

Branlow Piling Solutions

ISM 3-7 May 2006
Schrobenhausen / Munich Germany
Presentation 2006

Brief Presentation by Mark Hinton – Southern Area Director, Branlow Limited.

Overview of forecasted UK foundations market and trends.

Selected recent technical advances including development of restricted access pile testing methods and integrated micropile pilecaps.

Case Study of LUL Branlow contract in London illustrating a variety of techniques brought together to provide a hybrid stitch pile solution.

Case Study of Branlow contract for Cadburys (Famous for Chocolate) replacement factory in Yorkshire.



Branlow Piling Solutions

ISM 3-7 May 2006
Schrobenhausen / Munich Germany
Presentation 2006

Mark Hinton

**BSc Eng, MSc Eng
Director**



The predicted value of the UK Foundations market in 2010 is £600m

- Current growth of 3% per year
- Increasing market familiarity with self drill micropiles
- Strong retail and commercial sector demand for mini/micro piling – redevelopment of existing buildings in limited headroom
- Demand for more powerful rigs, more load in less access – Auger and more recently percussive ODS Drilled solutions now pushing to 600mm dia with mini rigs





- Olympics in 2012 – Construction peak 2007 to 2010
- Major investment programme in Rail, Underground, Water – all typically involving small rig piling
- Commercial situation deteriorating – stifling innovation
- Lack of Engineering supervision and poor practice by some practitioners for some techniques



- Restricted Access Static Load Tests
- 600 Kn piles in 1.8m headroom
- 600mm dia. Piles possible with a less than 3m mast Klemm 709



- Innovative integrated micropile pilecaps for mezzanine structures
- ‘Beefed up’ self drill for obstruction drilling



East Putney Tunnel TL 250 in 52 hour possessions

- Remedial works to portal involved stitch piling plus horizontal tie backs
- Poor bearing ground had led to rotation of portal face and movement
- Combination of vertical and raked piles total of 6 to each abutment
- Hybrid solution adopted



East Putney Tunnel TL 250 in 52 hour possessions

- Pre cored pilot hole
- 220mm permanent (slotted) cased symetrex drilled pile to base – 8m
- 168mm thin walled casing extended on to clay through tricky soft clays and gravels.
- 150mm auger pile to a depth of 30m
- Grouted with 32mm GEWI





- 370 No. 273mm and 323mm piles for rebuild of Cadburys chocolate factory which burnt down (melted).
- Branlow contract with Bovis Lend Lease.
- Originally planned as drilled rock socket piles – but due to rock unexpectedly underlain by unsuitable granular a hybrid solution developed.
- Drilled through rock - thereafter close ended steel casing placed, annulus grouted (30 to 40mm) and then bottom driven onto a set at 6m to 8m depth.



- So hybrid solution involving deployment of two rig types
- Branlow able to provide a solution quickly and economically once problem identified.
- Pile tests indicated 0.6mm settlement at 60 ton – remarkable performance.

