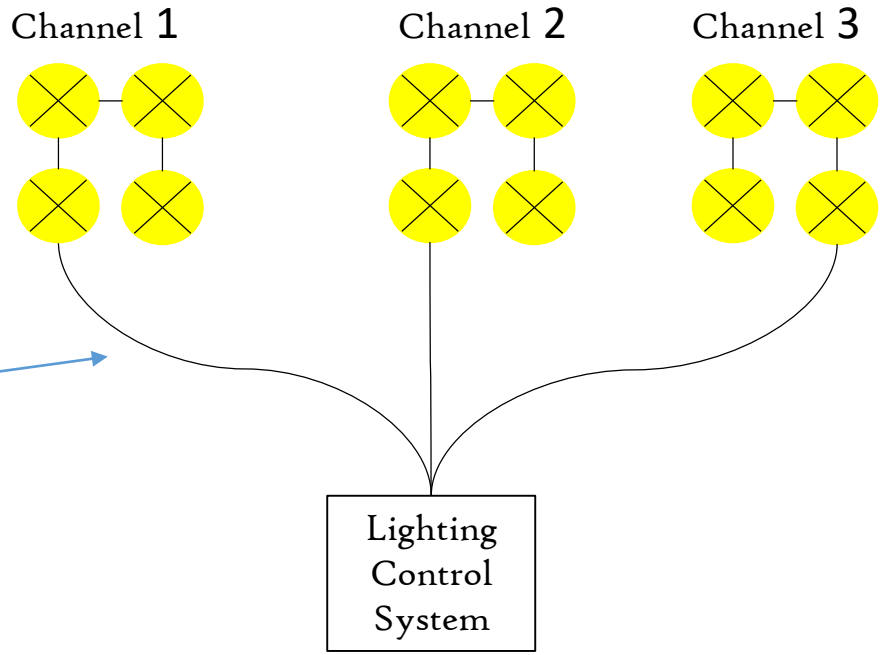
St Giles in the Field - London
WIRING INSTALLATION PROPOSAL

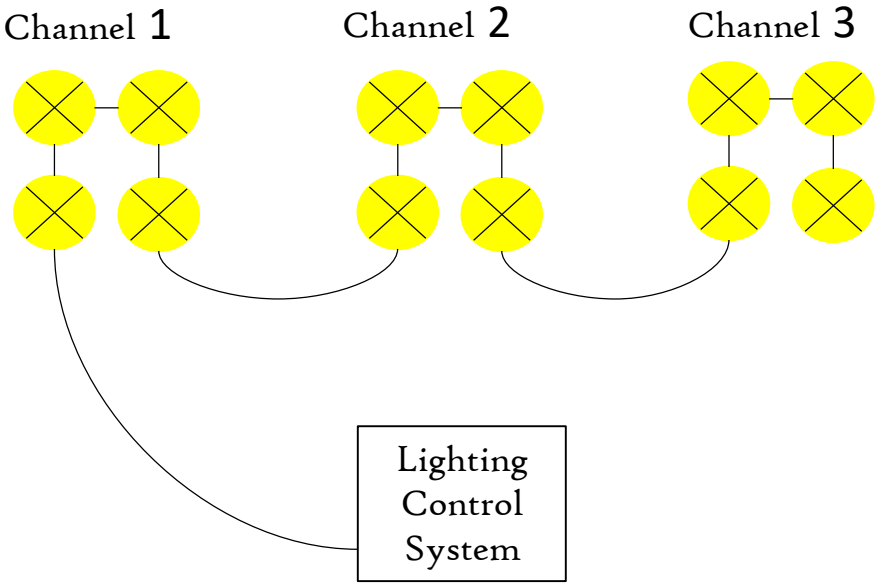
CES | 2017 | 6190

INTRODUCTION

The conventional method of wiring is to take a 3 core cable to each different zone/channel of lighting in this way the lighting control system can operate each channel independently.
One cable per channel - example shows 3 rising cables. There are 7 channels required for the tower lighting system at St Giles therefore under this method we would require 7 rising cables.



CES have designed the lighting to be operated by a DALI system to minimise the cabling required. (Dimmable Addressable Lighting Interface).
This type of system uses a singular 4 core cable which is daisy chained between every luminaire. There are 7 channels for the tower lighting system at St Giles however with a DALI system, only 1 rising cable is required.



The following pictures indicate our proposed lighting method.
CES met with the church architect on site to examine the cable routes and this proposal has been drawn following that meeting.

WIRING OVERVIEW

The following pages will indicate the proposed wiring routes in each of the following segregate sections. Wiring routes shown in 'blue', however the cables are to be black/white as appropriate.

Spire Parapet (page 12)

Lantern (page 10-11)

Clock Chamber (Page 9)

Bell Chamber (page 8)

Loft Chamber & Parapets (pages 5-7)

Ringing Chamber (page 4)

Ground Level (page 13 – 15)

Wiring to be Steel Wired Armoured unless stated.
All fixings to be within Mortar using stainless steel screws.
Resin fixings when it is necessary to fix into stone.

The lighting specification includes ladder installation within the upper tower levels.

The lighting specification includes the use of an experienced groundsworker.

Bespoke brackets are illustrated on page 16

RINGING CHAMBER

The external lighting control panel will be installed in the ringing chamber.
The control cable will rise as indicated below.

The lighting control panel to be mounted on wall by window as indicated.

Proposed wiring route – white cable clipped direct to follow existing cable route to upper levels. PVC copper coated clips to be fixed into the mortar and not stone/brick.

LOFT CHAMBER

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Cable rises through existing hole and connects into new adaptable box which replaces existing.
Cables then are taken through he existing conduit to the upper levels.

Cables taken through existing conduit to bell chamber.

LOFT CHAMBER TO PARAPETS

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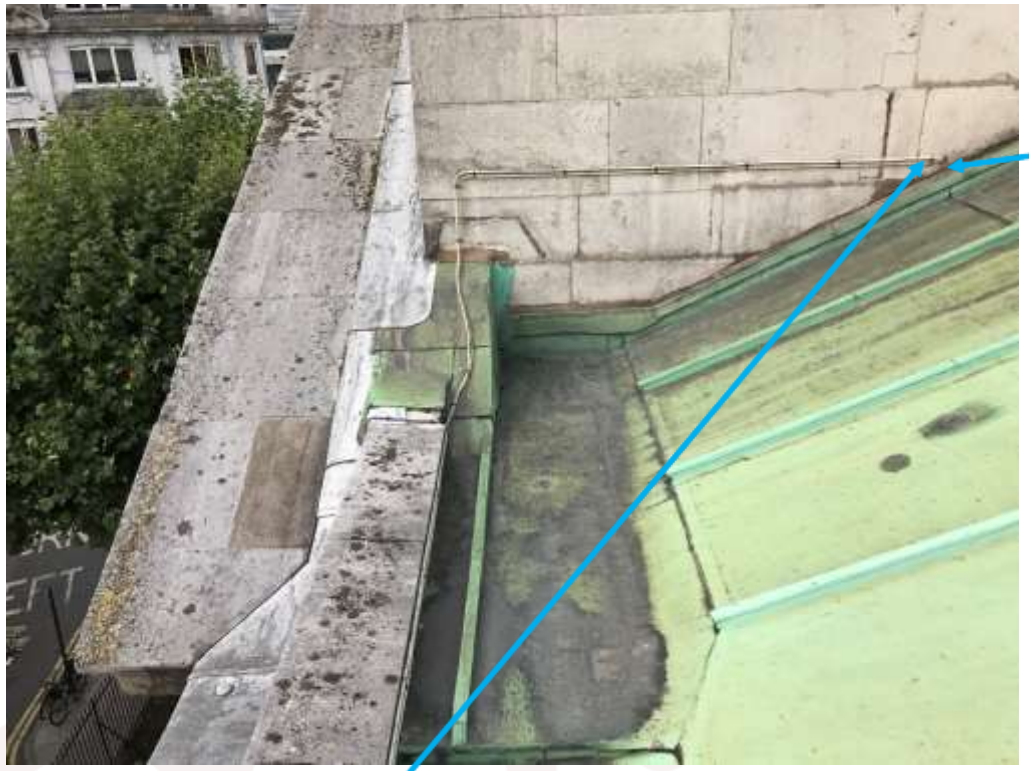
Cables to follow existing routes. Old cables to be removed. Cables to rise from new adaptable box in loft chamber and out through existing hole to parapets.

PARAPETS



Cable to exit building via existing hole. Hole to be sealed with exterior quality clear silicone sealant. Cable to be clipped using existing fixings.

Cable to be clipped using existing fixings. Redundant cables & lights to be removed.

BELL CHAMBER

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Cables to be taken through existing conduit to Clock Chamber – There are no luminaires at this location.

Clock Chamber

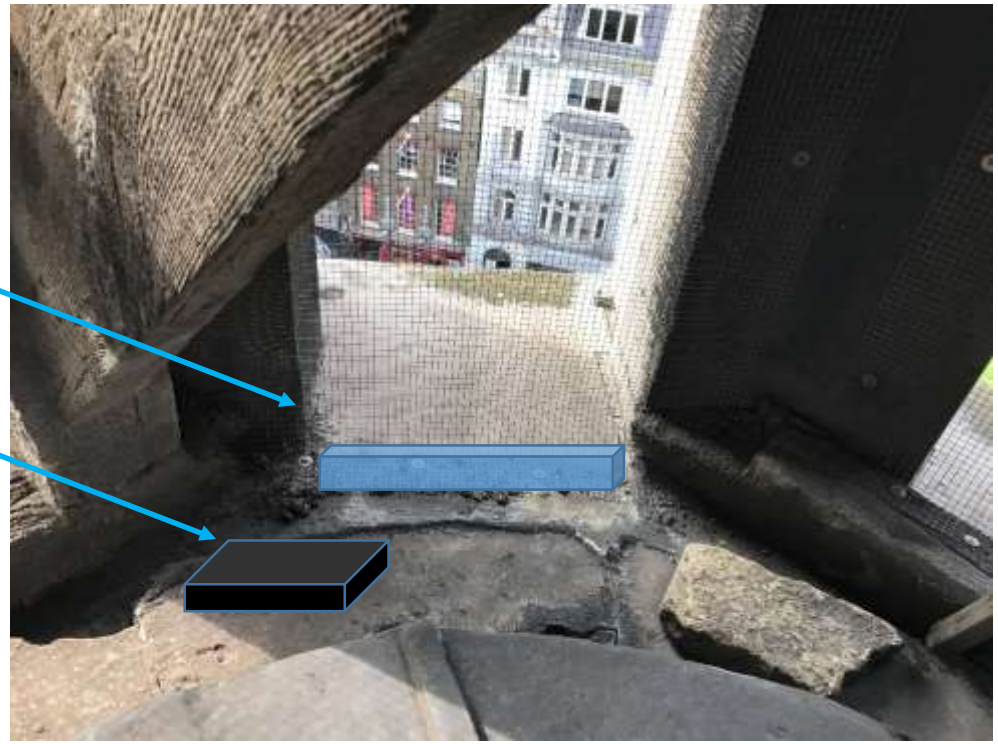
Cables to enter chamber via existing conduit. New adaptable box is to replace existing. Old luminaires and conduit to be removed. Cables to each clock face run horizontally between each of the 4 clock reveals. Cable clips to be fixed into Mortar and not stone.

Cables that rise from Clock Chamber to Lantern to be taken through rigid resin copex and fixed to the mortar sections of the stone work. The copex is to pass through a hole in the side of the wooden hatch. This rigid copex will minimise the fixings required and allow for a robust and re-wirable system. This copex has a mechanical internal section, covered by a hardened resin PVC to protect against the atmospheric conditions.

LANTERN

Galvanised Channel

Adaptable Box



PVC coated rigid metal copex to be taken to a new IP adaptable box and fixed into the stone floor. Each Lantern window will receive one spot light and a bracket is required so that the spot light can be brought into the lantern for future maintenance.

The protective mesh is not fixed well, therefore new galvanised channel sections are to be fixed at the base of the mesh using 2 resin fixings channel. The mesh can then be fixed into the channel by stainless steel self tapping screws. This will provide a longer term protective fixing method.

LANTERN TO SPIRE PARAPET

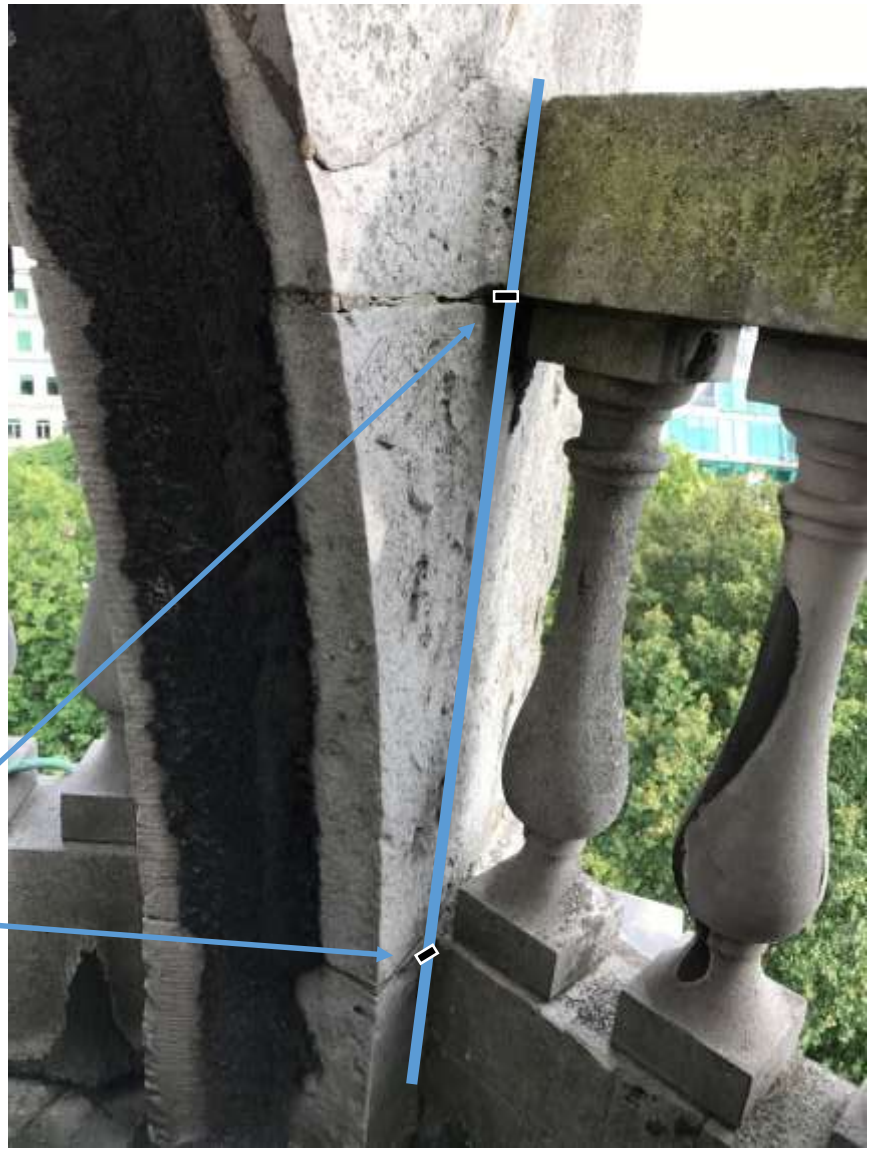
PVC coated rigid metal copex to be taken to a up to spire section. Copex to be cleated into mortar sections. Rigid copex type requires minimal fixings to be secured. Copex to be taken through existing opening. **No** additional hole is to be drilled for the cable.

Copex to be taken through doorway and underside of wooden door to be adapted to allow door to close.

SPIRE PARAPET

Adaptable box to be fixed to balustrade lower stone section. IP Linear LED strip to be fixed using half inch stainless screw fixings.

Cable to Spire spot light to be clipped direct, half inch stainless screw fixing into mortar.



GROUND LEVEL

Wiring to West end archway to be run with existing cable route to parapet level.

Slabs to be lifted to allow cable to be taken to archway.

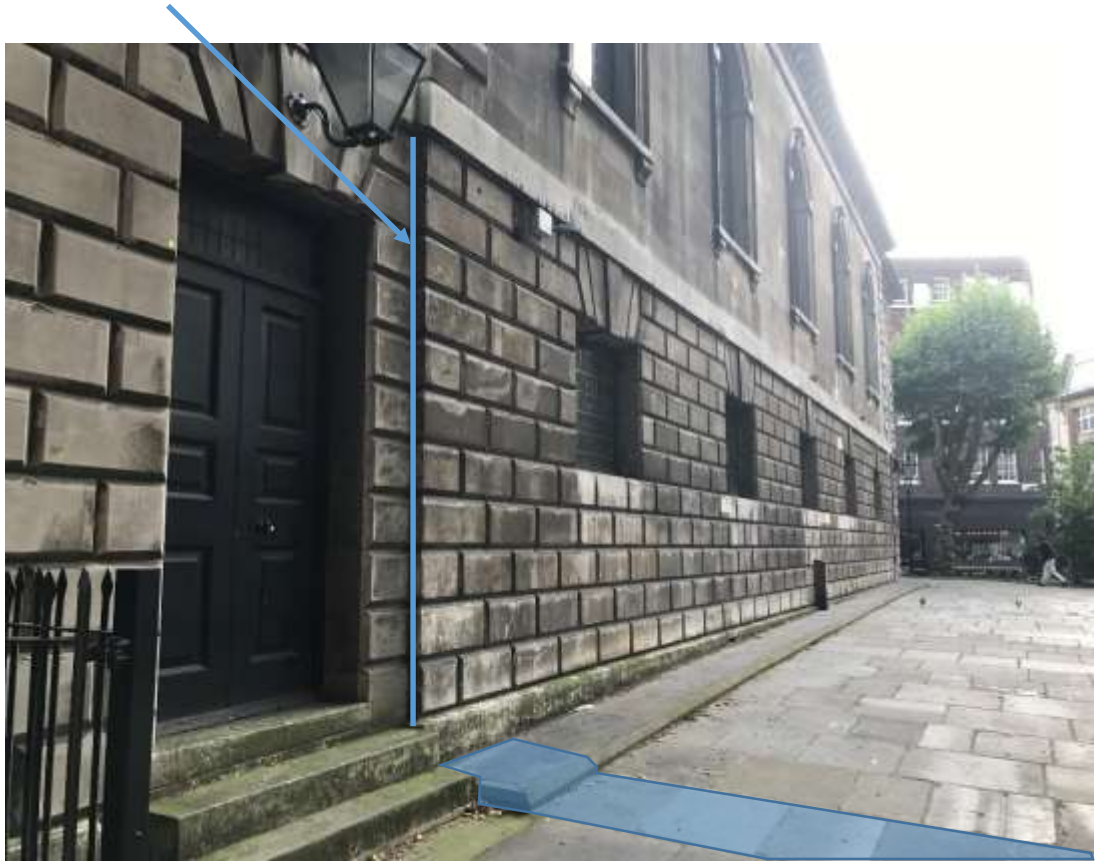
GROUND LEVEL

MICC cable to be dressed into contours of the stone archway and fixings to be within the mortar sections only. MICC cable to be painted with an exterior grade paint to a shadowed colour of the stone archway. Architect to approve colour selection prior to painting.

Luminaires located to top of archway and fixed to a 800mm x 30mm x 5mm primed and powder coated black flat bracket.
Resin fixings required to fix bracket to top of arch to and provide longevity and minimal disruption to stone.

LAMPOST

MICC cable to be taken from internal connection box to supply above door lantern. Wiring to be taken under marked slabs to grass area.



Cable taken under marked slabs and laid in a hand dug trench (500mm minimum depth) to post location.

BRACKETS

PARAPET

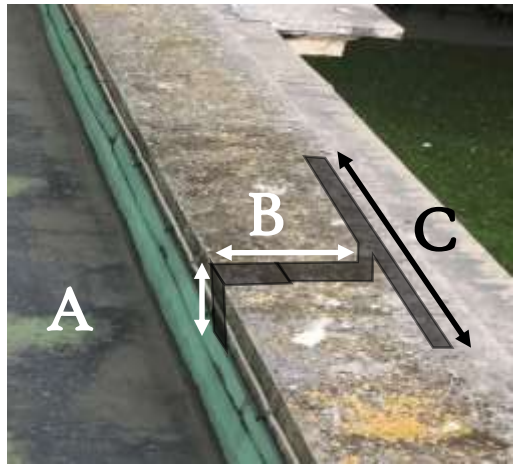
8 qty flat brackets
500mm x 30mm x 5mm
primed and powder coated black.
Two resin fixings to secure bracket on nut and bolt fixings so that bracket can easily be lifted with disruption to stone and light fitting brought into parapet level for maintenance.

LANTERN

8 qty flat brackets
500mm x 30mm x 5mm
primed and powder coated black.
Two resin fixings to secure bracket on nut and bolt fixings so that bracket can easily be lifted with disruption to stone and light fitting brought into lantern for maintenance. Channel to secure mesh to be cut around flat bracket.

SPIRE

3 x T brackets to house 3 qty Luminaires to illuminate the lower tower, upper tower & Window sections. The T bracket to be fixed in the side of the parapet capstone using stainless steel screws. This will protect against any fixings to the capstones. 30mm width, 5mm depth primed and powder coated black. A = 100mm B = 300mm C=800mm



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