

Delhi Metro DC - 05 Delhi Metro Rail Corporation Ltd.

Location: Delhi, India

Date: 2021 - Present

Structure: Twin Tunnel by shield TBM, Cross Passages by NATM, Tunnel by Cut & Cover, Underground Ramp and Six Underground Stations

Length: 7.397 km (4.596 miles)

Cross-Section: TBM Tunnel Outer Dia: 6.35 m
Cross Passages Outer Dia: 4.10 m

Geology: The project area is part of the Yamuna Basin comprising newer alluvium made-up of fine to medium sands, silts, gravel, clay and kankar (calcareous nodules). The surface beds are admixed with wind-blown sediments of recent age. These alluvial sediments are known to be underlined by hard formations of the Delhi system (Alwar Quartzite) with post Delhi intrusive Pegmatite and basic intrusive

Cost: INR 2445 Cr (GBP 244m (USD 323m)
Estimated at Tender Stage)

Client: ITD Cementation

Owner: Delhi Metro Rail Corporation Ltd (DMRC)

cross passages and other associated structures based on tender documents and interpretation of the existing geotechnical data provided by DMRC for DC-05 package. The design includes preliminary geotechnical interpretation report, analyses of construction staging and structural design including quantity estimation of temporary and permanent works.



Figure 1. DC-05 Alignment with underground stations on Google Maps.

Pre-Tender Design Consultancy:

The Delhi Metro Rail Corporation Ltd. (DMRC) is currently expanding the metro network which includes extensions of existing lines as well as the construction of new tunnels, ramps, viaducts and stations. DMRC invited the bids for contract package DC-05 which includes "Design & Construction of Twin Tunnel by shield TBM, Tunnel by Cut & Cover, Underground ramp at Derawal Nagar and Six underground stations viz. Derawal Nagar, Ghanta Ghar, Pulbangash, Sadar Bazar, Nabi Karim & Ramakrishna Ashram Marg Including Architectural Finishing, Water supply, Sanitary installation, Drainage works of stations on Janakpuri West to R.K. Ashram Corridor (Line -8 Ext.) of Phase-IV of Delhi MRTS project in Delhi, India".

Gall Zeidler Consultants (GZ) provided pre-bid tender design consultancy services to the Client ITDC, which includes quantity estimation for segmental lining of TBM tunnel, NATM tunnels for

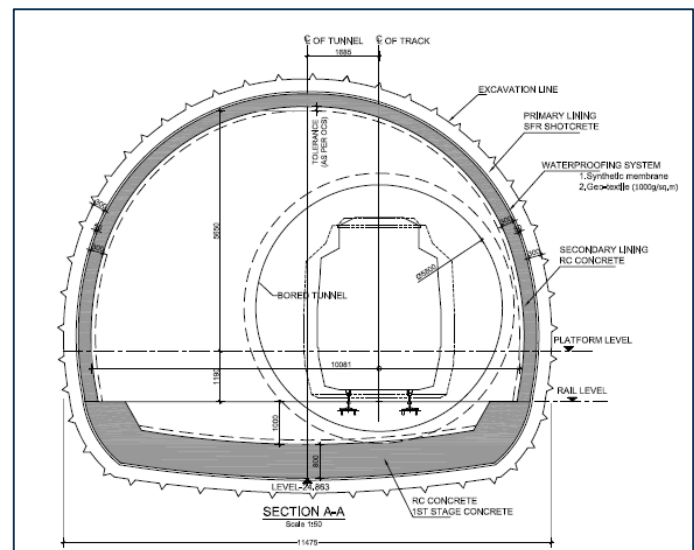


Figure 2. Geometry of NATM tunnel at Sadar Bazar Station.