

CASE STUDY

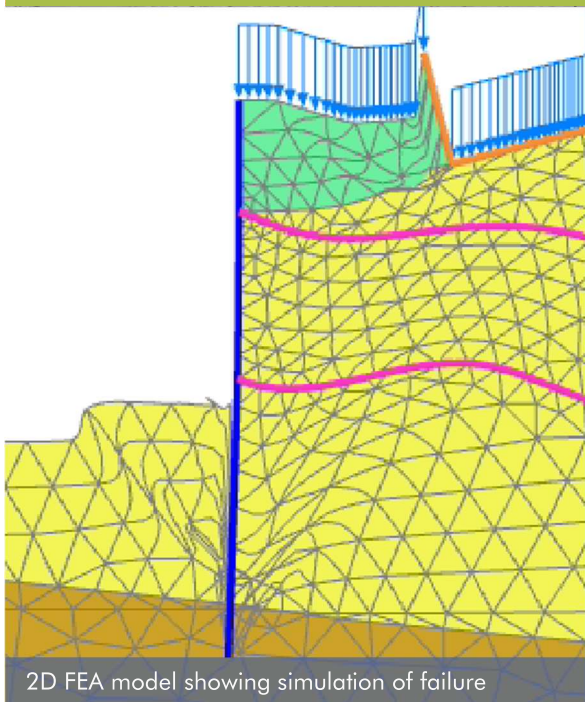


GEOFEM

Trypiotis, Nicosia



During construction of an 8m deep basement for a new residential development in Nicosia city centre, one of the perimeter walls collapsed. Fortunately, this occurred outside of working hours and nobody was hurt. However, the ground behind the perimeter wall collapsed into the new basement causing the adjacent property to lose its garage and its foundations to be undermined, putting the property at immediate risk of damaging subsidence.



2D FEA model showing simulation of failure

THE CHALLENGE

- Expert forensic investigation to identify the cause for insurance and legal purposes.

THE SOLUTION

- Expert study of site investigation reports, designs, construction records, photographs and witness accounts.
- Interviews with interested parties.
- Back-analysis of events by finite element analysis (FEA) with sensitivity analysis to identify probable causes of the collapse.
- Identification of causes and submission of technical report.

THE BENEFIT

- Insurance and legal teams for all interested parties had reliable, impartial technical information concerning the events leading up to the collapse.
- Swifter resolution of the outstanding disputes.



Satellite analysis with engineering insight