

# Safeguard Creation Fight Respond in Loving Service Our Five Marks of Mission

## **A Theological Perspective**

The Five Marks of Mission were adopted by the General Synod of the Church of England in 1996, and many dioceses and other denominations use them as the basis of action plans and creative mission ideas.

Some churches abbreviate the five marks to five words:

TELL TEACH TEND TRANSFORM TREASURE

The Fifth Mark of Mission asks us

"To strive to safeguard the integrity of creation, and sustain and renew the life of the earth".

The Fifth Mark is not an add on extra, but a fundamental discipleship requirement, showing how we express our care for what God has made and the ecosystems on which we rely.

How we care for our environment and the people and species we rely on is an important witness to those outside the church and this should be reflected in the decisions we make about our buildings.

Spending money to obtain an outcome which offers the best combination of comfort and environmental care is a form of mission; and showing that we care about climate change by our actions, creates a bridge over which to engage with society, and to be Good News - practically as well as spiritually.



One of the main reasons why churches have poor heating is that it's been added on afterwards.

Nobody expected them to be heated 200 or 300 years ago, and you just went to church in your coat.

Medieval services were daily, short, and most people would be standing.

Pews were only introduced once the Protestants started delivering sermons and the congregation had to settle in for longer.

The idea that you should sit comfortably in church is a recent idea.



#### **CHURCH HEATING PRINCIPLES**

The way our church is heated is vitally important for comfort, for the climate, and for conservation.

It can also be complicated, with a variety of sometimes conflicting objectives.

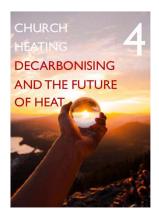
Different people understandably put different emphasis on aspects of church heating.

Our starting point: people, clean energy, and the climate crisis



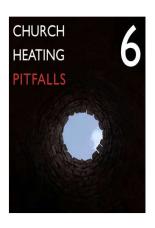


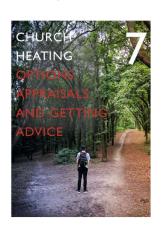


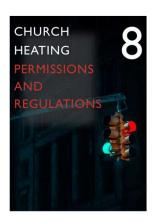




# Issued by the Cathedral and Church Buildings Division, February 2021 & the CBI, July 2020









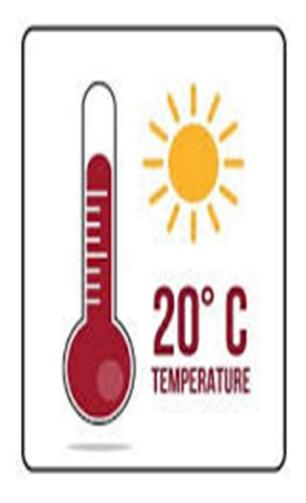




Heating guidance needs to focus not primarily on boilers or heaters, but instead on people, and how they use the building.

It is people who feel comfort or discomfort and people who are the focus of the mission of the church.

A warm and welcoming building is ideal, but realistically most churches struggle to achieve this.



Most people who come into the church, enter in a "warm state".

If the ambient temperature is below 20°C, the body will start to cool.

The aim of our project is to try to keep the temperature in the persons' immediate proximity as close to 20°C as we can.

If we can achieve this, then for the time the local ambient air is at 20°C, the person will feel comfortable in their surroundings.

# **Body Cooling**

'People Heating'









Different solutions apply to different churches—there is no 'one size fits all'

Every heating solution must be designed around the individual church's use and nature.

Churches which get used for one or two services on a Sunday with the odd hour mid-week make up a substantial number of the churches in the country.

The efficient heating solution in such a church is **radically different** to those churches which have activities occurring in them 5 days a week for 6 to 8 hours a day.

The heating advice must therefore be rooted in a clear understanding of how each individual church is used, now and in the future.



# Consider how the church space is used

- Who are you heating (types of people, old, young)?
- What type of event (general visiting, sitting for a service, children's play group)?
- When are you heating them (and how long for)?
- Where are you heating them (which part of the building)?
- Why heat parts of the building fabric, interiors, or objects that may need special care?

Background
Frost Prevention
Conservation
Space Heating
People Heating



# **BACKGROUND HEATING**

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- Avoids the significant energy demands of heating the church from a very low temperature in winter.

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#### Cons:

- The cost and energy used to maintain the background temperature for long periods when the church is not occupied.
- Unless there is a compelling fabric preservation driver, background heating should not be used in a church only used once or twice a week; the rest of the time, heat is being wasted.

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Prevents the frost damage, low cost to run.

Cons:

Building is not warm and welcoming in winter.

Note: Frost prevention can be combined with another heating approach.

#### **CONSERVATION HEATING**

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#### **Pros:**

· Can help to preserve historic interiors

#### Cons:

- As for background heating, there is considerable energy usage
- It doesn't work well in large spaces.

For those churches with historic interiors and building fabric, which are susceptible to changes in environmental conditions, expert advice must be sought

This is to ensure any new heating regime or changes to an existing system does not cause added harm to the historic fabric and interiors.



#### **Adrian Fox**

From: adrian.fox@churchofengland.org To: sharobinson@sky.com

Dear Jeffrey,

It was great to speak yesterday, I hope our conversation has given you the confidence to move forward in a calm and logical fashion. You appear to be on the right track and if I can be of further help please do get in touch.

I've attached a number of guidance documents which I hope will help and a link to the central church web site where you will find lots more help, from videos to guidance documents. It can seem a difficult task finding the right solution, but if you stay open minded, ask the difficult questions and let fact not feeling steer you, I'm sure you will reach the right conclusion.

Net zero carbon church | The Church of England

Adrian

Kind Regards Adrian

Adrian Fox **Environmental Sustainability Officer** Cathedral and Church Buildings Department Church House, 27 Great Smith Street. London SW1P 3AZ 0207 898 1225



Wed, 30 Oct at 09:47 🕏



Adrian's initial thoughts were that the only item for us to consider regarding Conservation Heating was the Church Organ.

#### Adrian Fox

Over 30 years experience in heating and ventilation – specialising in large ancient buildings

Prior to joining C of E, was lead consultant with the **National Trust** on its environmental programme

A member of Church of England's National Environment Working Group

The Net Zero Carbon Programme Officer

All 'significant' DAC decisions - including appeals - go through his hands





# THE INSTITUTE OF

BRITISH ORGAN BUILDING

#### BEST CONDITIONS FOR THE ORGAN during the heating season.

General guidelines, most particularly for old organs.

Heating systems need to be carefully regulated to avoid the danger posed by low levels of humidity. A safe humidity range is as follows:

Heating systems which heat up and cool down slowly are best for the fabric of the building, and for the organ.

| Temperature (weekdays) when church is not being used | Not above 10°C = 50°F | Cold conditions will not harm the organ unless the church is damp   |  |
|--|-----------------------|---|--|
| Temperature (Sundays) when church is being used      | Not above 20°C = 68°F | High temperatures may cause<br>damage to the organ (through low<br>humidity) if sustained for long<br>periods |  |

Taking into account our normal weekly pattern of usage:

# No requirement for BACKGROUND heating

We needed to put greater emphasis on control of **humidity** rather than temperature

#### **SPACE HEATING**

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- Relatively inexpensive to maintain
- People can move around within the space and remain warm

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#### Cons:

- Often very inefficient (and therefore expensive to run) because the warm air rises and so heating has to run for many hours.
- Many churches utilise their space heating irregularly, with long heat up times in winter (up to 8-12 hours for an undersized system). High greenhouse gas emissions, due to inefficiency.
- Can damage fabric through cycles of warming and cooling, including through condensation etc.

#### **'PEOPLE HEATING'**

# Approach:

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- Heating is typically zoned so that all of it does not have to be switched on at once this allows for different occupancy patterns and different seasons and weather.

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#### **Pros:**

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- A 'people heating' approach is easier to combine with electric heating and 'green' electricity, radically cutting green-house gas emissions.

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#### Cons:

- Currently, electricity is more expensive per unit than gas, so the new system needs to be much more efficient, or operating costs will rise.
- If people move away from the heated areas, they will be cold
- Electric heating requires the church to have a sufficient and reliable electricity supply.

|                  | 5 day a<br>week | 1 day a<br>week | Occasional<br>Service |
|------------------|-----------------|-----------------|-----------------------|
| Background       |                 |                 |                       |
| Frost Prevention |                 |                 |                       |
| Conservation     |                 |                 |                       |
| Space Heating    |                 |                 |                       |
| People Heating   |                 |                 |                       |

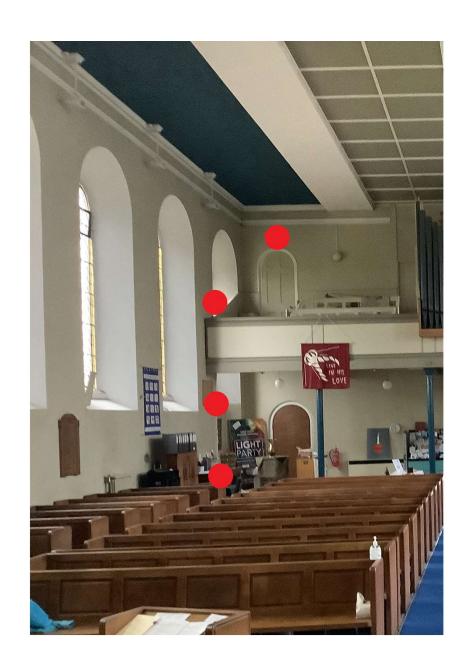
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| Space Heating    | <b>V</b>        |                 | $\checkmark$          |
| People Heating   |                 |                 |                       |

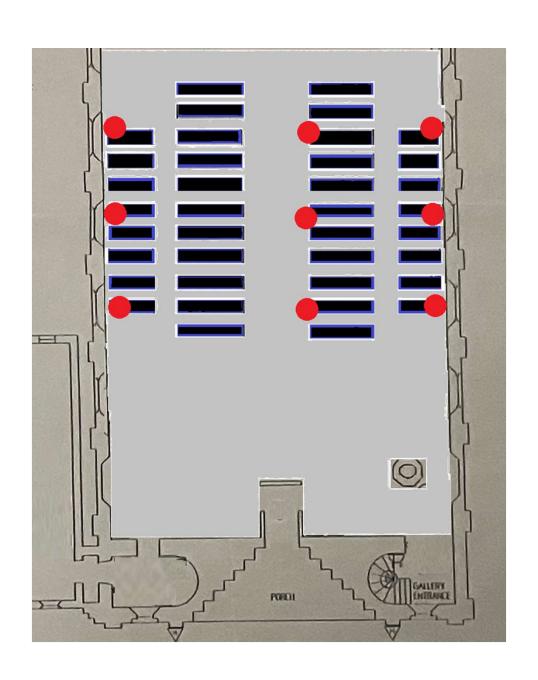
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|------------------|-----------------|-----------------------|
| Frost Prevention | <b>V</b>        | <b>V</b>              |
| Conservation     | $\checkmark$    | <b>V</b>              |
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| People Heating   | $\checkmark$    |                       |

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### **Initial Findings**

### **WINTER CHURCH**



'Winter Church'

#### **Approach**

- Aiming to create a space within the church which can be kept warm enough to use during winter, without needing to warm the whole space.
- The space is partitioned off in some way, and heated, whilst the rest of the space is left unheated or on frost prevention.

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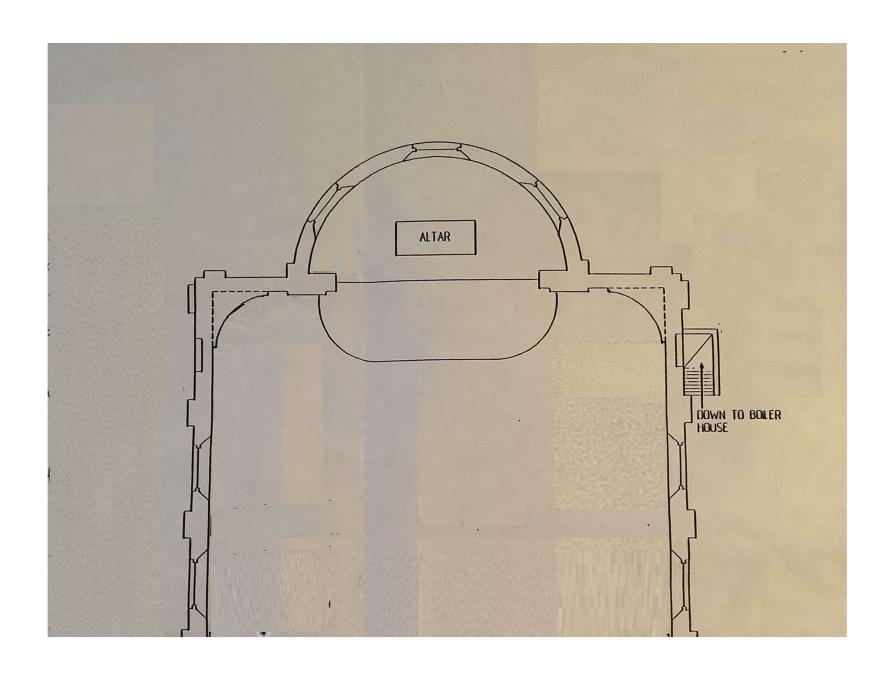
#### Cons:

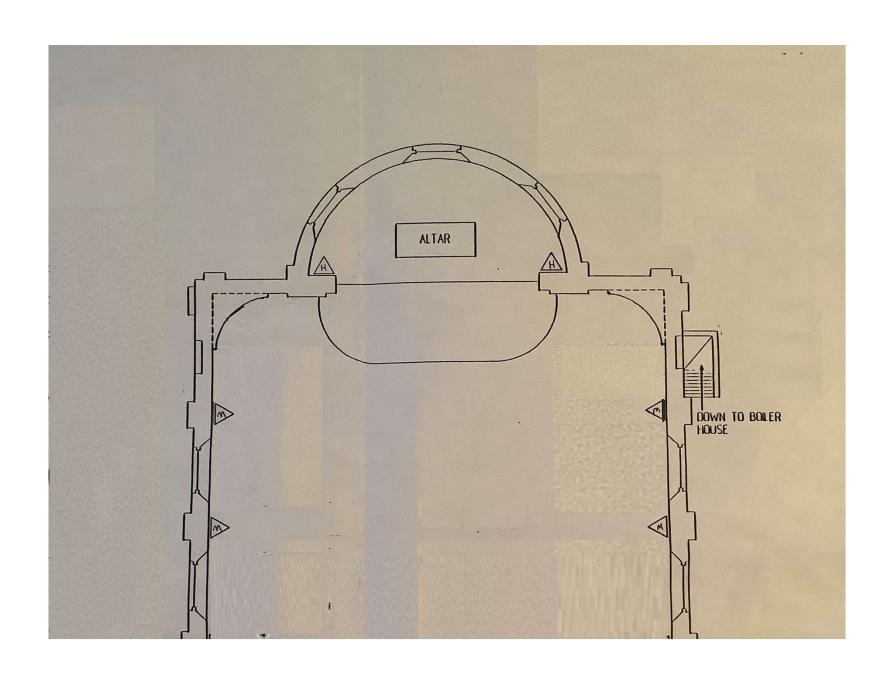
- If there are historic interiors in the zones left unheated, then they may deteriorate.
- There is reduced usage of the main church space during winter.

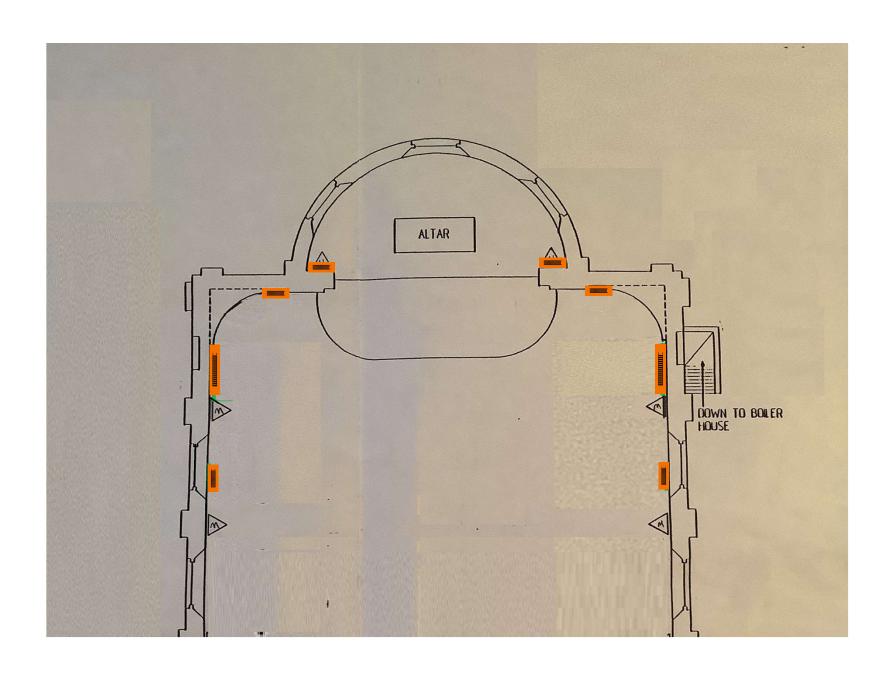
#### Summary of our proposed way forward

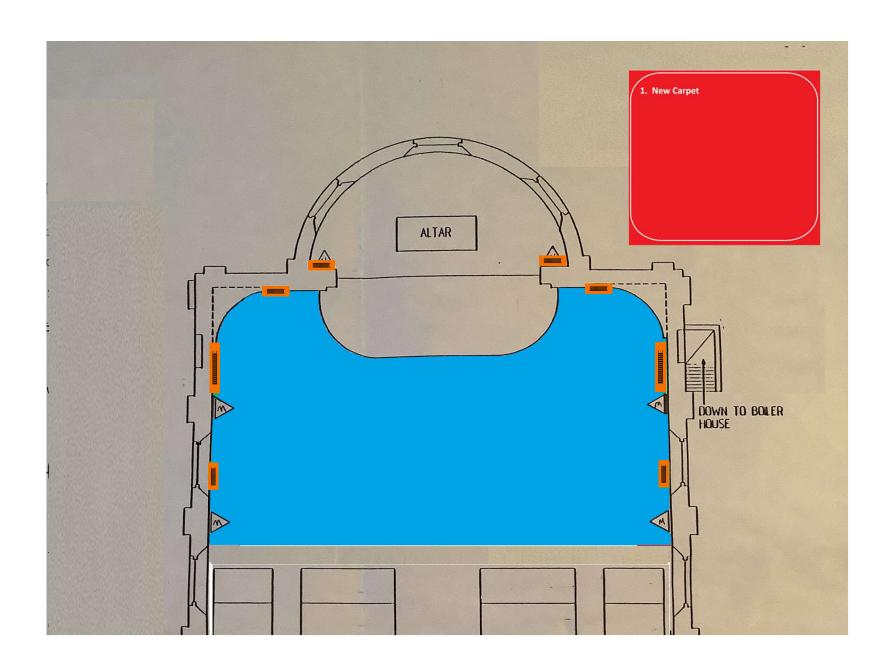
- 1. We believe that keeping people comfortable will be a better approach than trying to warm the whole space.
- 2. We are looking to use the model commonly called the "Winter Church Approach", where we create a space that can be kept warm without heating the whole space.
- 3. We are looking to heat the congregation rather than the building.
- 4. We will only apply heat when we need to, rather than applying background heating which we boost for the services.
- Additionally, we are looking to ensure humidity levels are maintained between 55% and 75% for conservation reasons mostly the church organ.
- 6. We aim to use Green Electricity as our energy source.

# The Front End







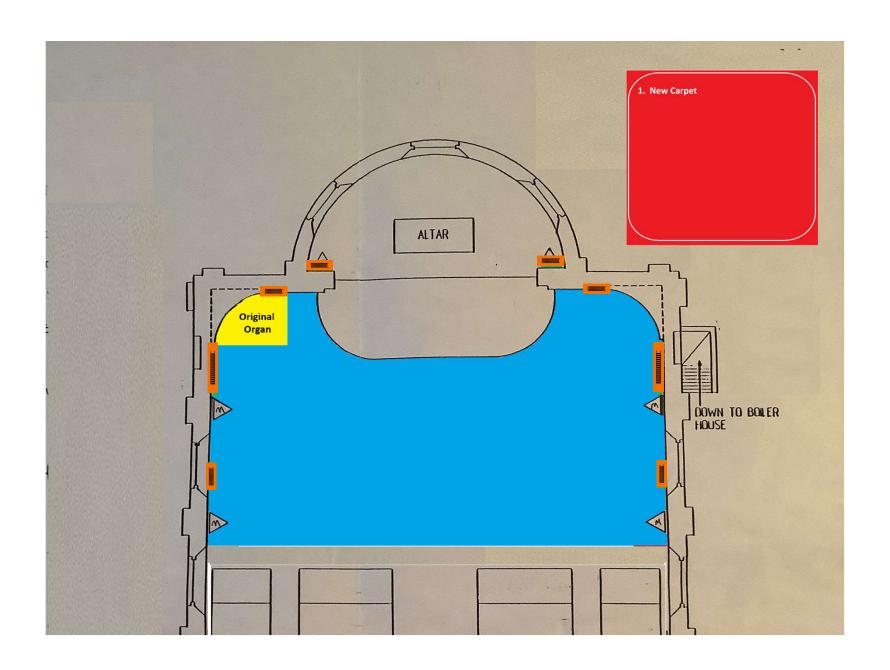


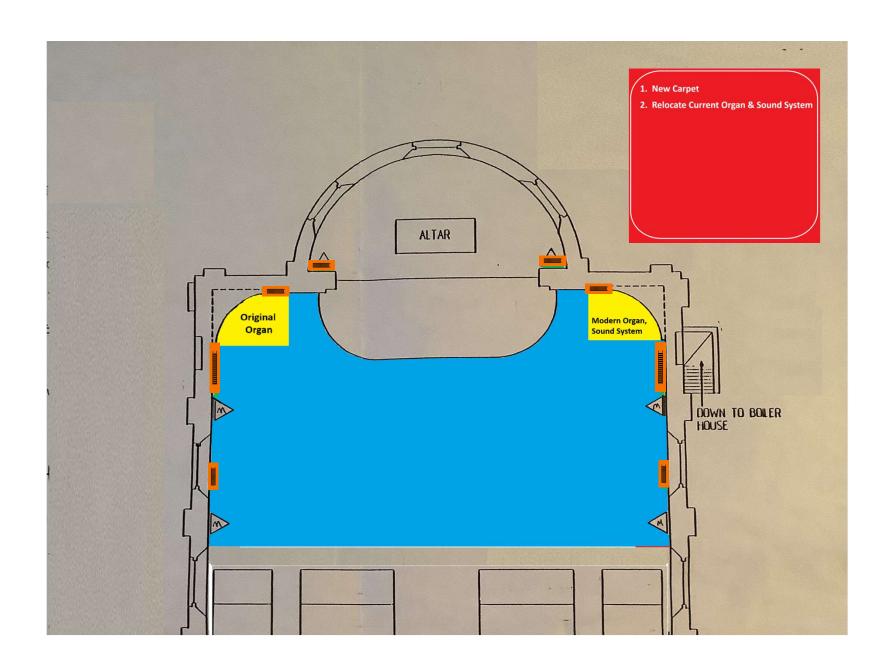


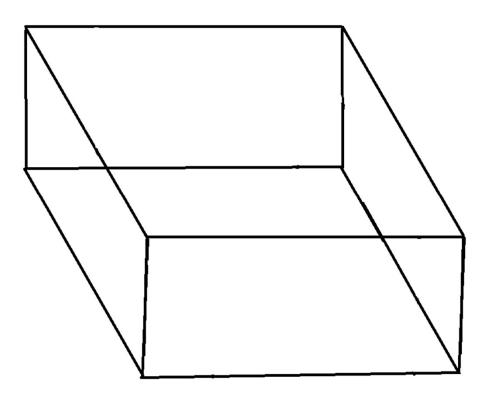
14.4m x 8.4m



13.4m x 6.8m

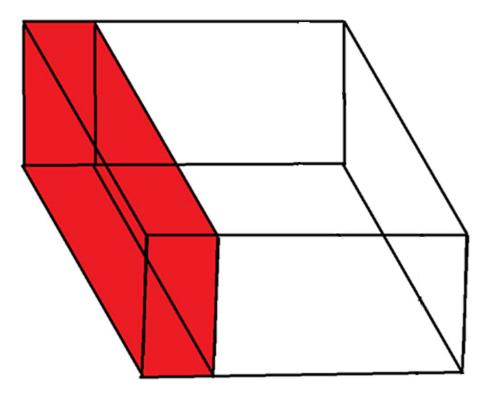






The internal volume of our church is around ~ 2,500 m3

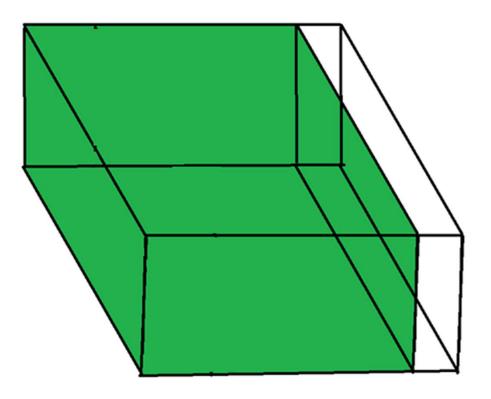
We are looking to divide the church into 3 separate zones for our heating plans.



The first is the "Winter Church" Zone.

Its internal volume (including the Altar Area) is ~ 650 m3

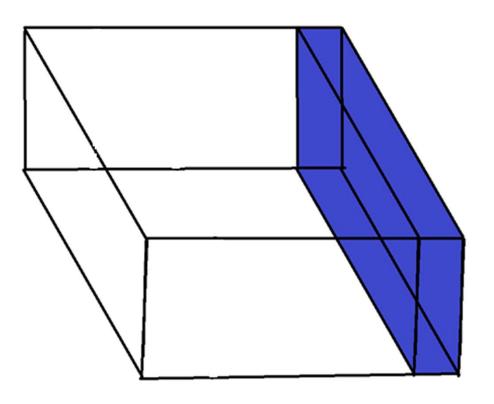
or 26% of the total volume



The Second is the "Space Heating" Zone.

Its internal volume is ~ 2,200 m3

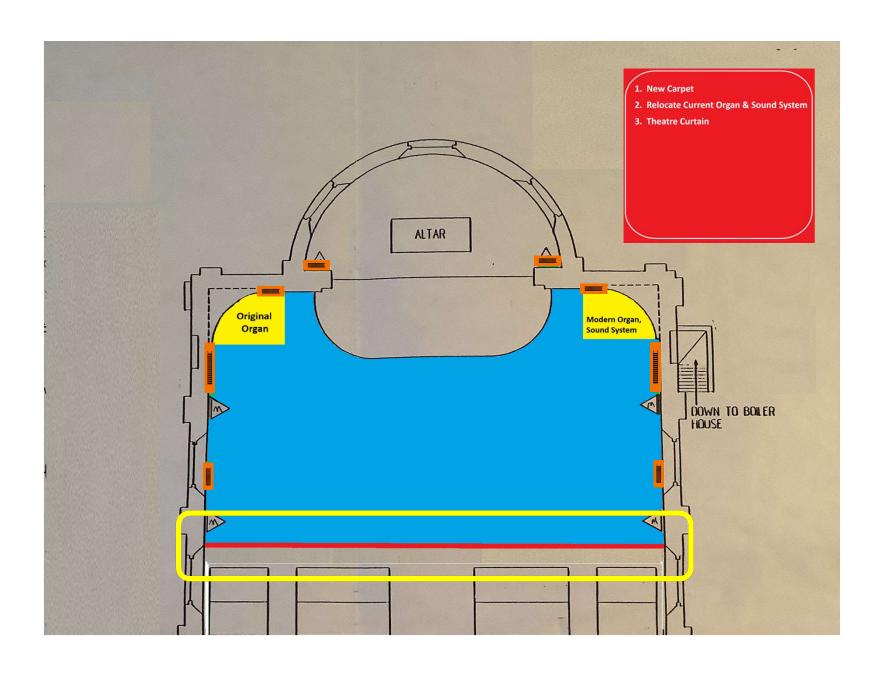
or 88% of the total volume



The Third is the "No Heating" Zone.

Its internal volume is ~ 300 m3

or 12% of the total volume



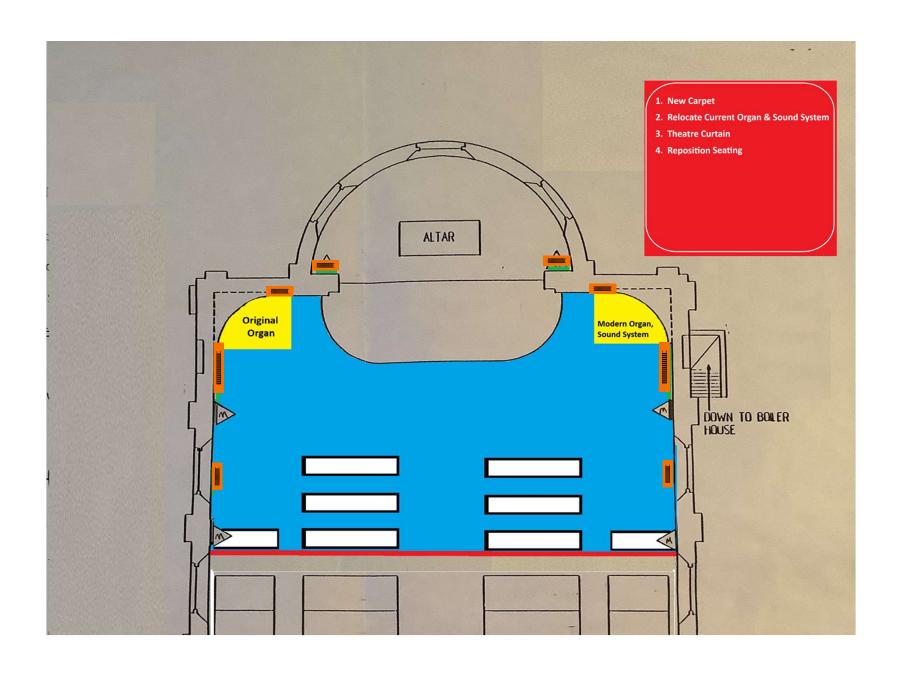
## Tableau Drape – also known as a Wagner Drape

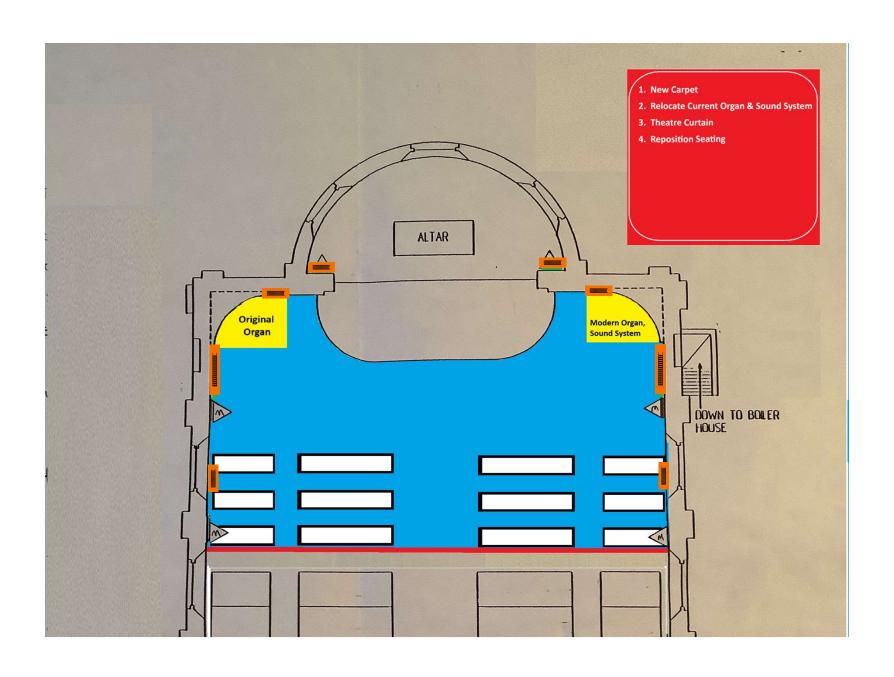


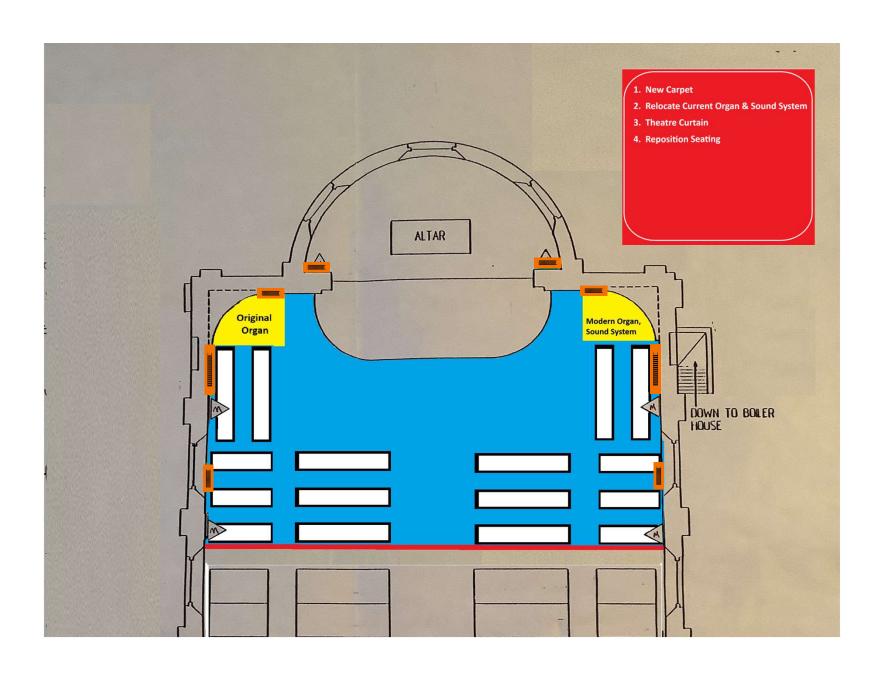
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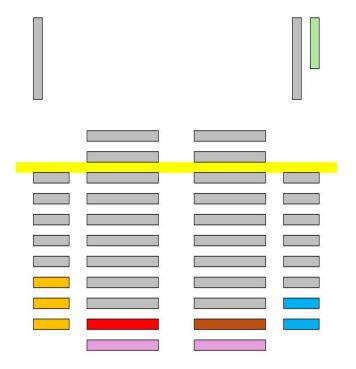


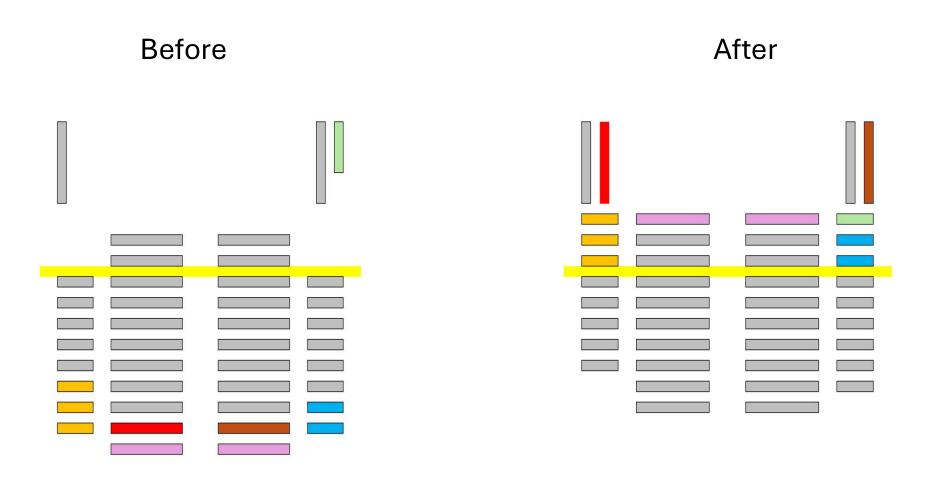


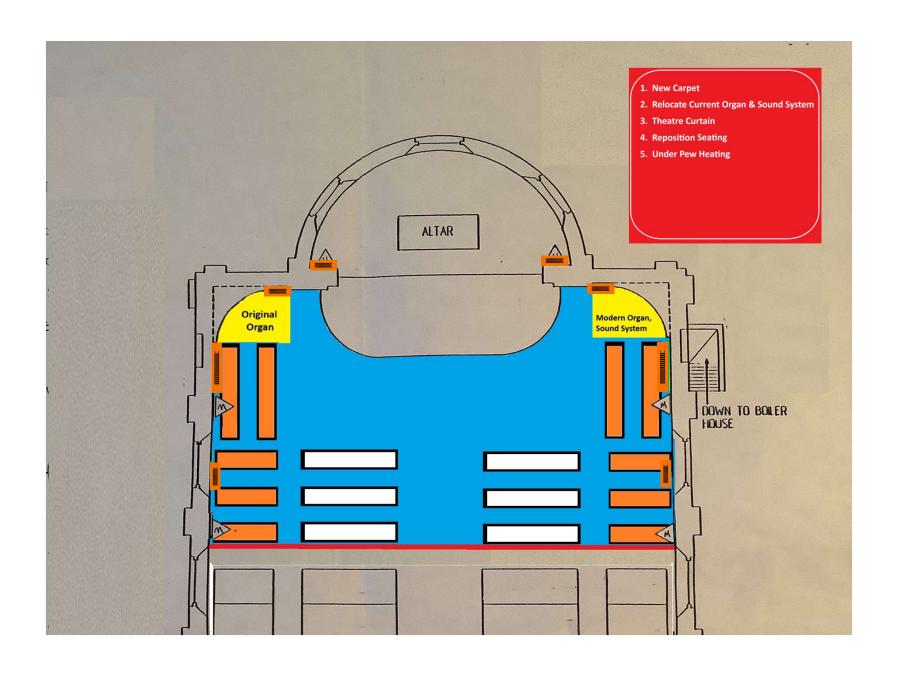




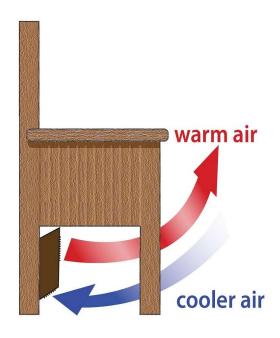
Before After













# **500W Energy Efficient Space Heaters PTC Ceramic Fast Heating**

Positive temperature coefficient (PTC) heaters consist of specialised heating discs built from advanced ceramic materials.

These safe, powerful, and energyefficient heaters allow for exceptional heat production and transfer within even the smallest spaces.

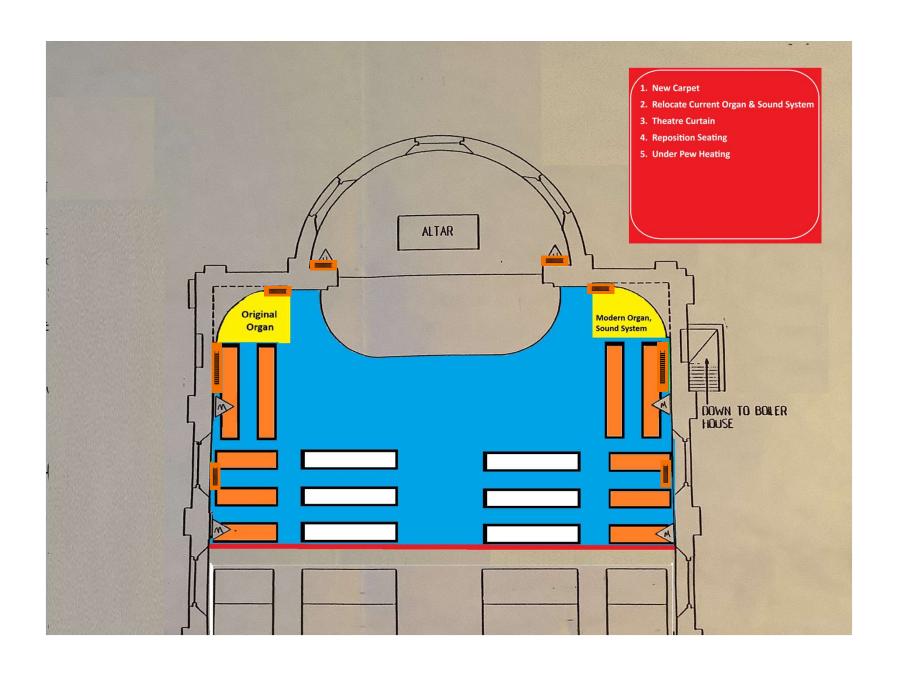


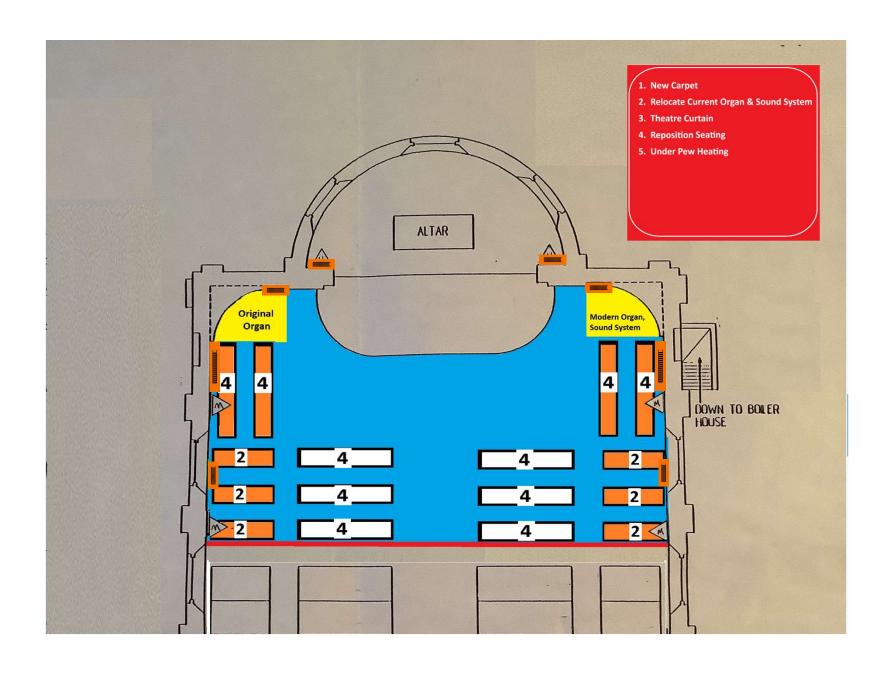
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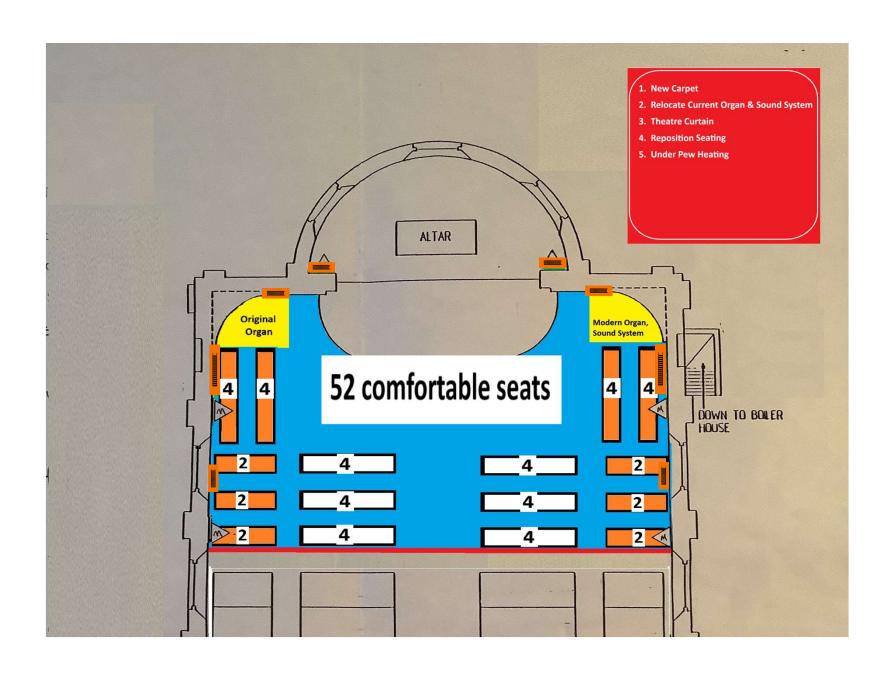
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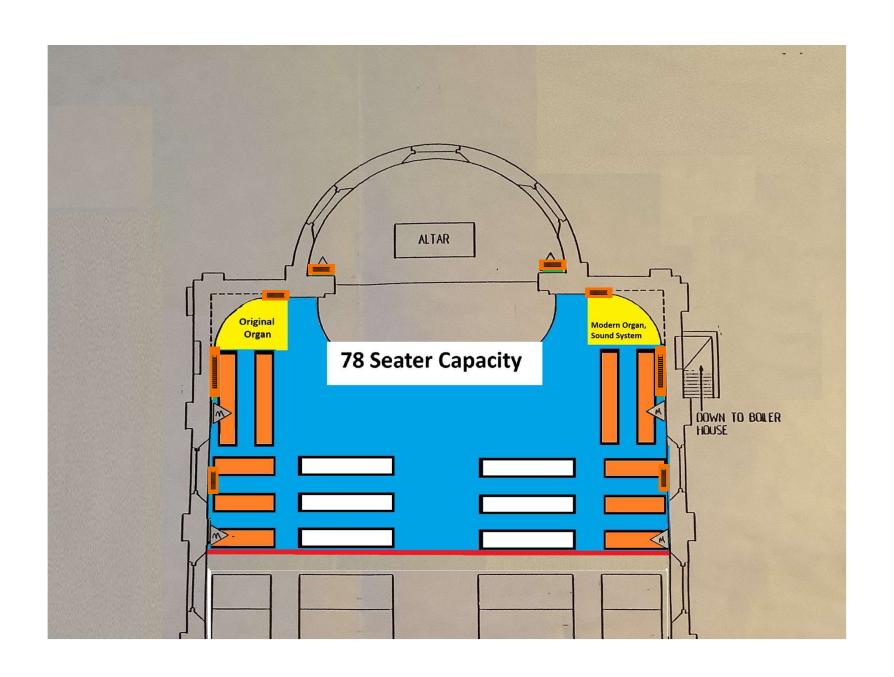
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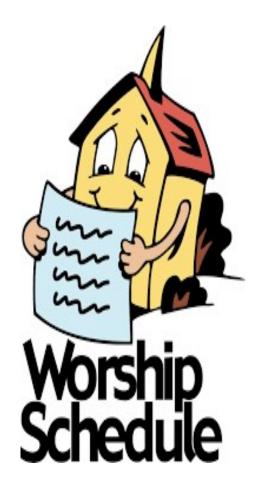
£225.00 v £17.99











### From 1st October 2023 to 30th September 2024

The church building was used on 83 separate occasions, made up of:

**44 Sunday Morning Worship** (not including Café Church or those combined with a baptism)

- 7 Weddings
- 11 Funerals
- 10 Baptisms
- 2 School Assemblies
- 9 Special Services



For the Standard Sunday Morning Service

The average attendance was 33 people

The maximum attendance over the year was 46 (21st July 2023)

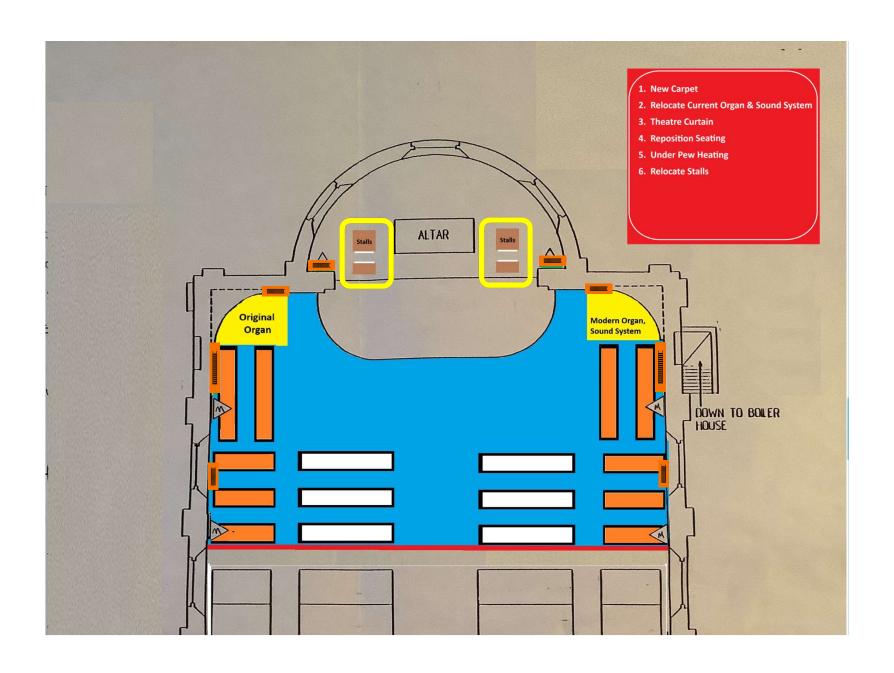
During the period from October to April, an attendance of more than 40 people occurred on 8 occasions (less than 1 in 5 services)

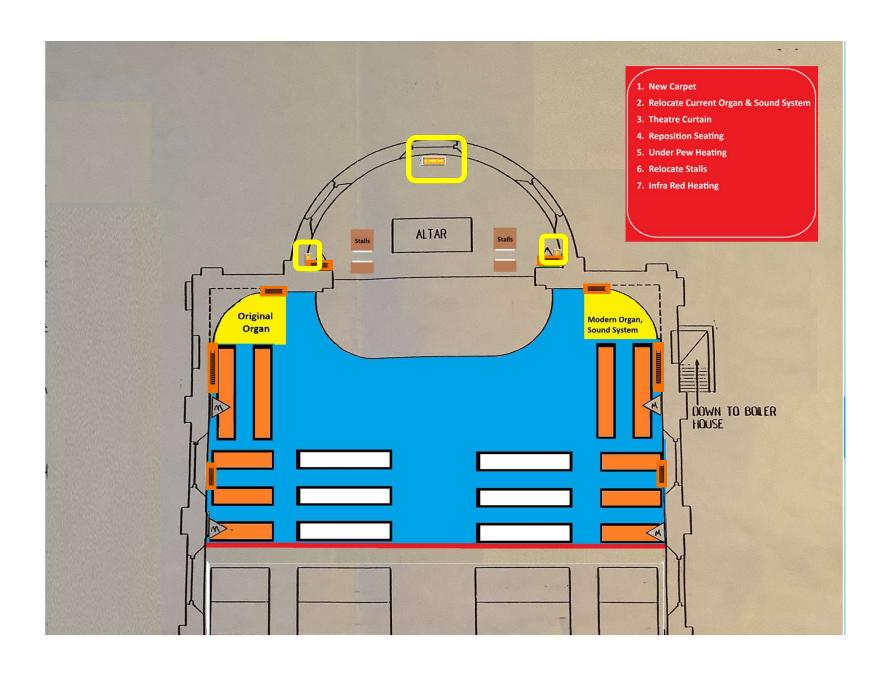


Ignoring the two School Assemblies, The Christingle Service and Remembrance Sunday – accounting for 27% of the total number of people who attended church over the year

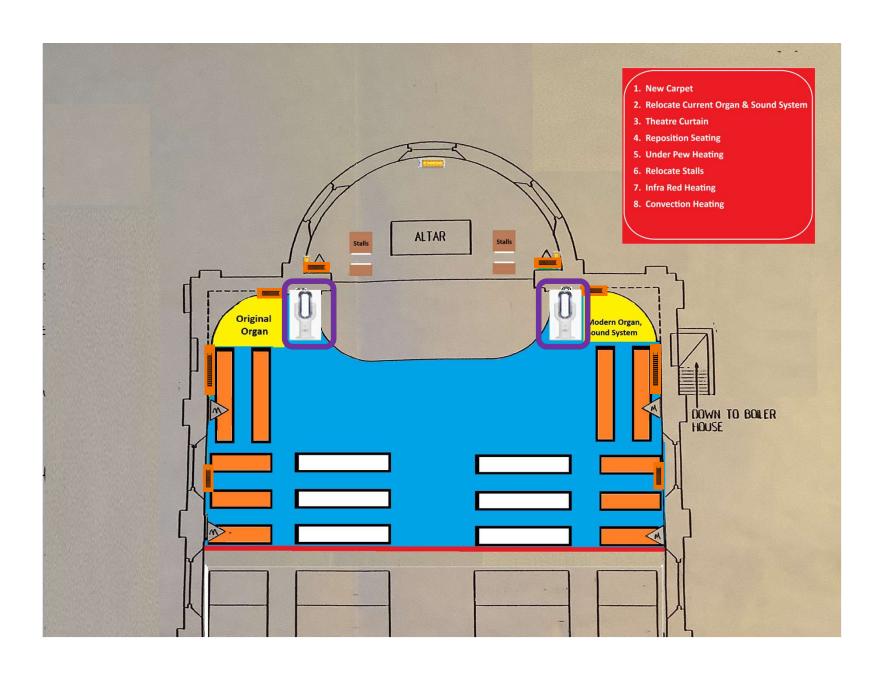
On only 10 out of the 79 services (13%) was attendance greater than 78 people.

Half of them happened during the warmer months when there was little or no heating

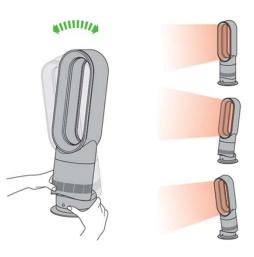






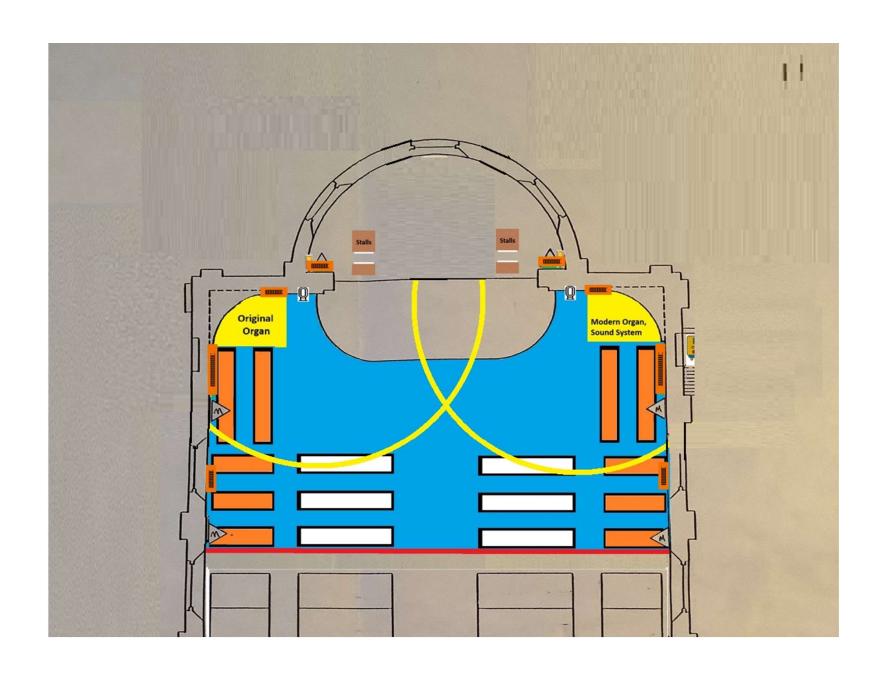




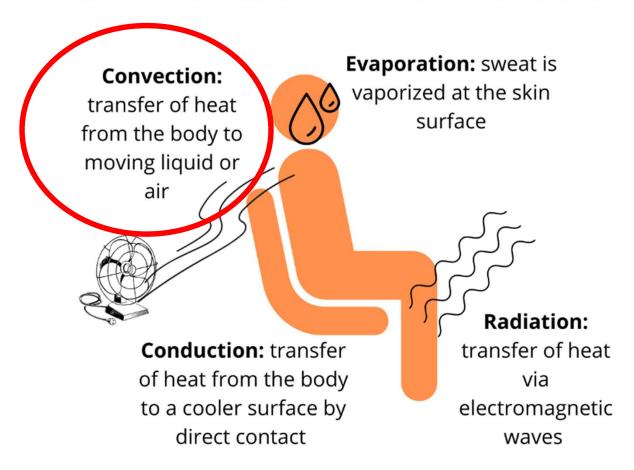


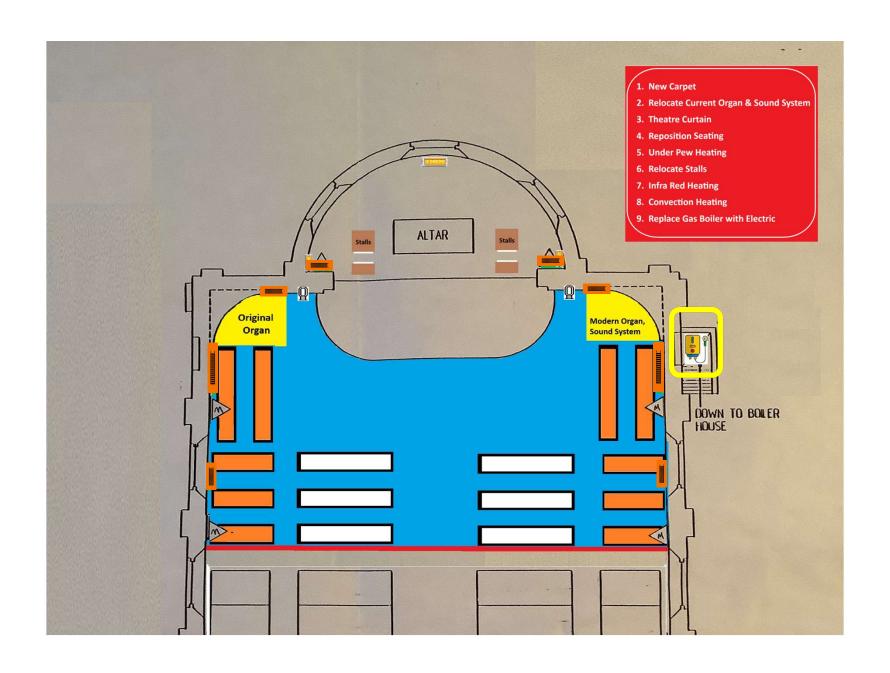
Each fan will cover 800ft² – which is roughly 75m²

Winter Church  $m^2 = 13.4 \text{m} \times 6.8 \text{m} = 91.2 \text{ m}^2$ 



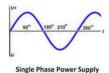
## **Methods of Heat Loss**





Current (Amps) x Electric Potential (Volts) = Power (Watts)

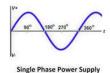
## **Current (Amps) x Electric Potential (Volts) = Power (Watts)**



For Single Phase Power Supply:

100 amps x 230 Volts = 23,000 Watts = 23kW

### **Current (Amps) x Electric Potential (Volts) = Power (Watts)**



For Single Phase Power Supply: 100 amps x 230 Volts = 23,000 Watts = 24kW



For Three Phase Power Supply:

100 amps x 415 Volts = 41,500 Watts = 41.5 kW



## **Domestic Electric Boiler typically ~12kW**

We are likely to need one that is more than 25kW

Therefore, for us to install an Electric Boiler, we would need to convert from single phase to three phase

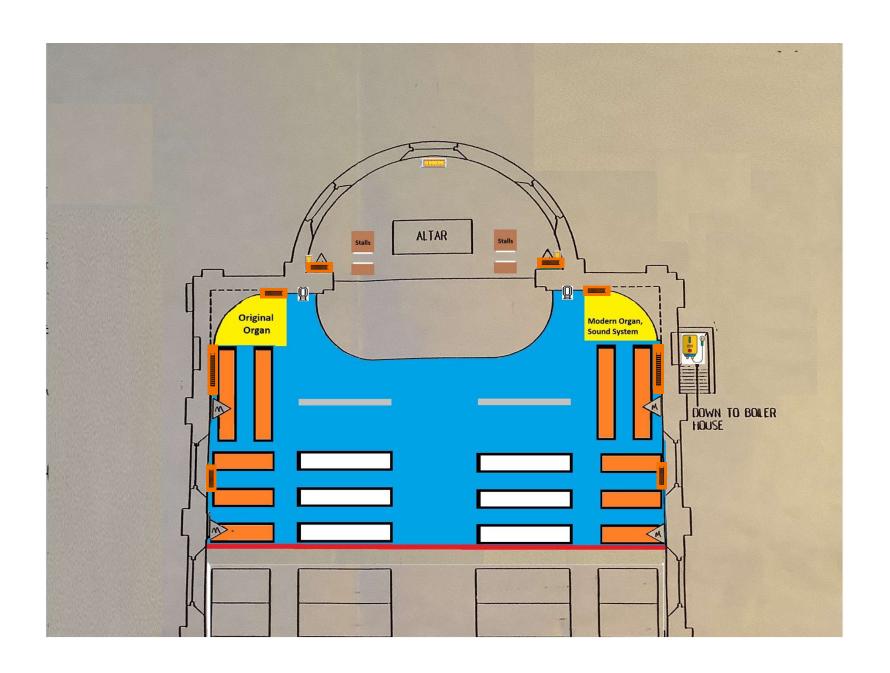


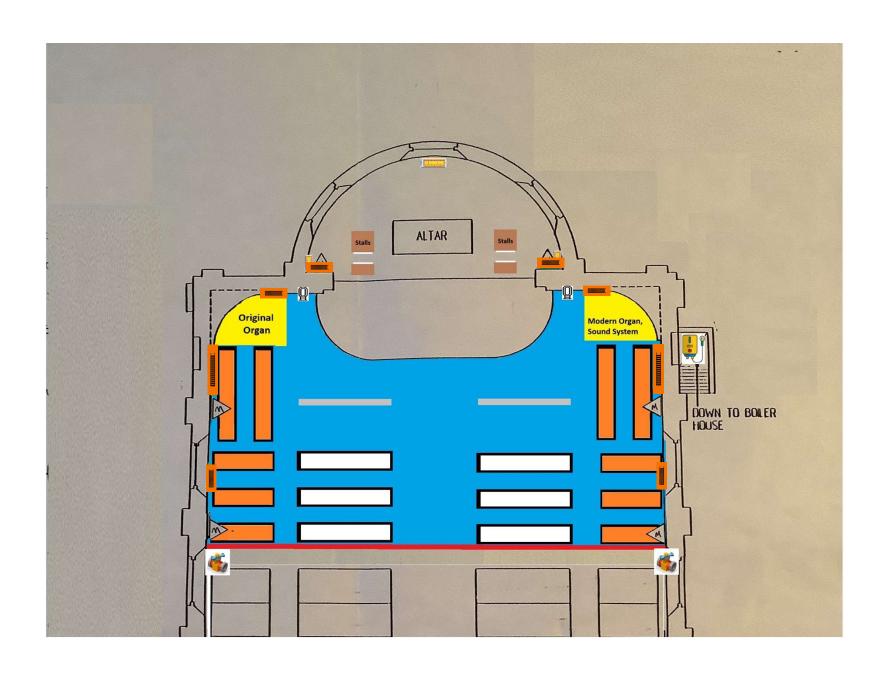
#### **Domestic Electric Boiler typically ~12kW**

We are likely to need one that is more than 25kW

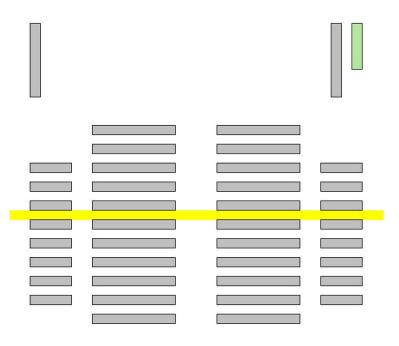
Therefore, for us to install an Electric Boiler, we would need to convert from single phase to three phase

Estimated cost to convert to three phase is somewhere between £3,000 to £7,000

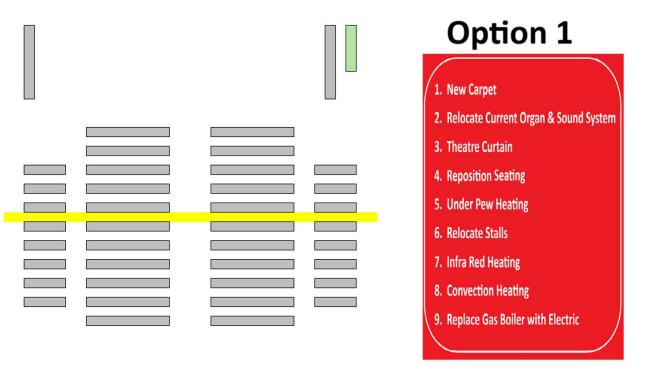




Or we could leave everything where it is and move the curtain back three rows – which would provide the same number of seats



Or we could leave everything where it is and move the curtain back three rows – which would provide the same number of seats



## Option 2

- 3. Theatre Curtain
- 5. Under Pew Heating
- 7. Infra Red Heating
- 8. Convection Heating
- 9. Replace Gas Boiler with Electric







## **Heated Stadium Seat**

**Cushion Pad** 

**Cordless Rechargeable** 

**49F USB Battery** 

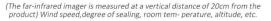
**3 Heat Settings** 

- 1. New Carpet
- 2. Relocate Current Organ & Sound System
- 3. Theatre Curtain
- 4. Reposition Seating
- 5. Under Pew Heating
- 6. Relocate Stalls
- 7. Infra Red Heating
- 8. Convection Heating
- 9. Replace Gas Boiler with Electric
  - 10. Personal seat warmers



Key switch/adjustment design, long press for three seconds to turn on,The initial gear is low gear, click to switch gears





122-131°F





## **Heated Stadium Seat**

**Cushion Pad** 

**Cordless Rechargeable** 

**49F USB Battery** 

**3 Heat Settings** 

Battery takes ~30 minutes to fully charge - at a cost of ~7 pence per charge.

Supplies heat for ~2hrs

Heat temp is ~35°C

- 1. New Carpet
- 2. Relocate Current Organ & Sound System
- 3. Theatre Curtain
- 4. Reposition Seating
- 5. Under Pew Heating
- 6. Relocate Stalls
- 7. Infra Red Heating
- 8. Convection Heating
- 9. Replace Gas Boiler with Electric
  10. Personal seat warmers



Key switch/adjustment design, long press for three seconds to turn on,The initial gear is low gear, click to switch gears



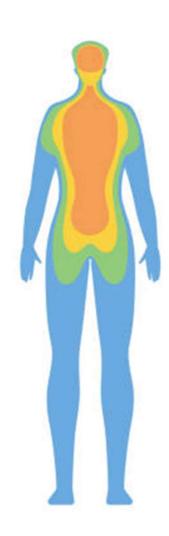
(The far-infrared imager is measured at a vertical distance of 20cm from the product) Wind speed, degree of sealing, room tem- perature, altitude, etc.

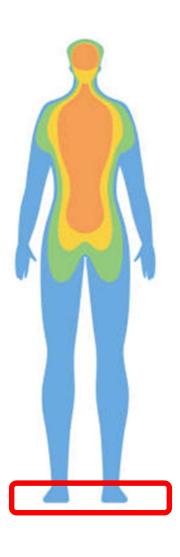
## **Body Cooling**



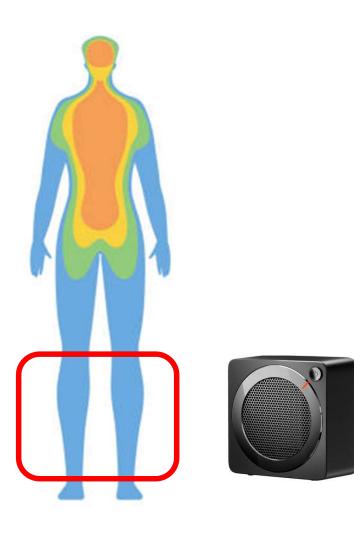


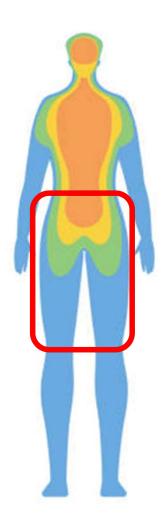














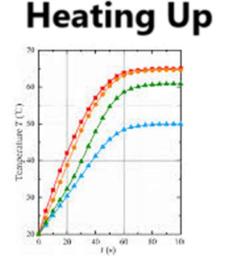
## The Magnificent 7 Control Items



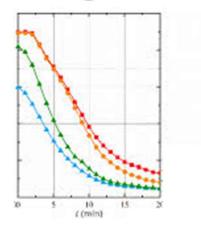
- 1. Simple
- 2. Intuitive
- 3. Pre-Programmed
- 4. Responsive
- 5. Changes can be made offsite if required
- 6. Easy to service
- 7. Reliable



## **Thermal Lag**



## **Cooling Down**

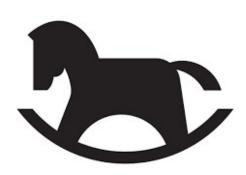


Many churches keep the heating on until the end of the service, not realising that it may take 30-45 minutes for the radiators to cool down after the heating clicks off. This is wasting energy and money for no benefit.

# Things not considered – but need to be as part of the whole Project





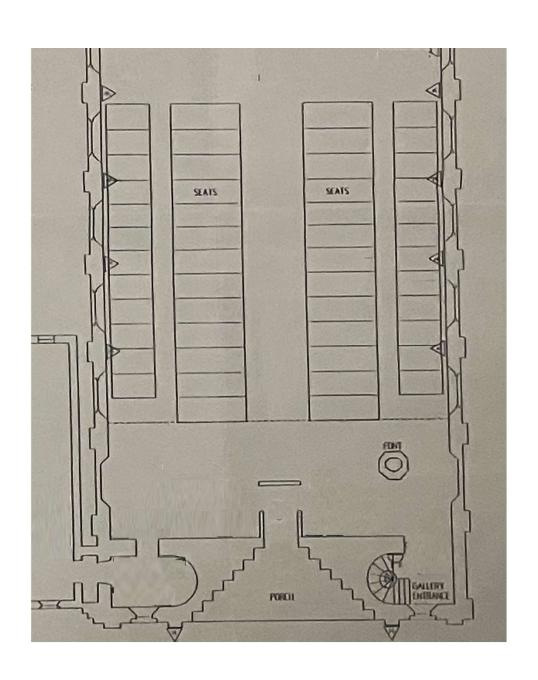


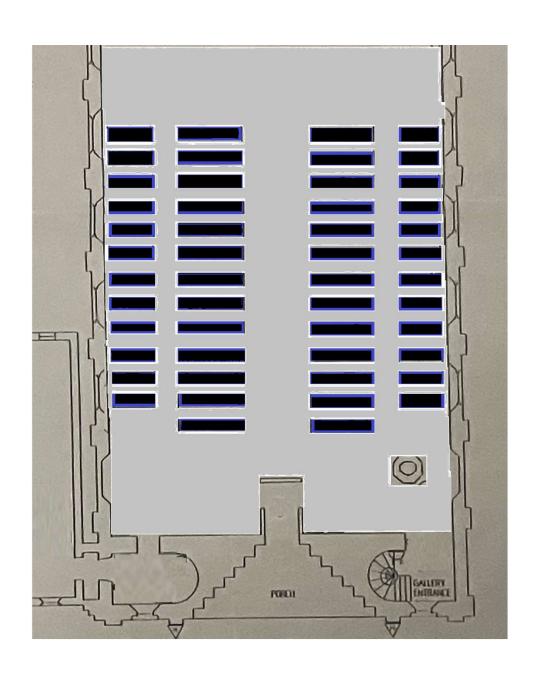


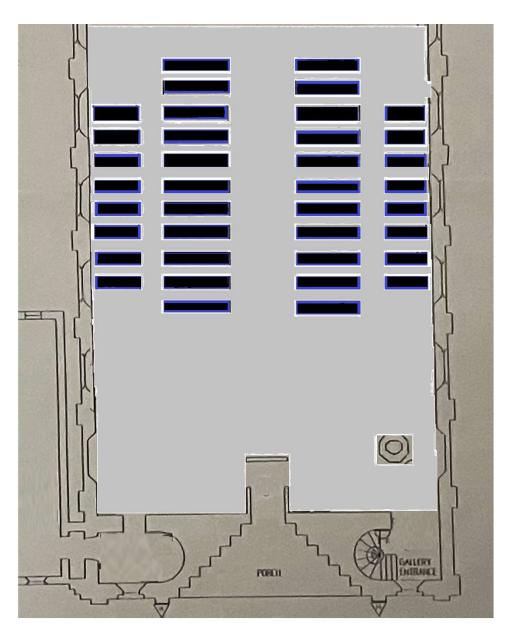




### The Back End

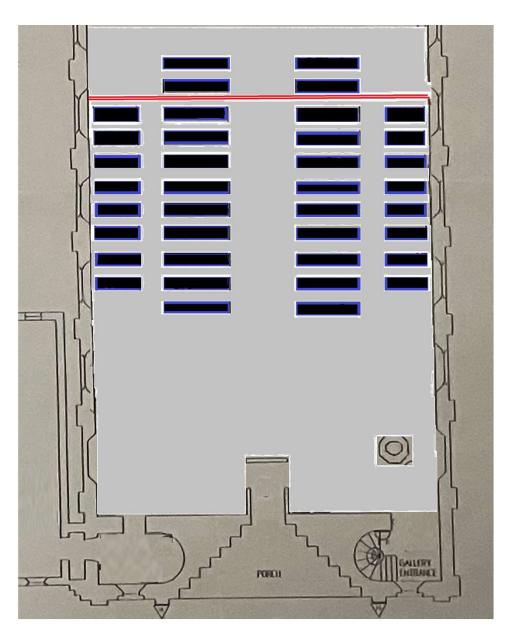


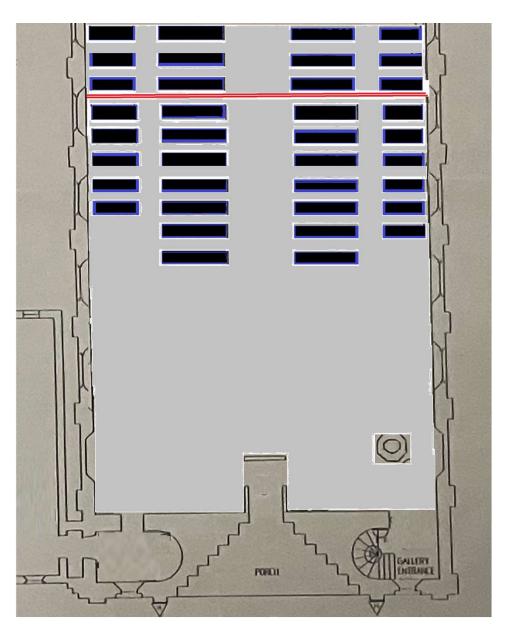




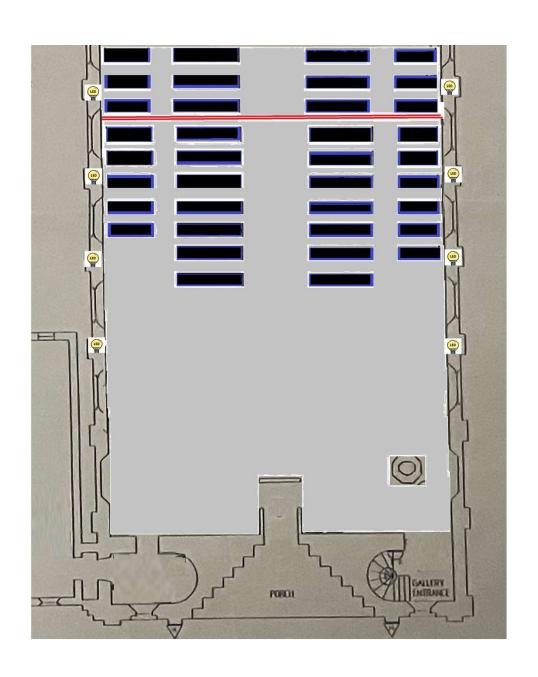
Updated drawing showing:

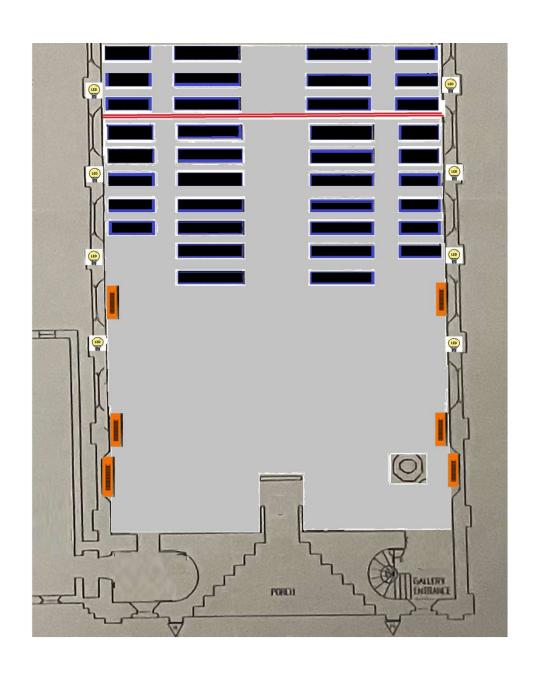
Pews removed – early 2000's

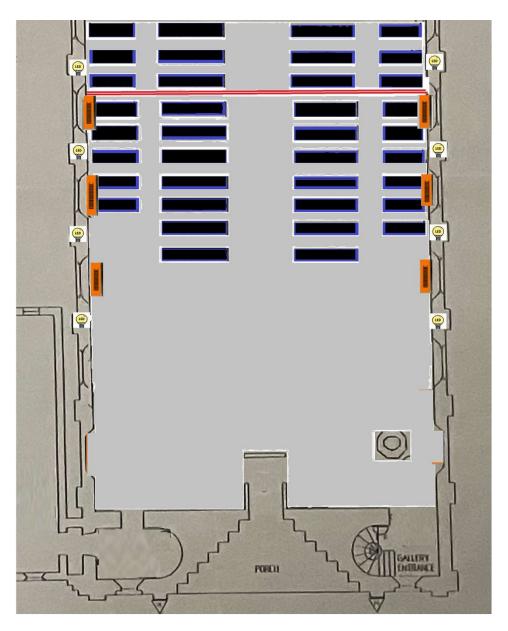




**Pews Repositioned** 

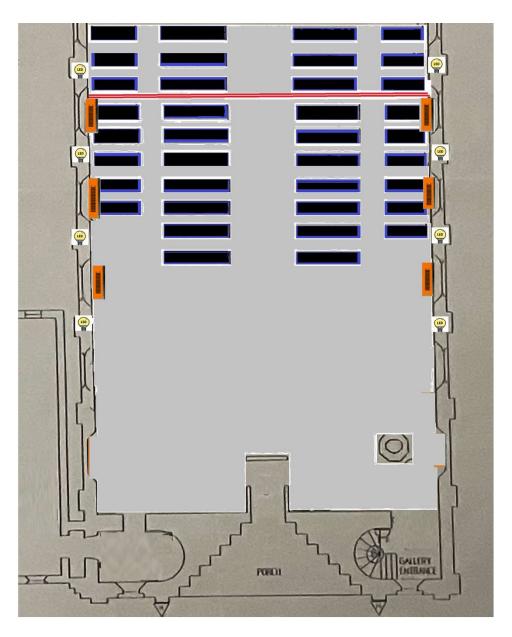






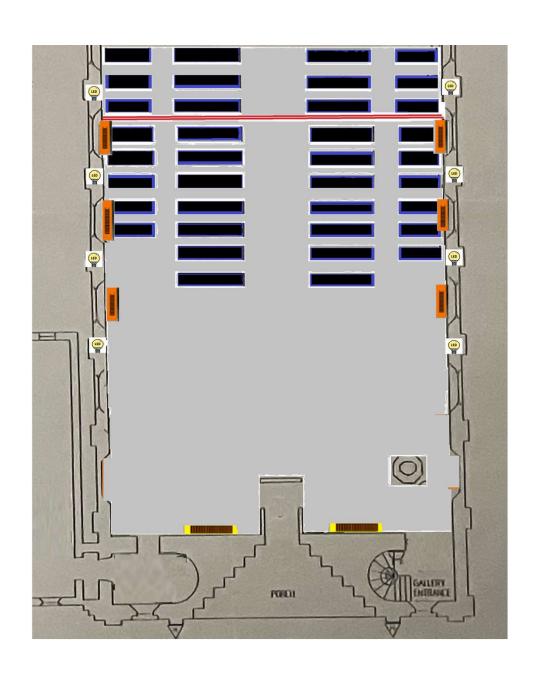
Pews Repositioned

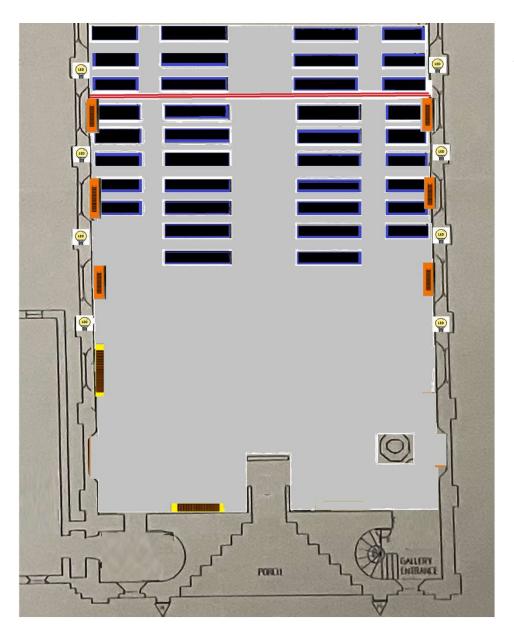
**Reposition Radiators** 



Pews Repositioned

Reposition Radiators – and possibly update

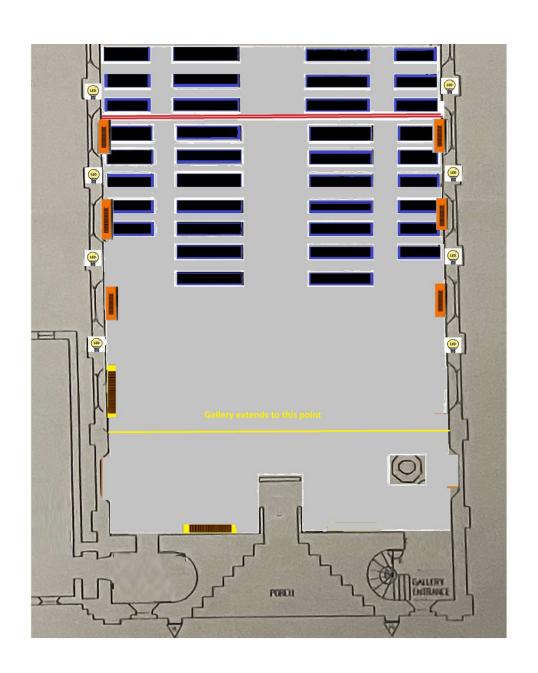


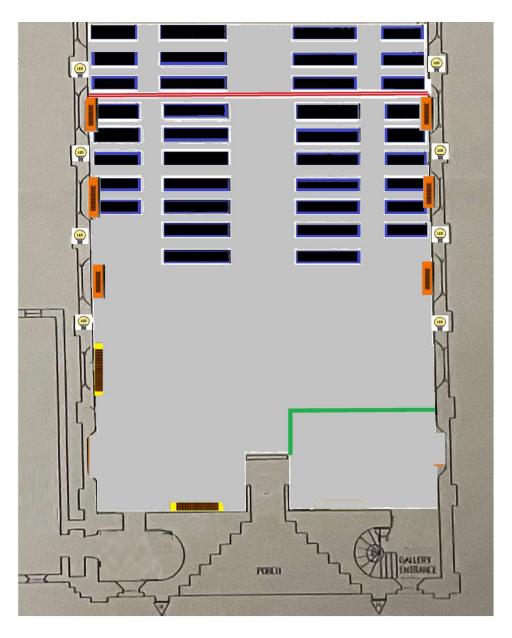


Pews Repositioned

**Reposition Radiators** 

**Reposition Storage Heater** 





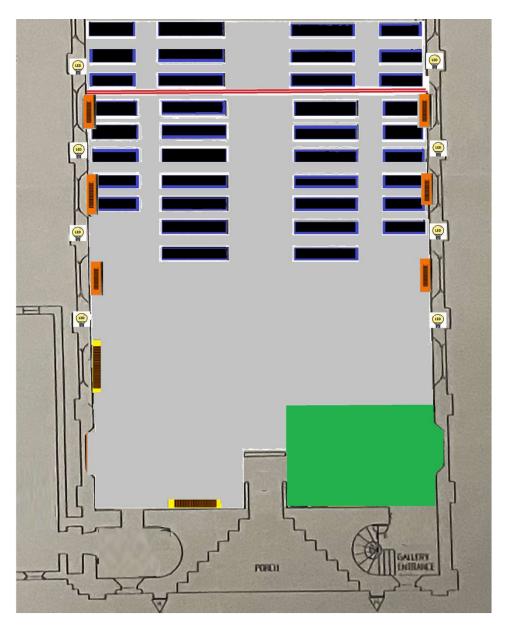
Pews Repositioned

**Reposition Radiators** 

Reposition Storage Heater

**Create New Space** 





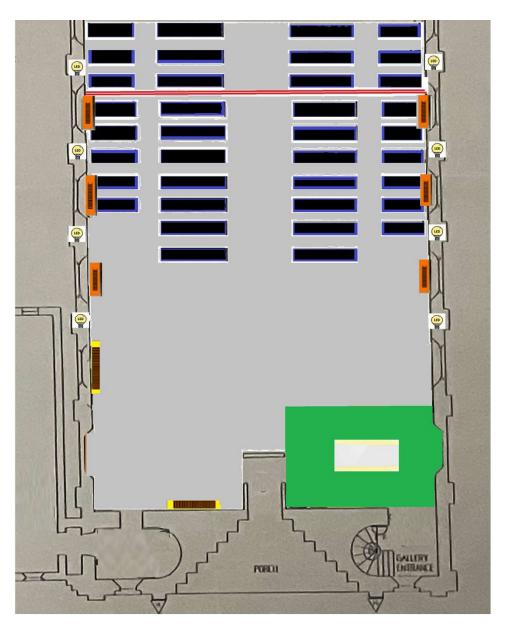
Pews Repositioned

**Reposition Radiators** 

Reposition Storage Heater

**Create New Space** 

**Carpet New Space** 



**Pews Repositioned** 

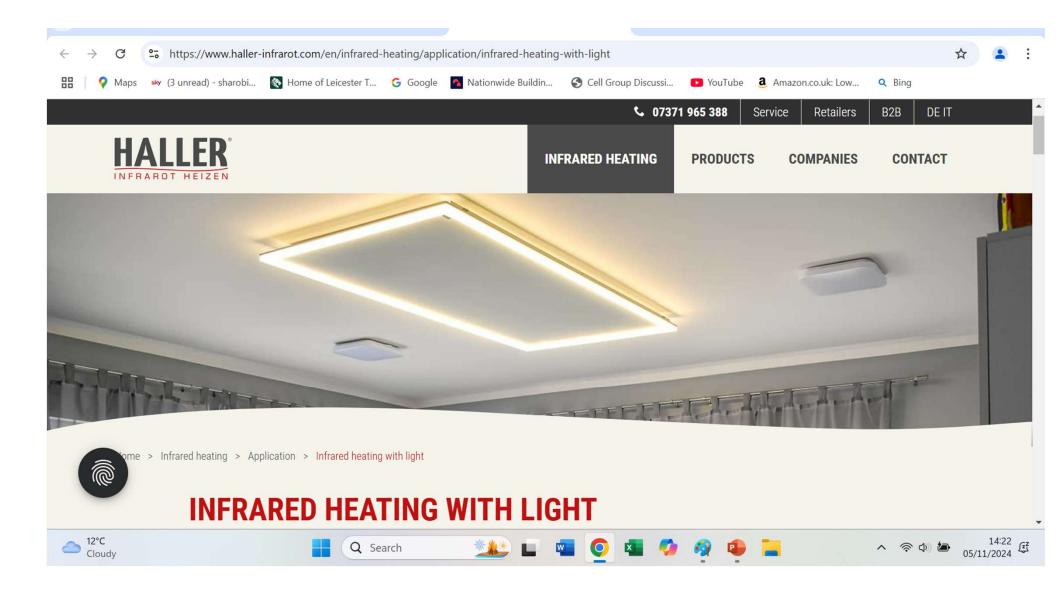
**Reposition Radiators** 

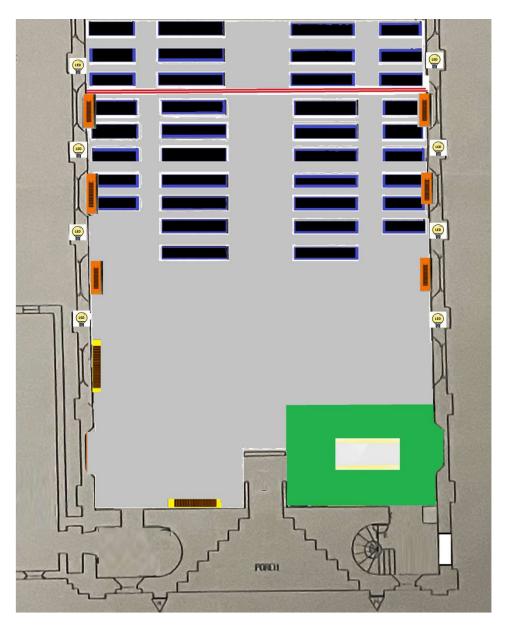
Reposition Storage Heater

**Create New Space** 

Carpet New Space

**Combined light & Infra Red** 





**Pews Repositioned** 

**Reposition Radiators** 

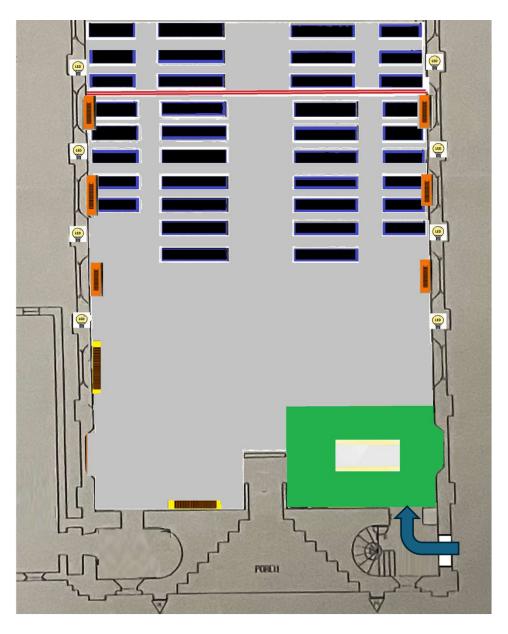
Reposition Storage Heater

**Create New Space** 

Carpet New Space

Combined light & Infra Red

**Re-Open External Door** 



**Pews Repositioned** 

**Reposition Radiators** 

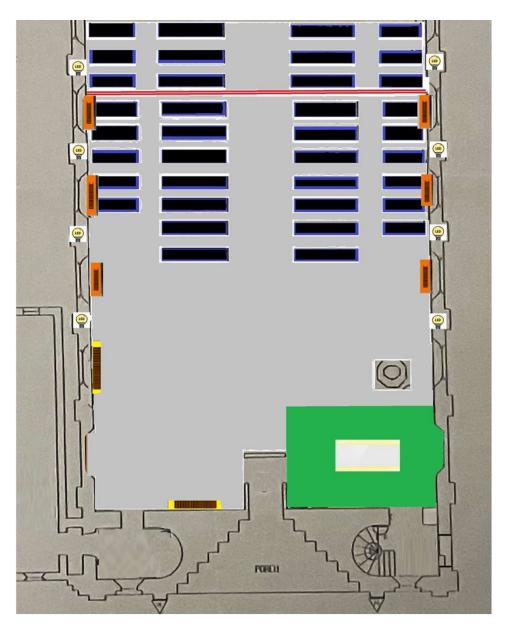
Reposition Storage Heater

**Create New Space** 

Carpet New Space

Combined light & Infra Red

**Re-Open External Door** 



**Pews Repositioned** 

**Reposition Radiators** 

Reposition Storage Heater

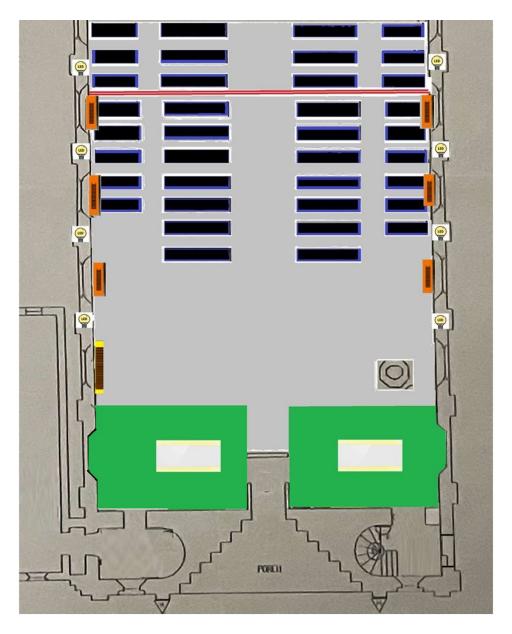
**Create New Space** 

Carpet New Space

Combined light & Infra Red

Re-Open External Door

Reposition Font – if required



**Pews Repositioned** 

**Reposition Radiators** 

Reposition Storage Heater

**Create New Space** 

Carpet New Space

Combined light & Infra Red

Re-Open External Door

Reposition Font – if required

**Second New Space** 



**Pews Repositioned** 

**Reposition Radiators** 

Reposition Storage Heater

**Create New Space** 

Carpet New Space

Combined light & Infra Red

Re-Open External Door

Reposition Font – if required

Second New Space

**2nd Theatre Curtain** 

### Four Different Cost Elements

- 1. Capital
- 2. Operational
- 3. Maintenance
- 4. Replacement

## 1. Capital

| Total Pote               | ential F | ower Cor | nsumption          |  |
|--------------------------|----------|----------|--------------------|--|
|                          | No.      | Watts    | <b>Total Watts</b> |  |
| <b>Under Pew Heaters</b> |          |          |                    |  |
| Convector Heaters        |          |          |                    |  |
| Infra Red Heater         |          |          |                    |  |
| Lights                   |          |          |                    |  |
| Sound                    |          |          |                    |  |
| Projector                |          |          |                    |  |
| Photocopier              |          |          |                    |  |
| Other lighting           |          |          |                    |  |
|                          |          |          |                    |  |
| Combined Light/Heater    |          |          |                    |  |
| Other Items              |          |          |                    |  |
| Electric Boiler          |          |          |                    |  |
|                          |          |          |                    |  |
|                          |          |          |                    |  |
|                          |          |          |                    |  |
|                          |          |          |                    |  |

| Total Pote               | ntial F | Power Cor | sumption           |  |
|--------------------------|---------|-----------|--------------------|--|
|                          | No.     | Watts     | <b>Total Watts</b> |  |
| <b>Under Pew Heaters</b> | 14      |           |                    |  |
| <b>Convector Heaters</b> | 6       |           |                    |  |
| Infra Red Heater         | 3       |           |                    |  |
| Lights                   | 12      |           |                    |  |
| Sound                    | 1       |           |                    |  |
| Projector                | 1       |           |                    |  |
| Photocopier              | 1       |           |                    |  |
| Other lighting           | 16      |           |                    |  |
| Combined Light/Heater    | 2       |           |                    |  |
| Other Items              | 1       |           |                    |  |
| Electric Boiler          | 1       |           |                    |  |
|                          |         |           |                    |  |
|                          |         |           |                    |  |
|                          |         |           |                    |  |
|                          |         |           |                    |  |

| Total Pote               | ential F | Power Cor | nsumption          |
|--------------------------|----------|-----------|--------------------|
|                          | No.      | Watts     | <b>Total Watts</b> |
| <b>Under Pew Heaters</b> | 14       | 500       |                    |
| <b>Convector Heaters</b> | 6        | 2050      |                    |
| Infra Red Heater         | 3        | 1000      |                    |
| Lights                   | 12       | 150       |                    |
| Sound                    | 1        | 50        |                    |
| Projector                | 1        | 1000      |                    |
| Photocopier              | 1        | 800       |                    |
| Other lighting           | 16       | 100       |                    |
|                          |          |           |                    |
| Combined Light/Heater    | 2        | 700       |                    |
| Other Items              | 1        | 1000      |                    |
| Electric Boiler          | 1        | 20000     |                    |

| Total Pote            | ential F | Power Cor | nsumption          |       |
|-----------------------|----------|-----------|--------------------|-------|
|                       | No.      | Watts     | <b>Total Watts</b> |       |
| Under Pew Heaters     | 14       | 500       | 7,000              |       |
| Convector Heaters     | 6        | 2050      | 12,300             |       |
| Infra Red Heater      | 3        | 1000      | 3,000              |       |
| Lights                | 12       | 150       | 1,800              |       |
| Sound                 | 1        | 50        | 50                 |       |
| Projector             | 1        | 1000      | 1,000              |       |
| Photocopier           | 1        | 800       | 800                |       |
| Other lighting        | 16       | 100       | 1,600              |       |
| Combined Light/Heater | 2        | 700       | 1,400              |       |
| Other Items           | 1        | 1000      | 1,000              |       |
| Electric Boiler       | 1        | 20000     | 20,000             |       |
|                       |          |           | 49,950             | Watts |
|                       |          |           | 50                 | kW    |

| Total Pote               | ential F | Power Cor | sumption           |  |
|--------------------------|----------|-----------|--------------------|--|
|                          | No.      | Watts     | <b>Total Watts</b> |  |
| <b>Under Pew Heaters</b> | 14       | 500       | 7,000              |  |
| <b>Convector Heaters</b> | 6        | 2050      | 12,300             |  |
| Infra Red Heater         | 3        | 1000      | 3,000              |  |
| Lights                   | 12       | 150       | 1,800              |  |
| Sound                    | 1        | 50        | 50                 |  |
| Projector                | 1        | 1000      | 1,000              |  |
| Photocopier              | 1        | 800       | 800                |  |
| Other lighting           | 16       | 100       | 1,600              |  |
|                          |          |           | 4 400              |  |
| Combined Light/Heater    | 2        | 700       | 1,400              |  |
| Other Items              | 1        | 1000      | 1,000              |  |
| Electric Boiler          | 1        | 20000     | 20,000             |  |

### Greater than 41.5kW Available

50 kW

|      | Total Potential Power Consumption       |     |                    |                       |                |      |
|------|---|-----|--------------------|-----------------------|----------------|------|
|      |   | No. | Watts              | <b>Total Watts</b>    |                |      |
|      | <b>Under Pew Heaters</b>                | 14  | 500                | 7,000                 |                |      |
|      | Convector Heaters                       | 6   | 2050               | 12,300                |                |      |
|      | Infra Red Heater                        | 3   | 1000               | 3,000                 |                |      |
|      | Lights                                  | 12  | 150                | 1,800                 |                |      |
| Howe | ver, the                                | cþ  | n <mark>%</mark> e | ecto, foo             | hea            | ters |
| woul | Photocopier Oherigith DE                | u S | 800<br>800         | at the                | e sa           | me   |
| tin  | Combined Light Heater<br>ther Items The | ģ   | le©                | tric <sub>1,</sub> to | oile           | r    |
|      | Electric Boiler                         | 1   | 20000              | 20,000                |                |      |
|      |   |     |                    | 49,950                | Watts          |      |
|      |   |     |                    | _ <del>50</del>       | <b>k₩</b> 38 l | kW   |

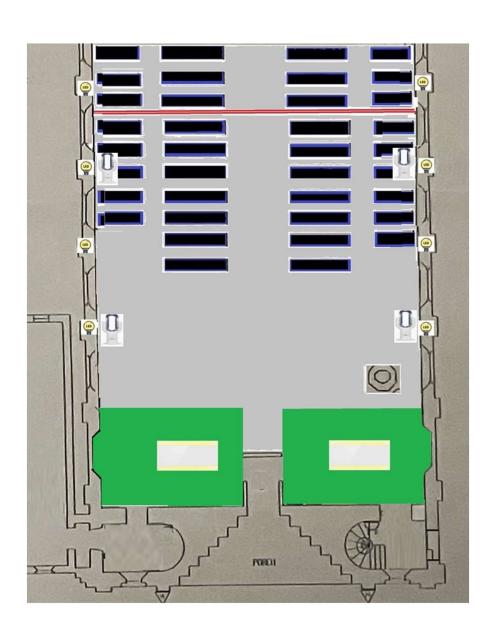
|                          | No. | Watts | <b>Total Watts</b> |       |
|--------------------------|-----|-------|--------------------|-------|
| <b>Under Pew Heaters</b> |     |       |                    |       |
| Convector Heaters        |     |       |                    |       |
| Infra Red Heater         |     |       |                    |       |
| Lights                   | 12  | 150   | 1,800              |       |
| Sound                    | 1   | 50    | 50                 |       |
| Projector                | 1   | 1000  | 1,000              |       |
| Photocopier              | 1   | 800   | 800                |       |
| Other lighting           | 16  | 100   | 1,600              |       |
| Combined Light/Heater    | 2   | 700   | 1,400              |       |
| Other Items              | 1   | 1000  | 1,000              |       |
| Electric Boiler          | 1   | 20000 | 20,000             |       |
|                          |     |       | 27,650             | Watts |
|                          |     |       | 28                 | kW    |

| <b>Total Potential Pov</b> | ver Co | nsumptio | n for Space Heating |
|----------------------------|--------|----------|---------------------|
|                            | No.    | Watts    | <b>Total Watts</b>  |
| <b>Under Pew Heaters</b>   |        |          |                     |
| Convector Heaters          |        |          |                     |
| Infra Red Heater           |        |          |                     |
| Lights                     | 12     | 150      | 1,800               |
| Sound                      | 1      | 50       | 50                  |
| Projector                  | 1      | 1000     | 1,000               |
| Photocopier                | 1      | 800      | 800                 |
| Other lighting             | 16     | 100      | 1,600               |
| Combined Light/Heater      | 2      | 700      | 1,400               |
| Other Items                | 1      | 1000     | 1,000               |
| Croot                      | 0 K    | th a     | n 221/1/            |

Greater than 23kW

# Would need to go to three phase

28 kW



### **SINGLE PHASE**

**Remove Boiler** 

**Remove Radiators** 

**Remove Storage Heaters** 

**Install Convection Heaters** 

### **Total Potential Power Consumption Space Heating Single Phase**

|                              | No. | Watts | <b>Total Watts</b> |
|------------------------------|-----|-------|--------------------|
| <b>Under Pew Heaters</b>     |     |       |                    |
| <b>Convector Heaters</b>     | 6   | 2050  | 12,300             |
| Infra Red Heater             |     |       |                    |
| Lights                       | 12  | 150   | 1,800              |
| Sound                        | 1   | 50    | 50                 |
| Projector                    | 1   | 1000  | 1,000              |
| Photocopier                  | 1   | 800   | 800                |
| Other lighting               | 16  | 100   | 1,600              |
| <b>Storage Heaters</b>       |     |       |                    |
|                              |     |       |                    |
| <b>Combined Light/Heater</b> | 2   | 700   | 1,400              |
| Other Items                  | 1   | 1000  | 1,000              |

**Electric Boiler** 

19,950 Watts





| Basic Changes for "Winter Church" Stay as we are. |                     |        |  |
|---|---------------------|--------|--|
| Theatre Curtain                                   | Approx cost         | 4,000  |  |
| Under Pew Heating                                 | 14 units @ £20 each | 280    |  |
| Infra Red Heating                                 | 3 units @ £50       | 150    |  |
| Convection Heating                                | Dyson, 2 units      | 1,100  |  |
| Create New Spaces                                 |                     | 6,800  |  |
| Carpet New Spaces                                 | 5.5m x 3.1m @£17/m2 | 600    |  |
| Fitting out new spaces                            |                     | 2,000  |  |
| Re-Open External Door                             |                     | 300    |  |
| Reposition Font – if required                     |                     | 100    |  |
| Combined light & Infra Red                        |                     | 200    |  |
| 2nd Curtain above Gallery                         |                     | 2,500  |  |
| Stadium Seats                                     | 40 units @ £30      | 1,200  |  |
| Chargers for seats                                | 40 units @ £7       | 280    |  |
| Bluetooth Controllers                             |                     | 1,000  |  |
| Electrical Works                                  |                     | 3,750  |  |
| Plumbing  |                     | 2,000  |  |
|   |                     | 26,260 |  |



| Additional Changes for "Winter C        | hurch" - three rows of pews less |       |
|---|----------------------------------|-------|
| New Carpet                              | 13m x 6.5m @ £17/m2              | 1,437 |
| Relocate Current Organ and Sound System | 1 days work for electrician      | 300   |
| Reposition Seating                      |                                  | 100   |
| Relocate Stalls                         |                                  | 100   |
|   |                                  | 1,937 |



| Three Phase Space Heating |        |
|---------------------------|--------|
| Electric Boiler           | 3,000  |
| Upgrade to three phase    | 7,000  |
| Reposition Radiators      | 600    |
| Reposition Storage Heater | 200    |
| Electrician               | 750    |
| Plumber                   | 2,000  |
|                           | 13,550 |



| Single Phase Space Heating |                 |       |
|----------------------------|-----------------|-------|
| Remove Wet System          |                 | 1,000 |
| Convection Heating         | Dyson , 4 units | 2,200 |
| Electrician                |                 | 250   |
| Plumber                    |                 | 500   |
|                            |                 | 3,950 |

# **INSTALLATION COSTS**

|  | Option A | Option B | Option C | Option D |
|--|----------|----------|----------|----------|
| Basic Changes for "Winter Church" Stay as we are.                | 26,260   | 26,260   | 26,260   | 26,260   |
| Additional Changes for "Winter Church" - three rows of pews less |          |          | 1,937    | 1,937    |
| Three Phase Space Heating  | 13,550   |          | 13,550   |          |
| Single Phase Space Heating                                       |          | 3,950    |          | 3,950    |
| Total  | 39,810   | 30,210   | 41,747   | 32,147   |

# 2. Operational



# **Winter Church Electrical Consumption**

|                                       | No. | Watts | <b>Total Watts</b> |    |
|---------------------------------------|-----|-------|--------------------|----|
| Under Pew Heaters                     | 14  | 500   | 7,000              |    |
| Convector Heaters (2 heaters 4 hours) | 8   | 2050  | 16,400             |    |
| Infra Red Heater                      | 3   | 1000  | 3,000              |    |
| Lights                                | 12  | 150   | 1,800              |    |
| Sound                                 | 1   | 50    | 50                 |    |
| Projector                             | 1   | 1000  | 1,000              |    |
| Photocopier                           | 1   | 800   | 800                |    |
| Combined Light/Heater                 | 2   | 700   | 1,400              |    |
| Other Items                           | 1   | 1000  | 1,000              | _  |
|                                       |     | -     | 32,450             | Wh |

**32** kWh



# **Three Phase Space Heating Electrical Consumption**

|                              | No. | Watts | <b>Total Watts</b> |    |
|------------------------------|-----|-------|--------------------|----|
| Infra Red Heater             | 3   | 1000  | 3,000              |    |
| Lights                       | 12  | 150   | 1,800              |    |
| Sound                        | 1   | 50    | 50                 |    |
| Projector                    | 1   | 1000  | 1,000              |    |
| Photocopier                  | 1   | 800   | 800                |    |
| <b>Other lighting</b>        | 16  | 100   | 1,600              |    |
| Storage Heaters              | 2   | 3000  | 6,000              |    |
| <b>Combined Light/Heater</b> | 2   | 700   | 1,400              |    |
| Other Items                  | 1   | 1000  | 1,000              |    |
| Electric Boiler (4hrs)       | 4   | 20000 | 80,000             |    |
|                              |     |       | 96,650             | Wh |
|                              |     |       |                    |    |

**97** kWh

Cost @24.5p/kW = £ 23.68



# **Single Phase Space Heating Electrical Consumption**

|                                      | No. | Watts | <b>Total Watts</b> |    |
|--------------------------------------|-----|-------|--------------------|----|
| Convector Heaters 4hrs for 6 heaters | 24  | 2050  | 49,200             |    |
| Infra Red Heater                     | 3   | 1000  | 3,000              |    |
| Lights                               | 12  | 150   | 1,800              |    |
| Sound                                | 1   | 50    | 50                 |    |
| Projector                            | 1   | 1000  | 1,000              |    |
| Photocopier                          | 1   | 800   | 800                |    |
| Other lighting                       | 16  | 100   | 1,600              |    |
| <b>Combined Light/Heater</b>         | 2   | 700   | 1,400              |    |
| Other Items                          | 1   | 1000  | 1,000              |    |
|                                      |     | -     | 59,850             | Wh |

**60** kWh

Cost @24.5p/kW = £ 14.66



Between 1st October 2023 and 31st April 2024

The church was used on 48 occasion

On 8 occasions the attendance greater than the seating capacity (78)



Between 1st October 2023 and 31st April 2024

The church was used on 48 occasion

On 8 occasions the attendance greater than the seating capacity (78)

Taking the proposed design into account, then we could have used:

The Winter Church model on 40 occasions and

The Space Heating model on 8 occasions



For Three Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £23.68 \quad = \quad £ \quad 189.43$$

$$£ \quad 507.44$$

For Single Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £14.66 \quad = \quad £ \quad 117.31$$

$$£ \quad 435.32$$



For Three Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £23.68 \quad = \quad £ \quad 189.43$$

$$£ \quad 507.44$$

For Single Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £14.66 \quad = \quad £ \quad 117.31$$

$$£ \quad 435.32$$

Our gas unit cost for the same period was £ 887.18 Plus the standing charge for that period was £ 555.95 Giving a total of £1,443.14



For Three Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £23.68 \quad = \quad £ \quad 189.43$$

$$£ \quad 507.44$$

$$43\%$$

For Single Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £14.66 \quad = \quad £ \quad 117.31$$

$$£ \quad 435.32 \qquad 51\%$$

Our gas unit cost for the same period was £ 887.18 Plus the standing charge for that period was £ 555.95 Giving a total of £1,443.14



For Three Phase

$$40 \quad X \quad £ \quad 7.95 \quad = \quad £ \quad 318.01$$

$$8 \quad X \quad £23.68 \quad = \quad £ \quad 189.43$$

$$\boxed{£ \quad 507.44}$$

For Single Phase

Our gas unit cost for the same period was £ 887.18

Plus the standing charge for that period was £ 555.95

Giving a total of £1,443.14



# **Environmental Impact - kWh fuel consumption**

# For Three Phase

# For Single Phase



# **Environmental Impact - kWh fuel consumption**

# For Three Phase

For Single Phase

Our gas consumption for the same period was 15,329



# **Environmental Impact - kWh fuel consumption**

# For Three Phase

For Single Phase

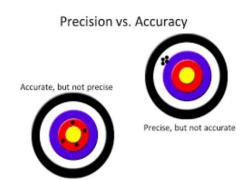
Our gas consumption for the same period was 15,329

Our confidence level on these figures is good.

Our expectation is that we will better the figures quoted regarding energy consumption – and subsequently environmental impact.

This is due to the fact that during the period 1<sup>st</sup> October 2023 to 30<sup>th</sup> April 2024, the heating was not always available – and as such our fuel consumption would have been higher than actual usage.

All figures need to be cross checked by someone not involved in the planning phase.



| Additional inscription on existing monument  | 16 | 17             | 33             |
|--|----|----------------|----------------|
| SEARCHES IN CHURCH REGISTERS  Searching registers of burials (See Note B3) (including the provision of one copy of any entry therein) for up to one hour for each subsequent hour or part of an hour Each additional copy of an entry in a register of burials | Ξ  | 34<br>34<br>17 | 34<br>34<br>17 |

The fees shown in the table do not include charges for heating, the services of a verger, music (e.g. organist, choir), bells, and flowers, which are fixed by the Parochial Church Council. In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.

B4. Costs and Expenses
In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.



| Additional inscription on existing monument   | 16 | 17             | 33             |
|---|----|----------------|----------------|
| SEARCHES IN CHURCH REGISTERS  Searching registers of burials (See Note B3) (including the provision of one copy of any entry therein) for up to one hour for each subsequent hour or part of an hour  Each additional copy of an entry in a register of burials | =  | 34<br>34<br>17 | 34<br>34<br>17 |

### EXTRAS

The fees shown in the table do not include charges for heating, the services of a verger, music (e.g. organist, choir), bells, and flowers, which are fixed by the Parochial Church Council. In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.

### **B4.** Costs and Expenses

In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.



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In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.

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### **EXTRAS**

The fees shown in the table do not include charges for heating, the services of a verger, music (e.g. organist, choir), bells, and flowers, which are fixed by the Parochial Church Council. In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.

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The fees shown in the table do not include charges for heating, he services of a verger, music (e.g. organist, choir), bells, and flowers, which are fixed by the Parochial Church Council. In the case of a marriage service or a funeral service in church, any costs and expenses incurred in respect of routine administration (including arranging dates and times and the making of entries in registers), making the church available and lighting it are included in the fee prescribed as payable to the Parochial Church Council.



024 7639 2266 heather.barnes@talk21.com



Re: Statutory Fees for Weddings for 2024

Holy Trinity, Hartshill & St Peter's Galley Common.

Rev'd Heather Barnes

The New Vicarage

Church Road, Hartshill

Nuneaton, CV10 0LY

These are the legal fees for 2024 (please note that fees are amended each year and they will be higher therefore in subsequent years.) These fees are set by the Church of England Archbishop's Council – and are therefore statutory.

For a typical Wedding taken in church

Statutory fees (a £50 deposit is needed to book your date)

(£241 for Diocesan Board of Finance / £290 for PCC) Service £531

Wedding Banns £36 (£36 for PCC) Statutory Sub Total - £ 567 (£241 for DBF / £326 for PCC)

Organist (if required) £50 Verger £30 Overall Total £644

For Banns Only (to be read for couples marrying elsewhere)

Statutory fees Banns £36 + Certificate £18 Banns Total £54 (for PCC)

For a wedding blessing after a civil service/ Anniversary Service

No Statutory fee is charged for the service -instead an equivalent fee for a wedding can be charged depending on the amount of time and detail the

service requires (ie, ranging from £290-£531). The organist and verger fee will be charged if required Verger £30

Organist (if required) £50

If you are using bank transfers please use the name of the person whose service it is as the reference. CQs to be made payable to the relevant Church. Please see below for details -

Holy Trinity Hartshill PCC Sort Code 05 06 43 Account 41716080

St Peter's Church, Galley Common Sort Code 54 21 13 Account 21504415

With many thanks and appreciation to you all

Rev'd Heather Barnes.



Rev'd Heather Barnes The New Vicarage Church Road, Hartshill Nuneaton, CV10 0LY 024 7639 2266



heather.barnes@talk21.com

Re: Fees for Funerals for 2024 Holy Trinity, Hartshill & St Peter's Galley Common.

When seeking to book a funeral in church please check the availability of the church and the minister before arranging the service and burial or cremation time/date.

+ Please note to avoid school traffic (if the funeral is to take place in Church) then it is easier for all concerned if the service starts between 10am-2pm. Thank you.

# Funeral service taken at church followed by burial or cremation

# **Statutory Fees**

CQ / Bank Transfer £262

+ Extra charges

£50 Cash for Organist (if required) - £30 Cash for Verger - £20 Heating (in winter/cold months)

added to the church fee

(Note: £228 for service and + £34 for burial or cremation if done within a day of the service otherwise an additional fee will be charged as per CofE fees)

## Funeral service taken entirely at the Crematorium

### Statutory Fees

CO / Bank Transfer £228

Burial of Ashes - please note the garden of remembrance is full for new plots at Holy Trinity

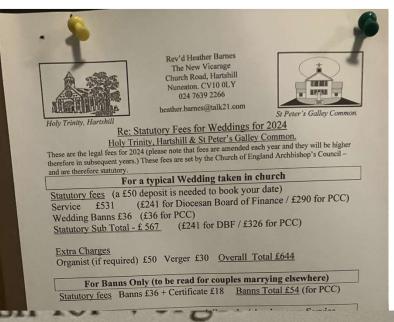
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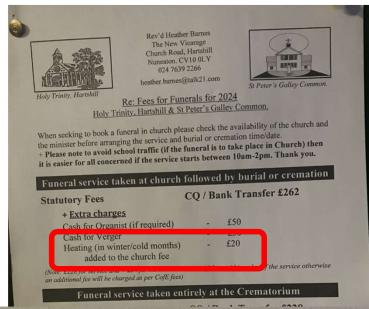
Hartshill Parochial Church Council Sort Code 05 06 43 Account 41716080

St Peter's Church, Galley Common Sort Code 54 21 13 Account 21504415

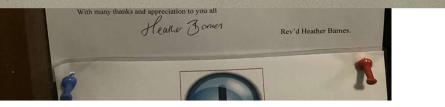
With many thanks and appreciation to you all

Heather Bornes Rev'd Heather Barnes.





# Heating (in winter/cold months) added to the church fee



Rev'd Heather Barnes.

£20

|          | Sunday Service |
|----------|----------------|
| October  | 3              |
| November | 3              |
| December | 4              |
| January  | 2              |
| February | 4              |
| March    | 5              |
| April    | 4              |

|          | Sunday Service | Funeral |
|----------|----------------|---------|
| October  | 3              | 2       |
| November | 3              | 0       |
| December | 4              | 1       |
| January  | 2              | 1       |
| February | 4              | 0       |
| March    | 5              | 0       |
| April    | 4              | 2       |

|          | Sunday Service | Funeral | Total |
|----------|----------------|---------|-------|
| October  | 3              | 2       | 5     |
| November | 3              | 0       | 3     |
| December | 4              | 1       | 5     |
| January  | 2              | 1       | 3     |
| February | 4              | 0       | 4     |
| March    | 5              | 0       | 5     |
| April    | 4              | 2       | 6     |

|          | Sunday Service | Funeral | Total | Cost    |
|----------|----------------|---------|-------|---------|
| October  | 3              | 2       | 5     | £137.96 |
| November | 3              | 0       | 3     | £131.87 |
| December | 4              | 1       | 5     | £162.91 |
| January  | 2              | 1       | 3     | £108.50 |
| February | 4              | 0       | 4     | £197.41 |
| March    | 5              | 0       | 5     | £272.37 |
| April    | 4              | 2       | 6     | £289.15 |

| Sunday Service Funeral Total Cost Average |
|---|
| October 3 2 5 £137.96 £ 27.59             |
| November 3 0 3 £131.87 £ 43.96            |
| December 4 1 5 £162.91 £ 32.58            |
| January 2 1 3 £108.50 £ 36.17             |
| February 4 0 4 £197.41 £ 49.35            |
| March 5 0 5 £272.37 £ 54.47               |
| April 4 2 6 £289.15 £ 48.19               |



In February 2024, The Guardian Newspaper reported that for the UK in 2023:

- The average wedding cost £20,700
- 69% spent over £15,000

This does not include hen party, stag party, wedding breakfast etc etc – only the costs on the day.



In October 2024, Legal & General reported that the average cost of a funeral in the UK for 2023 was :

- For Burial £5,493
- For Cremation £4,176

In their 2023 Report, British Seniors say that the average cost of a funeral reception or wake in 2023 was £2,390

So, for a funeral involving a Church Service, the average total cost is ~£7,250



In May 2021, Mumsnet said that you should budget £15.00 per head for a buffet, £100 for room hire, £200 for the cake, £100 for God-Parent presents and £80 for a Christening gown.



In May 2021, Mumsnet said that you should budget £15.00 per head for a buffet, £100 for room hire, £200 for the cake, £100 for God-Parent presents and £80 for a Christening gown.

Over the last 12 months there have been 10 baptisms, attended by 572 people – average 57 per event.

Taking the above costings into account, the average cost of a baptism could have been £1,335.



£50 for heating on a cost of a wedding at £15,000 would add an additional 0.3% to their total bill.



£50 for heating on a cost of a funeral at £7,250 would add an additional **0.7**% to their total bill.



£50 for heating on a cost of a baptism at £1,335 would add an additional 3.7% to their total bill.



£50 for heating on a cost of a wedding at £15,000 would add an additional 0.3% to their total bill.



£50 for heating on a cost of a funeral at £7,250 would add an additional 0.7% to their total bill.



The average cost of flower are:

- For a wedding £780
- For a funeral £275



£50 for heating on a cost of a wedding at £15,000 would add an additional 0.3% to their total bill.



£50 for heating on a cost of a funeral at £7,250 would add an additional 0.7% to their total bill.



The average cost of flower are:

- For a wedding £780 (5.2%)
- For a funeral £275 (3.8%)

### **HOLY TRINITY CHURCH**

CHURCH ROAD HARTSHILL WARWICKSHIRE CV10 OLY

DIOCESE OF COVENTRY

**QUINQUENNIAL INSPECTION 2023** 



| Brick/Stone Wo              | ork   |
|-----------------------------|---|
| South Elevation             | Carry out repairs to the cracked brick and stonework to the east end of the south elevation.  |
| East end of south elevation | There is a significant crack through the brick arch and the stonework above the blocked up doorway (at the east end of the south elevation) behind the entrance to the boiler room.                                     |
| South East Window           | There is a further crack above the head of the south east window and a section of the brick detailed arch over the south east window has dropped significantly and looks very loose. This requires immediate attention. |
| General Comment             | Repoint all open joints to the external brickwork and stonework. Also carefully infill the voids in the stonework.  |
| North Elevation             | The void in the stonework behind the central rainwater downpipe to the north elevation still exists (this was reported in 2018).  |
| North Elevation             | There are open mortar joints to the buttress located on the north elevation behind the library.   |
| West Door                   | There are open mortar joints to the keystone above the west door.   |
| General Comment             | $\label{lem:continuous} Arrange\ via\ the\ Church\ Architect\ to\ have\ stonework\ repairs\ carried\ out.$  |
| West Door                   | Point up the open mortar joints to the stone paving adjacent to the west doors (with lime based mortar).  |
| West Door                   | The entrance paving to the west doors is uneven and some stones are cracked. The open mortar joints require clearing out and careful  |
| East Gable                  | Renew the decorated stone cross to the east gable of the nave.  |
| East Gable                  | A large section of the decorated stone cross to the east gable of the nave is missing.  |
| North Elevation             | A piece of blue brick weathering has broken away from the plinth course on the north elevation.   |
| Nort East Buttress          | A brick to the east side of the north east buttress has become chipped and a piece is missing.  |
| ???                         | There are some extensive areas of stonework that have received inappropriate cementatious mortar pointing. This mortar is assisting with the erosion of the stonework.  |
| East wall of sanctuary      | Sections of low level brickwork have open mortar joints. There is a significant area at the base of the east wall of the sanctuary.   |
| East & West Elevations      | Some of the dressed sandstone to the east and west elevations shows signs of masonry bee activity.  |
| West Gable                  | The coping stones to the west gable (north and south slope) are chipped and a few of the mortar joints are open.  |
| West Gable                  | The decorative sandstone medallions are badly eroded.   |
| West Elevation              | There are a few voids in the stonework to the west elevation.   |
| West Elevation              | The carved sandstone faces either side of the round louvre vent to the west elevation are badly eroded.   |
| South Elevation             | The sandstone steps to the door at the west end of the south elevation are badly eroded.  |
| West Entrance               | The dressed sandstone stonework to the engaged shafts capitals and bases to the west entrance are badly eroded.   |
| Tower                       | Some of the facing bricks to the tower have perished, due to frost action. The west elevation is the worst affected.  |

| Moss            |   |
|-----------------|---|
| General Comment | Clean off the moss growth to the window cills and the semi-engineering blue brick weatherings to the plinth course. |
| North Elevation | There is moss growth on the semi engineering blue brick weatherings to the plinth course on the north elevation.    |
| General Comment | Some of the stone cills to the windows are covered in moss growth.  |

| Plasterwork        |  |
|--------------------|--|
| Nave and sanctuary | Carry out repairs to the internal plasterwork to the nave and sanctuary.   |
| North Wall         | Arrange for all cracked render plaster to be repaired. Also carefully remove the Gypsum plaster form the north wall and replace with lime render.                              |
| West Wall          | The damage to the internal plaster of the west wall does appear to have worsened. Large high level areas of plaster look as though they are due to de-bond from the substrate. |
| South West Corner  | end is suffering badly through damp ingress. Inappropriate cementatious Gypsum plaster appears to have been used for some  |
| North Wall         | The inappropriate cementatious Gypsum plaster on the north wall should be carefully removed and replaced with lime based render.   |

| Metal Work        |   |
|-------------------|---|
| Sanctuary Window  | Refix the metal protective grilles to the sanctuary windows.  |
| Doors             | De-rust all ironmongery and redecorate with black Hammerite paint.  |
| Windows           | Carefully de-rust and redecorate the ferramenta of the windows and the frames of the hopper ventilators.  |
| Rain Water System | De-rust and redecorate all cast iron rainwater goods.   |
| West Elevation    | The ferramenta to the windows is rusting. The rusting and expansion of some of the bars is disrupting the internal plasterwork to the reveals and is likely to be the cause of some of the crazing plasterwork. |
| ???               | As mentioned in the last 2013 report the opening ventilation hoppers require to be overhauled and the metalwork redecorated.  |
| South Elevation   | There is a damaged cast iron ventilation grille at low level in the plinth brickwork of the south elevation.  |
| East Elevation    | The metal protective grille to the east window of the sanctuary is loose and requires careful refixing.   |

| Cracking               |   |
|------------------------|---|
| East Wall of Sanctuary | As mentioned in previous reports, the settlement cracks in the internal plaster do not make pleasant viewing. There are a number of cracks in the east wall of the sanctuary. |
| East End of South Wall | The cracks that are evident at the east end of the south wall of the nave appear to have worsened.  |
| West End of South Wall | Further cracks are evident in the western end of the south wall of the nave.  |

| Woodwork              |   |  |
|-----------------------|---|--|
| External Doors        | It is recommended that the external timber doors and frames be  |  |
|                       | carefully cleaned down and treated with Danish oil  |  |
| General Comment       | All fittings and furniture appeared to be in a reasonably satisfactory condition  |  |
| Glazing               |   |  |
| General Comment       | Carry out repairs to the leaded light glazing. (based on £3,000 per window 10 years ag - so double cost)  |  |
| General Comment       | Carry out additional window repairs.  |  |
| General Comment       | As mentioned in previous reports, the windows and glazing throughout<br>the church are likely to require some repair works. The leadwork in<br>some windows is weakening and bowing.  |  |
| South West            | A piece of glass is missing from the west side of the south west window.  |  |
| General Comment       | It is recommended that a glazing conservator visit and inspect the condition of the glazing.  |  |
| Decoration            |   |  |
| Sanctuary             | Arrange for the walls and ceilings of the sanctuary and nave to be redecorated.   |  |
| Small Vestry          | Arrange for the redecoration of the small vestry (walls and ceiling).   |  |
| South West Window     | Paintwork to some of the window reveals of the south west window appear to be peeling.  |  |
| North and South Walls | At low level on both the north and south walls the paintwork has completely peeled off the wall surface.  |  |
| General Comment       | Note: Undoubtedly the redecoration of the nave would make a significant difference to the interior. That said, however, it is strongly recommended that all structural movement and damp ingress problems are resolved before any decoration takes place. |  |
| Ceiling               | These appear to be in a reasonably satisfactory condition and would benefit from careful cleaning down and receiving full redecoration.   |  |

| Roofing            |  |
|--------------------|--|
| Nave and Sanctuary | Refix tiles to the north and south roof slopes of the nave and the sanctuary roof.   |
| General Comment    | As mentioned in previous Quinquennial Inspection reports, there are a number of slipped and missing roof tiles. Some tiles appear to be lifting, the north slope of the nave roof is in the worst condition. |
| General Comment    | It would be worthwhile considering the installation of snowguards (refer to the 2018 Quinquennial Report).   |
| Sanctuary          | The tiles to the roof above the sanctuary appear to be lifting and some are loose.   |

| Flooring          |  |
|-------------------|--|
| Balcony Stairwell | The spalling of the quarry tiles to the ground floor balcony stairwell do not appear to have worsened.   |
| Nave              | Some of the wood blocks to the areas of wood block flooring in the nave are loose and uneven.  |
| Central Aisle     | The carpet to the central aisle appears to be in a reasonably satisfactory condition.  |
| Side Aisle        | The thermoplastic tiles to the side aisles are not a floor finish that is usually associated with a church. It is likely that these contain some asbestos fibres and will need to be removed by a licensed contractor. |



































| Brick/Stone Work | £ | 8,250   |
|------------------|---|---------|
| Moss             | £ | 1,500   |
| Plasterwork      | £ | 4,000   |
| Metal Work       | £ | 3,000   |
| Woodwork         | £ | 200     |
| Glazing          | £ | 107,300 |
| Decoration       | £ | 2,800   |
| Roofing          | £ | 13,500  |
| Cracking         | £ | 5,000   |
| Flooring         | £ | 2,000   |
| TOTAL            | £ | 147,550 |









We look forward to working with you on a fantastic project.

What I might suggest, is potentially brining the supervisor along without a group so she can see what she's doing before hand and have those conversations with you. It just helps them know the project before bringing a group over.

Warmest Regards

#### Ravelle Czerpak

Placement Co-Ordinator - Unpaid Work, Warwickshire Working days: Monday - Thursday





Preventing victims by changing lives



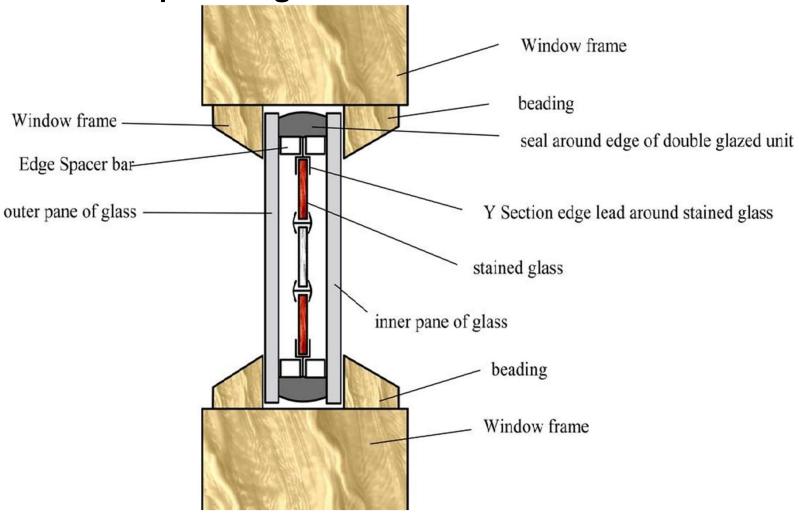






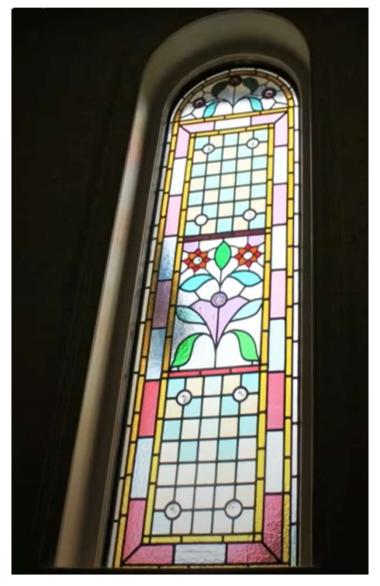


## **Encapsulating Stained Glass Windows**









### **Variable Frequency Drive**



Hello! Welcome to Quantum Controls. How can I help you?

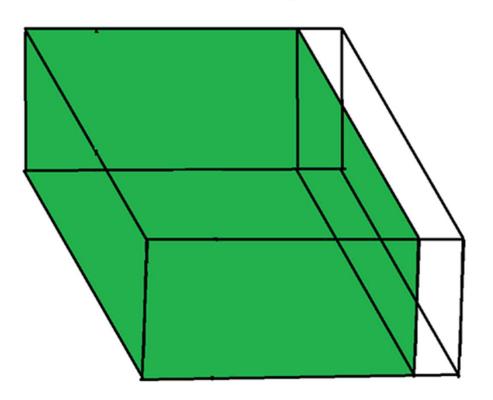
I have a 100amp, 230v single phase input. Can I use your variable frequency drive to run a 30kw electric boiler??

Is it a 3 phase supply you want from it?

Yes

Yes, its possible

# **Zoning of the Building**

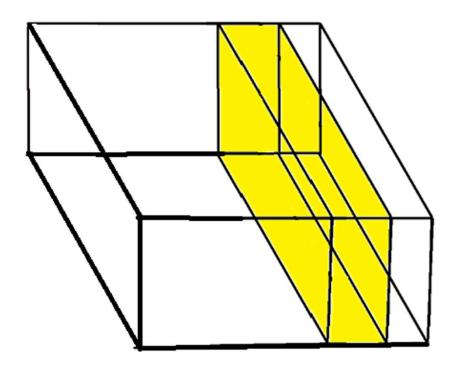


The Second is the "Space Heating" Zone.

Its internal volume is ~ 2,200 m3

or 88% of the total volume

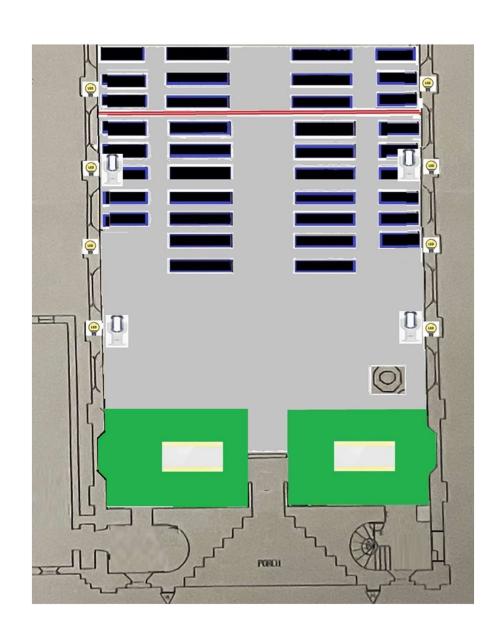
# **Zoning of the Building**

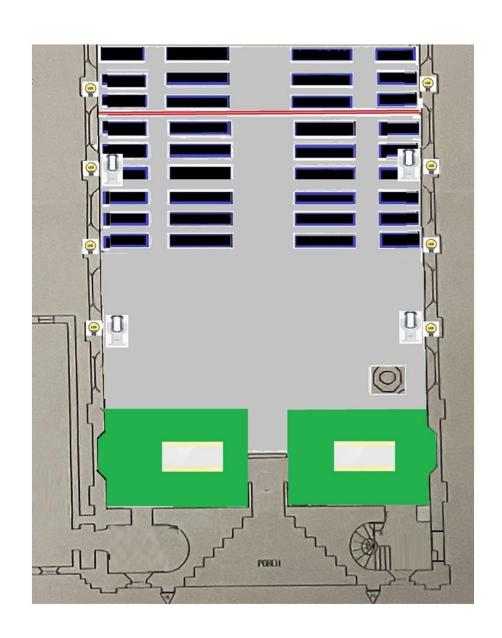


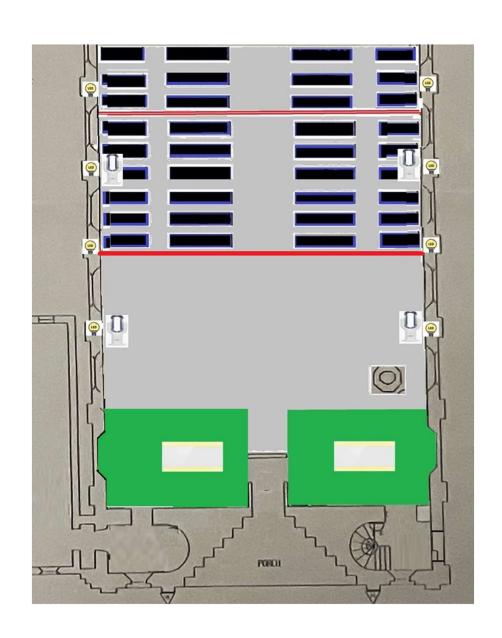
The final area is the "Heritage" Zone".

Its internal volume is ~ 390m3

or 16% of the total volume



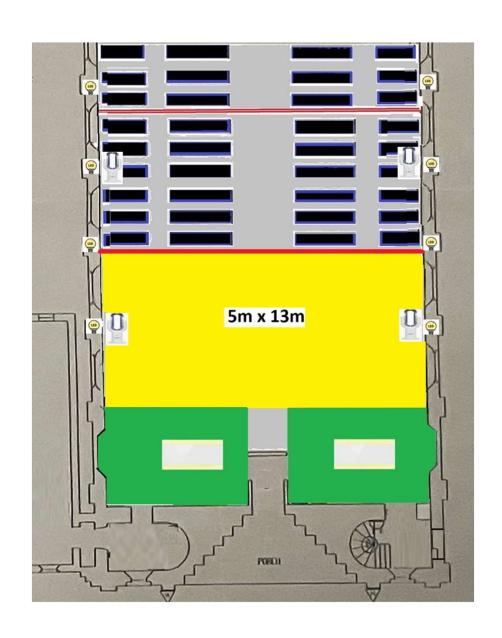


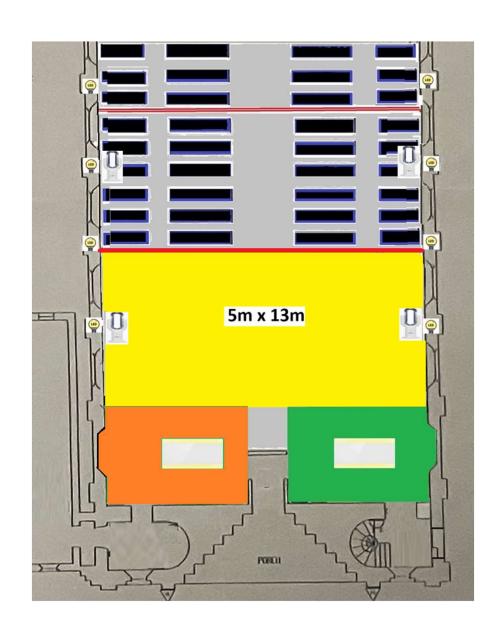


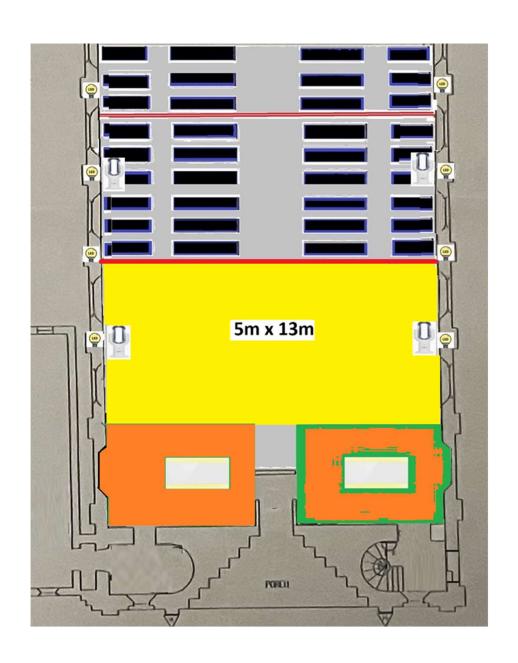
|               | Comfortable | Capacity |
|---------------|-------------|----------|
| Winter        | 52          | 78       |
| Space Heating | 72          | 108      |
| Total         | 124         | 186      |
|               |             |          |

|               | Comfortable | Capacity |
|---------------|-------------|----------|
| Winter        | 52          | 78       |
| Space Heating | 72          | 108      |
| Total         | 124         | 186      |

**Currently, only the Remembrance Service and the Christingle would exceed this capacity** 









Birmingham City University - Faculty of Arts Design and Media

#### **MA Conservation of the Historic Environment**

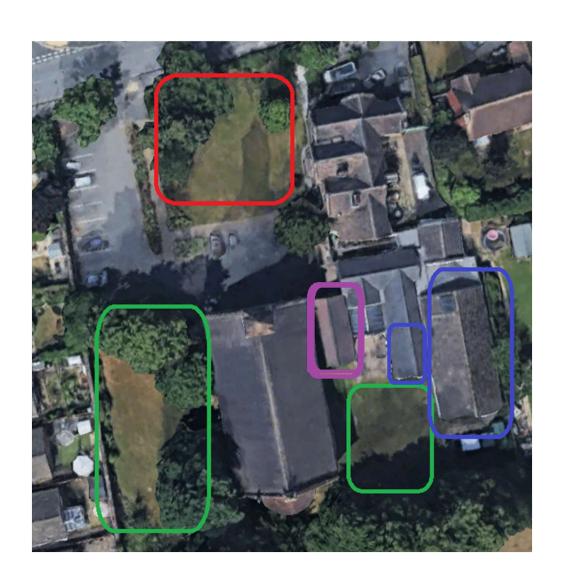


#### Project Design and Management: The Brief 16.7.24

This Brief is a key project planning document, that specifies what the project has to achieve, by what means and within what timeframe. It is subject to changes at a local level.

| level.                                  |  |   |
|---|--|---|
| Module                                  | Credits  | Project Title:                              |
| ARC7451 – Project Design and Management | 70% of 40 credits  | The Sustainable Reuse of a Place of Worship |
| Start Date:                             | Final Submission Venue/Date/time:  | Progress Tutorials & Feedback               |
| Thursday 10 October 2024                | 4,000 word assignment To be submitted on Moodle By 3pm Monday 24 March 2025 + 1 hard copy delivered to Tutor | 10 October 2024;<br>13-14 December 2024.    |





### **Other Areas for Consideration:**

**Front Lawn** 

**Two Green Spaces** 

**Vestry – library** 

**Community Centre** 





National Lottery Heritage Grants is our funding programme for all types of heritage projects in the UK.

Use this guidance to apply for grants from £10,000 to £250,000.

### Is this the right programme for you?

- Is your organisation looking to care for and sustain heritage in the UK?
- Will your heritage project run for no more than five years?
- Do you require a grant of between £10,000 and £250,000?
- Are you a not-for-profit organisation, a private owner of a heritage asset or a partnership?
- Does your project take into account our four investment principles?



### Our investment principles

Four <u>investment principles</u> guide all our grant decision making under our 10-year strategy, Heritage 2033:

- saving heritage
- protecting the environment
- inclusion, access and participation
- organisational sustainability

You must take all four principles into account in your application. The strength of focus, and emphasis on each principle, is for you to decide and demonstrate.

The investment principles, and our <u>strategic initiatives</u>, will help us achieve our ambitions for heritage to be valued, cared for and sustained for everyone's future.



# Heritage in Need: Places of Worship

**~** 

We want to help places of worship across the UK tackle heritage challenges systemically. We want to see them become more sustainable, share their heritage and welcome people from all backgrounds, including those who rarely visit.

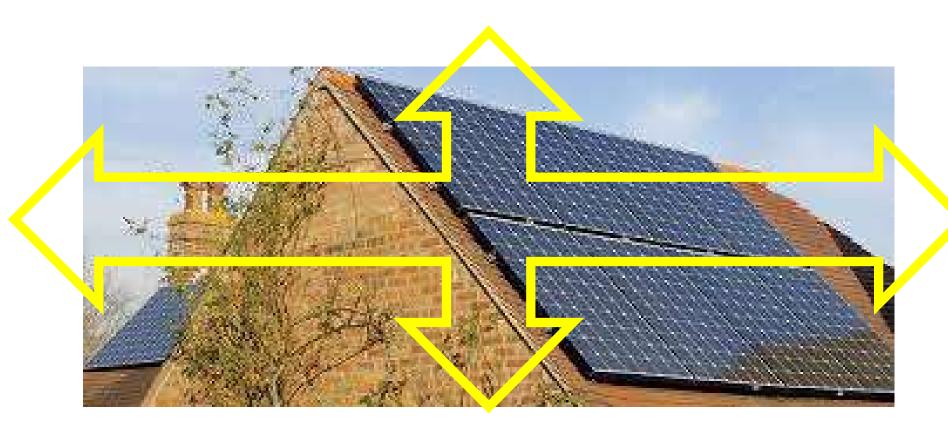
We will invest a minimum of £15million in projects that have a strategic impact at a regional or national level for places of worship over the next three years.

Rich in culture and collections, places of worship tell the story of the religious, social and economic changes of the people of the UK. We recognise the scale of the challenges facing places of worship and those who care for them, and we are committed to supporting them through that change.



The needs and funding gaps we have identified and want to address through this initiative are:

- repair listed buildings particularly those in more rural areas
- workforce and volunteer capability to manage heritage
- heritage in places of worship that is currently inaccessible, at risk or under used



## Options Available Stay as we are

Stay as we are

**Move Sunday Services into community centre** 

Stay as we are
Move Sunday Services into community centre
Change boiler

Stay as we are Move Sunday Services into community centre Change boiler

**Winter Zone** 

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

**Space Heating Zone** 

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

**Single Phase v Three Phase** 

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

Single Phase v Three Phase

New Space(s)

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

Single Phase v Three Phase

New Space(s)

**Heritage Zone** 

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

Single Phase v Three Phase

New Space(s)

Heritage Zone

Other areas of church boundaries

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

Single Phase v Three Phase

New Space(s)

Heritage Zone

Other areas of church boundaries

Non Fossil Fuels

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

Single Phase v Three Phase

New Space(s)

Heritage Zone

Other areas of church boundaries

Non Fossil Fuels

**Green energy only** 

Stay as we are

Move Sunday Services into community centre

Change boiler

Winter Zone

Space Heating Zone

Single Phase v Three Phase

New Space(s)

Heritage Zone

Other areas of church boundaries

Non Fossil Fuels

Green energy only

Solar panels & batteries

| Options Available                          | Stay as we are | Move Sunday<br>Services into<br>community centre | Change boiler | Winter Zone | Space Heating Zone | Single Phase v<br>Three Phase | New Space(s) | Heritage Zone | Other areas of church boundaries | Non Fossil Fuels | Green energy only | Solar panels & batteries |
|--|----------------|--|---------------|-------------|--------------------|-------------------------------|--------------|---------------|----------------------------------|------------------|-------------------|--------------------------|
| Stay as we are                             |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Move Sunday Services into community centre |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Change boiler                              |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Winter Zone                                |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Space Heating Zone                         |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Single Phase v Three Phase                 |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| New Space(s)                               |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Heritage Zone                              |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Other areas of church boundaries           |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Non Fossil Fuels                           |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Green energy only                          |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |
| Solar panels & batteries                   |                |  |               |             |                    |                               |              |               |                                  |                  |                   |                          |

