



Project: **Road Connection and Tunnel between Av. Cruzeiro do Sul and Av. Engenheiro Caetano Álvares**

Client: **EMURB - Empresa Municipal de Urbanização**

Start: Jul/2008 Completion: Abr/2012

CAT-CREA-SP: 2620140000162

Cost of Services: R\$ 3,517,589.17

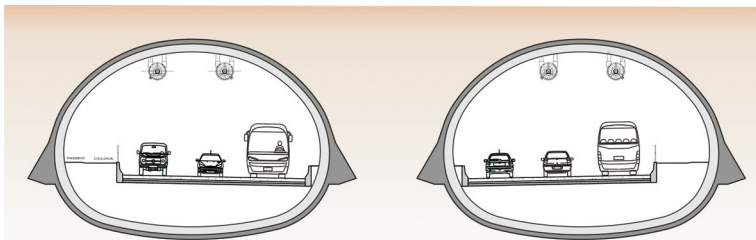
Services: **Basic and Executive Projects and Preparation of Environmental Impact Study (EIA/RIMA)**

PROJECT DESCRIPTION

Preparation of Functional Studies, design of Basic and Executive Projects, and Preparation of Environmental Impact Study (EIA/RIMA) for road connection and tunnel between Av. Cruzeiro do Sul and Av. Engenheiro Caetano Álvares

MAIN QUANTITIES

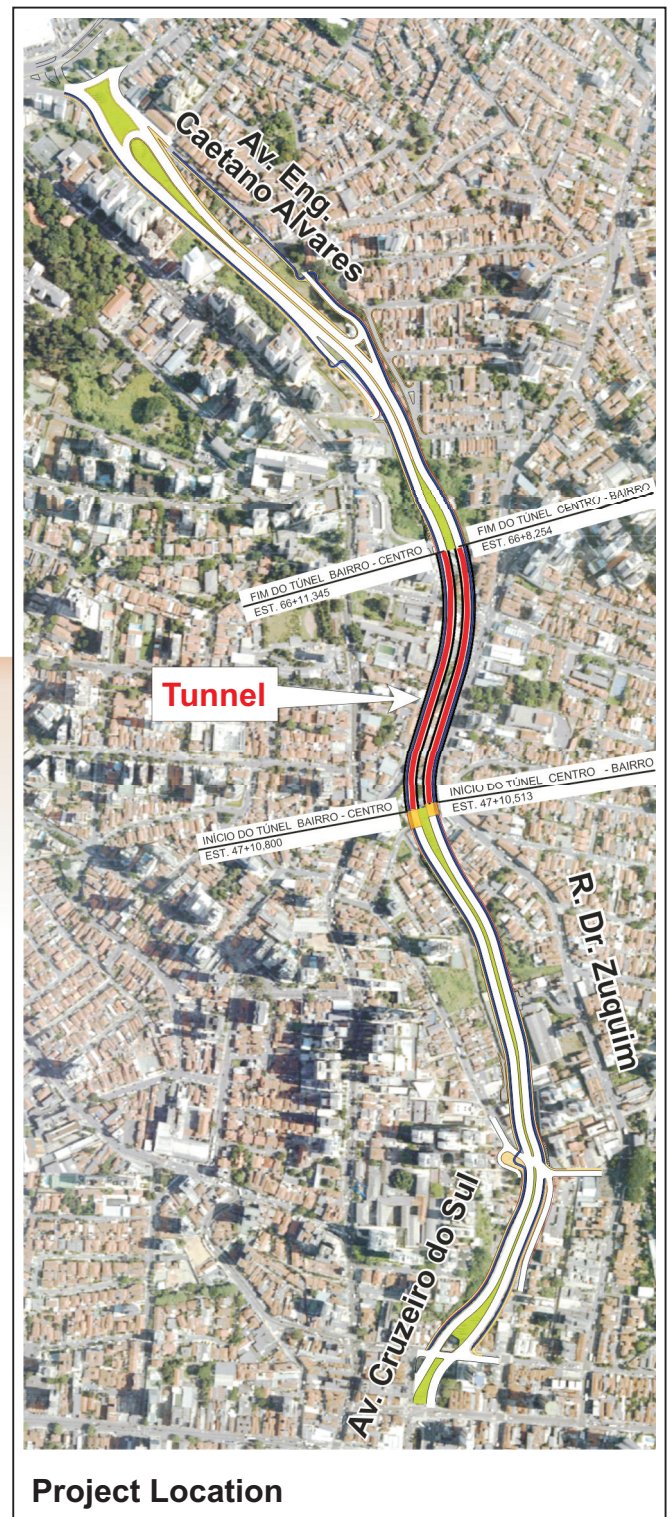
Number of tunnels:	2
Total extension of road connection:	2,400m
Length of each tunnel:	420m
Constructive method of tunnels:	NATM
Number of cells per tunnel:	1
Section surface area per tunnel:	137m ²
Surface area of internal tunnel pavement:	Rigid: 10,228m ²
Surface area of pavement external to tunnel:	Flexible: 46,540m ² Rigid: 567m ²



Typical tunnel section

DESCRIPTION OF SERVICES

Functional Project; Topographic Survey; Basic Project comprising the following projects and studies: Geometric Project; Geological and Geotechnical Studies; Earthworks Project; Hydrological Studies and Drainage Project; Paving Project; Tunnel Project; Special Tunnel Projects; Structural Project of Ventilation House; Containment Project; Architecture Project; Urbanism Project; Landscape Project; Public Lighting Project; Interference Rearrangement Project; Traffic Diversion Project; Expropriation Project; Environmental Studies and Licensing.



Project Location

Works were carried out jointly with the company Planservi Engenharia Ltda.