

T7-T8 TUNNELS, SIVOK-RANGPO



T7-T8 Tunnels & Bridges (Br.08 & Br. 09) of Sivok to Rangpo New Single line BG Railway Line Project, India

This is a new broad-gauge railway line project from Sivok (West Bengal) to Rangpo (Sikkim) planned through the foothills of Kanchenjunga mountain range of Himalayas along Teesta river valley.

From Sivok to Rangpo, length of the new rail line is 45 km comprising of 14 tunnels, more than 17 important/major bridges and 5 stations including one underground station at Teesta Bazar. The alignment passes through tectono-stratigraphic unit of Darjeeling-Sikkim Himalayas.

Client

Ircon International Limited, India

Owner

Northeast Frontier Railway, India

Scope

Detailed Design and Construction Supervision of tunnels T-7 & T-8, bridges Br.-08 and Br.-09, underground station and associated structures for civil works, tunnel ventilation, E&M works including illumination, communication, Safety & surveillance

Key Features

- Detailed Design of 2 nos. tunnels including evacuation tunnel.
- Detailed Design of an underground station at Teesta Bazar of cavern length 750 m including its approach tunnel.
- Detailed Design of a 250 m span railway bridge Br.-09 on Teesta river which is a major river of India.



Place

Sivok, West Bengal to Rangpo, Sikkim, India

General Information

Total no. of Tunnels: 2
 Main Tunnel Cross Section: 38.7 m² (Finished),
 55 - 67 m² (Excavated, with invert)
 Underground Station Cross section:
 136 m² (Excavated)
 Total Tunnel length: 7.213 km
 T7 Tunnel Length: 3.047 km
 T8 Tunnel Length: 4.166 km
 Bridge Length:
 Br.-08: span 1x76.2 m
 Br.-09 (Teesta River Bridge): span 1 x85.47 m
 +1x106.7 m + 1x36.63 m
 Length of Underground Station Cavern: 750 m
 Length of approach tunnel to Underground Station:
 320 m
 Length of evacuation tunnel to T-8: 1094 m

Maximum overburden :

T7-300 m
 T8-600 m

Schedule

Start Date: Aug-2015
 End Date: Ongoing

Excavation Method

NATM

Sivok-Rangpo Rail Project

This is a very important project for boosting the connectivity and overall development of the state of Sikkim which is the land-locked state of India sharing a border with three neighbouring countries, viz. China, Nepal and Bhutan.
 Total length: 7.213 km

Our services

- Detail Design and Construction Supervision for tunnels, UG station and bridges
- 3D monitoring of tunnels
- Detailed design of Tunnel Ventilation
- E&M, illumination, communication, Safety & surveillance
- Preparation of construction tender
- BOQ, cost estimates
- Tender Evaluation

