

The Challenge

When construction was being planned for a new multi-family residential building on Saperska Street in Gdynia, Poland, it turned out that the building site was located on steeply sloped terrain. To safely build here, pre-construction preparation required the stabilisation of the existing embankment.

The challenging topography required that a retaining wall system be designed that would ensure slope stability and secure the long-term safety of the building structure.







The Solution

Given the limited working space onsite and the logistical difficulties associated with traditional retaining wall systems, a hybrid solution was selected.

The design incorporated piles, reinforced concrete retaining walls, and the modular ViaBlock Type 3 system. This combination enabled cost optimisation and reduced construction time without compromising structural safety or integrity. The blocks, made from material with a natural finish, did not require additional treatment, resulting in a visually appealing final outcome.

The Advantage

ViaCon's solution was chosen due to its comprehensive technical support — from the design of the retaining wall system to the supply of construction materials and onsite installation guidance. A crucial factor in the decision-making process was the flexibility of the ViaBlock retaining wall system technology and its anticipated service life of at least 100 years, making it a compelling alternative to conventional solutions.

The successful implementation of the retaining walls on Saperska Street demonstrated the effectiveness and adaptability of the ViaBlock technology in demanding site conditions.

The use of the ViaBlock Type 3 system allowed for:

- Effective slope stabilisation within a confined working area
- High aesthetic quality without the need for additional surface finishing
- Significant reduction in earthworks duration
- Lower overall project costs while maintaining high technical performance and long-term durability

The integrated design-and-build approach, combined with the comprehensive service and technological advantages of the ViaBlock system, contributed to the project's success — both from a technical and economic standpoint.

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