

**Project name, location**

**Prospect Place, Cardiff**

**Year of completion**

2008

**Contractor**

Stephenson Construction

**Architect**

RMA Architects



**Project description**

These two buildings at Prospect Place form the first phase of a residential development overlooking the bay side at Cardiff. Block B is 8 stories and Block C is 9. Both have an 'L' shaped floor plate comprising 200mm thick two-way post – tensional slabs on a typical grid of 8.0 x 7.5m. Balconies were steel and were bolted on later. Additionally level 1 of Block C incorporates a 300mm thick PT podium slab on a 10 x 10m grid.

Structural Systems proposed the PT alternative to Clarke Nicholls Marcel early on in the feasibility stage. They were impressed with the speed and efficiency of post-tensioning and have used it again on phase 2, bringing the total area of slabs stressed by SSL to 34,000m<sup>2</sup>.

Clients are increasingly turning to post tensioned (PT) flat slabs as the material of choice for high rise residential buildings. This growing trend is due to PT being recognised as an economical solution.

Using PT creates a thinner, lighter slab as less steel reinforcement is required. Reductions in the storey floor to floor height and building weight mean that cladding and foundational costs are cut; a huge saving for clients.

**PT tonnage**

160t

**PT system(s) and size(s)**

Bonded flat duct, 5no 12.9mm strands

**Principal benefits of using PT on this project**

Economy