



RETAIL

LOTHBURY PROPERTY TRUST

PROJECT: CLARENCE STREET, KINGSTON ON THAMES,
SURREY

VALUE: £2.5M

DESCRIPTION OF BUILDING

The existing building stands as a mid terrace three story redundant retail unit. It is proposed that this Building is to be demolished and replaced with a new three story retail shell in its place.

DESCRIPTION OF SERVICES

Q Design were appointed by 'Lothbury Property Trust Company Ltd' to prepare a Sustainable Energy strategy for 38 Clarence Street, Kingston upon Thames, Surrey, KT1 1NR. The proposed scheme involves the redevelopment of the site to provide a three storey A1 retail building with a floor area of 1347 m². The scope was to provide simply a shell and core to allow a new retail company to move in.

The scheme was required to satisfy the requirements of the London Plan (February 2008) Policy.

The two items for consideration were – Improvement Factor (against 2002 regulations) and LZC (Low to Zero Carbon) Factor.

The baseline value stated in the current Part L2 building regulations (2006) for improvement factor at the time was 20%.

The baseline value stated within the current Part L2 building regulations (2006) at the time for the LZC factor was 10%, however, the proposal for this property was for 20% to be provided by On-Site Renewable Generation.

OUR RESPONSIBILITIES

Q Design's responsibilities within the project were:

- Provide a set of strip out drawings and specification to allow demolition of the existing building
- Liaise with utilities companies for new connections and termination of existing
- Energy Survey and viability report on how to meet the relevant regulations
- Shell and core Design to allow a new tenant to move in
- Design of Renewable technologies required to meet regulations following report
- Incoming electrical supply upgrade
- External and façade lighting
- Lightning protection
- Photovoltaic panel system

SUMMARY

The strip out required very minimal work as the services were generally self contained with exception of the re-routing of some rain water pipes. The Energy Survey and Viability Report required an in-depth calculation of the building energy usage and investigation into all sustainable energy solutions available and their feasibility taking all varying factors into consideration.

Based on the energy requirements of the building, it was calculated that a ground or air source heat pump system were unsuitable for the application. Also, due to the location of the building and its adjacent surroundings, the Wind Turbine option was deemed impractical.

The completed calculations and report proved that Photovoltaic panels were the most viable option for the property to meet requirements. The main reason for this being that 64% of the energy consumption was calculated to be lighting although many other factors came into the selection.

Q Design was able to provide all services described above in-house and continue to design the Photovoltaic design whilst taking into account all relevant regulation such as the CDM regulations (maintenance for both the roof and the PV panels).

Q Design was also able to provide the client with direction on the government incentive scheme that was most beneficial to them following the design.

It was calculated that there was a benefit of having the feed-in tariff, as there was scope for the feed-in tariff achieving the tariff for both the on-site generation and the export tariff during periods of low Retail and Office use, i.e. there would be limited periods of high generation and low demand during the Summer period, such as prior to 8am during weekdays and Sunday afternoons. The Feed-in Tariff was adopted as the most viable option, as opposed to the initial receipt of a grant to reduce the capital cost.