Turkey Activity Report PDF

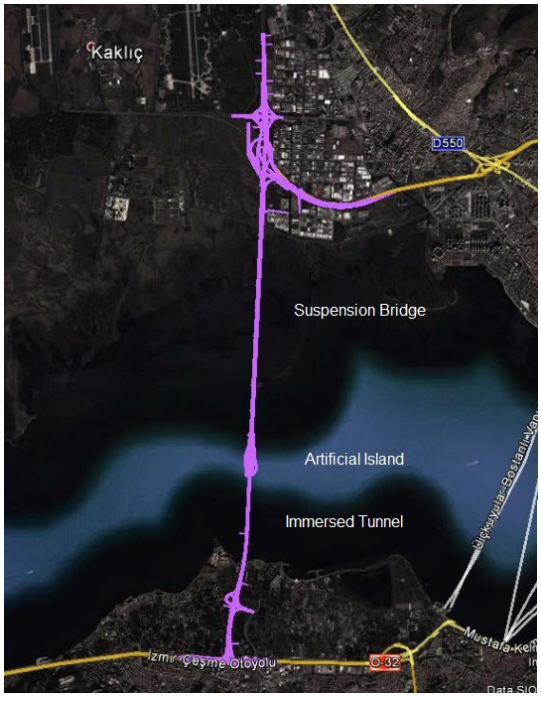
In Design Phase:

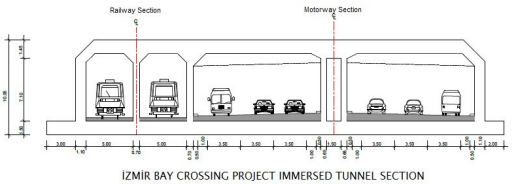
New Zigana Tunnel:

New Zigana Tunnel is under design phase. The tunnel is twin tube each of which 12800 m. in length. There will be 23 cross-passages, 24 lay-bay areas, 1 escape tunnel and 2 U-Turn passages. Tunnel tube has an average 5.70-6.10 m. radius of excavation.

İzmir Bay Crossing:

A challenging tunnel project, Izmir Bay Crossing Project, is under design phase. There are immersed tunnel, an artificial island and a suspension bridge in the project. The İzmir Bay Crossing Projectwill connect the two coasts of the İzmir Bay and whereby will ease the transportation of the city, serving both railway and highway crossing.





İZMİR BAY CROSSING PROJECT IMMERSED TUNNEL SECTION

Under Construction :

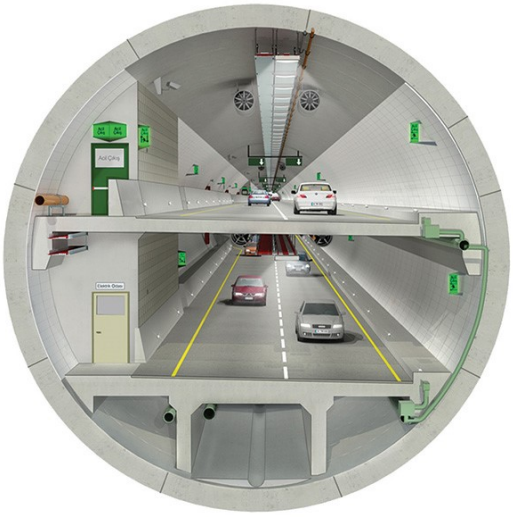
The Eurasia Tunnel Project : The Istanbul Strait Road Crossing Project will be

constructed in Istanbul. 14.6km route including a 5.4km twin-deck tunnel with two lanes that will cross the Bosphorus beneath the seabed. Most advanced TBM (Tunnel Boring Machine) technologies will be employed throughout the Bosphorus crossing spanning 3.4 kilometers. NATM (New Austrian Tunnel Method) will be used for the construction of the connection tunnel sections that remain outside the Bosphorus crossing.

The Eurasia Tunnel is designed to ease the present crosscontinental traffic burden providing an alternative road link to traverse the Bosphorus at about 1 km south of Marmaray, which is currently being constructed.

The Republic of Turkey, Ministry of Transport, Maritime Affairs and Communications, Directorate General of Infrastructure Investmentshas assigned ATAS (a partnership of Turkish company Yapı Merkezi and Korean company SK E&C) to design, build and operate for about 26 years Eurasia Tunnel Project. The tunnel will be transferred to the public authority at the end of this period. The Project will be completed in 55 months, approximately with a total investment of USD 1.3 billion.

The Eurasia Tunnel will be ranked 1st in the world among the mix-shield (slurry) TBMs in terms of face pressure value at 11 bars. The Eurasia Tunnel Project is ranked 6^{th} in the world with TBM excavation diameter of 13.7 meters. (http://www.avrasyatuneli.com/)

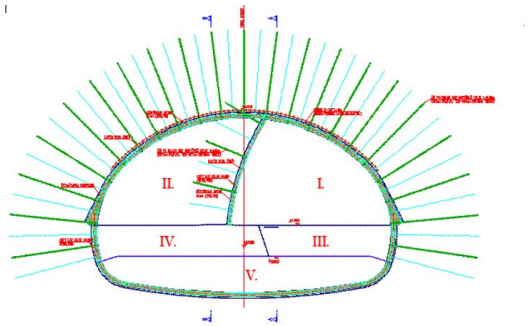


Ovit Tunnel:

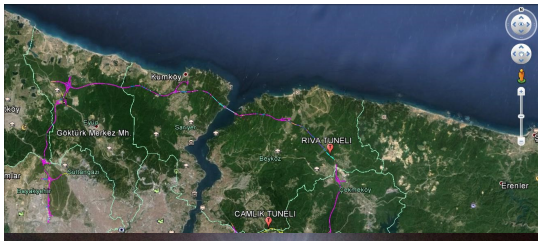
Ovit Tunnel is located in North Eastern part of Turkey. It is twin tube highway tunnel, 14 km. in length and an average excavation radius of 6.5 m. During winter period, existing road is to be closed to the traffic. Ovit tunnel will be a vital element in north – south route.

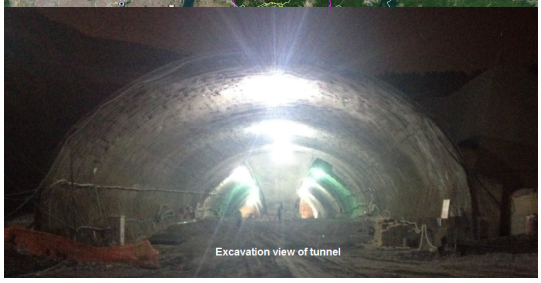
North Marmara Motorway Çamlık and Riva Tunnels:

Çamlık and Riva Tunnels are under construction in North Marmara Motorway Project, financed by Build-Operate-Transfer (BOT) basis. These two tunnels are twin tubes and an average excavation radius of 11.5 m. Each carriageway has 4 lanes, which makes these two tunnels prestigious.



Tunnel Cross Section and Supporting Details





Excavation view of tunnel

Excavation Stage View

Under Operation

The Marmaray Project is the upgrading of approximately 76 kilometers of commuter rail from Halkalı to Gebze in Istanbul. The main structures and systems; include the immersed tube tunnel (1.4km), bored tunnels (9.8 km), cut-and-cover tunnels (2.4 km), at - grade structures, three new underground stations, 37 surface stations (renovation and upgrading), operations control centre, yards, workshops, maintenance facilities, upgrading of existing tracks including a new third track on ground, completely new electrical and mechanical systems and procurement of modern railway vehicles. The date of inauguration was 29th October 2013. http://www.marmaray.com/

Suruç Tunnel is a water supply tunnel located in Şanlıurfa, southeastern Turkey. The State Hydraulic Works was the client of project. The purpose of the tunnel is to provide irrigation for the Suruç Valley from Atatürk Dam. With its length of 17.185 km, it is the country's longest tunnel and also it is the 5th longest tunnel of the world. The construction began on March 18, 2009 and completed in March 9, 2014. The excavation of the water tunnel was carried out with a tunnel boring machine (TBM), which is 152 m long and has a cutting shield of 7.83 diameter.