

## Lausanne, Switzerland

Tunnel de Viret crosses under the cathedral of Lausanne and two museums between *Place de la Riponne* and the bridge *Béssieres*. The buildings are located in areas at risk of settlement (waterbearing sand layers). Settlements are absolutely to be avoided.





### Object

Metro from Ouchy to Croisettes (Lausanne). Double-track line with 14 stations. Lot 1200 sub-lot Tunnel de Viret.

## **Our Services**

- Evaluation of the geological documentation
- Documentation of hazard scenarios
- Comparison of feasible excavation methods
- Cost forecast and estimation of construction durations
- Evaluation of best alternative and execution recommendation



LEGENDE:

Direction d'écoule des eaux souterr Aquifère Pas d'aquifère

# **New Metro Tunnel**

#### Location

Lausanne, Switzerland

### Key Data

II

HTT I

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Total length Métro m2:	ca. 6'000 m
Length of Lot 1200:	657 m
Length of Tunnel de Viret:	265 m

#### **Construction Costs**

Entire project Métro m2CHF 590 Mio.Lot 1200CHF 60 Mio.Tunnel de ViretCHF 30 Mio.

#### **Project Phases**

Realization overall project Realization Tunnel de Viret 1998 – 2008 2005 – 2008

#### **Excavation Method**

Full-face excavation protected by pipe-screen with roadheader (if necessary with division of tunnel face into crown and bench); tunnelling auxiliary measures, especially advance exploratory bores and grouting.

### Geology at Tunnel de Viret

Molasse, possibly highly fractured with risk of water-bearing sands / sand lenses in the area of the tunnel crown.

#### **Client and Contact Person**

Métro Lausanne-Ouchy SA (City of Lausanne) Mr. Marc Badoux, Project Director Métro m2



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