Gall Zeidler Consultants
Geotechnics | Tunnel Design | Engineering

Kanpur Metro KNPCC - 06
Uttar Pradesh Metro Rail Corporation

Location: Kanpur, India

Date: 2021 - Present

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

Length: 4.236 km (2632 miles)

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

Geology: The Kanpur Nagar district is part of Indo Gangetic Plain comprising clay, silt, gravel and sands of different grades of Lower Pleistocene to Recent period: These Alluvium are underlined by Vindhyan Sandstone (Proterozoic) and Bundelkhand Granite (Archean)

Cost: INR 1400 Cr (GBP 138m (USD 183m) Estimated at Tender Stage)

Client: ITD Cementation (ITDC)

Owner: Uttar Pradesh Metro Rail Corporation Ltd. (UPMRC)

Pre-Tender Design Consultancy:

The Uttar Pradesh Metro Rail Corporation (UPMRC) Ltd. is developing Kanpur Metro Project and invited the bids for contract package KNPCC-06, which includes “Design and Construction of TBM Tunnel, Cut & Cover Tunnel and underground ramp from Kanpur Central end of Nayaganj station to elevated ramp after Transport Nagar and three underground metro stations (viz. Kanpur Central, Jhakarkatti and Transport Nagar) including Architectural finishes, E&M, TVS, ECS etc. on Corridor-1 of Kanpur MRTS Project at Kanpur, Uttar Pradesh.

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 Cross Passages and other associated structures based on tender documents and interpretation of the existing geotechnical data provided by UPMRCL for KNPCC-06. The design includes preliminary geotechnical interpretation report, analyses of construction staging and structural design including quantity estimation of temporary and permanent works.

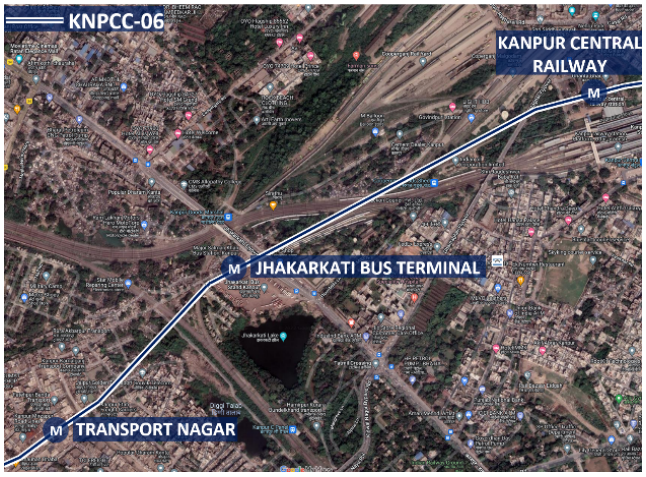

Figure 1. KNPCC-06 Alignment with underground stations on Google Maps.

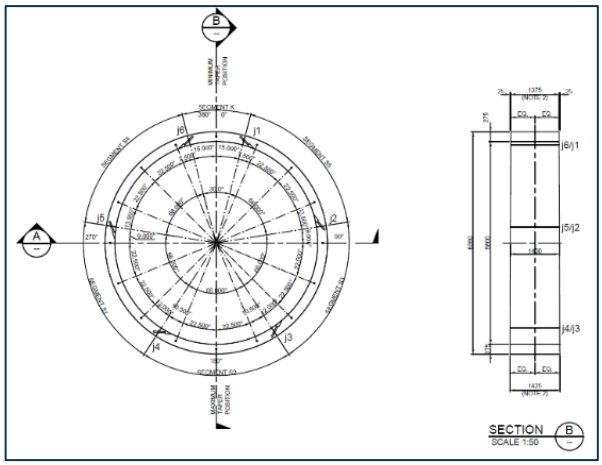

Figure 2. Typical section of universal tapered ring.

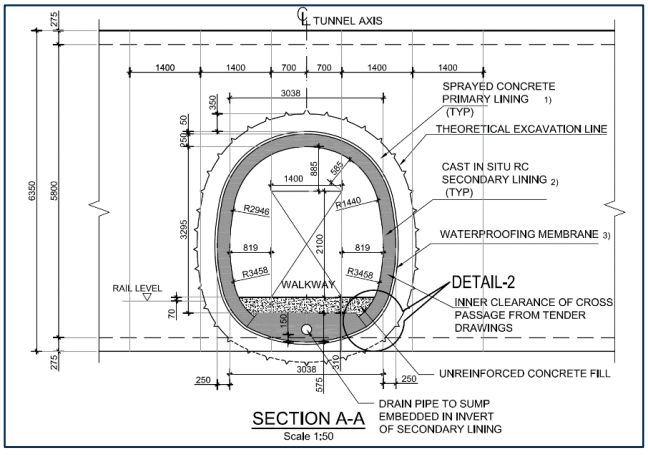

Figure 3. Typical section of cross passage.