



SPECIFICATION DOCUMENT

LIGHTING & ELECTRICAL DESIGN

CLIENT ADDRESS

St. Mary the Virgin Church
67-57 Churchgate
Cheshunt
Waltham Cross
EN8 9NH

PROJECT DETAILS

Design Practice: CES LLP
Project Number: 7970
Date: 18/12/2025

INDEX

1.1	 APPENDICES	3
	A. LUMINAIRE SCHEDULE & DATASHEETS	3
	B. LAYOUT DRAWINGS	3
	C. DIMMER PACK	3
1.2	 EXECUTIVE SUMMARY.....	4
1.3	 BRIEF & DESIGN INTENT	5
	BASIC INFORMATION.....	5
	ELECTRICAL & LIGHTING OVERVIEW.....	5
	PROJECT GOALS & CONTEXT.....	6
1.4	 CHURCH USE CASE	7
1.5	 OUR DESIGN PROCESS.....	8
1.6	 SCOPE OF WORKS	9
1.7	 PHOTOS AND IMAGERY	10
1.8	 ENVIRONMENTAL IMPACT	13
	ESTIMATED RUNNING COSTS & CO ² EMISSIONS.....	13
1.9	 MAINTANENCE & HEALTH & SAFETY	14
	MAINTANENCE STRATEGY	14
	FAILURE RATE.....	15
1.10	 GOOD PRACTICE & GUIDES.....	16
	RECOMMENDATION & GOOD PRACTICE GUIDES	16
1.11	 GENERAL INFORMATION	17
1.12	 CLIENT INSTRUCTIONS.....	22
1.13	 PARTICULAR SPECIFICATION	23
	ITEMISED TENDER ITEMS.....	23
	PROVISIONAL SUMS	30
1.14	 TENDER SUBMISSION SHEET	31
	COMPANY INFORMATION	31
	REFERENCES:	31
	TENDERER DETAILS	31
	PRELIMS - OUTLINE.....	32
	ALLOWANCES AND LIMITATIONS.....	32
	OTHER BUILDERS' WORKS IDENTIFIED.....	33
	LABOUR RATES & MARK UP	33
	LIST OF SUBCONTRACTORS	34
	ACCESS METHOD STATEMENT	34
	PROGRAMME.....	34
1.15	 TENDER RETURN SCHEDULE.....	35
1.16	 DESIGN RISK ASSESSMENT	36
1.17	 CONTACT DETAILS	43
1.18	END OF DOCUMENT	44

1.1 | APPENDICES

- A. LUMINAIRE SCHEDULE & DATASHEETS
- B. LAYOUT DRAWINGS
- C. DIMMER PACK

1.2 | EXECUTIVE SUMMARY

Executive Summary – St Mary’s Church, Cheshunt

The proposed electrical and lighting works at St Mary’s Church, Cheshunt have been carefully developed to modernise the existing installation, improve safety and functionality, and enhance the liturgical, architectural, and visitor experience of the church, while respecting and preserving its historic fabric.

The scope of works includes the removal of all obsolete and redundant lighting wiring, containment, and equipment throughout the church, with the installation of new wiring systems in accordance with the specification and accompanying drawings. Where practicable, unsightly surface clipped cabling and containment within the Aisles and beneath arches will be removed or rationalised to provide a neater and more visually acceptable installation for the future, while avoiding unnecessary disturbance to historic stonework.

A comprehensive new lighting design is proposed throughout the church, including all internal spaces and back of house areas. The lighting scheme has been developed to provide three distinct layers of illumination. Ambient lighting will be designed to comply with current CIBSE recommended light levels, providing even and comfortable illumination for general use. Service leading lighting will be provided to ensure those leading worship, reading, or performing within the church are clearly and appropriately illuminated. Feature lighting will be carefully introduced to accentuate significant architectural elements and important items of historic fabric, enhancing the legibility and appreciation of the building.

The existing obsolete exterior light fittings will be replaced with new LED projector luminaires, incorporating appropriate glare control to minimise light pollution and improve visual comfort, while providing effective illumination of the church exterior.

Within the main electrical cupboard, all existing distribution boards and associated electrical equipment will be renewed and replaced with new compliant distribution boards, incorporating modern protective devices to improve safety, reliability, and maintainability of the installation.

Minor small power additions are included within the Aisles and Chapels to provide additional socket outlets, reducing reliance on extension leads and improving flexibility for services, events, and maintenance activities.

The existing heating system is to be retained in its current form and will remain untouched as part of these works.

All new equipment will be selected for longevity, energy efficiency, minimal visual impact, and suitability for use within a historic environment. Installation methods will prioritise reversibility where practicable and will be coordinated to avoid damage to historic fabric. Overall, the scheme seeks to provide a sensitive, sustainable, and future-proof electrical and lighting solution that supports worship, enhances the building’s architectural character, and improves its use and enjoyment by clergy, congregation, and visitors alike.

1.3 | BRIEF & DESIGN INTENT

Basic Information

- Diocese: Canterbury
- Listed Status: Grade I
- Date Church was Built: 1418
- Budget (ex. VAT): £40-65k (aim to the lower end)
- Funding Source: Grant Applications
- Inspecting Architect: Michael Garber – Hanslip & Co Architects

Electrical & Lighting Overview

- **Wiring to be Retained:** No. New wiring is required for the proposed lighting system. Existing local small power circuits and back-of-house lighting wiring are to be retained where suitable.
- **Emergency Lighting Required:** No. The PCC will carry out an internal risk assessment, and emergency lighting is not included within the scope of this design.
- **Surge Protection Installed:** Yes. Surge protection devices are to be included within the specification at all electrical distribution locations.
- **Existing Wiring Review:** Requiring modification. The existing wiring is outdated and does not provide the flexibility or control required for a modern lighting system. Full replacement of the lighting wiring is therefore required.
- **Small Power:** Improvements are required and are noted on the layout drawings. Some existing wiring routes are visually intrusive, and revised routes have been developed in coordination with the inspecting architect.
- **Electrical Distribution Equipment:** The existing electrical distribution boards require rationalisation, which is included within the specification. A new submain and single-phase distribution board will be installed at the west end of the South Aisle, to provide future capacity for a toilet and kitchenette.
- **Existing Heating:** The existing heating infrastructure is to remain and all wiring, containment and equipment is to be retained.

Project Goals & Context

Vision and Objectives

The primary objective of the proposed lighting scheme is to create a calm, welcoming, and contemplative environment that enhances the spiritual and architectural qualities of the church. The lighting is intended to offer a gentle and respectful welcome to visitors arriving for prayer or reflection, while fully supporting liturgical use and those leading services. The design is deliberately minimalist and unobtrusive, ensuring that the lighting does not draw attention to itself, but instead enriches the experience of the space and reveals its form, materials, and focal elements with sensitivity.

The scheme will ensure the church is bright and visually clear, allowing the architecture, artwork, and liturgical elements to be easily seen without glare or harsh contrast. Carefully balanced light levels will support both quiet contemplation and larger gatherings, creating a space that feels open, uplifting, and reassuring.

The lighting design will be ecofriendly, prioritising energy efficient light sources and responsible control strategies. This approach reduces environmental impact while reflecting the church's commitment to stewardship and care for creation.

The system will be cheap to run, with low energy consumption and efficient operation helping to minimise ongoing costs. This ensures the lighting supports the church's mission without placing unnecessary strain on budgets.

Flexibility is a key consideration, allowing lighting levels and scenes to be easily adapted for different uses such as services, private prayer, concerts, or community events. This adaptability ensures the space can respond gracefully to both sacred and practical needs.

The scheme will be low maintenance, using durable fittings and long life light sources to reduce the frequency of lamp changes and technical intervention. This helps maintain the quality of the environment over time with minimal disruption.

Finally, the lighting will be **easy to use**, with intuitive controls that can be operated confidently by clergy, volunteers, and staff. Simple, clear operation ensures the lighting supports worship and daily use without requiring specialist knowledge.

Design Challenges and Practical Considerations

A key requirement of the scheme is ease of operation. The lighting system will be intuitive and straightforward to use, accommodating users with a wide range of technical familiarity, including clergy, volunteers, and visiting groups. All luminaires will be carefully positioned to achieve optimal performance, visual comfort, and consistency of illumination, while remaining discreet and visually recessive within the historic interior. Particular care will be taken to minimise glare, visual clutter, and unnecessary intervention to the building fabric.

Net Zero Carbon and Sustainability Commitments

In support of the church's Net Zero Carbon objectives, the existing halogen spotlight installation and associated cabling will be removed and replaced with a modern, energy-efficient LED lighting system. All new equipment will be selected to meet current TM65 and TM66 standards, with emphasis on low operational energy use, reduced embodied carbon, durability, and repairability. The scheme adopts circular economy principles wherever practicable, ensuring that the lighting installation represents a responsible, future-proofed investment aligned with best practice in sustainable and environmentally conscious design.

1.4 | CHURCH USE CASE

- Weekly Services & Events:
 - : Thursday morning
 - : Sunday morning
 - : Evensong
 - : 8am morning
 - : Weekday evening services
 - : Schools
 - : Founder days
 - : Christmas / easter
 - : Council service
 - : Weddings / funerals
 - : Baptisms
 - : Collage chapel services
 - : Coffee morning
 - : Chips and chaps and chat
 - : Prosecco and pudding
 - : Mother union
 - : Hand bells (vestry)
- Future Additions
 - : Open the church for wider and varied community events.
- Liturgical Leading Positions.
 - : High Altar
 - : Preach from Step, Lectern & Pulpit
 - : Font - Baptisms
 - : Chapel Altar
- Historical / Architectural Features
 - : Nave Roof
 - : Reredos
 - : Chapel Crucifix
 - : War Memorial
 - : East Nave Coat of Arms
 - : Organ Pipes
 - : Dodson Statue x 2
 - : East Window

1.5 | OUR DESIGN PROCESS

Site Brief & Survey – RIBA 1

- : A comprehensive site briefing was conducted involving in-depth discussions to understand the client group's aspirations and expectations, alongside detailed exploration of congregational, service-leading, and control requirements within the church.
- : The team carried out a thorough walkaround of the church, engaging with each historical element and documenting them extensively through photographs to capture intricate details essential for the design process.
- : A detailed site survey was undertaken, including precise measurements to support the development of 3D lighting models and CAD drawings, forming a technical foundation for the design phase.

Concept: CD – RIBA 2

The concept design was developed based on initial consultations with the client. The proposed lighting scheme focused on enhancing the space's visual and functional requirements, considering both aesthetic and energy efficiency goals.

34 concepts were considered

1. LED spotlighting within Nave & Aisles – Existing Positions
2. LED spotlighting from behind Nave arcades (Aisle side)
3. LED spotlighting from Aisle roof for both Nave & Aisle ambient lighting.
4. Suspended pendants were considered as a method of illuminating the main worship area,

This design was presented to the client for feedback, with opportunities for discussion and refinement.

Decision: Concept 3 - Discreet LED spotlights in the Aisles were preferred and felt a great improvement to the existing obtrusive positions within the Clerestory windows.

Detailed Design (DD): RIBA 3

Following the trials, the design was refined into a detailed package. This included technical specifications, fixture schedules, control systems, and energy calculations. Drawings were created to show precise locations for wiring and products. The design ensured compatibility with the existing infrastructure while optimising performance and sustainability.

Trials:

In-situ lighting trials were conducted using sample fixtures to demonstrate the proposed solution's performance. These trials allowed the client to experience the lighting firsthand, assess light levels, colour temperature, and fixture placement. Adjustments were made based on the client's feedback and functional requirements identified during the trials.

Technical Design (TD): RIBA 4

The finalised design was prepared for implementation, incorporating any necessary revisions from the detailed design phase. This included the preparation of working drawings, detailed wiring plans, and a comprehensive luminaire schedule. The technical design phase ensured that all systems were ready for installation with minimal disruption to the site.

1.6 | SCOPE OF WORKS

The scope includes the following areas:

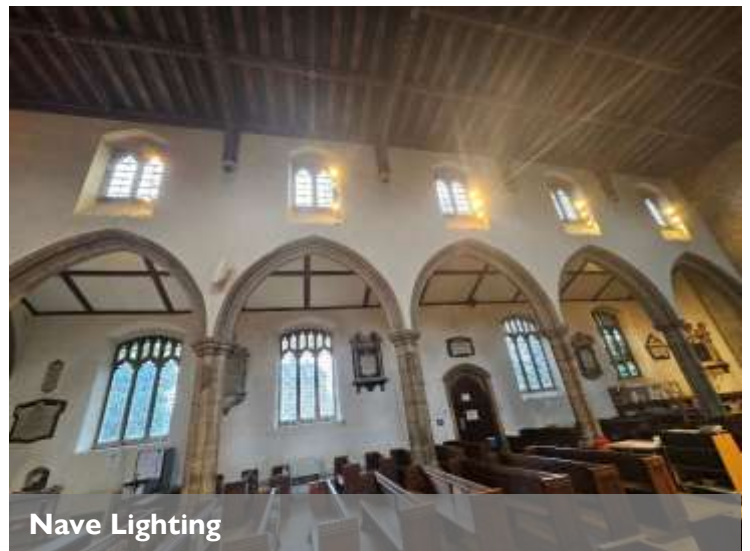
- : Main Worship Space
- : Internal Tower Lighting
- : Vestry
- : Clock Chamber
- : Ringing Room
- : Belfry
- : Porch internal and external
- : External Tower – Replacement exterior light the tower + Clock faces + Flag
- : Small power improvements
- : Distribution Board overhaul
- : New submain to West end for future provision

Out of Scope

- Emergency Lighting
- Retained and existing small power circuits.

1.7 | PHOTOS AND IMAGERY

- EXISTING CHURCH LIGHTING

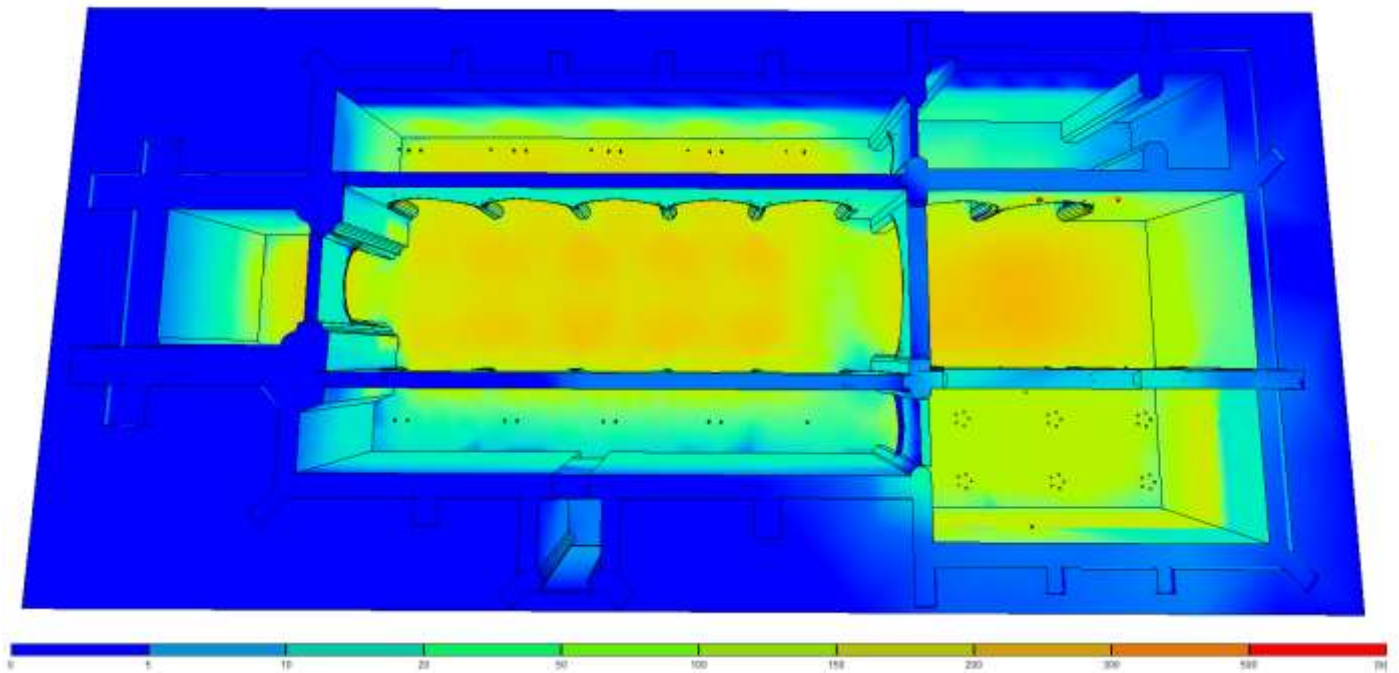


- EXISTING CHURCH WIRING & FUSEBOARDS

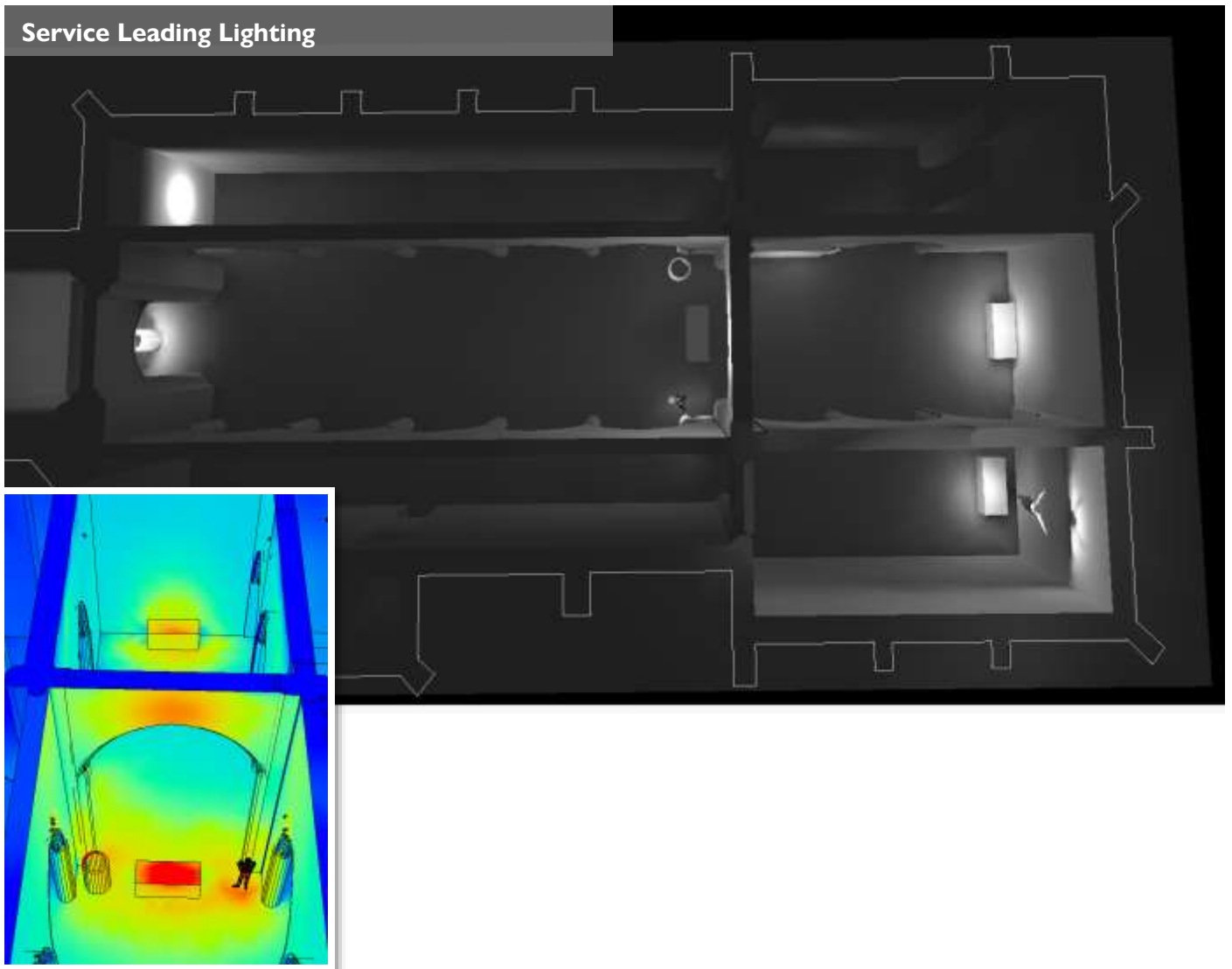


- PROPOSED LIGHTING ILLUSTRATIONS

General Lighting – Lux Levels – One Aisle Calculation Only



Service Leading Lighting



1.8 | ENVIRONMENTAL IMPACT

ESTIMATED RUNNING COSTS & CO² EMISSIONS

This represents a significant step toward meeting the church's sustainability goals and reducing its environmental footprint.

Existing Lighting (Estimate)	Total Wattage
Total Wattage (W)	9,170

Proposed Lighting (Estimate)	Total Wattage
60% Wattage Load	2,757
100% Wattage Load	

Running Cost Calculation	Value
Hours use per week	20 (h)
Estimated elec. cost	£0.30 (per kWh)
Existing Total Cost per Week	£ 55.02
Proposed Total Cost per Week	£ 16.54
Total Running Cost Saving Per Year	£2,000.96

UK kWh rate taken from current rate at time of document completion.

Calculations based on all proposed lighting at 100% brightness. Scene setting with dimmer system will reduce energy consumption and annual savings.

Calculations are also based on all old and existing lighting working (working lamps and fixtures)

All calculations are estimations based on the best knowledge at the time of creation.

1.9 | MAINTENANCE & HEALTH & SAFETY

MAINTENANCE STRATEGY

Access and Safety

Tower, Porch, Vestries.

Routine maintenance within the titles areas shall be undertaken using a treble combination ladder. All operatives must be suitably trained and shall comply with all site specific health and safety procedures at all times.

High Level Lighting

Maintenance to high level luminaires shall be carried out using an access tower. Engagement of a specialist contractor will be required to undertake these works, ensuring full compliance with current health and safety legislation and industry best practice.

All access and safety equipment, including ladders and harnesses, shall be subject to regular inspection and certification in accordance with applicable health and safety standards.

Cleaning and Dusting

Lighting fixtures shall be inspected, dusted, and cleaned at intervals not exceeding five years to prevent the accumulation of dirt and debris that may adversely affect light output. This shall include the cleaning of luminaires, glass diffusers, and lenses where applicable.

Fixtures located adjacent to windows or within high traffic areas may require more frequent cleaning due to increased exposure to dust, airborne contaminants, and general environmental factors.

Warranty and Support

Defects Liability Period

A defects liability period of twelve months shall apply from the date of practical completion. Any faults or defects arising within this period will be rectified at no additional cost to the client, provided the lighting system is operated in accordance with its intended design and use.

CES offers an optional annual inspection and maintenance service, including performance assessment of the lighting system, verification of luminaire alignment, and testing of emergency lighting. This service supports ongoing compliance, operational safety, and long term system performance.

All lighting fixtures and control systems are supplied with extended manufacturer warranties. Full details of warranty coverage and durations are provided within the Operations and Maintenance Manual. Any faults occurring within the applicable warranty period will be addressed in accordance with manufacturer terms.

Following expiry of the warranty period, repair or replacement of fittings shall be subject to quotation by the respective manufacturers or their appointed service agents.

FAILURE RATE

General Assumptions:

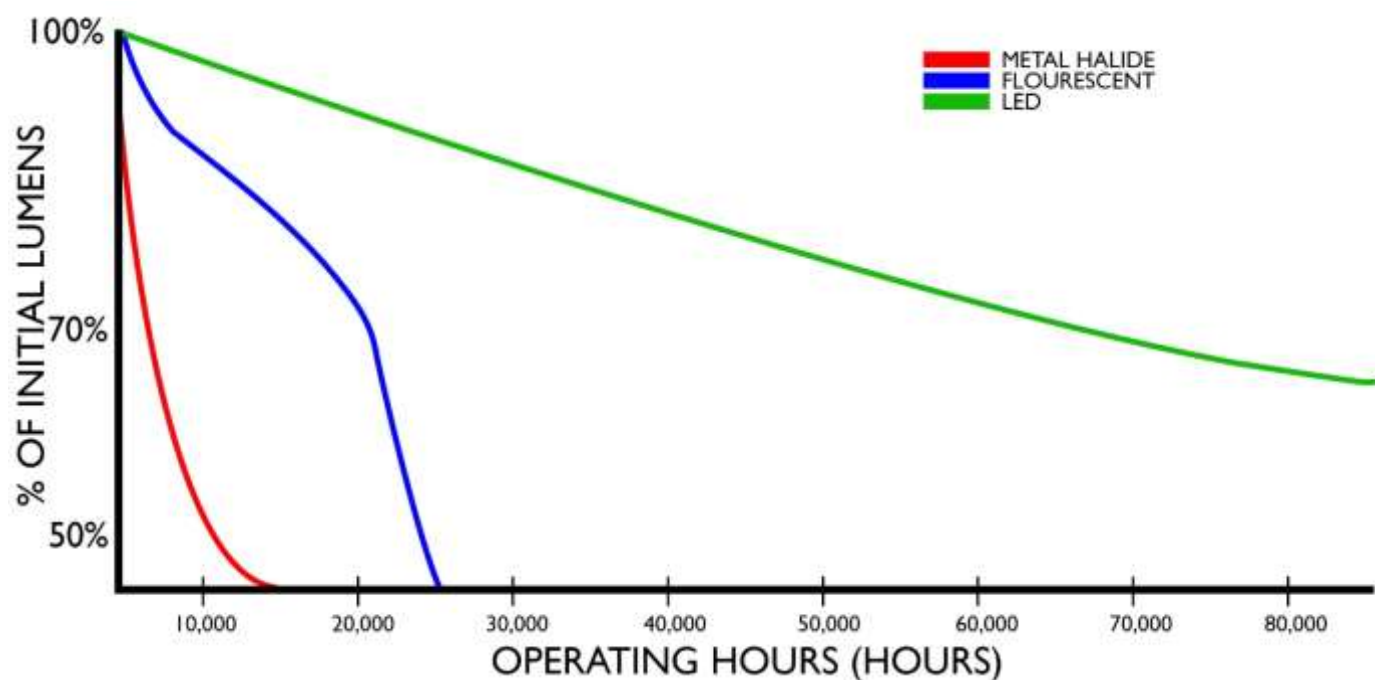
Technology	Anticipated Life Span
LED	50,000+ hrs
Metal Halide	15,000 hrs
Fluorescent	8,000 hrs
Compact Fluorescent	6,000 hrs
Mercury Vapour	12,000 hrs
High Pressure Sodium	10,000 hrs
Halogen	3,000 hrs
Incandescent	1,000 hrs

Depreciation

LEDs are assigned an L^* number and a B^* number. The L^* corresponds to the % of effective light output after a time period of >50,000 hours. It is an assumed period of >50,000 unless stated otherwise. The B^* corresponds to the quantity of fittings expected to reach that target.

A typical figure is L70 B50 – this indicated that at least 50% of the fittings will reach no less than 70% of their original light output over a time period of >50,000 hours.

Below is a Graph to show LEDs compared with traditional lighting technologies.



iGuzzini: 100,000h - L80 - B10 (T_a 25°C)
Lucent Lighting 50,000h - L85 - B10 (T_a 25°C)

1.10 | GOOD PRACTICE & GUIDES

RECOMMENDATION & GOOD PRACTICE GUIDES

Lighting Standards

- : ChurchCare – Guidance Note: Lighting
- : Church of England: Lighting Guidance for Cathedrals and Large Major Churches 2020
- : LG9: Lighting Guide 9 – CIBSE
- : LG13: Lighting Guide 13 – Lighting for Places of Worship - CIBSE
- : Historic England Guide to external lighting
- : Guidance Notes for the reduction of Light Pollution ILE 2005

Electrical Safety Regulations

- : BS7671:2018 - Requirements for Electrical Installations. IET Wiring Regulations
- : BS 5266 Emergency lighting – Part 1: Code of practice for the emergency lighting of premises.
- : ChurchCare – Guidance Note: Electrical Wiring Installations in Churches
- : Factories Act 1961
- : Electricity at Work Regulations 1989
- : Building Conservation Trust - Conservation Principles for Wiring Lighting Systems

Sustainability Guidelines

- : UK Waste Electrical and Electronic Equipment (WEEE) Regulations
- : Environmental Protection Act 1990
- : Clean Neighbourhoods and Environment Act 2005
- : Guide on the limitation of the effects of obtrusive light from outdoor lighting installations CIE 150:2003
- : TM66 Creating a circular economy in the lighting industry (2021)
- : TM65 Embodied carbon in building services (2021)

1.11 | GENERAL INFORMATION

Contract

CT MWD (2016) with contractor's design [CDP] applying to the design of the electrical infrastructure and installation.

CES LLP will act as the Lighting Designer through the project.

It is the responsibility of the Contractor to rectify all faults and defects free of charge to the Client for a period of 12 months from the Practical Completion date other than defects occurring as a result of abuse or maltreatment by others.

The Contractor is to understand the full requirements of the lighting design and be happy with all aspects prior to tender return submission.

Insurance

The contractor will be required to provide evidence of all appropriate insurances at a suitable level including Public Liability, Professional Indemnity and Employers Liability insurance.

Site Visits

It is a specific contractual requirement that the Contractor shall have inspected the site at the time of tendering and shall have fully informed himself as to all matters, difficulties etc., concerning the execution of the Works thereon and which may not be referred to in the Specification.

Attitude & Responsibilities

All parties are to strive for client satisfaction and the success of the project as of paramount importance. All materials and products used to be of high quality as expected and in-keeping with the latest British Standards.

Design effectiveness is the responsibility of the Lighting Designer.

Installation and ALL supplied products are the responsibility of the Contractor.

Site Supervisor

The Contractor will appoint a proficient site manager at the beginning of the project who will be responsible for the day to day running of the site. The site manager should always be available. If it is the case they are not to be on site for an extended period, then a temporary site manager must be assigned. The site manager is to keep all relevant documentation and records throughout the duration of the project.

Architects & Clients Documentation

The Contractor must have fully read, understood, and accepted the associated documentation issued by the Client & Architect in reference to the Lighting Design Project. Any variations between the Architects contract documents & this specification, the Contractor is to take the Architects documents as primary.

CDM

The contractor will also have design responsibility under CDM as Electrical Design Engineers. The contractor should advise if the project will be notifiable under the CDM regulations.

Health and Safety aspects of the works:

The works should comply with the Health and Safety at Work Act and the HSE Approved Codes of Practice - Management of Health and Safety at Work and Managing construction for Health and Safety.

The contractor's attention is drawn to the following points which should be included for consideration with regard to minimising risks to health and safety of the installing operatives, maintenance operatives, occupants and other building users.

An Asbestos survey is required prior to the start of the project. The Contractor can use any pre-existing reports available, if no such report is available then the contractor is responsible for ensuring the Client carry this out prior to the works.

Risk assessments and site rules should include mitigation methods against the spread of COVID-19 for all persons on or around the site. Working bubbles or groups should be out in place to allow works to continue should a positive test be identified during the project.

All government guidelines against the spread of COVID-19 should be adhered to.

Behaviour

The Contractor's employees are to behave in a manner suitable and in keeping with a place of Christian Worship. This includes but is not limited to smoking or vaping anywhere on site, behaviour that could be considered lude or rude and there must not be any broadcasting of music. Personal audio devices are also not permitted as these can pose a health and safety risk.

The Client reserves the right to request the removal of any person(s) from site. This shall not be without due notice and reasonable cause.

General Standards

All work and materials used within the works shall comply with all relevant British Standards and Codes of Practice. Only the highest standard of work will be accepted, and the Contractor's attention is drawn to producing an end product of the highest standard.

- : The current edition of BS7671. The Institute of Electrical Engineers' Regulations for Electrical Installations.
- : National Joint Utilities Group Publication No. 1, 2 and No. 6.
- : All relevant British Standards and Codes of Practice.
- : CIBSE Guides including Testing and Commissioning.
- : CIBSE Codes of Practice.
- : Construction (Design and Management) Regulations 2015.
- : The Building Regulations.
- : BS EN 62305 Protection against Lightning.
- : BS 5266 Emergency Lighting Code of Practice.

Electrical Design & Wiring

The Contractor is responsible for the electrical cable & circuitry design.

All Electrical design should be in accordance with BS7671:2018, The Electricity at Work Regulations 1989, The CDM Regulations 2015, Building Regulations, and all other relevant and applicable legislation / best practice guides.

The contractor is responsible to ensure that cable carrying capacities, determination of phasing and volt drop calculations all comply with BS7871 to the latest edition.

The electrical contractor shall, at all times, show the highest level of care and respect for this Grade 1 listed church, when carrying out the electrical installation.

The contractor must be familiar with the Guidance note from ChurchCare 'Electrical wiring installations in churches'

Once cable routes have been approved by the Architect, the contractor cannot deviate without further approval.

Black PVC coated cable to be used on stone or wood. White PVC cable to be used if clipped to white painted background.

Cables to be painted to the background finish where visible from floor level.

Painting of cables will be required to visible clipped cables throughout the project and the cost for this is covered under a separate tender item.

Cabling Strategy and Cable Type Hierarchy

The selection of cabling types within the building has been carefully considered to balance fire performance, mechanical protection, durability, and visual sensitivity appropriate to a historic setting. Cable types shall be used only in the locations and applications described below. Substitution or alternative routing shall not be permitted without prior written approval from the design team.

MICC Cabling – Low Level, Exposed, and Visually Sensitive Areas

Mineral insulated copper cable, MICC, shall be used only where cables are surface clipped at low level and are susceptible to mechanical damage, or where precise manipulation of the cable is required to achieve neat routing around decorative mouldings or within sensitive and visually prominent areas.

MICC shall not be used as a general cabling solution and shall be restricted to exposed locations where its durability and formability provide clear benefit. All MICC shall be 750 V heavy duty, BASEC approved, and of a single manufacturing origin. Where required, cables shall be provided with a low smoke fume outer covering of a colour appropriate to surrounding finishes.

Cables shall comply with BS 6387 Category CWZ fire performance requirements. Fixings, termination, and sealing shall be undertaken by suitably skilled operatives strictly in accordance with manufacturer's instructions and relevant British Standards.

SWA Cabling – High Level and Concealed Mechanical Protection

Steel wire armoured, SWA, cabling shall be used for high level installations within roof voids, wall plates, and other concealed or inaccessible areas where enhanced mechanical protection is required, including protection against vermin damage.

SWA cables shall be BASEC approved, of a single manufacturing origin, and selected to suit the installation environment. Cables shall be securely supported using appropriate proprietary fixings, with spacing in accordance with manufacturer's recommendations. Care shall be taken to avoid damage to the cable sheath and to maintain minimum bending radii.

Termination shall be undertaken using proprietary brass glands complete with earth tags, locknuts, and shrouds as appropriate. In damp or corrosive environments, exposed metalwork shall be suitably protected.

FP200 / Flexishield Cabling – Final Connections Only

FP200 or Flexishield cabling shall be used for final connections to luminaires only. This cable type is permitted where installed at high level, clipped direct to the building fabric, and not clearly visible from normal viewing positions.

Cable colour shall be selected to match the background material, with black used against timber surfaces and white used against light coloured stone or plastered walls. Where necessary, cables shall be painted to match adjacent finishes to ensure the installation remains neat and visually discreet.

FP200 or Flexishield cables shall not be installed within roof voids, wall plates, or other concealed spaces, as this cable type is susceptible to vermin damage. These cables shall not be used for distribution wiring or general containment routes.

General Installation Requirements

All cabling installations shall comply with current wiring regulations, fire performance requirements, and site specific conservation constraints. Cable routes shall be carefully coordinated to minimise visual impact and avoid unnecessary disturbance to historic fabric.

Any deviation from the above cabling hierarchy, including changes to cable type or routing, shall require prior written approval from the design team.

Check Dimensions

The contractor is to check all dimensions on site prior to ordering of materials and notify any discrepancies between site conditions and the production information.

Labelling

The Contractor is to allow for labelling at every main connection box, each driver housing along with the distribution boards and dimmer panels.

Each label should contain the D.B reference and circuit number.

Discrepancies

The contractor is to identify any discrepancies with their submission of tender, any items identified are to be considered as included within the contract.

In the event of any discrepancies not identified prior, the drawing should take precedent.

Contractor to ensure that the supplied quotation reflects the type & qty as specified within the luminaire schedule & drawing.

Where any possible doubt exists as to the meaning of words or terms used elsewhere in this Specification, it shall be the Contractor's responsibility to ask for clarification and confirm the definition in writing.

Disruption to Services

The contractor is to allow for regular use of the building during the contract period. It is the Contractors responsibility to ensure that disruptions are kept to a minimum and that prior notice of any disruption is provided to the client before the works commence. This includes but is not limited to weekend services.

The client is to advise of any weekday services that cannot be moved or cancelled. This includes but is not limited to Funerals, Weddings, and the like. The contractor must allow for these services.

The contractor is to allow a fixed cost for adequate temporary lighting and/or power which will allow the Church to operate safely during the duration of the contract.

The client is to provide a suitable storage area for the duration of the project, however any equipment, materials or products stored remain the responsibility of the contractor until fixed to the fabric of the building.

Deliveries & Storage

The contractor is responsible for taking delivery, unloading, handling, temporary storage and protection of all plant, equipment, and materials.

Contractor Affiliation

The Contractor must be registered as an Approved Contractor under the NICEIC.

Publications and Photography

The Contractor is not permitted to use any photographs for the use of Marketing/Social Media or Online Publication without permission from the Clients and CES LLP

Setting to Work

The Contractor shall arrange for a competent Engineer to attend site for a full day, 24 hours prior to the handover of the Works to the Employer and shall on that day rectify any faults and instruct the Employer in the operation of the plant.

The Contractor shall ensure that the aforesaid Engineer is fully conversant with the whole of the installation and competent to carry out adjustments and repairs to any part of the installation as may be necessary.

Programme of Works

The Contractor shall agree a detailed programme with the Contract Administrator at the earliest possible date. The programme shall include delivery dates of all goods and materials vital to the programme. Evidence shall be provided that the Contractor has checked with his suppliers, including nominated suppliers that such goods and materials can be made available at the required time.

Continuity of work cannot be assured in any one area, and the Contractor shall account for this in his tender.

The responsibility of preparing an accurate and practicable programme and for complying with it rests entirely with the Contractor, but two copies of the programme shall be submitted to the Contract Administrator for his information as soon as it has been agreed.

The Contractor shall arrange for a qualified representative to be present at all site meetings. He shall submit to the Contract Administrator detailed progress report covering the erection of all equipment and materials included in the Contract.

Form of Warranty

The Tenderer will be expected to complete and sign the Standard Form of Warranty, in respect of the works, immediately following certification that the works are complete.

Retention

A 5% retention will be applied to all Interim Payments, 2½ % of which will be released on completion of the Project including supply of As Installed Documentation and Manuals.

1.12| CLIENT INSTRUCTIONS

To support the safe and timely execution of the lighting scheme, the following actions are required of the client before and during the installation works:

Preparation of the Site

- **Moveable Items:** All *moveable furnishings*, including:
 - Portable altars or crosses
 - Lecterns, flower stands, display boards, etc....must be relocated from working areas, as far as is reasonably practicable.
- **Fragile or Valuable Artefacts:** Any *non-fixed* historic items within reach of work zones should be either:
 - Removed and stored safely, or
 - Clearly marked and discussed in advance if they must remain in situ.
- **Site Storage:** The Client is to identify and agree a suitable on-site location for the temporary storage of large items such as access towers. In addition, a secure area must be provided for the safe storage of tools, materials, and deliveries for the duration of the works.

Organ Protection

- **Responsibility:** The protection, covering, and safeguarding of the historic William Hill & Sons organ is the sole responsibility of the client and their appointed organ specialist.
- **Timing:** This should be completed prior to the contractor commencing works in that area.

Asbestos Survey

- **Mandatory:** A current asbestos survey be:
 - Supplied to the contractor before any on-site works begin.
 - Specifically reference any ceiling voids, risers, or wall chases that may be disturbed.

Access and Working Hours

- **Access Arrangements:** Ensure the contractor is provided with agreed access to the building, including:
 - Keyholding or supervised entry
 - Clear arrangements for security and lock-up procedures
- **Working Hours:** Confirm allowable hours for noisy or dusty work, particularly during services, rehearsals or community activities.

Communication and Coordination

- **Point of Contact:** A named individual (churchwarden, facilities manager or similar) must be appointed to:
 - Act as liaison for daily access, questions and clarifications
 - Receive progress updates and issue minor instructions

Permissions and Notifications

- The client is responsible for ensuring that:
 - All *faculty approvals* (if Church of England) or equivalent consents are obtained
 - Any required notices to insurers, trustees, or the DAC are made

1.13 | PARTICULAR SPECIFICATION

ITEMISED TENDER ITEMS

TENDER ITEM REF.	DETAIL
1.0	Prelims The contractor is to outline all required Preliminaries for the project and provide a fixed cost
2.0	Supply of General Lighting Luminaires (Ref: G01 – G015) The contractor shall provide a fixed cost for the supply only of luminaires and control gear as outlined on the Luminaire Schedules. Supply costs only. These costs are to include the additional chain and LED lamps for the Chapel Pendants & porch.
3.0	Supply of Service Leading Luminaires (Ref: S01 – S08) The contractor shall provide a fixed cost for the supply only of luminaires and control gear as outlined on the Luminaire Schedules. Supply costs only.
4.0	Supply of Feature Luminaires (Ref: F01 - F10) The contractor shall provide a fixed cost for the supply only of luminaires and control gear as outlined on the Luminaire Schedules. Supply costs only.
5.0	Supply of all Lighting Track The contractor shall provide a fixed cost for the supply only of all tracks as outlined on the Layout Drawings. Supply costs only.
6.0	Labour – To install all luminaires as described in items 2.0 – 5.0 The Contractor shall allow adequate time and costs to complete the entire installation of all luminaires described in items 2.0 – 5.0 as to the drawings and luminaire schedule. There will be no acceptance of increased costs during the contract with exception for pre-approved variations or extras. The Tenderer shall not charge additional costs except for authorised variations. All variations must be approved by the Client before works commence. Minor alterations, such as but not limited to; moving a fitting, moving cabling, shall be allowed for within initial tender costs. The positions of equipment etc., indicated on the drawings, are given for tendering purposes and the exact position will be decided during the Contract period. The Contractor's price shall include for any minor modifications that may be necessary. The Contractor shall allow for setting out and shall be responsible for the correctness of the positions, levels and dimensions of the whole of his works on site. Where detailed drawings do not form part of this Specification, the Contractor shall ensure that the setting out of plant and equipment permits it to fit into the space allocated and allows access for maintenance and replacement purposes. The contractor shall ensure that each luminaire is not obstructed in movement so that the light can directed to the designated area. Likewise, the contractor shall ensure each luminaire must be located in such a position in which the light is not obstructed by other luminaires or parts of the fabric.

7.0	Containment, Wiring, Accessories & Cables The contractor is to allow a fixed cost for: All containment and cable to complete the ENTIRE installation and all material such as: fixtures, protective devices and distribution, connection boxes, etc. of all luminaires described in sections 2.0 – 5.0 as to the drawings and luminaire schedule. Each DALI channel/zone is set out on the luminaire schedule and DALI drawing. The contractor is to ensure that the luminaires are connected to the correct DALI pair. Only by permission is the contractor allowed to deviate from the design specification and at no point can a DALI channel exceed that of 15 channels and 55 fittings. The Contractor will determine what mains voltage circuits supply the DALI channels being mindful not to overload the circuits. New Distribution boards are to be installed to supply all lighting circuits within the building. This will enable the circuits to be clearly identifiable for disconnection and future maintenance. All circuits are to be protected by an RCBO device. Each circuit will need to be marked on a layout drawing as part of the Operations & Maintenance manual. The existing fuse boards are to be rationalised to serve all other existing lighting and power circuits that are not associated to the new lighting design. The electrical contractor shall, at all times, show the highest level of care and respect for this Grade 1 listed church, when carrying out the electrical installation. Enclosures are always to be positioned where they are discreet and not seen from the floor level. When mounted to a wall plate or ledge they are to be set back from the edges so that they are out of view. All external enclosures should be IP66 or above rating and from a reputable manufacturer and agreed by the Lighting Designer. No Wiska or similar boxes to be used. Special consideration shall be given to the correct selection and protection of cables and equipment to suit the environment in which they will operate. In particular: : Heat : High humidity : Mechanical damage : Flexibility The wiring to be carried out in a manner which is sympathetic to the historic nature of the building. Fixing to be secured in the mortar unless adequate reason for fixing into stonework and approved by Architect. Existing fixing holes should be re-used where possible and appropriate to do so. All fixings and brackets are to be non-ferrous as to ensure there is no subsequent stationing or corrosion.
8.0	Access Equipment The Contractor is to provide a fixed cost for appropriate access for all luminaires described in items 2.0 – 5.0 as, this is to include any access specific protections (floor protections etc...) and health & safety (Harness equipment, signage etc...) The Contractor is to state their access methods for all areas and return in writing within the Tender. All contractors must have the required PASMA qualifications for working at height.
9.0	Protections The Contractor is to provide a fixed cost for all necessary protections to prevent damage to the building. The Contractor is responsible for any items within the building during the contract. It is advised that any delicate items that can be moved are identified, and the client asked to put in storage before installation begins. Items moved during the contract should be done so with care and replaced when the area is completed. Any items that cannot be moved and are in a high-risk area should be covered or boxed as appropriate. All mobile access towers or scaffolding must not damage the floor. For access equipment without specialist feet or wheels hard boarding must be laid and taped. Special protections are required for the Organ, the Contractor is to arrange protections with the Architect and the church organ builder.

10.0	Supply & Installation of Mode Lighting Dimming System and Controls. The contractor shall provide a fixed cost for the supply & Installation of the following, 1 x Mode eDIN enclosure fed from new MEM3 D.B - Enclosure to contain the following: - Network processor & power supply. 2 x DALI UBC Ballasts 1 x Trailing Edge Dimming Module 2 x 10 button control plate with antique bronze front plate and black buttons etched 1-9 + Off - Control Plate C1 – Vestry, Control Plate C2 – West end tower.
11.0	Commissioning and Focussing The Contractor shall allow for 2 'out of hours' evening focussing sessions each a 4-hour duration at the conclusion of the project. These must be completed when it is dark, and the Contractor is to provide the required access and labour to allow the focusing to take place under the instruction of the lighting designer. The Contractor is to allow for and arrange commissioning for all specialist equipment. (e.g., Dimming system, Emergency lighting system etc...) All Systems are to be commissioned under direction from the Lighting Designer.
12.0	Commissioning Mode System The Contractor shall allow for the necessary time to complete the commissioning for the dimmer system and include the cost of the dimmer companies own commissioning engineer (included in the Mode quotation). One of the commissioning days will follow after the completion of the project so that the client has time to use the system before identifying any changes required. The final commissioning day can then be planned to complete the changes necessary. CES LLP will be in attendance on each commissioning day. The contractor must provide a dedicated site engineer and any access requirements to support commissioning engineer during the commissioning period
13.0	Supply & Installation of Back of House Luminaires (Ref B01-B06) The Contractor shall provide a fixed price for the supply of all luminaires and control gear as identified within the Luminaire Schedules. Prior to installation, this item shall be reviewed with the lighting designer, architect, and client to confirm switch locations, control arrangements, and the intended design outcome. The Contractor shall allow for all works necessary to adapt and integrate existing cabling where it is deemed suitable for re-use, is neatly installed, and has a remaining service life in excess of ten years. Where existing cabling does not meet these requirements, new cabling shall be provided. The Contractor shall include for the supply and installation of all switches and control arrangements indicated on the layout drawings, including two-way switching, repositioning of switches, switch labelling, and any alterations required to achieve a safe, functional, and client-approved installation. Emergency Units to also be disconnected by a key switch for periodic testing purposes.
14.0	Emergency Lighting – Exit Signs, Certification & Log Book. Contractor to include a cost for: : The installation of test key switches to allow for periodic testing of all emergency lighting. : The issue of an emergency lighting logbook and emergency lighting installation certificate. This cost is to include the supply of three (3) exit signs as specified in the Luminaire Schedule. The contractor is to devise a solution that allows for the portable and temporary installation of the non-illuminated exit signs and submit the proposed method to the client for approval prior to installation.

Rationalisation of Distribution Boards

The electrical contractor shall allow a fixed cost for the rationalisation, replacement, and upgrading of distribution equipment as described below. All works shall comply with the current edition of BS 7671, relevant guidance notes, and local authority requirements. Equipment shall be new, fully certified, and labelled in accordance with statutory and best practice standards.

The intent of these works is to improve safety, resilience, future capacity, and coordination of supplies to the new lighting installation and associated retained circuits.

Main Electrical Cupboard, Vestry

New Label: Distribution Board DB 1

The existing main electrical cupboard within the Vestry is to be overhauled. Works shall include the provision of new containment, rationalised cable routing, and the installation of a new three phase MEM distribution board incorporating a minimum of eight spare ways to allow for future expansion.

DB 1 shall become the primary distribution board for the building and shall supply all sub main circuits, enabling the disconnection and complete removal of existing switch fuses.

The contractor shall allow for the renewal and neat installation of new colour coded, double insulated meter tails, together with new Henley blocks where required. All terminations shall be clearly labelled and accessible for inspection and maintenance.

This distribution board shall also supply all existing and retained circuits currently fed from the South Aisle fuse board. These circuits shall be adapted as necessary, extended or re-routed, and returned to the Vestry electrical intake cupboard for connection to DB 1. The South Aisle fuse board shall then be rendered redundant and removed where applicable.

Vestry Fuse Board

New Label: Distribution Board DB 2

The existing Vestry fuse board and any redundant wiring associated with it shall be removed.

A new single phase MEM3 distribution board shall be installed, complete with a minimum of four spare ways for future additions. This board shall serve as the dedicated supply for the lighting system within the main worship area.

All new and existing retained circuits connected to DB 2 shall be protected by individual RCBO devices, providing combined overcurrent and residual current protection in accordance with current regulations.

DB 2 shall supply all 230 volt lighting and control circuits associated with the new lighting installation.

A Type 2 Surge Protection Device shall be provided and installed to both the fuse board and the lighting dimmer panel to protect sensitive lighting control equipment from transient overvoltage.

The contractor is to include a sum to remove all redundant cabling and install new containment to ensure all wiring is neat and acceptable at this D.B location.

West End Fuse Board

New Label: Distribution Board DB 3

The contractor shall allow for the installation of a 3 phase 63 amp sub main supply cable feeding a 3 phase 4 way MEM3 D.B. All existing circuits from Tower D.B (D.B 3) is to be adapted and supplied by this new fuse board.

This distribution board is to serve future kitchenette and WC extensions. No final circuit wiring is included at this stage unless noted elsewhere, however all containment, capacity, and labelling shall be suitable for future connection without disruption to existing services.

A type 2 surge protection device is required.

General Requirements

All new distribution boards shall be clearly labelled with their new DB references, circuit schedules, and supply characteristics. As installed drawings, test certification, and commissioning data shall be provided at completion.

The contractor shall include all necessary isolation, temporary supplies, testing, and commissioning to ensure continuity of existing services during the works.

15.0

16.0

**Supply & Install Exterior Lighting Replacement
Luminaires, Controls, and Associated Works**

The Contractor shall provide a fixed price for the supply of all luminaires, drivers, control gear, and associated accessories as identified within the Luminaire Schedules and referenced on the lighting layout drawings.

Prior to commencement of installation works, the Contractor shall allow for a coordination review meeting with the lighting designer, architect, and client. This review shall confirm final switch locations, control zoning, scene setting, dimming strategy, and overall design intent. No deviations from the agreed design outcome shall be undertaken without written approval.

Existing Cabling and Adaptation Works

The Contractor shall allow for all works necessary to adapt, extend, and integrate existing cabling where such cabling is deemed suitable for re use, is neatly installed, compliant with current regulations, and is assessed to have a remaining service life in excess of ten years.

Where existing cabling does not meet these requirements, or where it cannot be safely or practically adapted to suit the new installation, the Contractor shall provide new cabling, containment, and terminations as required. All decisions relating to re-use or replacement shall be agreed with the design team prior to installation.

External Luminaires and Ancillary Works

The fixed price shall include the supply and installation of all mounting brackets required for luminaire references EXT04 and EXT06, together with the careful cleaning of the existing lanterns referenced as EXT01 and EXT02, prior to re commissioning.

The Contractor shall also allow for out of hours evening focusing sessions, attended by the lighting designer and client representatives, to accurately aim, adjust, and sign off the external lighting installation.

External Lighting Controls

The contractor is to allow for the supply and installation of a new astronomical Sangamo 71101 time clock to control all exterior lighting except for EXT 03 (Vestry corner lantern). Supplies to the exterior lighting are to be retained & routed via a 25 amp double contactor and suitable enclosure, ensuring that the exterior lighting load is not placed upon the electronic Sangamo device. The EXT 03 Vestry corner lantern is to be operated by a local Royce Thompson Photocell and Stienel corner movement detector for independent and localised control.

Lamppost Investigation

The Contractor shall allow for the investigation and fault diagnosis of the existing non-operational lamppost. This shall include testing, inspection, and confirmation of whether the lamppost can be repaired or re-engineered.

Where re-engineering is not feasible within the scope of the fixed price, the Contractor shall provide a separate quotation for remedial works. Subject to instruction, this cost may be drawn from the project contingency sum.

The control of the lamppost light is via the council switched method and not connected to the church exterior lighting system.

17.0	Supply and Installation of Small Power The Contractor is to allow a fixed cost for Installation of new socket outlets and replacements as described on the layout drawings. All socket outlets to be MK Metal Clad type. New socket positions to be installed in the Aisles and fixed adjacent to the heating trunking – see drawing. Cables to travel within existing trunking. 1 new double socket is also required in South Aisle. Heights to be confirmed and positions allocated by the client / architect before installation. All circuits to be wired in accordance with the wiring rules set out in Section 11 of this specification. All circuits to be protected by compliant RCBO devices. The contractor is to ensure the costs for this item are inclusive of all works as described and shown on the layout drawings.
18.0	Removal of Redundant Lighting Cabling The contractor is to allow a sum for the removal of all redundant lighting circuits and containment. This will leave the client with re decoration works, however it is important that all redundant cabling is removed unless it is buried within the stonework. This new specification is intended to transition the church from an outdated and unsightly existing installation to a neat and acceptable situation for the future. Please note the following areas, which are not limited to but aid in understanding: • Aisles, high level trunking and cable routes • Aisles, low level cable routes to the stage, remove these cables and re divert them in low level under step trunking • Aisles, wiring routes clipped directly under arches to the Nave windows • Refer to drawings for further information If you want this tightened further for a formal tender document, or aligned to a particular standard or contract format, I can refine it further.
19.0	Drawings The Contractor is to allow a fixed cost for the following drawings: Detailed installation drawings identifying all cable routes with notes for cable type, conduit, trunking, and tray positions where not shown. The Contractor is to provide 'As Installed' drawings at the conclusion of the project. Therefore, during the contract period the Contractor is to maintain drawings that detail any changes from the issued contract drawings.
20.0	Disposals - Redundant Equipment and Wiring The Contractor is to allow a fixed cost for the removal of all redundant wiring, light fittings, fixtures, drivers, brackets, distribution equipment, sockets, and switches. Any other redundant items within reason at high level should be removed with approval from the Client and Architect. Where the removal of redundant cables is intrusive or potentially damaging to the fabric it is acceptable to cut the cables back to this point subject to approval from the architect. All redundant items remain the property of the Client and should be offered to them before disposal. All redundant and waste materials should be disposed of in accordance with the local authority requirements and WEEE directive.
21.0	Electrical Testing of the new installation – Electrical Installation Certificate. The Contractor is to allow a fixed cost for the testing of all the entire electrical installation and fixtures/controls. Testing should be carried out in accordance with BS7671 (18th Edition), and electrical installation certification shall be issued on completion. Any concealed areas are to be tested prior to concealment and a record of each tested area should be kept on site. Test instruments shall be provided and operated by the Contractor whose personnel shall be competent and fully conversant in the use of the instruments. They shall be correctly calibrated and certified for the limits of accuracy required, and the Contractor shall provide the Engineer with evidence that the instruments have been calibrated by an approved authority not more than three months prior to being used. Should the Engineer consider the instrument to be suspect, the Contractor shall have the instrument recalibrated by an authorised standardising laboratory at his own expense.

22.0	Operations and Maintenance Manual The Contractor is to allow a fixed cost for the production and distribution of a comprehensive operation and maintenance Instruction manual. The Contractor shall obtain from the manufacturers of all equipment supplied under his contract and equipment supplied by others, all the instruction manuals necessary for the correct maintenance and operation of that equipment. The manual shall include a complete diagram of all internal and external electrical and other services connections with a parts list identifying all components. The Manuals shall be comprehensive and prepared in accordance with the requirements of BS 4899 and as a minimum include the following: - Introduction and General Description - Installation Description - Equipment Schedules - Commissioning and Test Certificates - Emergency Lighting Installation Certificate - Emergency Lighting Logbook - Health & Safety Statement and Procedures - Routine Maintenance Procedures - Manufacturers' Information - Spares Requirements - Record Drawings - Warranty and Maintenance Agreements The Contractor shall submit two copies of the Operation and Maintenance Instruction Manual for all of the electrical services for review no less than eight weeks after final testing and commissioning. The copies should consist of 1 paper copy and 1 digital copy on CD or USB. A certificate of Practical Completion will not be issued until the final copies of the O&MI Manual has been provided.
------	--

PROVISIONAL SUMS

All items to be discussed and agreed by the Architect / Client prior to works being carried out

P1.0	Builders Works: £2,500.00 The Contractor is to include making good and associated builders works within the tender cost. However, a provisional sum has been allowed for the following items: : Painting of cable where appropriate and when clipped direct to fabric and visible. : Repair of old drilled holes when cables and fixtures have been removed. : Repair of any drilled holes for new cable routes. : Powder coating of any containment or fixture where specified. : Drilled holes from Nave Clerestory windows to Aisle. : Installation of painted pelmets to the Clerestory windows to hide electrical connections and electronic lighting drivers. Pelmet size, fixing and paint colour to be agreed with church architect prior to installation. : Cost to include the painting of the surface clipped cable on the East wall of the Sanctuary to serve the East Window luminaire. The Contractor is to provide a schedule of anticipated builders works prior to works commencing. The Contractor will issue a schedule of builders works at each progress meeting. The schedule will include any costs for builder's work material and labour hours for one man. The accumulation of costs will need approval from the architect or client prior to approval and inclusion on the periodic applications for payment. The expectation is that the provisional sum is ample, and savings will be passed back to the clients. If the Contractor is not agreeable with the provisional sum allowed, they must state the increase and reasoning as part of the tender return.
P2.0	Exterior West End Lantern: £1,500.00 This cost is for the supply & installation of a new period lantern to the external wall façade of the West face of the church tower. Further discussions with the client, architect and lighting designer are required to determine the lantern type, position and control method.
P3.0	Additional Emergency Lighting: (£2,000.00) This item allows for any additional emergency lighting that may be required following a risk assessment undertaken by the church client. The tower turret stair is currently without emergency lighting, and further discussion will be required with the client to determine whether additional provision is required in this area or elsewhere within the building. to this area or other areas are required.
C1.0	Contingency Sum: £2,000.00 A Contingency sum is to be added to the total project sum to cover unforeseen expenses. All items must be itemised with appropriate supporting documentation for approval from the client and architect before the items are carried out.

1.14| TENDER SUBMISSION SHEET

COMPANY INFORMATION

COMPANY NAME:	
BUSINESS ADDRESS:	
BUSINESS CONTACT NO:	
STATEMENT ON EXPERIENCE FOR THIS TYPE OF PROJECT:	

REFERENCES: (State 3 references for similar works)

	BUILDING/ PROJECT	CLIENT CONTACT:
1		
2		
3		

TENDERER DETAILS

PERSON:	
EMAIL:	
CONTACT:	
TOTAL NET SUM:	£
VAT	£
TOTAL GROSS SUM:	£
TENDER VALIDATION PERIOD:	
DATE OF TENDER:	
SIGNATURE:	
WITNESS:	
WITNESS SIGNATURE:	

PREMLIMS - OUTLINE

- 1.
- 2.
- 3.

ALLOWANCES AND LIMITATIONS

- 1.
- 2.
- 3.

OTHER BUILDERS' WORKS IDENTIFIED

1.

2.

3.

LABOUR RATES & MARK UP

DESCRIPTION	
Electrical Supervisor hourly rate	£
Electrician (Qualified) hourly rate	£
Electrician (Apprentice) hourly rate	£

LIST OF SUBCONTRACTORS

Contractor to name chosen sub-contractors and field of work.

1.

2.

3.

ACCESS METHOD STATEMENT

PROGRAMME

DESCRIPTION	TIME
Estimated Contract Duration Normal Hours (man weeks)	
Estimated Contract Duration Outside Normal Hours (man days)	
Equipment with long lead in time (weeks)	

TENDER VALIDITY – 3 Months

1.15| TENDER RETURN SCHEDULE

TENDER

ITEM REF.	DETAIL		
1.0	Prelims	£	
2.0	Supply of General Lighting Luminaires (Ref: G01 – G15)	£	
3.0	Supply of Service Leading Luminaires (Ref: S01 – S08)	£	
4.0	Supply of Feature Luminaires (Ref: F01 - F10)	£	
5.0	Supply of all Lighting Track	£	
6.0	Labour – To install all luminaires as described in items 2.0 – 5.0	£	
7.0	Containment, Wiring, Accessories and Cabling	£	
8.0	Access Equipment	£	
9.0	Protections	£	
10.0	Supply & Installation of Mode Lighting Dimming System & Controls	£	
11.0	Commissioning and Focussing	£	
12.0	Commissioning of the MODE dimming system	£	
13.0	Supply & Installation of Back of House Luminaires (Ref B01-B06)	£	
14.0	Emergency Lighting – Exit Signs, Certification & Log Book.	£	
15.0	Rationalisation of Distribution Boards	£	
16.0	Supply & Install Exterior Lighting Replacement	£	
17.0	Supply and Installation of Small Power	£	
18.0	Removal of Redundant Lighting Cabling	£	
19.0	Supply & Issue of Updated Project Drawings	£	
20.0	Disposals - Removal of Redundant Equipment and Wiring	£	
21.0	New - Electrical Testing and Certification	£	
22.0	Issue of Operations and Maintenance Manual	£	
Provisional Sums			
P1.0	Builders Works:	£	500.00
P2.0	Exterior West End Lantern	£	1,500.00
P3.0	Additional Emergency Lighting	£	2,000.00
C1.0	Contingency Sum:	£	2,000.00
	TOTAL NET	£	
	TOTAL VAT	£	
	TOTAL GROSS	£	

1.16| DESIGN RISK ASSESSMENT

- : Construction (Design and Management) Regulation 2015 will apply to this contract.
- : The Client will fulfil his duties as the Client.
- : The Tenderer will be required to fulfil his duties as Principal Contractor.
- : This document includes a Designer's Risk Assessment which forms the basis of the installation for the Tender Stage Health and Safety Plan.
- : The Contractor will be required to fulfil his duties under the Health and Safety legislation in force and the HSE Regulations and CDM 2015 Regulations.

TABLE 1 | SEVERITY LEVELS AND DEFINITIONS

DESCRIPTION		DEFINITION
Terminal Risk	A	Likelihood or possibility of resulting in a fatality
Severe Risk	B	Likelihood or possibility of resulting in a severe injury counting as a disability
Major Risk	C	Likelihood or possibility of resulting in a major injury requiring six weeks or more off work
Minor Risk	D	Likelihood or possibility of resulting in a minor injury requiring less than one week off work
Minimal Risk	E	Likelihood or possibility of resulting in a very minor injury requiring no more than one day off work

TABLE 2 | LIKELIHOOD AND DEFINITIONS

DESCRIPTION		DEFINITION
Probable	A	Likely to occur during the average site program
Possible	B	50% likelihood of occurring during an average program
Improbable	C	Extremely unlikely to occur during an average program

TABLE 3 | RISK RATING MATRIX

SEVERITY OF EVENT	LIKELIHOOD OF EVENT		
	Probable A	Possible B	Improbable C
Terminal Risk A	Very High	High	High
Severe Risk B	High	High	Medium
Major Risk C	High	Medium	Low
Minor Risk D	Medium	Low	Low
Minimal Risk E	Low	Low	Very Low

TABLE 4 | RISK DEFINITIONS

VERY HIGH	Situation requiring immediate plan of action
HIGH/MEDIUM	Situation to be addressed at earliest practical opportunity
LOW/VERY LOW	Situation to be considered as part of normal procedures

REF	IDENTIFICATION OF RISK PRE-CONSTRUCTION PHASE – GENERIC RISKS	PRE-CONTROL RISK ESTIMATE			CONTROL MEASURES	PRIMARY RESPONSIBILITY	RESIDUAL RISK ESTIMATE		
		S	L	R			S	L	R
1.01	Inadequate Client Brief	D	B	L	Principal Designer to work with Client to produce an adequate Client Brief including Health and Safety issues	Client	E	C	VL
1.02	Inadequate Pre-Construction Information	D	B	L	Principal Designer to work with Client to produce an adequate Pre-Construction Pack including Health and Safety issues	Client	E	C	VL
1.03	Inadequate co-ordination with other Designers	D	B	L	Principal Designer to Liaise with other Designers to ensure complimentary designs including Health and Safety issues and oversee all the designs	Principal Designer	E	C	VL
1.04	Inadequate communication with the Principal Contractor	D	B	L	Principal Designer to set up lines and means of communication with the Principal Contractor and other parties including requests for information, documented responses as well as Health and Safety issues	Principal Designer	E	C	VL
1.05	Inadequate Health and Safety File	D	B	L	Principal Designer to set up the Health and Safety File covering relevant Health and Safety issues	Principal Designer	E	C	VL
1.06	Design Phase	C	C	L	The design has been prepared with due regard for the Client Brief, other designs, correct lighting levels and operation, safety and maintenance – no deviation from the design shall be taken without written approval of the designer	Principal Designer	C	E	VL
1.07	Asbestos	A	B	H	The Client is to supply the Asbestos report to all tendering parties prior to the commencement of the works.	Principle Designer	A	C	H

REF	IDENTIFICATION OF RISK CONSTRUCTION PHASE PLAN – GENERIC RISKS	PRE-CONTROL RISK ESTIMATE			CONTROL MEASURES	PRIMARY RESPONSIBILITY	RESIDUAL RISK ESTIMATE		
		S	L	R			S	L	R
2.01	General operations				Provision of operatives' clothing with company logo and Personal Protective Equipment (PPE) – compliance with CDM 2015 Regulations, the Health and Safety Policy and Site Rules in force – compliance with the Principal Contractors' instructions	Principal Contractor			
		C	C	L			C	E	VL
2.02	Working around children and vulnerable adults (occupied sites)				Operatives to undergo and carry current Disclosure and Barring Service (DBS) documentation checks	Principal Contractor			
		C	C	L			C	E	VL
2.03	Welfare				Operatives to comply with Company Health and Safety Plan requirements on welfare and any site provisions in force	Principal Contractor			
		C	C	L			C	E	VL
2.04	Slips and trips				Operatives to comply with Company Health and Safety Plan requirements on good site housekeeping	Principal Contractor			
		C	A	H			C	C	L
2.05	Lifting and carrying				Operatives to comply with Company Health and Safety Plan on manual lifting and carrying and the correct equipment for heavier loads	All			
		C	A	H			C	C	L
2.06	Working at heights				Operatives to comply with Company Health and Safety Plan requirements on scaffolding, towers and ladders including mechanical lifts - users and equipment to be certificated	All			
		A	B	H			A	D	L
2.07	Objects falling from height				Operatives to comply with Company Health and Safety Plan requirements. Contractor to ensure toe boards are fitted to all platforms and scaffolds – hard hats to be used by all working under or near high level working - all equipment and materials to be carefully handled at high	All			
		B	B	H			B	C	L

					level with secondary or safety lines if necessary, including all lifting operations - no lone working					
2.08	Working in confined spaces	A	B	H	Operatives to comply with Company Health and Safety Plan requirements on confined spaces working	All		C	D	L
2.09	Contaminated water	A	C	H	Operatives to be aware of the dangers of Leptospirosis and to observe basic hygiene requirements	All		A	C	L
2.10	Task lighting	C	B	M	Operatives to ensure adequate lighting using either existing lighting or festoon lighting supplemented with task lighting	All		E	C	VL
2.11	Plant and equipment	B	B	H	Operatives to comply with Company Health and Safety Plan for the use of the correct tools, plant and equipment in accordance with good working practice, all tools, plant and equipment to be certified safe to use	All		D	C	L
2.12	Working with electricity	A	A	VH	Operatives to comply with Company Health and Safety Plan and only qualified and certified staff to work with electrical services	All		A	C	L
2.13	Working in ancient and listed buildings	D	A	M	Operatives shall take all necessary care and provide a reasonable protection of existing ancient fabric and artefacts – all valuable and vulnerable items to be removed by the client before the works commence	All		E	B	L
2.14	Co-ordination with other services and contractors	E	B	L	Operatives to actively engage in co-ordinating their works with those of other contractors under the leadership of the Architect or Principal Contractor	Principal Contractor		E	C	VL

REF	IDENTIFICATION OF RISK OPERATION /MAINTENANCE	PRE-CONTROL RISK ESTIMATE			CONTROL MEASURES	PRIMARY RESPONSIBILITY	RESIDUAL RISK ESTIMATE		
		S	L	R			S	L	R
3.01	Maintenance Schedules and Logs	D	A	M	Plant to be maintained in accordance with the Manufacturers' recommendations and a log kept of the services carried out		E	B	L
3.02	Spares	D	A	M	An adequate schedule of spares to kept – spares with long lead in deliveries to be scheduled in advance or kept on site		E	B	L
3.03	Specialist Contractors	D	A	M	Contracts to be paced with Specialist Contractors as required		E	B	L
3.04	Emergency Lighting	C	B	M	Emergency lighting tests to be carried out as required by the latest Regulations and a log kept of the inspections carried out		E	C	VL
3.05	Electrical Testing and Periodic Inspection Report	A	A	VH	Electrical Testing and Periodic Inspection Reports to be carried out by qualified engineers and at a frequency as required by the manufacturers or insurance companies		C	C	L
3.06	Lifting and carrying	C	A	H	Operatives to comply with Company Health and Safety Plan on manual lifting and carrying and the correct equipment for heavier loads		C	C	L
3.07	Working at heights	A	B	H	Operatives to comply with Company Health and Safety Plan requirements on scaffolding, towers and ladders including mechanical lifts - users and equipment to be certificated	Contractor	C	D	L
3.08	Objects falling from height	B	B	H	Operatives to comply with Company Health and Safety Plan Requirements Contractor to ensure toe boards are fitted to all platforms and scaffolds – hard hats to be used by all working under or near high level working - all equipment and materials to be carefully handled at	All	C	C	L

					high level with secondary or safety lines if necessary, including all lifting operations - no lone working				
3.09	Task lighting	C	B	M	Operatives to ensure adequate lighting using either existing lighting or festoon lighting supplemented with task lighting	Contractor	E	C	VL
3.10	Plant and equipment	B	B	H	Operatives to comply with Company Health and Safety Plan for the use of the correct tools, plant and equipment in accordance with good working practice, all tools, plant and equipment to be certified safe to use	Contractor	D	C	L
3.11	Working with electricity	A	A	VH	Operatives to comply with Company Health and Safety Plan and only qualified and certified staff to work with electrical services	Contractor	C	C	L
3.12	Working in ancient and listed buildings	D	A	M	Operatives shall take all necessary care and provide a reasonable protection of existing ancient fabric and artefacts – all valuable and vulnerable items to be removed by the client before the works commence	All	E	B	L

1.17 | CONTACT DETAILS

CLIENT:

Client:

PCC of St Mary's Church, Cheshunt

St Mary's Church

Churchgate

Cheshunt

Hertfordshire

EN8 9NB, UK

Website:  <https://www.stmaryscheshunt.org.uk>

General Office Contact:  +44 (0)1992 629164

Email:  office@stmaryscheshunt.org.uk

ARCHITECT:

Name:

Michael Garber

Hanslip & Co

5–6 Bloomsbury Place

London

WC1A 2QP, UK

Website:  <https://www.hanslip.co.uk>

General Office Contact:  +44 (0)20 7253 7160

Email:  architects@hanslip.co.uk

LIGHTING DESIGNER:

Ryan Slessenger & David Burch

CES Lighting & Electrical Specialists LLP

Crusader Hall, 25c Stanley Park Road

Wallington, Surrey

SM6 0HL

Tel: 020 8835 2816

Mobile: 07973 261893

Email: Ryan@cesllp.co.uk

1.18 END OF DOCUMENT