



## Next, Morfa Retail Park

<b>LOCATION</b>	Morfa Retail Park, Swansea
<b>REQUIREMENT</b>	Bearing piles to support mezzanine and lift shafts
<b>TECHNIQUES</b>	Drilled, bored, bottom driven and micropiles
<b>MAIN CONTRACTOR</b>	SKS Construction

### Project Overview

Next required a full area single storey mezzanine and associated works within their retail store.

The underlying backfilled quarry comprised heavily obstructed fill in the upper 6 to 8 metres. The agreed completion date for the upgraded trading area, necessitated working nightshift and a 7 day week.



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## Project Challenges

- Sensitivity issues, particularly adjacent to the party wall.
- Tight programme with financial penalties for delays.
- Multiple rigs and a wide range of piling techniques.

## Solution Delivered

TGS used an innovative single pile mezzanine support solution, with pile capacity of up to 750kN. A total of 91 piles were installed through the existing concrete slab using diamond coring equipment. The fill material containing large obstructions was also pre-drilled using our Hutte 205 rig, prior to installing 323mm diameter bottom driven piles to 18 metres.

As the deadline for the project was very tight, TGS worked round the clock (including weekends) on a site with heavily obstructed fill in the upper 8m.

To minimise the disturbance to the neighbouring retail business, alternative low noise and vibration pile types were installed using drilled micropiles. Three different techniques were used on this project, using up to four rigs, in order to complete the works successfully and on schedule.



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