Modular Staircases

On a recent project Peers were contracted to design and supply 4No 19m high staircases to the perimeter of a waste water treatment plant. The main challenges were limited time on site, lack of site room, a change of direction and the staircases being located over a moat.

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To resolve these challenging aspects Peers decided to design the structure as a modular scheme allowing the stair units to be pre-assembled off-site at Peers yard in Bolton then transported to site. This allowed the modules to be erected on site in a single day giving the client immediate access to the waste water treatment plant. A further challenge was that the two staircases facing a new property development had to be aesthetically pleasing so elliptical perforated aluminium panels to represent a ships funnel were used. Again erection of theses panels at site needed consideration due to time and access restrictions so Peers along with our cladding contractor decided to use a Rainscreen system. This consisted of a grillage support frame fixed to elliptical rails ready to accept the simple hanging of 280 Lightweight Aluminium Panels.





Erected Stair Units



Topping and Tailing



Cladding Grillage



Loaded on the Trailer



Fixed Panels

Key Points

- · Staircase Pre-Assembled Offsite with handrail, flooring & treads to reduce on-site working time.
- Modules built up Vertically on temporary steel frames (Concrete foundations not required).
- Detailed Lifting & Transport documents were produced by the designer for the Modules.
- Modules top & tailed with 2No Cranes to lie it on its side on a trailer for transport to site.
- Staircase Erected at site in Modules in a Single Day providing instant use as an Access Stair.
- Rainscreen-Lightweight Aluminium Panels fixed to support steelwork for quick & simple erection.