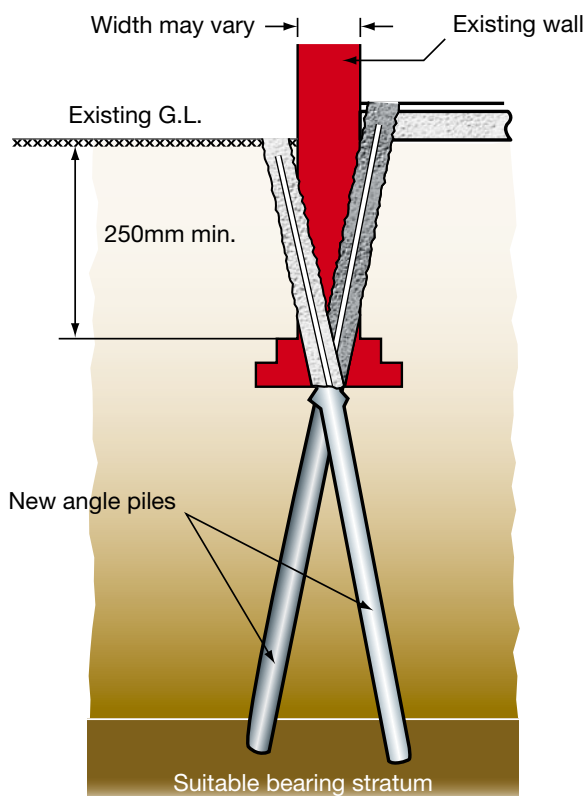




# Angle Pile



External Angle Piles - Ready for driving (Inset - External Angle Piles - Being driven to suitable bearing stratum)



Section through foundation

U6



Federation of Piling Specialists



Deep Foundations Institute



Association of Specialist Underpinning Contractors and Engineered Foundations

## Description

The stabilisation of an existing wall by the use of piles installed at an angle inside and outside through drilled holes in the existing foundation.

## Loading Capabilities

Loadings are based upon the bearing capacity of the underlying strata, which will determine mini-pile size for this system. High foundation loads can be accommodated by reducing the spacing of the mini-piles.

### General Guidelines for Mini-Pile Sizing

90mm dia	SWL	Up to 40kN
105mm dia	SWL	40 - 60kN
150mm dia	SWL	60 - 100kN
200mm dia	SWL	90 - 120kN
220mm dia	SWL	120 - 200kN

*In certain ground conditions these loadings can be exceeded.*

## Application

All types of concrete strip foundation or bases founded at a depth in excess of 400mm below ground level.

## Installation Procedure

The existing foundation is predrilled, normally using air flushed rotary percussive equipment. Permanently cased steel driven piles are then installed through the predrilled hole with the casing terminated at the underside of the existing foundation. The pile is then concreted and reinforced up through the existing foundation.

## Advantages

- Recommended low cost underpinning scheme.
- Because large excavations are not required, the disruption and mess are kept to a minimum.
- Economical at depths greater than 1.5m. Additional costs are linear for increased depth.
- Conservative design when pile centres do not exceed 1.0m.
- High load capacity.
- Quicker when compared with all other systems.
- Suitable for restricted access.



