



REHABILITATION PROJECT OF THE ROAD AND THE SUPPORT STRUCTURE GELATI MONASTERY WHS



Rehabilitation Project of the Road to the Gelati Monastery WHS and the Support Structure

Explanatory Note

In winter 2016, landslide caused a partial collapse of the middle part of a road to the monastery (approx. 90-100 m). It caused the demolition of an existing road support wall. Quite large part: 70-80m in length and 7-8m in width, of road was broke down. In result, from existing wide road, which leads to the monastery, only a narrow path (4-5m width) remains. Before this, the damage of the support wall was observed and geological investigations started. Performed surveys showed that the reason of the collapse was that the existing support wall was based in fragile soil. With this, area is in landslide sensitive zone.

In 2017, with support of World Bank, it has become possible to arrange a protective fence and also, a temporary support wall with concrete blocks, to avoid the further collapses.

During the archaeological supervision, on the lowest level of collapsed area, the archaeological remains were identified, which needs further investigations. The artefacts identified through visual assessment are:

1. Remains of original water supplement ceramic pipes in lime mortar, from the period of King David IV “The Builder”;
2. Remains of sewerage gullies, from the period of King David IV “The Builder”;
3. Damaged water supplement pipes, repaired in 1903, currently partially active;
4. Remains of a building, built with stones and lime mortar, function is not identified yet;
5. Remains of old pavement.

Because of these findings, it has been decided to build up a gallery type supporting structure instead of a simple wall; this would let further archaeological surveys. The upper surface of the structure would be used as a road for transport and pedestrians, while the lower part of it would be dedicated to archaeological on-field investigation and in future it could transform to the exposition space of those remains. For this phase of project, it does not include an elaboration of detailed interior; this will be the work to be complete within the framework of next phase.

The proposed structure is composed with two supporting walls, located in parallel of the slope and connected with horizontal, caisson slab of steeled reinforced concrete. The main support wall (on the axis A) would be constructed in place of the collapsed one. In parallel (in distance of 7m) of the main support wall another wall (on the axis B) would be placed. Height of the main support wall would be 9.0-9.5m, while the inner wall would be 8-8.5 meters height. The exact heights are depended on the base rock slope. According to the geological surveys as basing point are identified the clay-limestone rocks, located to the 401.0 absolute levels, with resistance of 4.0-5.0 M Pa.

Proposed structure’s façade, and partially within the gallery would be covered with a local stone. The structure would not be actively visible from the long distance views to the Monastery, as intensive green vegetation is covering a surrounding area, in opposite, the visible parts would be perceived as a continuation of monastery protective wall.

The implementation of the project would be possible with World Bank financial assistance.

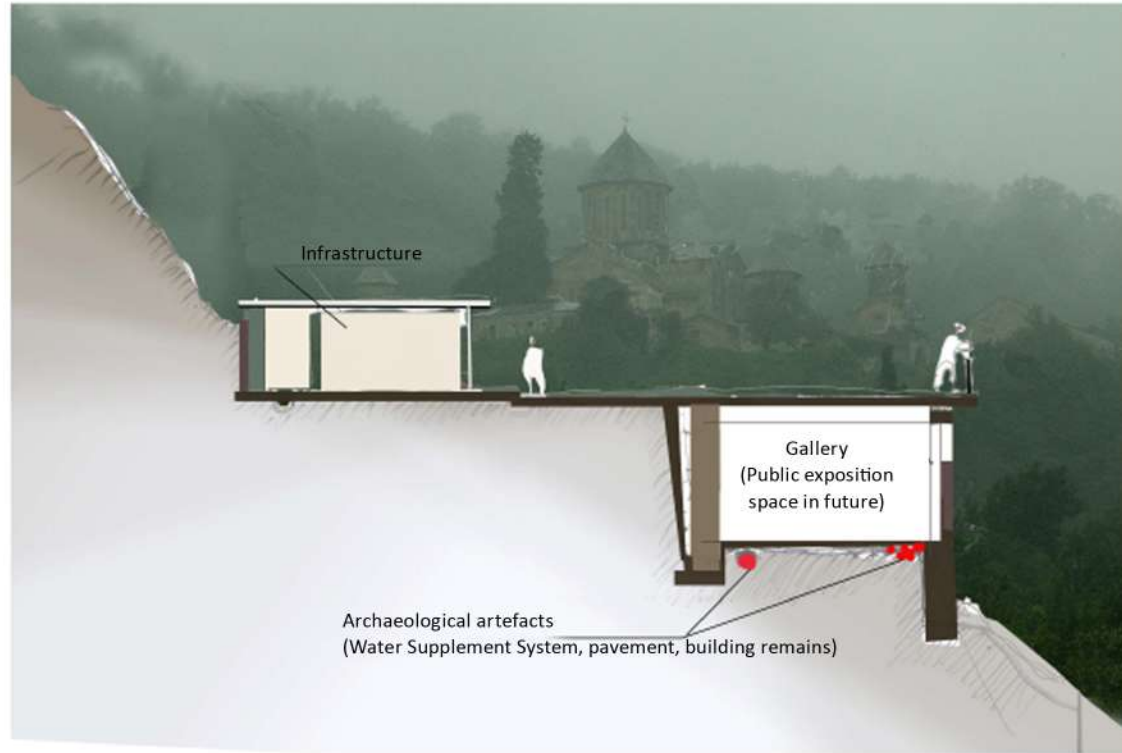
Current condition of the road to Gelati Monastery



Current condition of the road to Gelati Monastery



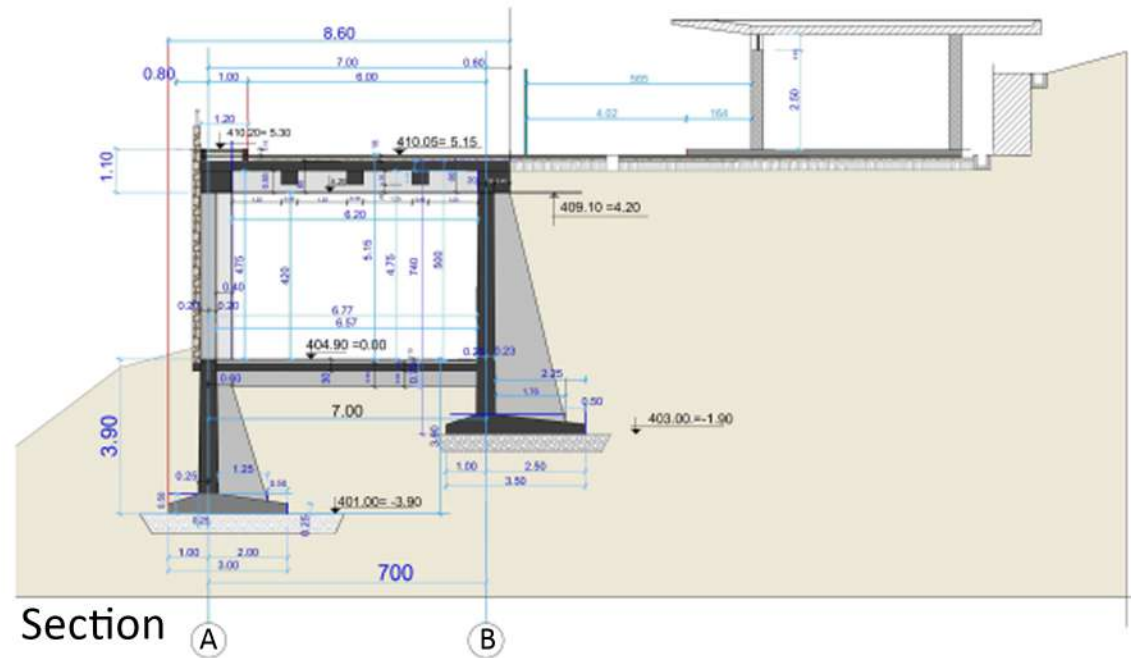
Project proposal of support wall for the underground museum arrangement



Conceptual sketch



Current condition



Section

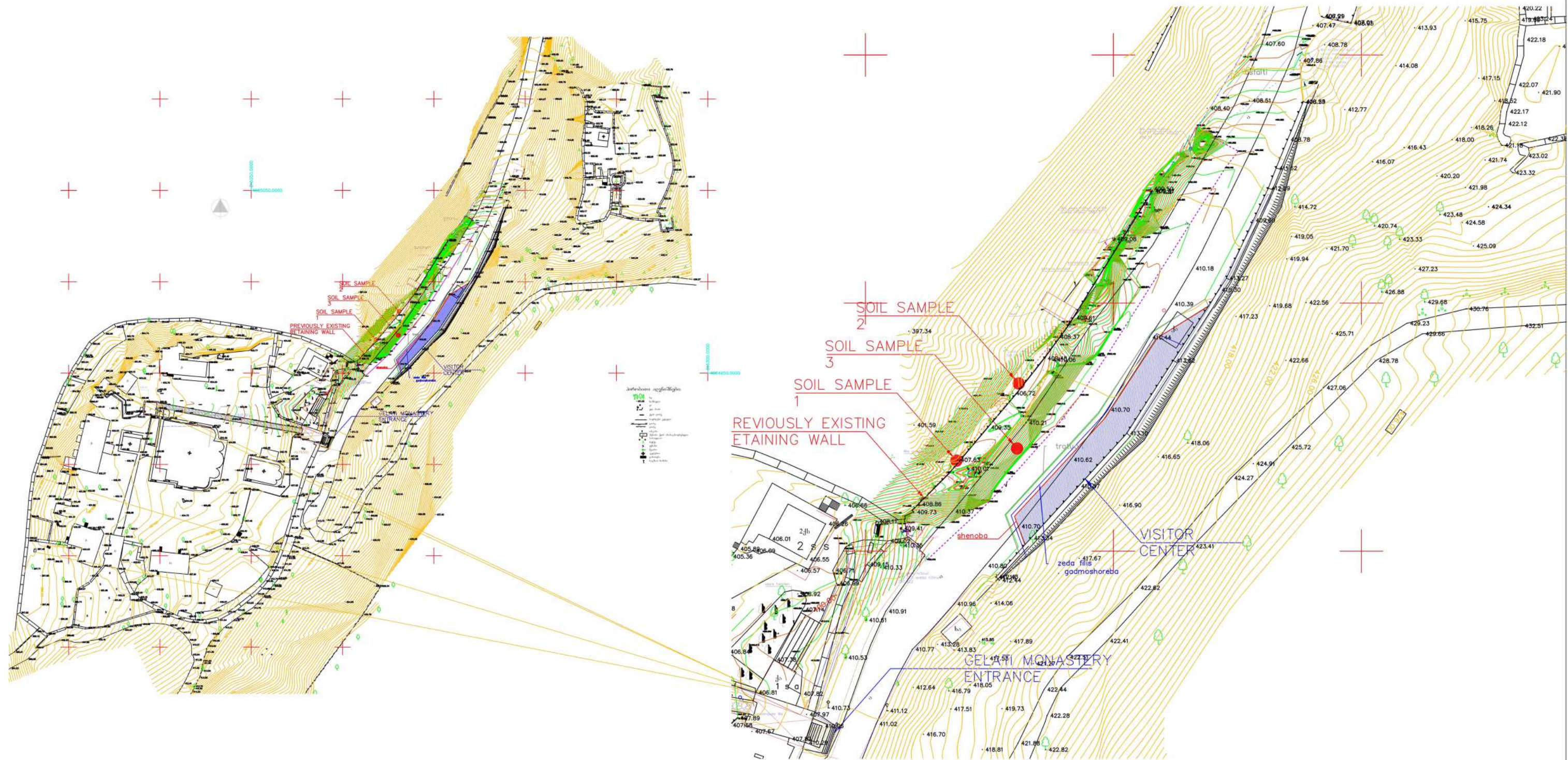


Project proposal

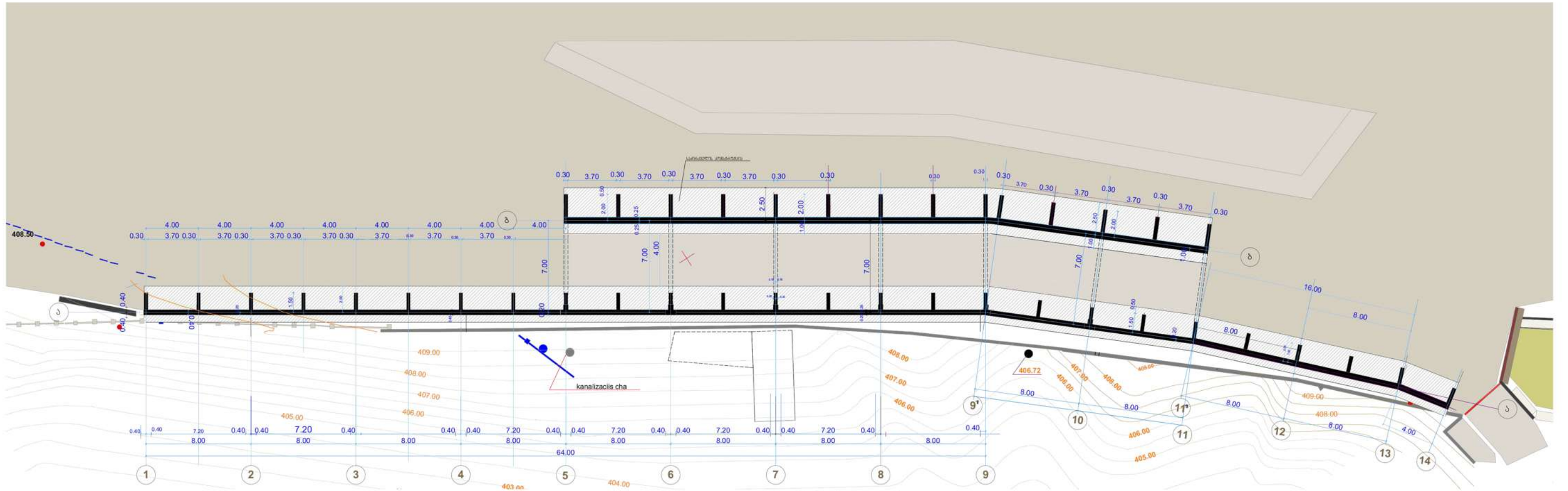
Aerial Photo



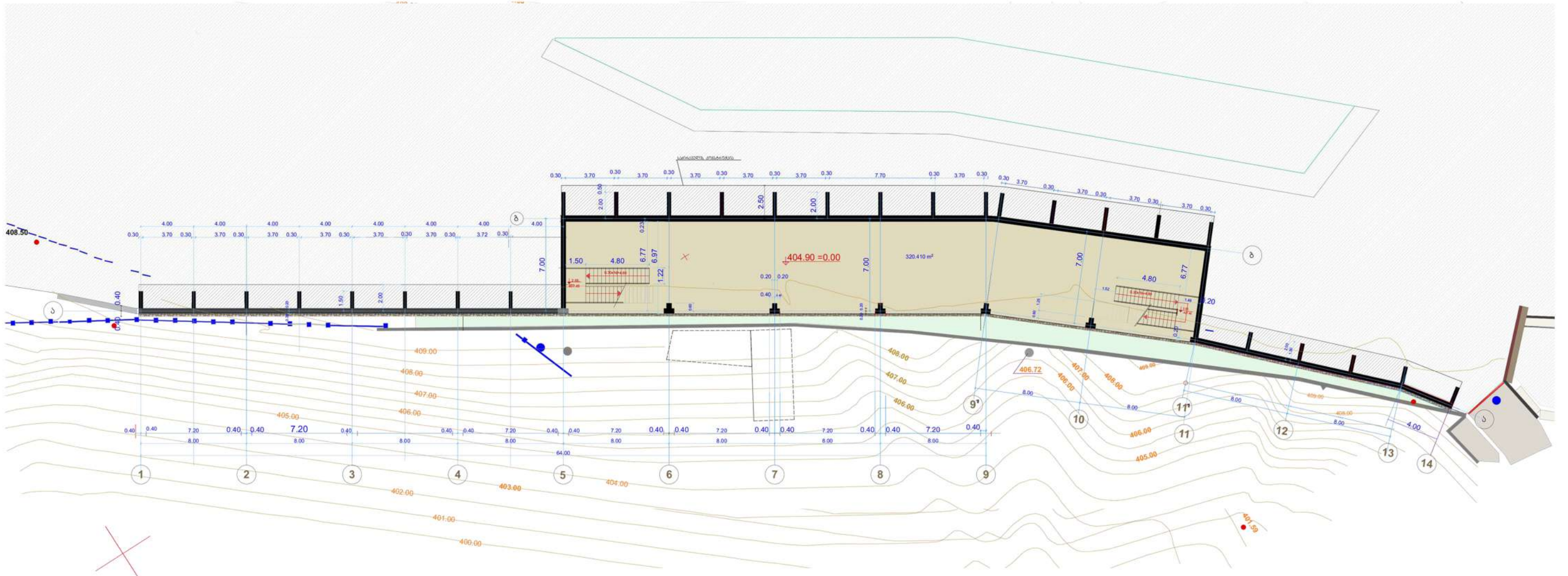
Topographical Plan



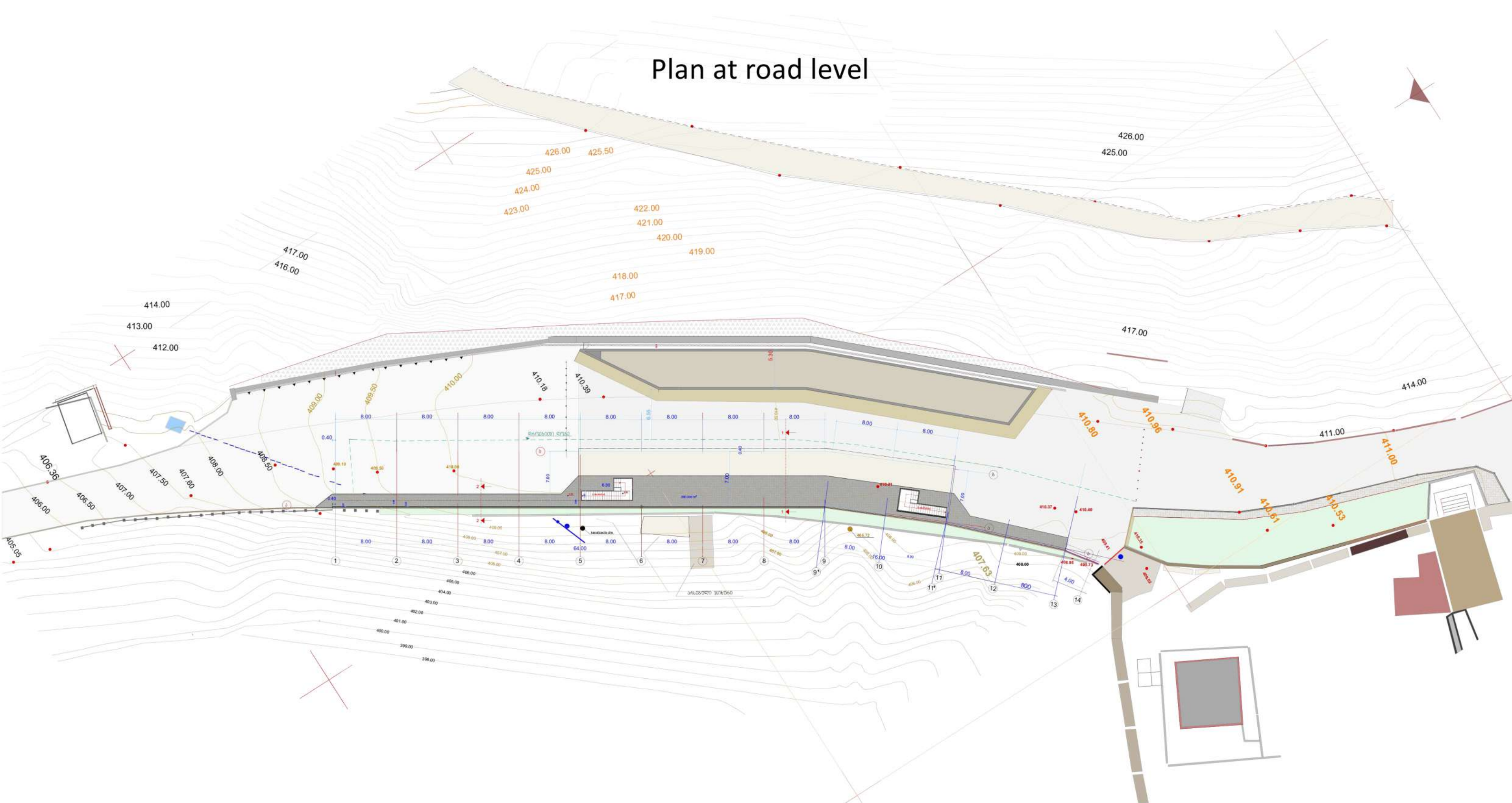
Plan at -1.40 level



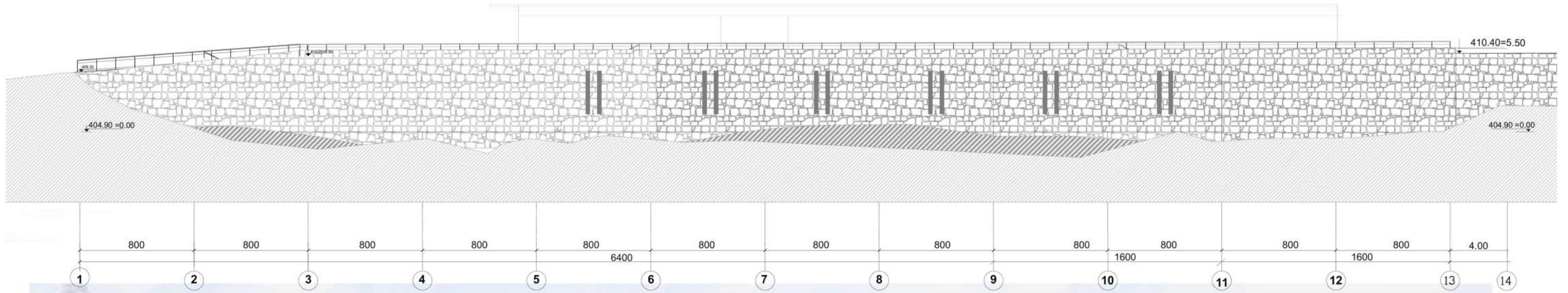
Plan at 0.00 level



Plan at road level



Elevation between 1-14 Axes



Examples for support wall facing



Views on Gelati Monastery WHS



Supporting Wall would be viewable neither from short nor from the long distances.