LIGHT PERCEPTIONS

Lighting Consultancy and Project Management for Historic Buildings

Headington Quarry, Holy Trinity

Lighting Design Concept Report

3612R2v1 : September 2020

CONTENTS

This report should be read in conjunction with
the following drawing issued separately in pdf format

3612D001A

1. Introduction

1. INTRODUCTION

. . . . . from Headington.org.uk. . . . .

Holy Trinity Church in Headington Quarry looks ancient, but in fact it only dates from 1849. It is built in the fifteenth-century decorated style, with a nave, north aisle, south porch, and a gable bell-cote with two bells at the west end. It was designed by George Gilbert Scott (who also designed the Martyrs' Memorial and Exeter College Chapel.

Samuel ("Soapy Sam") Wilberforce, Bishop of Oxford from 1845 to 1869, was instrumental in getting the church built in Quarry, which seems to have been regarded as a heathen outpost of Headington. In On 24 October 1847 at St Aldate's Church in Oxford, he delivered a sermon against sin, in the hope of persuading local worthies and members of the University of Oxford (the source of Quarry's evil reputation) to stump up for a new church in what he describes as a "wild, rural district". The sermon was later published with a list of subscribers, with this preamble

> *It is proposed to procure, if God permit, the blessing of a Church, with a Parsonage and Endowment, for the Hamlet of Headington Quarry, near Oxford. To those acquainted with the circumstances of that Hamlet no arguments are necessary to convince them of the importance of attempting to improve its condition. In a spot, removed from observation, very disadvantageously circumstanced for receiving the ministrations of religion, but within near access from a neighbouring University town, evil has found its ready home; and the accumulated mischief of many years is the reason, the peculiarly pressing reason, for attempting to furnish to this place those spiritual provisions which, even under ordinary circumstances, its situation would seem to solicit.*

In the preface to the sermon the Bishop stated that Headington Quarry had been "long cursed by the neighbourhood of Oxford vice",

The stone for the erection of the church was given by Mr Burrows, one of the Churchwardens of St Andrew's Church; but the work of building the church was rather pointedly not given to local masons, but to George Wyatt of Oxford. Many local people initially boycotted the church that had been thrust upon them from outside.

2. The Church Building Project

2. THE CHURCH BUILDING PROJECT

Holy Trinity church was built in 1849, with the young George Gilbert Scott as architect. It is a small building, but beautiful and much loved. Like most churches it has been altered in many ways over the years, to keep pace with the congregation's changing requirements:

• Early in the last century the heating and lighting systems were totally replaced and the plaster on the roof was removed

• At various points in the century the chancel furnishings were altered and expanded

• After World War II the east window (now in the Lady Chapel) was replaced by the Christ in Majesty by Sir Ninian Comper

• In 1969 the present vestry was added

• In 1992 the current organ by Kenneth Tickell was installed, making space for the creation of the Lady Chapel. The east end tapestry and other features date from this time.

So, every generation has played its part in ensuring not only that the building is well cared for, but that it is sensitively adapted to meet changing requirements.

Today Holy Trinity has a thriving congregation, but it lacks quite a number of the modern facilities it needs for the church to grow, develop, and serve the local community for the coming decades. The parish is now raising money to provide some of those facilities, in a way that is compatible with the unavoidable limitations of the site, and that constitutes a sensitive response to Scott’s design.

Over the course of almost a decade, there have been extensive discussions in the congregation and the community. The results of these consultations have fed in to a final agreed plan which has received the necessary approvals and can be set out under the following four main areas:

An extension to the north that includes

- a re-designed vestry space for choir, clergy, and servers allowing more space to prepare for services
- an accessible toilet and a kitchenette with serving hatch for refreshments and facilities for flower arranging
- a meeting room which can also be used as a creche and for activities for the youngest children
- a small store room

Modifications at the back of the church

- removal of the rear two rows of pews with new storage cupboards to help reduce clutter
- relocation of the font without its bulky base, increasing the space available for storing new stackable chairs

Modifications at the front of the church

- removal of the front row of pews to allow easier access for wheelchair users and those less mobile
- extension of the chancel to give greater visibility to the lectern and service leaders
- a ramp to allow wheelchair users to access the chancel
- new movable, and more comfortable, choir and clergy stalls that will make the chancel space more versatile

Throughout the church

- the interior will be completely redecorated

&

- there will be a complete new lighting system which is described in the following report . . . . . .

3. Background and Brief

BACKGROUND AND BRIEF

- Principal Purpose

The principal purpose of the Church is as a place of Christian worship and the thriving spiritual home of the local community.

- Significance

This is a fine Grade II listed building, which the summary of importance in the listing statement describes as

> *This is an early commission by George Gilbert Scott, a leading figure in the Victorian Gothic Revival. This is an assured design and a convincing evocation of a late medieval church. The association with C.S. Lewis is also of note. It has further historic interest as the fruits of a characteristically evangelical C19 church-building campaign.*

Worshippers at Holy Trinity have included the novelist C.S. Lewis (for 30 years a member of the congregation) and his brother Warren ('Warnie'); a plaque marks where they sat, and a Narnia window was consecrated in 1991. Both are buried in the churchyard, as are William Merry Kimber, the father of the English Morris dance tradition, and Robert Doyne, eye surgeon.

- The Existing Lighting and Electrical Installation

The existing lighting consists of a small number of halogen spotlights which provide patchy illumination across the nave, aisle, chancel and chapel. Generally the light fittings are in poor condition. The wiring is in untidy, domestic “twin and earth” cabling which is very visible and undermines the aesthetic calm of the building's interior.

The assessment of the Building Project Steering Committee is that a new lighting system is required that is fit for purpose and can support the next phase of life within Holy Trinity.

CORNERSTONES OF THE BRIEF

- Worship

to provide appropriate lighting for all services, taking account of the extension to the chancel and the important liturgical points of focus. There should be good general lighting for the congregation with additional emphasis for the celebrant and generally around the table, enhancing the liturgy in its different forms

- Architectural and Liturgical Features

Lighting should be used to enhance the church's fine interior, delicately uplighting the ceilings, to complement the ongoing restoration works sympathetically.

- Wider Community Engagement

to provide an adaptable, flexible and easy to use system suitable for a more diverse range of gatherings in the church.

- Safety
  - There should be safe and effective lighting for the staircases, entrances and steps.

- Emergency
  - There should be an adequate provision for emergency lighting.

- Controls
  - The lighting controls should be reliable, flexible and easy to operate.

4. Historic Lighting

HISTORIC IMAGES

Nave (1901)

There are few available images which show past lighting schemes in Holy Trinity.

This images from 1901 shows paraffin lamps suspended in the nave and on standards in the choir.

It is likely that the first electric lighting system was installed within the subsequent ten years although no photographs of this have yet been found.

5. The Existing Lighting

EXISTING LIGHTING

A spotlight in the north west corner of the nave. Also shown is a bundle of cables running up the wall and then clipped to the wall post.

EXISTING LIGHTING

Just to the west of the south door, domestic wiring to a local light switch and cables running horizontally behind the top of the book case.

EXISTING LIGHTING

At the west end, more cables clipped to a timber batten below a window.

EXISTING LIGHTING

Typical view of lighting in the nave with fittings positioned low on the wall posts – creating significant glare and flaring on the south wall.

EXISTING LIGHTING

Image Left:
The light fittings in the north aisle.

Image Right:
A Flemish pendant in the Lady Chapel.

EXISTING LIGHTING

In the chancel above the organ, fittings at the top of the wall plate – again with glare and flaring to the wall.

EXISTING LIGHTING

A single lantern hangs in the south porch.

6. The Options Appraisal

THE OPTIONS APPRAISAL

Initial discussions were held in church with the Architect and Incumbent where the current and past lighting systems were discussed.

Typically for buildings of this type there are three ways in which a new lighting scheme can be approached – these can be described as follows:

- A pendant lighting scheme with fittings suspended from the roof or ceiling structure.
- A new spotlighting scheme with fittings mounted at ceiling level or on the cornice ledges.
- A scheme using wall mounted fittings that could provide both upward and downward light.

In carrying out an options appraisal we found that the asymmetric nature of the building, in particular the lack of an aisle to the south, does not offer the possibility for a pendant lighting scheme as there is no consistent location from which to hang such fittings. The precedent of the paraffin lamp scheme is helpful in illustrating how the success of any such scheme would be unlikely.

Equally the currently unencumbered nave walls are a very pleasing part of the interior appeal and do not lend themselves to the additional of wall mounted uplights and downlights.

The recommendation therefore is to develop the design of a scheme for discrete spotlighting with the fittings placed in the most inconspicuous position – i.e. alongside the king posts above wall plate level rather than the current location alongside the lower wall posts.

7. Impact Assessment

IMPACT ASSESSMENT

- Aesthetic Impact

The aesthetic impact of the new lighting scheme will significantly improve the presentation of the interior of Holy Trinity. Great care should be taken to ensure that the final finish of the new installation will ultimately add positively to the interior aesthetic. Wiring routes are to be devised in such a way that minimises their visual impact on the interior, re-using existing routes along the top of the wall plates but the very eliminating unsightly low level surface cabling wherever possible. Light fittings and other equipment will not be fixed to sensitive fabric nor obscure any important details or detract from the character of the specified areas.

- Quality and Standards

The careful choice of finish for wiring and equipment will be made to reduce its visual impact. Consideration has been given to access for ongoing maintenance of equipment and fire safety. No heat generating equipment will be fixed near to timbers or flammable fabric. The full specification and scope of work will sets a very high standard for all works associated with this project.

- Execution

Only electrical contractors who are highly experienced in working with heritage buildings and will be invited to tender for these works. They will be required to provide method statements and risk assessments ensuring that all works will be planned to take precautions and care so as to prevent damage to the historic fabric of the building.

- Supervision

The Lighting Consultant will, in conjunction with the Inspecting Architect, inspect the works, advising on progress and overseeing the commissioning and handover of the scheme. Notwithstanding, all works are to be completed to the final approval of the Inspecting Architect.

8. Lighting Design Visuals

8. Lighting Design Visuals

i. General View

General View

Existing view

General View

Accent to Altar

General View

Accent to Reredos

General View

Accent to Chair

General View

Wash to Organ

General View

Wash to Chancel

General View

Accent to Pulpit

General View

Accent to Lectern (Portable)

General View

Wash to Concert Area

General View

General Downlight

General View

General Downlight

General View

Wash to Chapel

General View

Wall Wash to North Aisle

General View

Chancel Ceiling Uplight

General View

Nave Ceiling Uplight

8. Lighting Design Visuals

ii. Nave, looking west

The Nave

Looking West

The Nave

Existing Fittings Removed and Font Relocated

The Nave

Accent to Font

The Nave

Accent to Panel

The Nave

Wash to Welcome Area

The Nave

General Downlight

The Nave

General Downlight

The Nave

General Downlight

The Nave

North Aisle Wall Wash

The Nave

Nave Ceiling Uplight

8. Lighting Design Visuals

iii. East End

The East End

Existing view

The East End

Accent to High Altar

The East End

Accent to Reredos

The East End

Accent to Step

The East End

Wash to Sanctuary

The East End

Downlight to Choir Stalls (as existing)

The East End

Uplight to Window

The Chancel

Ceiling Uplight

7. Lighting Design Visuals

iv. The Chapel

The Chancel

Existing view

The Chapel

Wash to Table

The Chapel

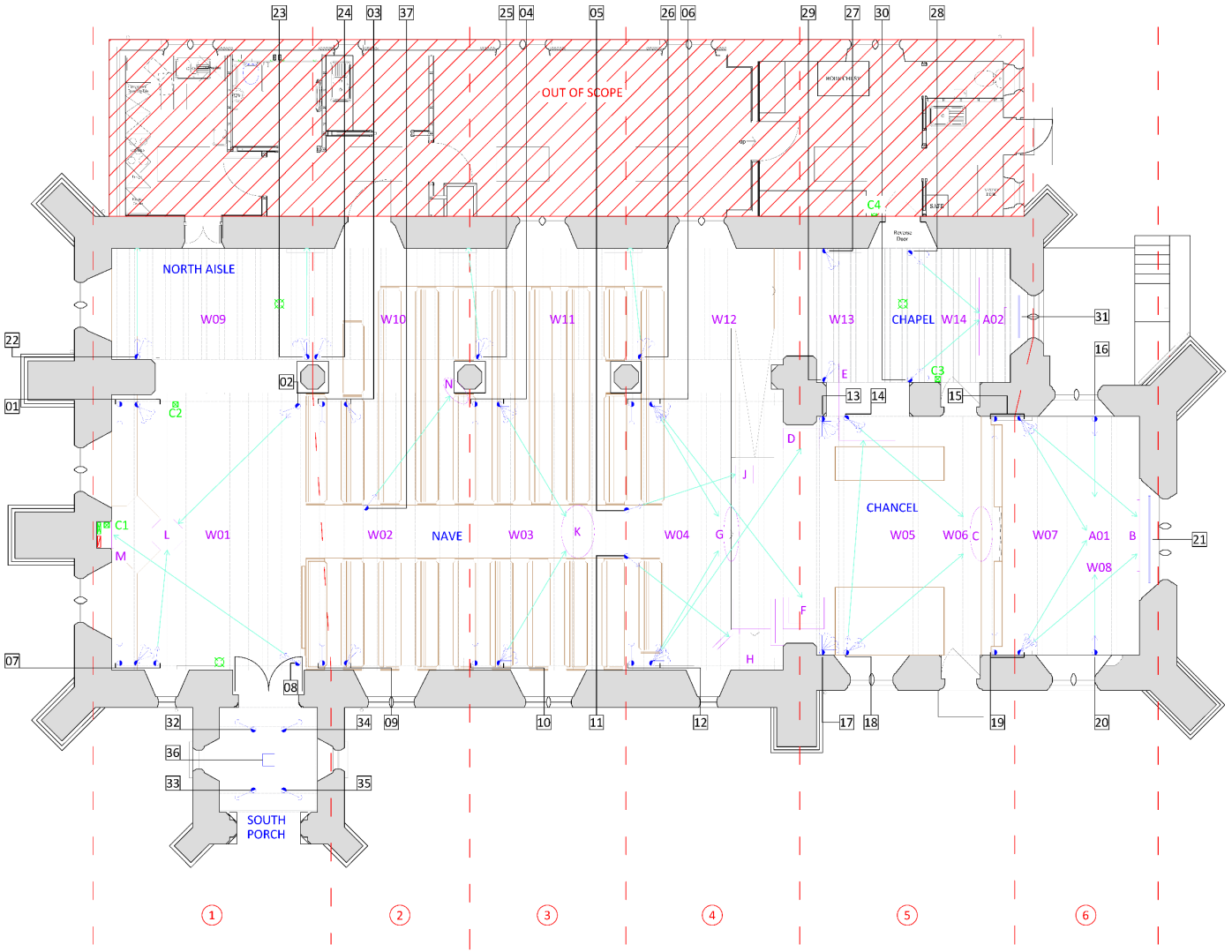
General Downlight

The Chapel

Pendant Ambient Light

9. Schematic Layout

Area of Building	Number Ref	Fitting Ref	Control Number	Focus / Purpose	Number Ref	Fitting Ref	Control Number	Focus / Purpose
NAVE	1				2			
	(WEST)	DD01	C1.17	UPLIGHT	(TOP)	BB02	C1.05	WELCOME
	(TOP)	AA01	C1.01	W01	(BOT)	CC01	C1.08	L
		AA02	C1.01	W01				
	(BOT)	BB01	C1.05	WELCOME				
NAVE	3				4			
	(WEST)	DD02	C1.17	UPLIGHT	(WEST)	DD03	C1.17	UPLIGHT
	(TOP)	AA03	C1.02	W02	(TOP)	CC02	C1.11	K
	(BOT)	AA04	C1.02	W02		BB03	C1.05	W04
						BB04	C1.06	W04
						AA05	C1.03	W03
					(BOT)	AA06	C1.03	W03
NAVE	5				6			
		CC03	C1.12	J	(WEST)	DD04	C1.17	UPLIGHT
					(TOP)	CC04	C1.14	G
						CC05	C1.16	F
	37					BB05	C1.07	W05
		CC08	C1.10	N		BB06	C1.07	W05
						AA07	C1.04	W04
					(BOT)	AA08	C1.04	W04
NAVE	7				8			
	(WEST)	DD05	C1.17	UPLIGHT	(TOP)	BB08	C1.05	WELCOME
	(TOP)	AA09	C1.01	W01	(BOT)	CC07	C1.09	M
		AA10	C1.01	W01				
	(BOT)	BB07	C1.05	WELCOME				
	(EAST)	CC06	C1.08	L				
NAVE	9				10			
	(WEST)	DD06	C1.17	UPLIGHT	(WEST)	DD07	C1.17	UPLIGHT
	(TOP)	AA11	C1.02	W02	(TOP)	CC09	C1.11	K
	(BOT)	AA12	C1.02	W02		BB09	C1.06	W04
						BB10	C1.06	W04
						AA13	C1.03	W03
					(BOT)	AA14	C1.03	W03
NAVE	11				12			
		CC10	C1.13	H	(WEST)	DD08	C1.17	UPLIGHT
					(TOP)	CC11	C1.14	G
						CC12	C1.15	D
						BB11	C1.07	W05
						BB12	C1.07	W05
						AA15	C1.04	W04
					(BOT)	AA16	C1.04	W04
CHANCEL	13				14			
	(TOP)	DD09	C1.29	UPLIGHT	(TOP)	CC13	C1.24	C
		BB13	C1.20	PEWS		BB15	C1.21	W06
		BB14	C1.20	PEWS	(BOT)	BB16	C1.21	W06
		AA17	C1.18	W05				
	(BOT)	AA18	C1.18	W05				
CHANCEL	15				16			
	(WEST)	DD10	C1.29	UPLIGHT		CC16	C1.27	A01
	(TOP)	CC14	C1.25	A01				
		CC15	C1.26	B				
		BB17	C1.22	H/ALTAR+				
		AA19	C1.19	W07				
	(BOT)	AA20	C1.19	W07				
CHANCEL	17				18			
	(TOP)	DD11	C1.29	UPLIGHT	(TOP)	CC17	C1.23	E
		BB18	C1.20	PEWS		CC18	C1.24	C
		BB19	C1.20	PEWS		BB20	C1.21	W06
		AA21	C1.18	W05	(BOT)	BB21	C1.21	W06
	(BOT)	AA22	C1.18	W05				
CHANCEL	19				20			
	(WEST)	DD12	C1.29	UPLIGHT		CC21	C1.27	A01
	(TOP)	CC19	C1.25	A01				
		CC20	C1.26	B				
		BB22	C1.22	H/ALTAR+				
		AA23	C1.19	W07				
	(BOT)	AA24	C1.19	W07	21			
						FF01	C1.28	WINDOW
N. AISLE	22				23			
	(TOP)	GG01	C1.34	WALLS	(TOP)	GG02	C1.34	WALLS
		GG01	C1.30	W09		GG03	C1.30	W09
	(BOT)	GG02	C1.30	W09	(BOT)	GG04	C1.30	W09
N. AISLE	24				25			
	(TOP)	GG05	C1.31	W10	(TOP)	GG03	C1.34	WALLS
	(BOT)	GG06	C1.31	W10		GG07	C1.32	W11
					(BOT)	GG08	C1.32	W11
N. AISLE	26							
	(TOP)	GG04	C1.34	WALLS				
		GG09	C1.33	W12				
	(BOT)	GG10	C1.33	W12				
CHAPEL	27				28			
	(TOP)	GG11	C1.35	W13	(TOP)	GA01	C1.37	A02
	(BOT)	GG12	C1.35	W13	(BOT)	GB01	C1.36	W14
CHAPEL	29				30			
	(TOP)	GG13	C1.35	W13	(TOP)	GA02	C1.37	A02
	(BOT)	GG14	C1.35	W13	(BOT)	GB02	C1.36	W14



Area of Building	Number Ref	Fitting Ref	Control Number	Focus / Purpose	Number Ref	Fitting Ref	Control Number	Focus / Purpose
CHAPEL	31							
		FF02	C1.38	WINDOW				
S. PORCH	32				33			
	(NW)	HA01	C1.40	WALLS	(SW)	HA01	C1.40	WALLS
S. PORCH	34				35			
	(NE)	HA03	C1.40	WALLS	(SE)	HA04	C1.40	WALLS
S. PORCH	36							
		HH01	C1.39	LANTERN				

CONTROL POINTS

- ☒ C1 (WEST END): 10+10 BUTTON NO RAISE / LOWER
- ☒ C2 (SOUND DESK): 10+10 BUTTON NO RAISE / LOWER
- ☒ C3 (CHAPEL): 10+10 BUTTON NO RAISE / LOWER
- ☒ C4 (EAST DOOR): 10+10 BUTTON NO RAISE / LOWER

INDICATIVE ONLY

0 1:50 @A1 5m

NOTES:

DO NOT SCALE FROM THIS DRAWING.

CONTRACTORS WILL BE REQUIRED TO VERIFY ALL SETTING OUT AND OTHER MEASUREMENTS ON SITE.

IMPORTANT:
THE SETTING OUT OF ALL LIGHT FITTINGS, CONTROLS AND ACCESSORIES IS TO BE SUPERVISED BY THE LIGHTING CONSULTANT.

FOCUS POINTS

A01 - HIGH ALTAR
A02 - CHAPEL ALTAR
B - REREDOS
C - SANCTUARY STEP
D - PIANO
E - ORGAN
F - CHAIR
G - CHANCEL STEP
H - PULPIT
J - PORTABLE LECTERN
K - GOSPEL SPOT
L - FONT
M - PANEL
N - ST GEORGE ICON

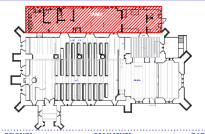
WASHES

W01 - WELCOME AREA
W02 - NAVE BAY 02
W03 - NAVE BAY 03
W04 - NAVE BAY 04
W05 - CHANCEL BAY 05
W06 - SANCTUARY STEP
W07 - SANCTUARY BAY 06
W08 - HIGH ALTAR WASH
W09 - NORTH AISLE BAY 01
W10 - NORTH AISLE BAY 02
W11 - NORTH AISLE BAY 03
W12 - NORTH AISLE BAY 04
W13 - CHAPEL BAY 05
W12 - CHAPEL BAY 06

DRAWINGS IN THIS PACKAGE:

D001 - INTERNAL LIGHTING GENERAL ARRANGEMENT
D021 - INTERNAL LIGHTING DALI LOOPS
D030 - INTERNAL LIGHTING CONTROL POINTS & WIFI COVERAGE

- SMALL FITTING SIZE
- MEDIUM FITTING SIZE
- LARGE FITTING SIZE
- WASH SPOTLIGHT
- ACCENT SPOTLIGHT
- UPLIGHT WASH
- UPLIGHT ACCENT
- DIMMER RACK
- DISTRIBUTION BOARD
- CONTROL POINT
- PIR



REVISION	COMMENTS	DATE
A	ISSUE 01 R4	08/09/2020

STAGE		STATUS	
	RIBA 2		PRELIMINARY
	RIBA 3		DRAFT
X	RIBA 4		APPROVAL
	TENDER		INFORMATION
	CONSTRUCTION		RECORD
	AS BUILT	X	FINAL

HOLY TRINITY CHURCH HEADINGTON QUARRY

INTERNAL LIGHTING GENERAL ARRANGEMENT

Drawing number: 3612_D_001 | Revision: A | Scale: 1:50 @ A1

LIGHT PERCEPTIONS

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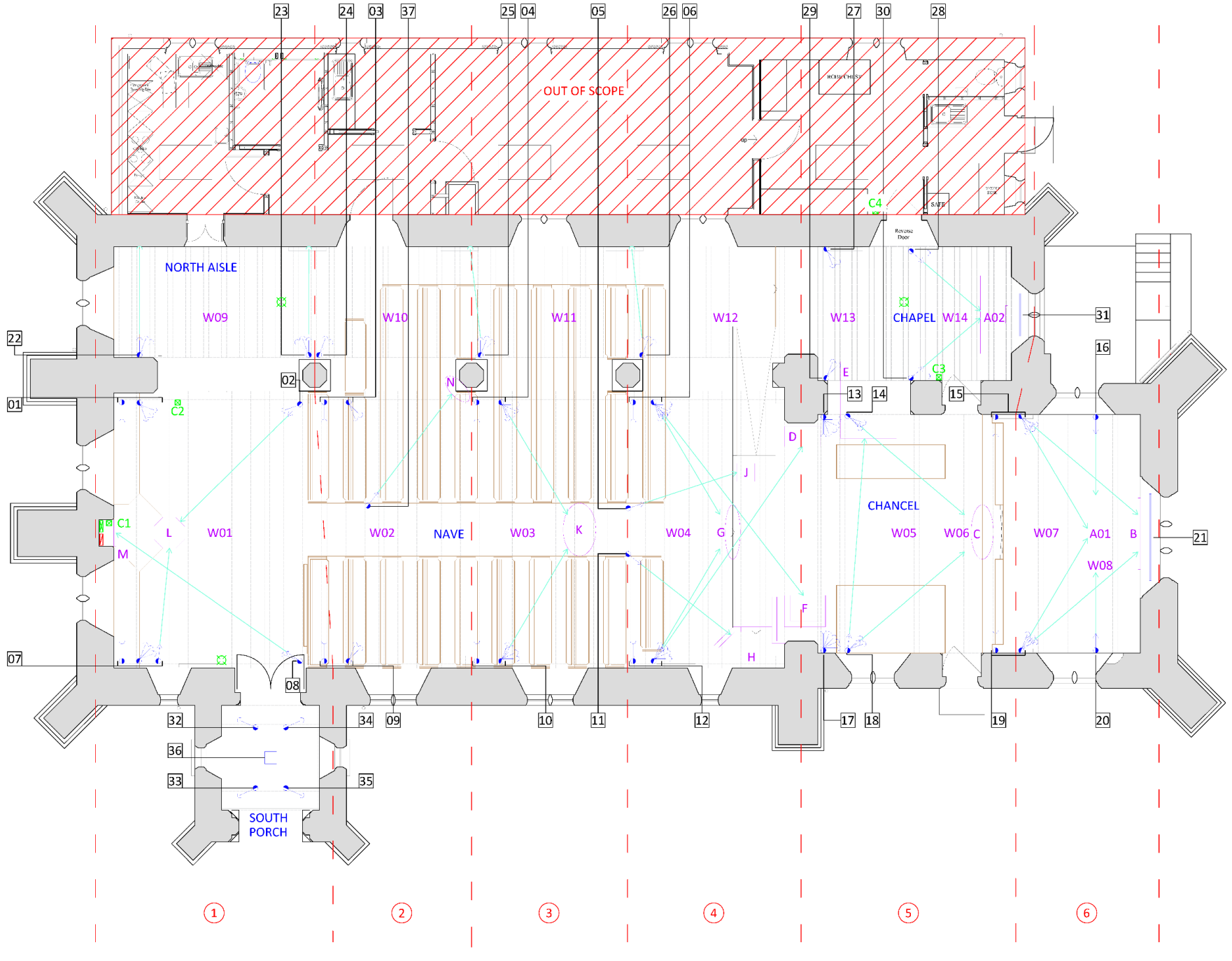
www.lightperceptions.co.uk


OUT OF SCOPE
NORTH AISLE
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SOUTH PORCH
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10. Typical Luminaires

TYPICAL SPOTLIGHT

Nave, high level
(wash lighting)

Circa 130mm dia

TYPICAL SPOTLIGHT

Aisle, high level
(wash lighting)

Circa 110mm dia

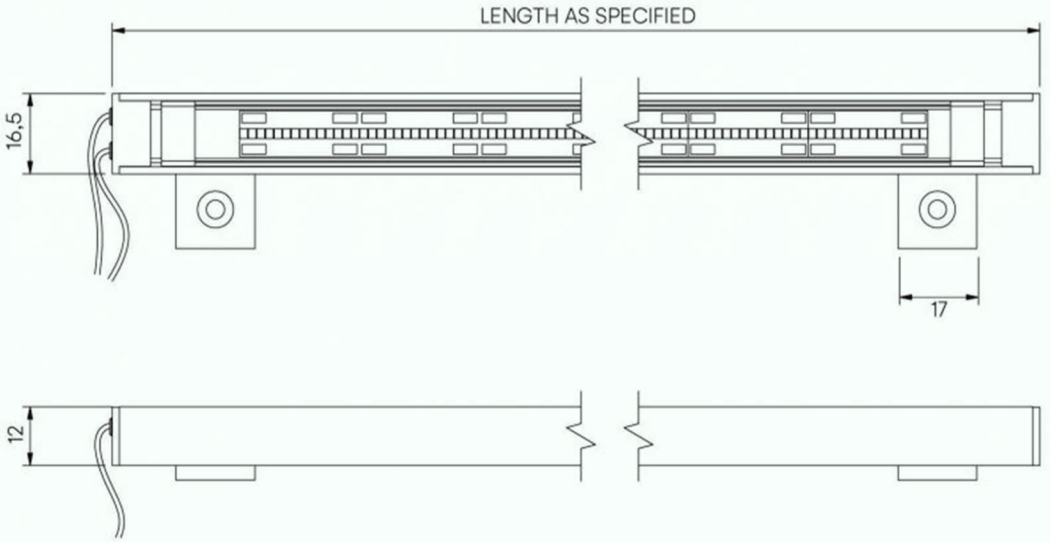
TYPICAL SPOTLIGHT

Nave, high level
(accent lighting)

Circa 130mm dia

LINEAR LED SYSTEM

Window uplight



11. Design Development

RIBA PLAN OF WORK

The Royal Institute of British Architects sets out a series of stages of work that apply to construction projects of all types – including specialist lighting installations such as this.

The following assessment shows the progress of this project against those work stages.

- RIBA 1&2 – Concept Design

This report provides information to the level normally required for RIBA2: - Concept Design

- RIBA 3&4 – Specification and Tender

RIBA 3 is the level of information normally required for Planning Permission or, in this case a Faculty under Ecclesiastical Exemption.
This stage will include full details of quantities and locations as well as the design of any bespoke fittings.
RIBA 4 is an additional level of technical information required for accurate tendering purposes

For projects of this nature and scale it is normally more cost effective to combine RIBA 3&4 works into one package.

- RIBA 5&6 – Implementation and Handover

RIBA 5 is the installation stage where the physical and electrical works are carried out.
RIBA 6 refers to the final adjustments of the scheme including focusing and scene setting.

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