First Utilization of *GEWI*® Piles in India

Bangalore Metro, India

The city of Bangalore, in the southern part of India, is considered to be the world's largest and fastest growing location for IT support and solutions. It has a population of more than six million inhabitants, and a tendency for strong growth.

Up to now, all vehicle traffic moves on roads that are completely overloaded. This frequently results in stoppages that extend over several kilometers. In order to support its future economic development, the ever expanding city is in urgent need of an efficient public transportation system. A milestone for this development was reached in December 2006 with the beginning of the construction of a subway & elevated rail system (The Bangalore Metro).

As a first step, two sections are being built that cross the city from North to South and East to West. The two sections cross directly in the center of the city, not far from Mahatma Gandhi Road and the popular Commercial Street. All in all, nearly 40km of track and 35 stations are being built. The completion of the first section is planned for the end of 2011.

In the East-West corridor, the elevated portion of the Metro passes over a complex crossroad structure being built by the Bangalore Development Authority as part of the radial highway network. Since high groundwater levels are to be expected from time to time, the entire crossroads structure and the approaches have to be stabilized in order to prevent upward movement of the Metro Foundations from buoyancy forces.

In the initial stage, 182 40mm Ø double corrosion protected *GEWI*® Piles were planned for stabilization against uplift forces. Since this is the first utilization of *GEWI*® Piles in India, the owner required comprehensive technical presentations as well as the practical installation of test piles with subsequent pile testing. Test piles were assembled, pre-mounted and installed on site by DSI's associate company (GRIPS INDIA). The entire procedure was constantly monitored by the owners and drew great public interest. Subsequent pile testing proved to be a complete success.

Once launched on the market, the use of *GEWI*® Piles will continue to grow as they demonstrate their technical performance and economy to the people in India. The path has now been cleared to install approximately 200 building piles at the crossroads in Bangalore and for using *GEWI*® Piles for further projects in the booming Indian construction industry

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