Strata

Official Name: Strata
Structure Type: Building
Status: Completed
Country: United Kingdom
City: London
Street Address & Map: 2 Walworth Road
Postal Code: SE1
Building Function: Residential
Structural Material: Concrete
Proposed: 2005
Construction Start: 2007
Completion: 2010

Companies Involved
Owner: Castle House developments Ltd.
Developer: Brookfield Development Corporation
Architect: BFLS
Structural Engineer: WSP Group
MEP Engineer: WSP Group
Main Contractor: Brookfield Multiplex
Material Supplier: CCL

About Strata

Strata SE1 constitutes a key element in the Elephant & Castle Regeneration Masterplan. This 408-apartment development has a modest footprint which creates additional areas of public realm at ground level. The scheme also includes an adjacent five-story pavilion building that will comprise residential and retail facilities. Strata will be connected to the planned Elephant & Castle MUSCo (Multi-Utility Services Company), a community combined heating and power scheme which uses renewable resources.

The tower has in many ways been shaped by both short and long-distance views of its form; hence the articulation and grain of its distinctive cladding are designed to both make their mark on the London skyline as well as creating a strong sense of human scale that engages the public when viewed close-up.

The first building in the world with cladding-enclosed wind turbines, it sets a new benchmark in terms of environmental strategy. The use of integrated wind turbines is a visually exciting means of generating electricity for a building of this height and location. The form and orientation of the building enables the best use of the dominant prevailing south–south west wind direction. The three five-bladed, 9m (30ft) diameter wind turbines are rated at 19kW each and are anticipated to produce 50Mwh of electricity per year, approximately 8% of the building's estimated total energy consumption. To put this figure into context, it is enough energy to meet the total annual demand from 30 two-bedroom apartments (based on current 2006 Building Regulations). The electricity generated by the turbines will be used to supplement the landlords' supply for the common areas of the building. The actual energy output of the wind turbines will be published after two years of comprehensive wind data analysis.
Each layer of the façade has been tuned to vary its performance where appropriate. Glass, the most precious and vulnerable layer, is located on the inside, with a solid aluminum panel forming the outermost layer and an intermediate zone that contains the ventilation zones and opening panels. The solid operable vents on the building’s façade allow for natural ventilation.

CTBUH Initiatives

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