

# Composite Wall – CFA Piling and Micro Piling

## JIFC Building 4 The Esplanade St Helier Jersey



/ Spie fondations

spie batignolles

## JIFC BUILDING 4 THE ESPLANADE ST HELIER JERSEY

Channel Islands Aug 2015 - Nov 2015

CLIENT STATES OF JERSEY DEVELOPMENT COMPANY  
MAIN CONTRACTOR CAMERONS LIMITED  
ENGINEER WATERMAN CONSULTANTS LTD & BYRNE LOOBY PARTNERS (UK) LTD

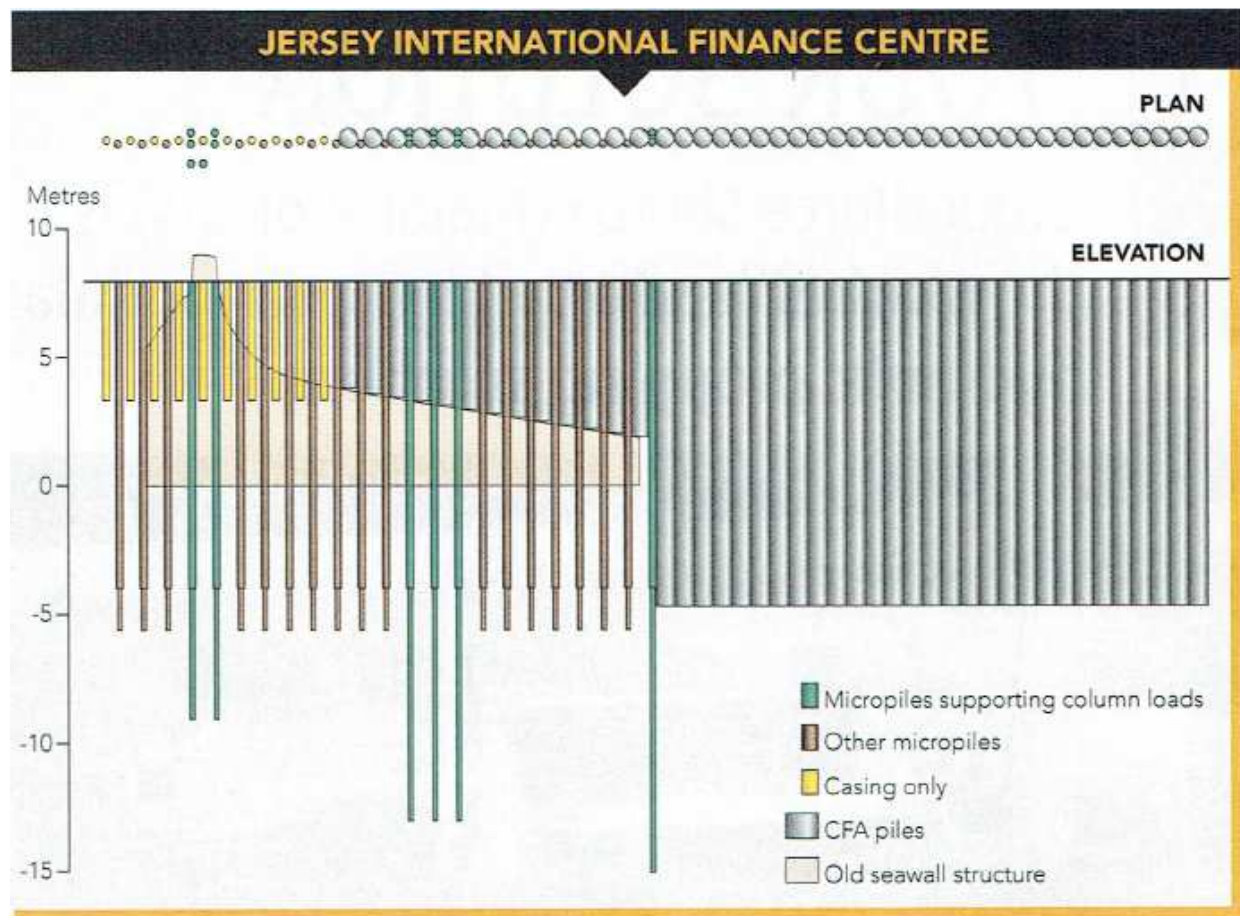
### Cost of the project

Value of the piling works £ 760 000

### Description of the project

Building 4 is the first of six planned buildings to be built for the Jersey International Finance Centre on reclaimed land in Saint Helier. Originally, a contiguous rotary bored pile retaining wall was proposed to support the road along Castle Street. Due, however, to the presence of a 19<sup>th</sup> century granite sea wall, to mitigate risks associated with augering through the granite blocks, Spie fondations designed a novel composite wall solution combining down the hole (DTH) drilled micro piles and continuous flight auger (CFA) piles.

All piles had to be socketed into the underlying Jersey Shale and a high torque Leibherr LB24 rig was used for the CFA piles and a Casagrande C8 with an Avantis drilling system for the micro piles

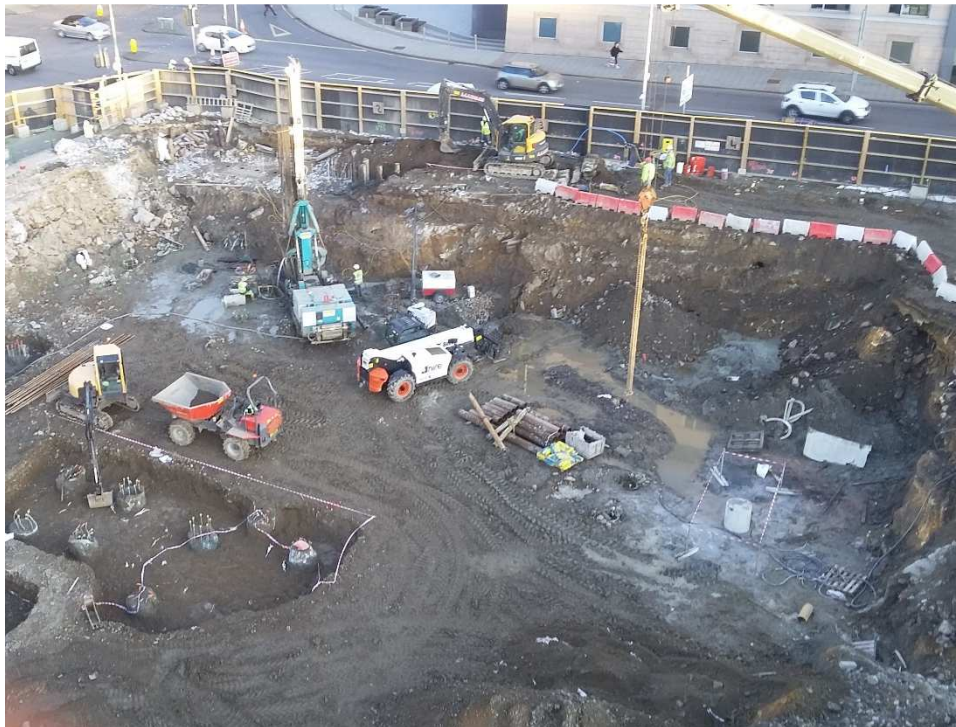


Plan and elevation drawing of the retaining wall.

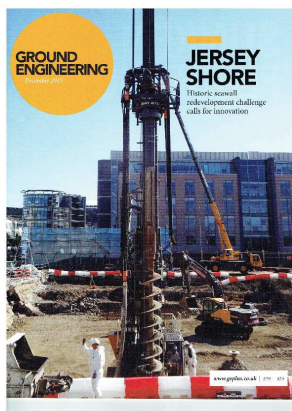
## Works performed by Spie fondations

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- Composite retaining wall:
  - 41No micro piles up to 23m depth, drilled with a 300mm diameter down the hole hammer (DTH) through the overburden followed by 235mm rock socket. Reinforced with a 200mm diameter, 20 mm thick steel tube
  - 42No 720 mm diameter contiguous CFA piles up to 13m depth
  - 1No micro pile pull out test up to 1,590kN
  
- Load bearing piles:
  - 88No 720mm to 920 mm diameter CFA load bearing piles 13 m depth
  - 3No static maintained load working pile tests up to 4,800kN.



Site overview with micro pile rig (Casagrande C8)



For further details see Ground Engineering December 2015 issue or [www.geplus.co.uk](http://www.geplus.co.uk)