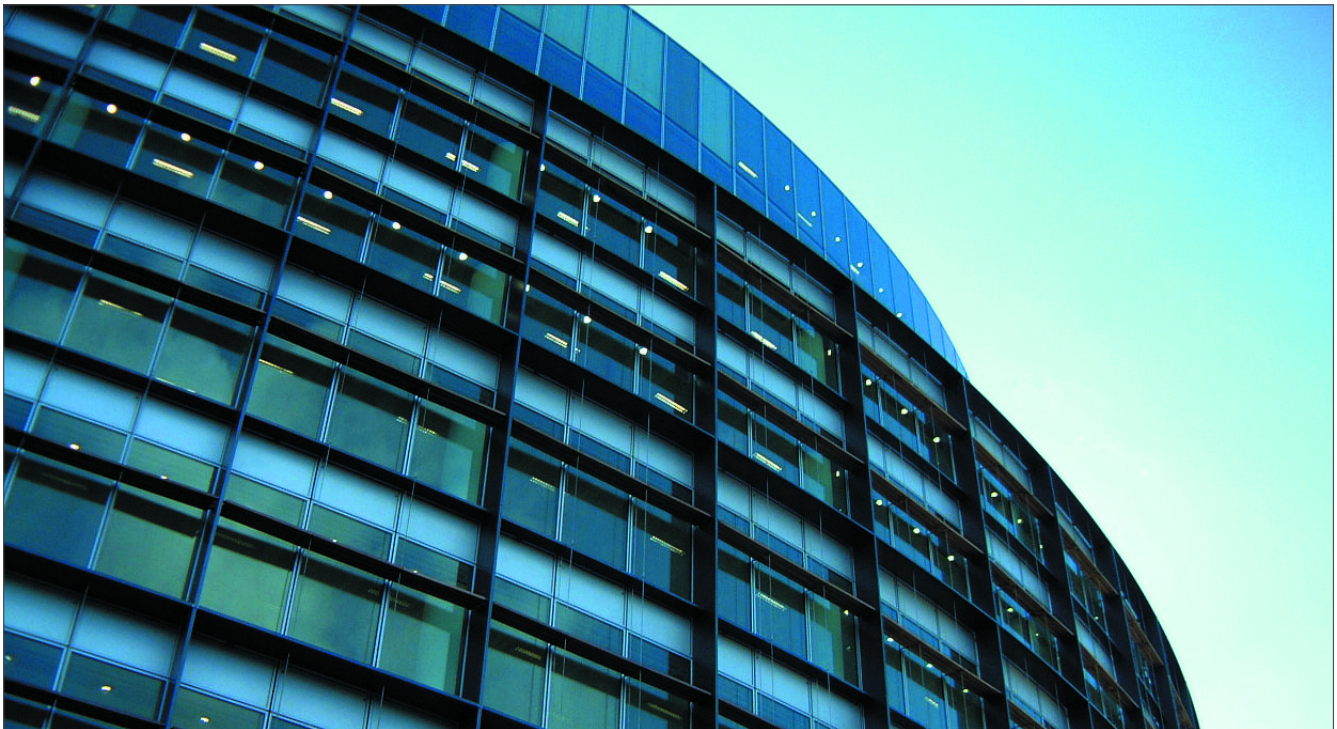


BATTLE McCARTHY ©

Consulting Engineers & Landscape Architects



PROJECT:

The Point, Paddington Basin

CLIENT:

Chelsfield plc (PDCL)

ARCHITECTS:

Terry Farrell & Partners

BM SERVICES:

Building Services & Environmental Design

CONTRACT DATES:

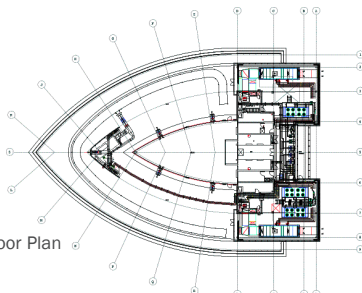
2002 - 2005

VALUE:

£50million (approx)

DESIGN BRIEF

This is a high specification speculative office development which meets the highest standards in environmental comfort. The design incorporates a finite level of flexibility allowing for a wide range of tenancy variations. The base building has been further enhanced to cater for Orange, who have taken up The Point for their new London headquarters.



Typical Lower Floor Plan

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2089/PC

DESIGN INITIATIVES/ACTIONS UNDERTAKEN

Internal comfort is achieved predominantly by the use of chilled ceilings throughout with displacement ventilation supplied via floor grilles. This ensures a highly efficient means of controlling human comfort using an optimal combination of both radiant and air cooling. Other benefits over conventional air mixing systems such as fan coil units, is that the warmer used air is extracted away through the ceiling rather than locally re-circulated and re-treated. Internal office height has been designed to 2.9m floor to ceiling height instead of a more conventional 2.7m; this further enhances the performance benefits of displacement ventilation.

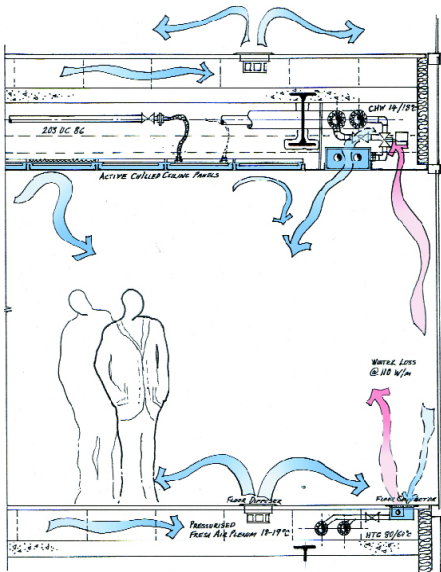
A high performance solar glass along with Bries Soliel shading systems ensures that solar gains are minimised whilst allowing the daylight benefits of floor to ceiling glazing. At the eastern end of the building and around the top floors where there are no external shading systems, internal permanent full height Venetian high performance blinds form part of the base design to limit solar gain.

An atrium in the centre of the building provides a balance of daylight to the internal office spaces. Generally all floors are closed to the atrium apart from lower ground located at its base, which Orange intend to use as their restaurant area. High performance solar and low 'e' glass has been used for the atrium roof negating the need for supplementary cooling, with the facility to naturally ventilate at the top of the atrium during warm periods.

Perimeter zones are provided with trench LPHW convective heating sunk into the raised floors and chilled beams operating off the 15 to 18°C chilled water system and are concealed at high level behind highly perforated perimeter ceiling panels. These two systems cater for perimeter heat losses and solar gains respectively allowing the chilled ceilings and displacement ventilation to take care of all casual gains.

AWARDS

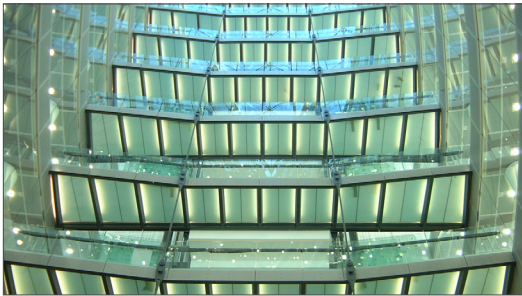
BREEAM 'Very Good' Rating



Typical Perimeter Bay Section for Single Skin Façade Active Chilled Ceilings, Displacement Ventilation and Perimeter Heating (option)



The central atrium and glass roof above, bringing daylight into the internal spaces.



Communication bridges linking floors across the atrium



The bow-shaped corner of The Point, visible from across the canal and railway, forming western edge of the Paddington Basin.



The northern facade of the building. Its conventional cladding conceals a highly sustainable approach to corporate construction



An internal view of the curved structure with full height glazing to allow maximum # penetration of daylight into the space

Heat recovery is utilised in all air handling plant to help achieve efficient operation of the displacement system. Free cooling is also optimised, allowing fresh air to be supplied for nearly 80per cent of the 'occupied year' without the need for mechanical cooling.

Main features are:

- Highly efficient façades
- Central atrium
- Displacement ventilation
- Chilled ceilings & perimeter passive chilled beams
- High efficiency plant and systems
- Greatly enhanced back-up power systems



The Point building mass not only responds to the contour of the Grand Union Canal but also reacts to the environment to optimise passive responses.