

### **3 Underground Stations & 2 Cut and Cover Ramps for Lucknow Metro**

Structural design & drawings for 3 numbers underground stations at Hussain ganj, Sachivalaya and Hazrat Ganj and C/c Ramps for South end and North End of the project for the contractor Gulermak-Tata Projects JV. This underground package is LKCC-06 and comes under North South corridor, Phase -1 of Lucknow Metro, Uttar Pradesh, India.

Design of TBM Tunnel and construction from start of underground ramp (near Charbagh Metro Station) to end of underground ramp (near K.D. Singh Babu Stadium metro station) is also under the scope of work of contractor. The work also included Architectural finishes, E & M, TVS, ECS etc. for Hussainganj, Sachivalaya and Hazratganj stations.

Tandon Consultants Pvt. Ltd (TCPL) and Geoconsult (GC) Joint Venture i.e. TCPL-GC JV is Detailed Design Consultant for Underground Stations and Cut and Cover Ramp and tunnels for LMRC's Contract No. LKCC-06.

Mainly all the stations are proposed to be constructed by "Top-Down Method". Construction methods, construction sequence and other dimensional and reinforcement drawings for relevant details of various stations included in the package.

The TBM tunnels analysis and design, Building condition survey and analysis, settlement analysis and its impact on buildings during construction, Launch shaft designs, Thrust frame, Seepage analysis, Instrumentation and monitoring, cross passages and sumps etc are all part of the scope of work for the detailed design consultant.