Micropile Underpinning

Micropiles are small diameter drilled and grouted friction piles. Each pile includes steel elements that are bonded into the bearing soil or rock – usually with cement grout. The bearing stratum is logged during installation drilling to assure that bearing capacity is adequate. Micropiles do not rely on end-bearing capacity, so there is no need to establish the competency of rock beyond bond-depth. They can be installed quickly in virtually every type of ground using highly adaptable mobile drilling equipment.

Hollow bar anchors are manufactured from high yield micro alloy steel tubing. Hollow bars are installed using the injection bored method, which involves pumping at pressure a cementious grout while the anchor is drilled into the grout. This method has many geotechnical benefits and it improves a project’s overall efficiency.

Advantages –
- Fast one-step installation
- Simultaneous drilling and grouting
- Allows the use of smaller equipment at lower cost
- Allows low overhead, limited access installation
- Improves the ground (densification)
- Offers higher skin friction
- Total single corrosion protection by design

Earth Contact Products took this technology and adapted it to a bracketing system for underpinning. The ECP Model 350MP offers all the advantages of other ECP underpinning brackets to the micropile world. This combination offers contractors another option for underpinning through tough soil conditions. With its proven capacity the ECP Model 350MP has changed the structural repair industry.