Construction of a 3,500m³ capacity storage tank

Constructed beneath the main square in the heights of Le Havre (between Sainte Adresse and Mont Gaillard), the project forms part of the flood defence scheme launched by the CODAH in 2006 (cfr Demidoff Tank, Jenner Tank).

The project involves the construction of a circular diaphragm wall tank measuring 20m in depth.

- Underground utilities local constructed using diaphragm walls.
- Civil works: 9 columns, 12 beams, 36 prestressed floor support slabs.
- Equipment: 3 drain cocks, 2 x 40l/s dewatering pumps.
- Fully automated tank.

CLIENT: COMMUNAUTÉ DE L’AGGLOMÉRATION HAVRAISE
SUPERVISING ENGINEER: SOGREAH
MAIN CONTRACTOR: SOLÉTANCHE BACHY
SUBCONTRACTORS: EQUIPEMENTS: SATELEC - CIVIL ENGINEERING: ETPO
PIPEWORK: SADE - EARTHWORKS: DERREY
TOTAL VALUE OF WORKS: 2,8 M. EUROS
DURATION OF WORKS: APRIL - DECEMBER 2008

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A diaphragm wall tank with an underground utilities local that has also been built using diaphragm walls. The project also includes connections into existing drainage systems using 70m of ND600 and ND700 pipework. Finally, the tank’s equipment is fully automated (drain cocks, hydraulic isolation valve, odour control, ventilation, dewatering pumps, various items of instrumentation etc.).

The soil comprises the clay and silex combination found in the region’s cliffs and the site elevation (92 NGF/French Guideline Standards) explains the absence of water tables in this seaside area.

The civil engineering works present a number of challenges that are exacerbated by the depth of the tank’s floor at 13m. In addition to the prefabricated components that have to be installed (beams, columns, prestressed reinforced floor slabs), these works also include a number of associated structures that are cast in place all of which have to be completed within a reduced time frame (9 months to turnkey of which 3 months were set aside for the civil works).