

# UNDERPINNING – NEEDLE BEAMS

UP 1

## INTRODUCTION

Utilised where either one or small quantity of walls require underpinning and where either restricted access conditions apply or minimal disruption required.

## PILING OPTIONS

Needle / pile positions are no more than 1.45m centres, thus depending upon the weight of the structure, piles will be installed between loads of 50kN and 250kN. Therefore, the following piles would be utilised, dependant upon ground conditions present.

### Driven

100mm Dia. – SWL 50kN

150mm Dia. – SWL 100kN

220mm Dia. – SWL 200kN

### Augered

200mm Dia. – SWL 125kN

250mm Dia. – SWL 175kN

300mm Dia. – SWL 250kN

## INSTALLATION

Piles either driven or augered are installed and then connected to the reinforced concrete needle beams, positioned through the walls.

## ADVANTAGES

- I) Minimal disruption to the property
- II) High load capability
- III) Ideal for restricted access conditions
- IV) Can be constructed at shallow depth below ground level

