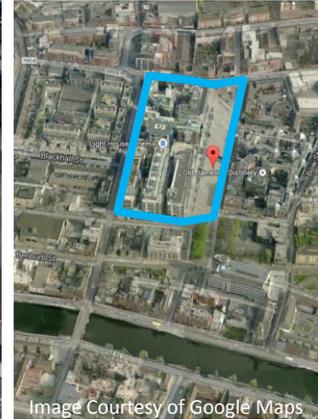


## THE SITE

Smithfield Market Development, Smithfield Square, Dublin 7, located in the historic quarter of Dublin City.

The development includes of 460 plus apartments, 25,000m<sup>2</sup> of commercial, 19,000m<sup>2</sup> of retail, 25,000m<sup>2</sup> of cultural, 850 car parking spaces, a 100-bed hotel and 6,400m<sup>2</sup> of leisure.



## THE OBJECTIVE

In 2009 Smithfield Market Management Company were seeking to identify energy saving opportunities with the assistance of the Frontline Energy Team. From an initial audit a number of projects were identified and actioned on the basis of highest energy savings against the expected expenditure.

## FRONTLINE ENERGY SERVICE

- Designed Specified Solution by the Frontline Energy in-house Engineering Team.
- Initial Site Survey and Energy Report carried out to establish existing efficiencies.
- Project Installation and Project Management.

## TECHNICAL OVERVIEW

Focus areas included:

1. Primary extract system
2. Secondary Dirivent system - Car park ventilation system
3. Car park lighting
4. Control system – Building Management System
5. Main and sub distribution boards

Projects explored included, revising of time schedules for the car park ventilation system, changing electricity supplier and reducing the MIC for the site.

All of these resulted in expenditure savings of approx. 42% on the base year and an average consumption saving of approx. 14% annual savings.

An Energy Efficient Lighting Project was identified as one of the most effective solutions based on the detailed energy audit of the car park.

The underground car park previously had 2 x 58 W fittings throughout the car park. These light fittings were replaced with a more efficient 1 x 58 W fitting with a highly polished reflector; effectively halving the energy consumption of the car park lighting.

## RESULTS

A designed energy efficient lighting solution was installed throughout the entire car park. The installation is supported with a 3 years warranty ensuring a reduced maintenance bill as well as reduced electrical operating costs.

An overall expected consumption reduction of 816,120Kwh which converts to a cost saving of approximately €138,740.40 per annum was achieved.