

CASE STUDY
Chatham Street
Liverpool



PROJECT OVERVIEW:

Client: University of Liverpool
Sub-contracted to: Ocon Construction
Engineer: White Young Green
Sector: Public Sector - Education
Value: £273k

Description of Works: Design, supply and construct piles to form part of the foundations for new student accommodation.



TECHNICAL DETAILS:

Type of Piling System: Continuous Flight Auger (CFA)
Soil Conditions: Made Ground/Glacial Drift/
 Bunter Sandstone



Max Load kN: 850kN Compression
 100-250kN Tension
 50-75kN Shear

Length of piles: Up to 12m

Type of Testing: Integrity and Load Testing

No. of piles installed: 721 No.

Diameter of piles: 450mm



Breakdown of piles installed:	
West Block	320 No.
East Block	393 No.
Crane Base	8 No.

Due to the loads specified, rock sockets were required up to 4.5 to 5.0m into Liverpool sandstone; this was achieved using Tungsten drilling tools and rock auger drilling teeth. Pile lengths were installed to penetrations into the rock using computerised CFA monitoring equipment.

Three load tests were carried out to establish the rock quality/required penetrations to achieve the pile safe working loads.

