

SUSTAINABLE
EFFICIENT
LIGHTING
SOLUTIONS



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LIGHTING UPGRADES

LIGHTING UPGRADES IN EXISTING BUILDINGS PRESENT THE FOLLOWING CHALLENGES:

1. How can it be done with minimal effect to surrounding areas
2. How quickly can it be done
3. Asbestos issues
4. Energy consumption
5. Repairs & Maintenance issues



CASE STUDY: ROOFTOP HOUSING GROUP

INDEPENDANT LIVING SCHEME

STATUS:

Poor quality lighting required upgrading – 54 Fittings

BRIEF:

Provide new lighting to increase the light level while giving minimal disruption to the operation of the unit and its residents; ensure minimal 'knock on' works; improve lamp life and reduce associated maintenance costs

SOLUTION:

Develop a bespoke light unit that fitted into the existing lighting tray, benefits of this included:

- Enhanced light quality with double the present lamp life
- Lighting level variable from 28W (already an increase over existing, through to 54W lamps)
- Twin circuit allowing for 2 light levels, thus saving more energy during daylight hours while keeping a uniform lighting level
- Much easier maintenance making it easier to change components, required at fewer intervals
- No disruption to existing ceiling
- No access above ceiling required and therefore no issues with Asbestos or other materials that could affect the safety of the environment
- Existing luminaire body shell retained – saving on materials
- 21st Century technology produces savings in weight and materials



BEFORE



AFTER

CASE STUDY: ROOFTOP HOUSING GROUP

RESULTS:

Lighting level increased by up to 300%.
Uniform light level achieved
throughout communal walkways

BENEFITS:

Easier & safer passage through
communal areas for Residents

COST SAVINGS:

Typical costs for running this light level
using the 54 existing fittings:
Based on £0.15p/kwh = £6,622.56 per
annum running cost.

Typical costs for running this light level
using the 54 new fittings:
Based on £0.15p/kwh = £3,027.46 per
annum
Saving £3,595.10 per annum

Lamp life normally changed every 2
years at a cost of £510 equating to an
annual maintenance cost of £255

With new fittings lamp life is extended
to 4 years equating to an annual
maintenance cost of £102

**TOTAL TYPICAL COST SAVINGS FOR
THIS CASE STUDY:
£3,748.10 PER ANNUM**

**PAYBACK PERIOD OF FIXED WIRING &
LIGHTING UPGRADE: 3.3 YEARS**

DIRECT COMPARISON:

- Clear improvement on lighting quality
- Brightness and spill of light increased
- Reduced maintenance costs
- No effect on surrounding areas
- Using 50% of the energy in this configuration
- Twin circuit function to allow for half light and further energy saving during daylight hours.

