



How do I light my church to support worship and community use

?

KEY STEPS

1. IDENTIFY THE PROJECT, UNDERSTAND THE “SCOPE”
2. COMPOSE THE BRIEF, UNDERSTAND THE BUDGET
3. SELECT THE KEY STAKEHOLDERS, CONSULTANTS OR CONTRACTORS
4. CONCEPT DESIGN, THE LOOK AND FEEL
5. REVIEW THE BUDGET, IS IT AFFORDABLE
6. DETAILED DESIGN, FACULTY AND PLANNING PERMISSION
7. PROCUREMENT AND IMPLEMENTATION
8. MAKING BEST USE OF THE SCHEME

1. Identify the Project, Understand the Scope

IDENTIFY THE PROJECT

In years past the most common reason for needing to re-light a church was that the electrical installation did not meet the required standards for electrical testing. This was frequently associated with old light fittings that were failing or beyond economic repair.

More recently the desire to re-light a church has also been driven by a wish to reduce energy consumption and/or maintenance costs. Contributory factors often include

- the increasing obsolescence of traditional filament light sources

- the slump in popularity and availability of compact fluorescent light sources [CFL]

- the increasing availability of lower energy LED light sources

- increasing energy costs

- an increase in maintenance costs due to more stringent regulations governing the use of ladders

Another factor is the requirement or expectation for lighting to be more versatile than before, and provide for a wider range of uses of our churches, particularly for music, drama and wider public engagement. In some cases, this may result in a need for comprehensive relighting, in other cases the requirements may be to enhance or supplement an existing installation.

SAMPLE PROJECTS

I thought it might be useful to talk through three parish church projects with quite different requirements and to talk about the individual approaches required in each case.

Clearly understanding what the project needs to deliver at an early stage helps inform the make up of the project team, who will need to be consulted, what the costs might be, and how long it might take to achieve.

So here we are talking about the

desirable project outcomes

key stakeholders

budget

and programme

2. Compose the Brief, Understand the Budget

COMPOSE THE BRIEF, UNDERSTAND THE BUDGET

These three examples show that there can be quite diverse demands on a project and we'll see the different solutions later. In the mean time lets look at how you compose a brief and start the project moving forward. Once the scope of work is understood the parish should put together an overall project plan, beginning with an assessment of the need and options which will form a brief to a designer and be part of a Statement of Needs.

A new electrical installation should last for some 30 to 50 years, so it is important to assess the needs that exist now and to consider what might be required in years to come. Consideration should be given to evolving styles of liturgy and the resulting uses of key spaces for services, and the repositioning of furnishings. These all have an enormous impact on lighting, particularly in the selection and use of directional spotlights.

A schedule of lighting requirements helps to clarify what is needed for the future. This should include:

How are the congregation to be lit, and to what level of illumination?

What is the impact of daylight in the space?

Does the lighting for the congregation need to be "zoned" i.e. controlled as one whole area or across a number of separately adjustable adjoining areas?

Does the use of the church require a dimming system which would enhance flexibility and the ability to create different settings for different uses? It might also enable significant energy savings.

What are the lighting requirements for key features including the altar, lectern, table, platform, pulpit, font, reading the Gospel etc. How are the chapels used, where does the choir sit?

Are there other architectural features which would benefit from being lit? This might include wall paintings, notable memorials, a vaulted ceiling, decorative bosses, *etc etc*

COMPOSE THE BRIEF

There should be an assessment of how the lighting should be controlled and by whom.

Should controls be locked away in the vestry or can some or all of them be in the public areas?

Should automated controls be used to sense daytime visitors – and go off again after they leave?

Is a pre-set system required – with a number of different settings recorded?

Are manual controls necessary for spotlights to a soloist as concerts or recitals?

A formal briefing document should be agreed and issued, and then used as a method of measuring the accuracy and success of the design development and its implementation. The document may go through a number of iterations but will be an essential tool in deciding how the scheme needs to be designed and by whom. The parish should consult their Archdeacon and/or Inspecting Architect to help develop this initial stage. Time and effort invested here can save costly mistakes in the future.

UNDERSTAND THE BUDGET

You may think it's not possible to arrive at a realistic budget at this stage but it's really very important. It's also very dangerous to simply allocate funds from your reserves without quantifying a realistic ballpark figure.

You might find it useful to compare costs with other parishes (perhaps via the DAC) or by asking potential consultants to offer a ballpark on the basis of the initial briefing documents – but do this before the tendering process to select designers.

3. Select the Key Stakeholders, Consultants or Contractors?

KEY STAKEHOLDERS, CONSULTANTS OR CONTRACTORS?

If, after consultation with the Archdeacon and Inspecting Architect, the work is considered to be minor and uncomplicated then it may be possible to employ a competent electrical contractor to produce a scheme on a “design and build” basis. However, whilst this avoids the direct cost of a consultant, it is difficult to ensure that this is truly cost-effective without a competitive tendering process.

The Archdeacon should advise on the viability of a simple scheme qualifying as “List B” but this classification is unlikely and a faculty application is perhaps the common requirement.

Except in the simplest of cases the parish will need to form a steering group or working party to oversee the project. There should be a project leader, a member of the clergy, perhaps the church architect and maybe other key players. The group may wish to visit other churches to see completed schemes and gain valuable background information before deciding if this should be a consultant-led or design-and-build scheme.

Parishes should understand the procurement of professional lighting design/installation services, and the implications of choosing a particular route. With help from their Archdeacon and Inspecting Architect, parishes should choose the procurement route that is most appropriate to their circumstances.

Architects

Electrical Engineers

Independent specialist lighting consultants

Manufacturers of products who also offer a design service

Contractors who will offer both to design, and to install, a lighting scheme

Contractors who will install a lighting scheme designed by others

KEY STAKEHOLDERS, CONSULTANTS OR CONTRACTORS?

The services of specialist consultants/contractors will be advertised in online trade directories such as those offered by the National Churches Trust or the Building Conservation Directory:

The Inspecting Architects may be able to suggest names of suitable consultants or contractors which a parish might consider using.

Parishes may wish to ask the Archdeacon or DAC for some examples of successfully-completed projects, and to make enquiries of past clients of a consultant/contractor to seek a reference.

Its important to take the time to make the right decision.

Once the choice is made, invitations should be sent out to potential candidates to seek their interest in the project, early interviews should establish the candidates' level of experience, approach and availability – and to gauge their reaction to the initial brief and the indicative budget.

The more involved or complex the project the more likely it is that a lighting consultant will be required.

A specialist consultant should carefully guide their client through a detailed briefing process, with visits to other recently completed projects and illustrations of the types of fittings that may be used. This often helps to demonstrate modern lighting options, clarify the scale and extent of works under consideration – and put the likely budget in context.

It is worth noting that unless a consultant is truly independent of both manufacturers or contractors they cannot necessarily provide truly independent advice.

A design-and-build contractor may not be able to offer this amount of hand-holding.

4. Concept Design, The Look and Feel

CONCEPT DESIGN

In many ways this is the most important stage of the project's evolution.

This is where the brief is clarified, the budget understood and the shape of the project formulated.

This is where the designer should show their understanding of the brief and their ability to fulfil its expectations.

Errors and omissions at this stage only become more expensive to correct as the project progresses.

CONCEPT DESIGN, THE LOOK AND FEEL

So the concept design is not a detailed specification but it must be sufficient information for the steering group or working party to feel that the project brief has been fully understood. The designer must also be able to demonstrate that they understand

the brief

the wider needs of the church

the significance of the building and are sensitive to the conservation needs of its fabric

the faculty system and the level of documentation required for a formal submission

the appropriate procurement route

The concept design process should also be able to generate a cost estimate indicating the ball park costs of the project.

Once the concept report has been approved by the parish (with any adjustments carefully made by the designer) it can be submitted to the DAC and other interested parties for informal or pre-application advice.

The feedback gained at this stage can be invaluable and avoid abortive fees in producing specification and tender documentation that will not ultimately receive approval.

5. Review the Budget, Is it Affordable

REVIEW THE BUDGET, IS IT AFFORDABLE

Reality sets in when the cost estimate for the concept scheme is disclosed.

If the initial budget was well considered and the concept scheme faithful to the initial brief then the cost estimate should not be too difficult to digest.

If the initial budget was too conservative or the concept scheme too ambitious then there needs to be a period of reflection and perhaps judicious adjustment.

6. Detailed Design, Faculty and Planning Permission

DETAILED DESIGN, FACULTY AND PLANNING PERMISSION

The next stage of design development is detailed or technical design. At this point the design concepts should be fixed and the task is now to engineer the scheme and provide the necessary technical and descriptive information for approvals and also for competitive tendering.

Its unlikely that members of the parish will have as much technical input at this stage, although the scheme designer should be working with the parish architect to deal with cable routes, locations of control equipment, any other electrical works and any associated builders' works. The designer's information should include a comprehensive package of information including :

- Scope of Works / Design Intent Statement / Impact Assessment / Sustainability Assessment

- Scaled Plans / Sections and Elevations (sufficient to describe the design and for DAC members to comment)

- Detailed setting out and installation details, particularly where impact to the fabric or internal aesthetic may be a concern

- Control Strategy including equipment specifications and control points

- Detailed Equipment information (such as manufacturers datasheets and installation guidelines)

For the parish there will be statements of significance and need to refine or prepare for the faculty process and perhaps meetings to organise with statutory consultees.

If the scheme includes external lighting then there may be separate planning applications to prepare to submit to the local authority.

7. Procurement and Implementation

PROCUREMENT AND IMPLEMENTATION

The Steering Group will by now have considered how the works should be procured. A useful form of contract would be JCT Minor Works (JCT MW 2016), with a consideration if there is an element of the works that is a “Contractor Design Portion” – in which case JCT MWD 2016 would probably be the correct form of contract to use.

If the parish has a friendly quantity surveyor in the congregation then they, or the architect would be able to help with this. They will also advise on who should be the Contract Administrator and Principal Designer. In an ideal scenario these decisions will all have been made much earlier on in the process.

The important point here is that the execution of the works needs to be carefully managed in respect of costs, programme and all aspects need to be measurable against the original project objectives – it all needs to be kept under control! An experienced Project Manager is often the key.

A further point to consider is what recourse the parish will have if the design does not meet expectations – so the designer needs to carry the appropriate level of professional indemnity insurance and have the resources to fulfil their obligations.

8. Making Best Use of the Scheme

MAKING BEST USE OF THE SCHEME

As the scheme is handed over it is obviously important to fully understand how it can best be used.

The early briefing documents setting out the initial expectations are a useful place to start.

Ensure that the designers have allowed sufficient time for ongoing training so that all of the scheme potential can be realised.

Check that all of those important parts of the wish list have been addressed and highlight any that have been missed – some further adjustments may need to be made.

Make sure the system is used, the steering group could nominate someone to take full “ownership” of the scheme so that it can be exploited and enjoyed to the full.

Thank you

