

## Overview

Greengate has created a bespoke lighting management system for Aquinas College in Stockport, combining high energy efficiency with the flexibility to accommodate the different activities in the spaces through the day.

The system comprises a range of lighting control modules (LCMs) and universal (light level and occupancy) sensors, with the LCMs linked to a PC. All of the luminaires use Tridonic DALI control gear and emergency modules.

The initial brief from Gifford included:

- Maximum flexibility to reduce contractor involvement for any changes throughout the life of the installation
- Provision of reports of any luminaire, lamp or battery failures via graphical software on a front end PC
- Fully automated emergency testing and failure reporting via the graphical software.
- A simple wiring philosophy to minimise maintenance time and maximise simplicity of ownership.
- Maximum use of dimmable lighting to give the very best scenes for each space.

Lighting in the teaching spaces is activated by an on/off switch by each door. Then absence and daylight control is used to dim the lighting row by row and turn off lights when the rooms are vacated. In addition, a 'projection' scene switch has been installed on each teaching wall to provide an easy transition to a customised lighting scene that prevents shadows and minimises contrast. This requires particular luminaires to be dimmed to a specified level when using the interactive whiteboard or overhead projector. This provides the perfect lighting situation without shadowing from the projector arm across the whiteboard or causing overbearing contrast levels.

In the evenings, corridors adjacent to occupied spaces remain lit at 50% of full light output to ensure safe movement for occupants, while lighting in corridors where rooms are unoccupied is switched off.

The result is a lighting system that can be easily adjusted and reconfigured to suit variable occupancy patterns and changes in the building, while optimising energy efficiency and usability. The college will also benefit from reduced maintenance costs through extended lamp life and by eliminating the need for manual testing of emergency lighting.



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