

# T11-T14 TUNNELS, SIVOK-RANGPO



## T11-T14 Tunnels, & Bridges (Br.15 , Br. 16 and Br.17) 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

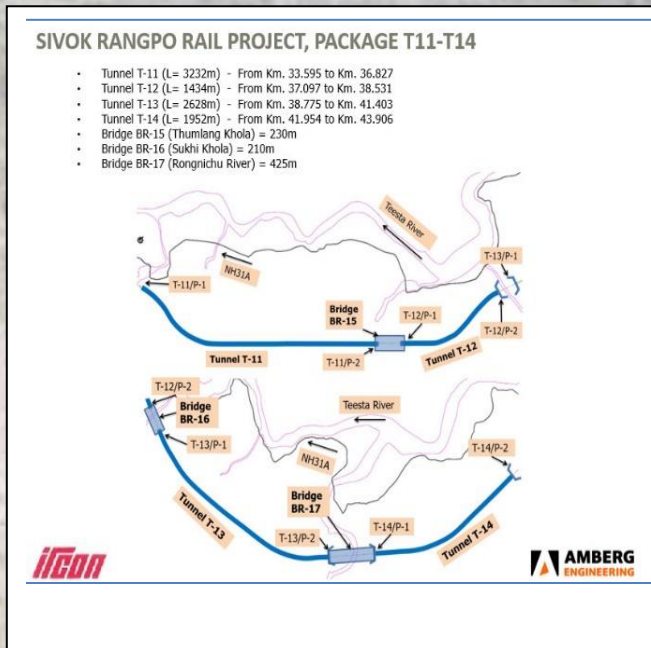
Northeast Frontier Railway, India

### Scope

Detailed Design and Construction Supervision of tunnels T-11 to T-14, bridges Br.-15, Br.-16 and Br.-17 and associated structures for civil works, tunnel ventilation, E&M works including illumination, communication, Safety & surveillance

### Key Features

- Detailed Design of 4 nos. tunnels including evacuation tunnels.
- Detailed Design of a 450 m span railway bridge Br.-17 on Rongpochu river with pier height of 85-90 m.



## 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: 9.246 km

### Our services

- Detail Design and Construction Supervision for tunnels 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



### Place

Sivok, West Bengal to Rangpo, Sikkim, India.

### General Information

Total no. of Tunnels: 4  
 Finished Cross-Section Area 38.7 m<sup>2</sup>,  
 55 - 67 m<sup>2</sup> (Excavated, with invert)  
 Total Tunnel length: 9.246 km  
 T11 Tunnel Length: 3.232 km  
 T12 Tunnel Length: 1.434 km  
 T13 Tunnel Length: 2.628 km  
 T14 Tunnel Length: 1.952 km  
 Maximum overburden :  
 T11 – 416 m  
 T12 – 215 m  
 T13 – 340 m  
 T14 – 292 m  
 Br.-15: span 3 x 76.2 m  
 Br.-16: span 3 x 69 m  
 Br.-17: span 4 x 106.7

Length of evacuation tunnel to T-11: 1083 m

### Schedule

Start Date: September-2015  
 End Date: Ongoing

### Excavation Method

NATM