

# REFURBISHMENT PROJECT OF THE YEAR (VALUE OVER £5M)

## RECOGNISING A REFURBISHMENT PROJECT DEMONSTRATING OUTSTANDING MEASURED BUILDING PERFORMANCE, ENERGY EFFICIENCY AND REDUCED CARBON EMISSIONS

### WINNER:

**Premier House, Twickenham**  
Flatt Consulting



The refurbishment of Premier House, a 1970s concrete/brick-skinned office building, was one of the first projects to be undertaken by Low Carbon Workplace, a collaboration between The Carbon Trust, Threadneedle, and Stanhope.

The building was typical of its age and type: existing services included an inefficient, high-energy-usage, high-carbon-emitting, VAV air-conditioning system with split-system DX cooling units.

Using existing mainstream technologies, the refurbishment set out to introduce low-carbon design techniques and technologies for internal climate environmental control and 'sustainable' solutions, to achieve a building with low emissions and low water use. The building fabric and structure were generally retained, with principal

improvements consisting of replacement windows, upgraded insulation, provision of external solar shading, exposing the building thermal mass, provision of an active, ventilated chilled-beam comfort cooling and heating system, new energy-efficient central plant and a low-carbon lighting system.

A key aspect of the refurbishment was the provision of facilities and systems that allowed occupants to take responsibility for and control of their energy usage and emissions. Extensive individual energy metering was therefore provided to each tenant for the various systems and sub-systems. Tenants were also required to sign the Low Carbon Charter, indicating their firm intention to minimise the building's energy consumption and emissions. The Carbon Trust then worked with them to develop their Cat B fit-out plans and continues to provide ongoing support to tenants, including monthly reporting on carbon emissions. This has enabled the identification and realisation of opportunities to improve performance.

At the end of the first full year of occupation, energy consumption had been reduced by 64%. This equated to a reduction of 370.9 tonnes of CO<sub>2</sub> per year.

### PROJECT TEAM

**Building Services Engineer:**

Flatt Consulting

**Building Owner:** Low Carbon Workplace

**Building Occupiers:** Thames Valley Housing Association / Adobe

**Project Manager:** Quantum

**Quantity Surveyor:** Gleeds

**Brief Consultant:** Stanhope

**Architect:** Hawkins Brown

**Interior Designer:** Hawkins Brown

**Mechanical/Electrical Engineer:**

Flatt Consulting

**Contractors:** Wates / Emcor

**Investment/Property**

**Company:** Low Carbon Workplace

**Developer:** Low Carbon Workplace

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### JUDGES' COMMENTS

"An ordinary building that has been done very well, with real engagement with the building users."

### FINALISTS:

- One Embankment Place, London – *ChapmanBDSP*
- 61 Lincoln's Inn Field, London – *Elementa Consulting*
- 123 Victoria Street, London – *Land Securities*
- Ironmonger Row Baths, London – *Max Fordham*