Le Béton – De Wet Road - Fresnaye

Cape Town, South Africa

Project Facts

Product
Lateral Support

Market
Residential

Client
Svelte Bespoke

Consultant
Moroff & Partners

- **About the project**

The Le Béton residential development is a luxury development located on De Wet Road in Bantry Bay, Cape Town—South Africa's second most expensive suburb after Clifton. Spearheaded by award-winning developer Svelte Bespoke, the site will feature three ultra-luxury villas, each valued at over R70 million, with panoramic views of the Atlantic Ocean and Seapoint.

Franki was commissioned to design and install a complex lateral support system to enable safe excavation on the steep hillside. The site is geologically underlain by erratically weathered granitic material from the Cape Granite Suite, presenting a mix of decomposed material and soft to hard rock layers. The excavation required a maximum cut height of 18 meters, with a total retained height of 21 meters due to additional retaining walls located above the lateral support.

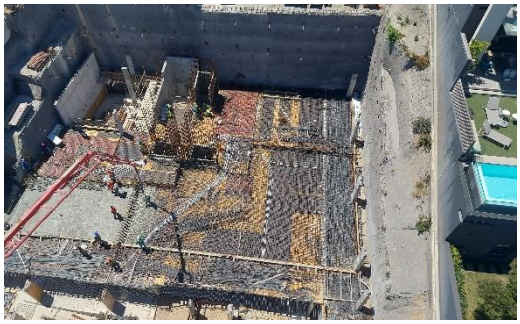
- **Challenges**

View-preservation regulations demanded deep cuts without obstructing neighbouring vistas.

Excavation was close to property boundaries and multistorey neighbouring properties, increasing surcharge loads and the need to negotiate temporary anchor and nail permissions.

Harder rock was encountered earlier than expected, and a neighbour's new elevated pool introduced unexpected additional surcharge mid-construction.

Solution



Franki implemented a robust lateral support system comprising:

- Anchors & Nails: Eight rows of temporary anchors (12–25 m) and nails (3–18 m) arranged to optimise stability.
- Permanent Shotcrete Wall
- Integrated Structural Elements: Shear walls and slabs were incorporated in the building to resist lateral forces in the permanent condition.

Construction followed a top-down staged approach, with each level stabilised using temporary anchors, nails, mesh, and shotcrete. Design refinements were made in real-time based on site conditions.

Nail pull-out tests validated design assumptions, and continuous monitoring ensured movements stayed within allowable limits.