

Project identification

# Ten Underground Stations For The Red Line Metro In Tel Aviv

Type of project

Underground stations



Client

NTA - Tel Aviv Metropolitan Mass Transit System

In co-operation with

Project assignment

Integrated design

Country

Israel

Location

Tel Aviv

Project duration

2011 - 2022

Project phase

Construction cost

> 2M  
(excl. VAT)

Consultancy fee

(excl. VAT)

**Office**

Laan 1914 no 35  
3818 EX Amersfoort  
P.O.Box 28013  
3828 ZG Amersfoort  
The Netherlands

**Telephone**

+31 (0)88 348 2540

**E-mail**

info@TEC-tunnel.com

**URL**

www.TEC-tunnel.com

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Type of project

Underground stations

Project description

NTA, a government owned special company acting as the Client, is developing a Light Rail Network in the densely populated area of Greater Tel Aviv. In this area approximately 2.5 million people (1/3 of Israel's population) are living and working. The first line to be constructed is the Red Line, running from the North-Eastern part to the South-Western part of Greater Tel Aviv. This line has a length of 22 km, of which 10 km underground.

TEC Partner, Haskoning has formed a joint venture with IBI (a Canadian architectural firm) for the design of the ten stations in the underground section of the line. The underground section is running through the municipalities of Bnei Barak and Ramat Gan in the North East and underneath the city centre of Tel Aviv in the South West. The tunnel is designed as a bored tunnel. The stations are designed with D-walls and a temporary deck for traffic. The stations will be constructed "Bottom – Up".

The Client originally had the idea to contract the underground part of the Red Line as a Design – Build project. During the conceptual design of the stations the Client decided that the stations should be contracted in a Design – Bid – Build Contract. This caused a significant change in the Design Contract for the Design Joint Venture.

TEC's (Haskoning) scope of work

Within the joint venture (IBI/Haskoning) Haskoning is the lead consultant (and ultimate responsible) for the integrated design of the five underground stations in the municipality of Tel Aviv. The design comprises the conceptual design, the preliminary design, the final design, the tender design and the detailed design inclusive of the construction documents. Next to these design works Haskoning will also be involved in the supervision of the Works. Since the services covers the integrated design the following disciplines were supplied by Haskoning: structural, geotechnical and M&E design, as well as the management thereof and the management over the disciplines architecture, traffic diversions, utility relocation and road restoration. Also, the permitting process with the municipality formed a part of the scope.

Since approximately 80% of the services were executed by local sub consultants a major task was in managing the various subconsultants. Each station had its' own "set" of subconsultants, therefore Haskoning had to manage multiple contracts with these sub consultants. A dedicated team (of both Dutch and Israeli people) worked close together. As a result of bringing together various subconsultants with a same technical discipline advantages in the design process were achieved like a uniform design of e.g. the blast doors, the grounding system or the water proofing concept.