

CONSULTANT

Structure Haus

CONTRACTOR

Green & Castle Ltd

CLIENT

Green & Castle Ltd

INSTALLER

Hartmann Construction Ltd

Requirement

Hastings Country Park required a foundation support solution for its new, energy-efficient visitors' centre. The building featured a flat, overhanging roof, which, due to its coastal location, faced significant uplift risks from strong winds. Without proper anchoring, the structure was vulnerable to potential damage, requiring a durable and long-lasting solution.

Additionally, given the harsh coastal environment, the chosen anchoring system needed to be highly resistant to corrosion while maintaining strong load-bearing capacity to ensure the structure's long-term stability.

Testing

To determine the most effective foundation support system, on-site load testing was conducted. These tests assessed soil resistance and confirmed whether the selected Vulcan Earth Anchors would meet the required load-bearing capacity.

The results validated the system's strength, achieving a working load of 15kN and a proof load of 20kN, ensuring the anchors could withstand the uplift forces expected in this coastal environment.

Solution

Hartmann Construction installed 15 stainless steel AS-30 Vulcan Earth Anchors at a 20° angle from vertical, embedding them 1.5m deep and loading them to a 15kN capacity.

Installation Methodology:

- Equipment Used: 1.5-tonne excavator with breaker attachment for installation
- Load Testing: Each anchor was tested using a hydraulic ram
- Anchor Positioning: Beneath the Glulam beams of the structure
- Tensioning System: 12mm stainless steel guying wires fixed through the beams and run down to the anchors at 20° angles, tensioned with 12mm stainless steel turnbuckles

This approach ensured a fast, reliable, and effective installation, securing the structure against wind uplift while maintaining the building's sustainability goals.

Result

The Vulcan Earth Anchor system provided a robust and long-lasting foundation support solution for the Hastings Country Park Visitors Centre. The project was completed efficiently, with no unexpected challenges, demonstrating Anchor Systems' expertise in delivering high-performance foundation support solutions for challenging environments.

Coastal Buildings Foundations

The Hastings Visitors Centre Project

