

# Kenmore Church

## Feasibility Study

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Historic Environment Scotland Listing

Category: B

Date Added: 05/10/1971

Description: Cruciform, harled with margins, battlemented tower with pinnacles (recently shortened) on E. William Baker, architect, 1760. Walls of 1669 Kirk partly incorporated. Remodelled, tower raised, c.1869 and interior renovated since. Old font, 1759 Janaway Bell, 1782 clock.

Additional Information:

Local Authority: Perth And Kinross

Planning Authority: Perth And Kinross

Parish: Kenmore





# Basic Requirements

Heating, Lighting, Accessibility, etc.





Kenmore Church is a Category B listed building. Any intervention should be kept as minimal as possible. There are some items and areas that will create more of a challenge.

- Flooring
  - The varied levels of the floors make flexible use difficult. Removing sloped and stepped floors to level them is irreversible and may not be allowed. Raising the floors may be a more palatable option.
  - The existing timber floors are partially covered in carpet. They may be damaged or unusable in areas, or unsuitable to new uses. As much as possible of the existing flooring should be kept.
- Panelling and wood carving
  - There are many historically and artistically significant carved wood panels throughout the church. As many of these should be kept as possible, even if they need to be relocated.
- Altar
  - The altar is a significant part of the church. It also is located in a central area that would ideally be open.
  - It may be difficult to get permission to remove the altar. Consideration should be given to relocating it rather than removing it altogether.
- Pulpit
  - The pulpit is an historic and interesting piece, and does not significantly impede on possible uses for the space. It is recommended this be kept in place.



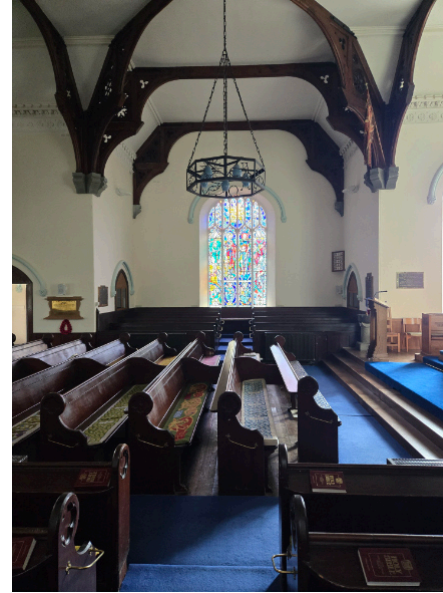




- Pews
  - The pews are historic and add to the character of the church. They also impede the flexible use of the church.
  - Getting approval to remove them may be a challenge. Incorporating some pews into the design may help with planning permissions.
- Organ
  - While it may be allowed to be removed, the organ adds character to the space. It also may be used in weddings, concerts, and other events. Consideration should be given before removing the organ,

As with any historic building, there are significant barriers to accessibility in the church.

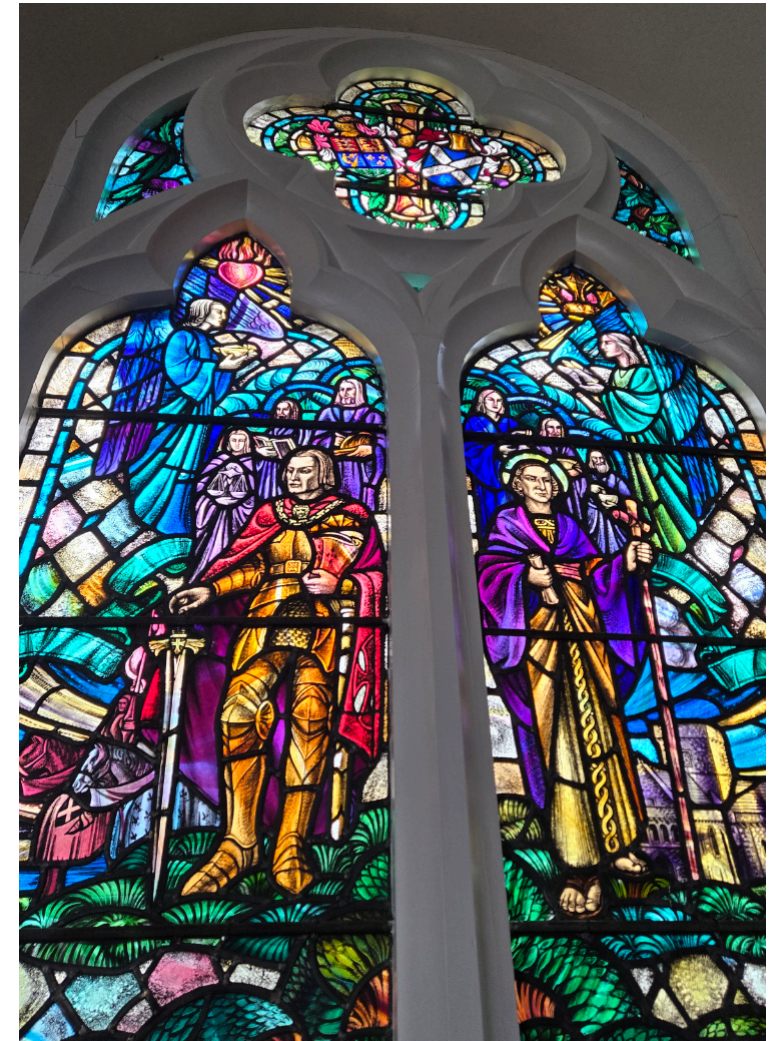
- Floor levels and steps
  - There are many stepped and sloped floors, including a step to enter the church.
  - Stepped areas are inaccessible to many people.
  - The upper floors, which are accessed via steep staircases, cannot be made fully accessible.
  - Floor levelling and ramps will be required in some areas to provide access.
- Sanitary Services
  - There is currently no accessible toilet in the church. This may be one of the most significant barriers to the church becoming an accessible and welcoming assembly hall.
  - One accessible toilet will be required. As additional toilets are also required, this is not a particular difficulty.





There are some ways to improve energy efficiency in the church without making upgrades to electrical and mechanical systems. Since this is an historic buildings, many options are unavailable. However, there are still ways to improve efficiency.

- Insulation
  - The walls cannot have insulation added, both due to cost and heritage.
  - There may be a significant space above the ceiling and below the roof that remains uninsulated. Adding insulation to this space would help contain heat.
  - Similarly, the space below the floors also likely lacks insulation. Adding insulation here will also help prevent heat loss.
- Separating spaces
  - Creating completely separate spaces, and making some spaces as small as possible, will help with overall heating efficiency.
  - Small groups could rent a smaller room, meaning only one small room would need to be heated.
  - Adding a few interior walls will make the nave area as small as possible, minimising heat use.
- Window secondary glazing
  - Secondary glazing, or storm glazing, may be used to both protect the windows, prevent drafts, and add insulation.
  - Significant care must be taken, as the environment between the stained glass and secondary glazing could damage the windows.
  - One option is to add storm glazing in the winter, and remove it the rest of the year.
  - The risk of damage may not be worth the effort and energy savings.



Below are three options for heating the church, each with their own advantages. The options each offer a different balance of initial cost, running cost, heating efficiency and energy use.

- Keep and relocate the existing radiators.
  - The existing radiators and piping can be reused in new locations, saving on cost and keeping the materials out of landfill.
  - Saves significant work in removing and replacing the current system.
  - New, additional radiators will need to be added in some areas.
  - A heat pump may be used with the existing radiators to make them more energy efficient.
  - The current system is not very efficient. Even if a heat pump is installed, radiators are not the most efficient way to deliver heat.
- Install air-to-air heat pump.
  - This combines an energy efficient heat pump with ducting and vents to supply hot air.
  - Ducts will be largely run under floors, making for minimum intervention.
  - Ducts must be insulated to keep the system as efficient as possible.
  - This system is typically noisy when air is blowing.
  - Duct systems will heat up the space quickly relative to other systems.
  - Air-to-air is a relatively inefficient way to heat a space, especially a large volume such as the nave.
- Install under floor heating with air-to-water heat pump
  - This system is the most energy efficient way to heat a large volume of space.
  - Running costs of this system are relatively low.
  - While energy use is relatively low, the time it takes to raise the temperature in the space is significant.
  - Underfloor systems work best when a space is kept at a steady temperature. Otherwise, they must given adequate time to heat up.
  - While there should be space below the floor to run the heating, installing it is likely to be difficult.
  - Significant insulation will be required below the floor to keep the system efficient, adding to the difficulty of install.
  - Insulation levels throughout the building will need to be upgraded for underfloor heating to be fully effective.
  - If floors are raised in some areas, it will be easier to install in those areas.





Lighting is an opportunity to create a sense of ambience, and add colour and excitement to the space. A variety of light types and lighting controls will create the best lighting environment for a variety of uses. LED lighting fixtures offer the best energy efficiency, as well as being highly customisable and controllable.

- Uplighting and wall washes
  - Uplights, which shine towards the ceiling, will highlight the wood trusses and high ceilings in the space. They add soft lighting that makes the space brighter, without causing glare.
  - Similarly, wall washes scatter light along walls, and can be used to add ambient lighting or highlight features.
  - Both of these styles of lights can use colour changing LEDs, which can add colour to surfaces to match any event.
- Chandeliers and dropped pendants
  - These options offer brighter and more direct light. They can have a traditional look, or be more contemporary.
  - With well designed controls, they can also produce a variety of lighting effects.
  - In a space with a large ceiling, it is an advantage to hang lights closer to eye level. This can give the sense of a cosier space and work as task lighting.



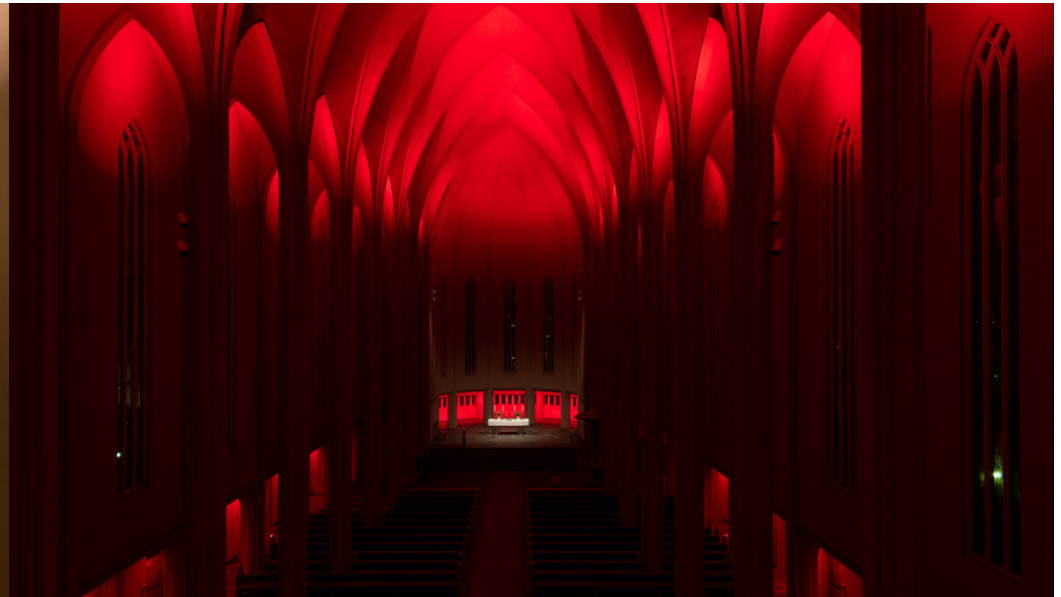
Top left: Chandeliers can come in a variety of styles, with controllable light levels. Crescent Church Belfast.

Top right: Pendants can be hung at a variety of levels to create an interesting design. Zion Lutheran Church, Anoka USA.

Bottom: Òran Mór in Glasgow has a highly controllable lighting design that includes coloured uplights and wall washers.



- Controls and zones
  - Lighting will be better, and suitable to a wider variety of functions, if it can be well controlled and is designed in zones.
  - Controls can include dimming, changing the temperature of the light, and even can control coloured lights that can brighten walls.
  - Zoned lighting means not all lights need to be used at all times, saving energy.
- Emergency lights
  - The change of use and retrofit of the building will likely increase requirements for emergency lights.

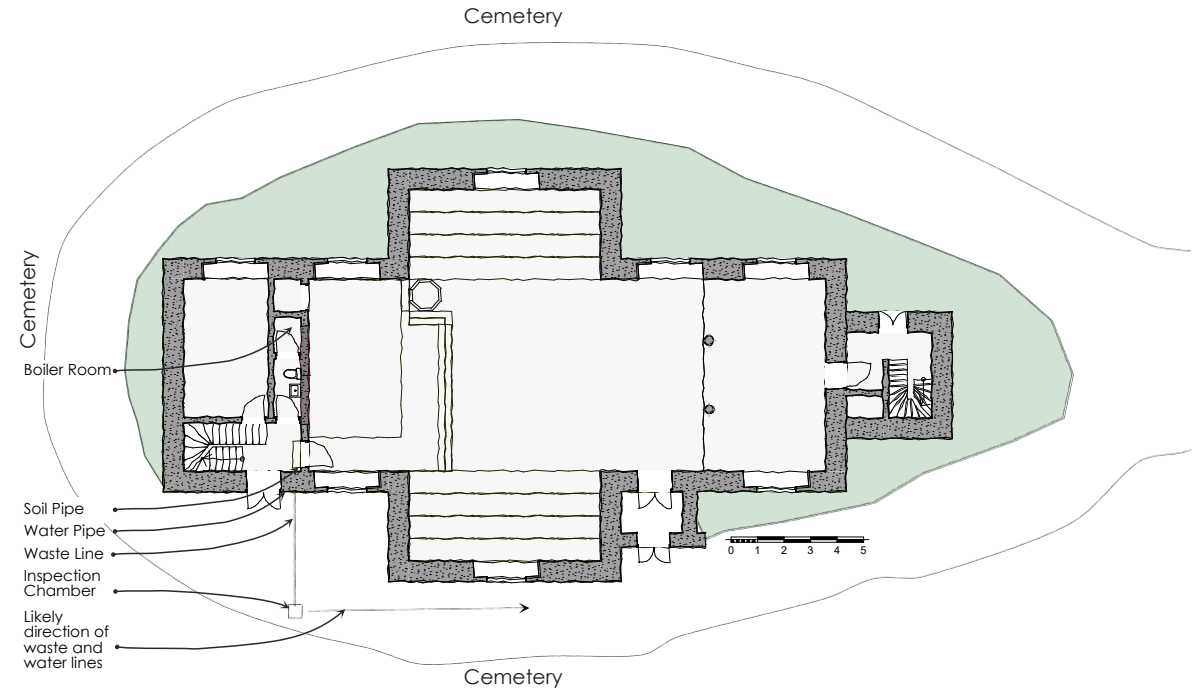


Hallgrímskirkja in Reykjavik, Iceland underwent a lighting upgrade in 2022. The lighting design allows for the feel and aesthetic of the room to change easily, and very dramatically. This means it can be customised for any given event.



The upgrading and modernising of utilities is likely to be a significant financial cost and a challenge for the design of the church.

- A utilities survey will be required to identify the location, paths, and size of water and waste lines.
- We are unable to confirm the precise location of water and waste lines.
- There is a single toilet and sink; the existing toilet has a macerator.
- The water supply and waste lines, as well as electrical supply, will need to be upsized if the building is to be used for events.
- The church is surrounded on three sides by a cemetery. Underground utilities will not be able to run through these areas.
  - The only clear path is to the northwest of the church. Unfortunately, this direction is largely flat, meaning gravity run waste lines may not function and a pump could be required.
- In addition to new plumbing lines, the amount of electricity supplied to the church will likely need to increase.
  - Modern heat pumps may actually use more electricity overall than the current system, although they are more efficient per degree of heat.
  - Upgrading the lighting may also require more electricity supply, as more lights may be installed than are currently in place.
- Early coordination with all energy suppliers and utility companies is recommended to understand what is possible.

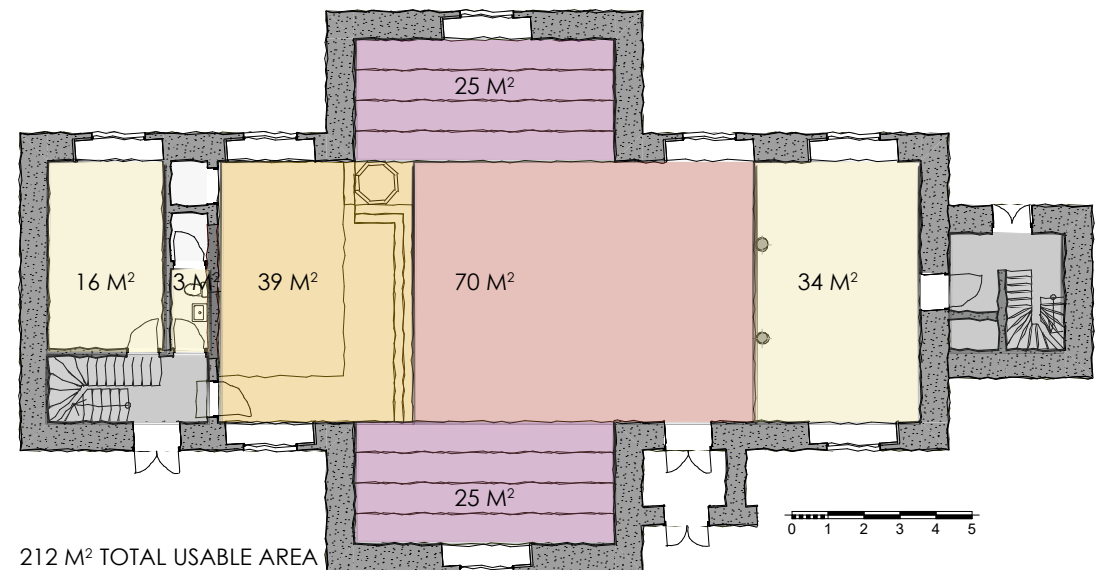
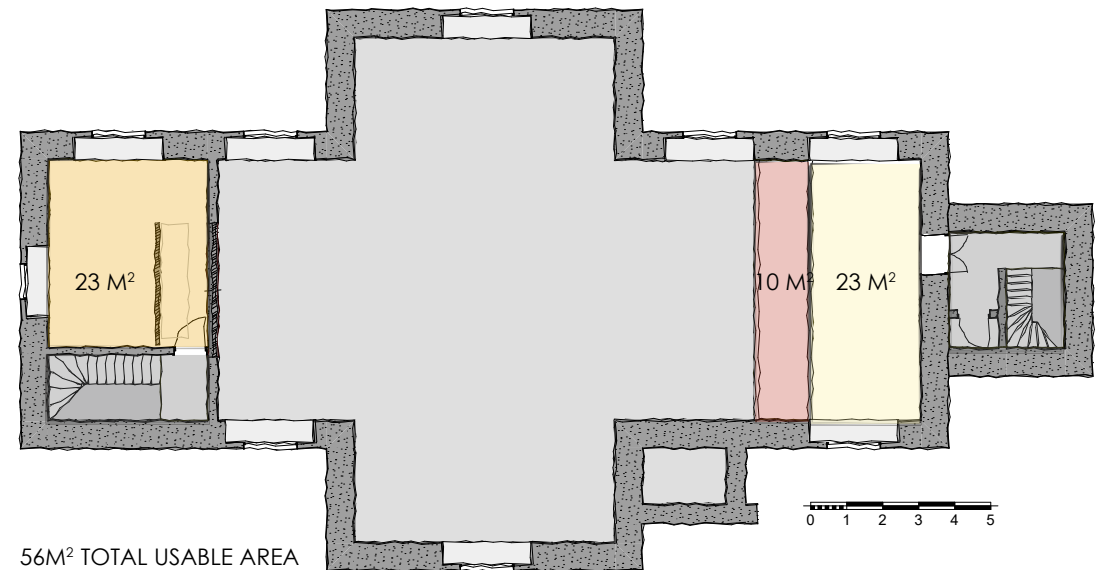


Presumed location of water and waste lines.



Determining the future occupant load and required toilet facilities will require balancing code allowances and requirements with desired uses and pressures on existing systems.

- Given the size of the church, if it is used primarily as a assembly hall, it may be allowed to have an occupancy of 300+ people. However:
  - This number of people would require a very high number of toilets: 8 WC's for women, 2 WC's and 3 urinals for men, plus an accessible toilet. This quantity of toilets will not fit in the existing building without greatly reducing the usable space.
  - While the council may allow exemptions to sanitary requirements for historic buildings, it is unlikely they will allow it to be reduced enough to make this occupancy feasible.
  - The upgrade to waste and water services this would require may not be feasible.
  - Additionally, this number of people may put significant pressure on the village of Kenmore during large events, especially when it comes to parking capacity.
- In order to present a more reasonable solution, we have proposed a maximum occupancy of 100 people.
  - This is still a large enough occupancy to hold events, including weddings, parties and markets.
  - The required toilets are reduced to WC's for women, 1 WC and 2 urinals for men, and an accessible toilet.
  - For our proposal, we are using 5 unisex toilets, one of which is accessible.





# Programs & Functions

## Analysis of Options



Iain Strathmore Photography. Wedding at Kenmore Church.





Top left: A fitness class held by the Diocese of Norwich.  
Middle Left: Craft Club at the North Monmouthshire Ministry.  
Bottom Left: Sports day at Gloucester Cathedral.  
Top Right: A table tennis tournament at Christ Church Marylebone.

The large open space of the nave lends itself very well to flexibility, allowing a wide variety of functions. Most assembly and performance functions can be easily accommodated. Other functions may require additional alterations to the building.

- Local events, e.g. Christmas and Easter themes
- Community meetings, groups and social nights
  - The church offers a variety of spaces for different sized groups.
  - The location offers a significantly large, central place for all types of groups, from craft groups to Girl Guides.
- Community Resilience Centre
  - The building could accommodate this use, and is well located to provide a safe and central location in an emergency.
  - Storage may be required for emergency equipment.
- Children's creche and playgroups
  - Creches have additional space and sanitary requirements that must be met.
  - While the church space is large enough to accommodate large numbers of children, thought must be given to the ability to separate age groups if needed. Separation may also be needed between quiet spaces and loud play spaces.
  - There are different requirements for children's toilet facilities. Again, the church can likely accommodate the facilities, but it must be considered.
  - Significant storage space may be required to put away creche equipment when another function is happening.
- Sports
  - Care should be taken that historic objects, especially windows, are not endangered. Badminton and table tennis are likely safe.
  - Storage will be required for equipment.

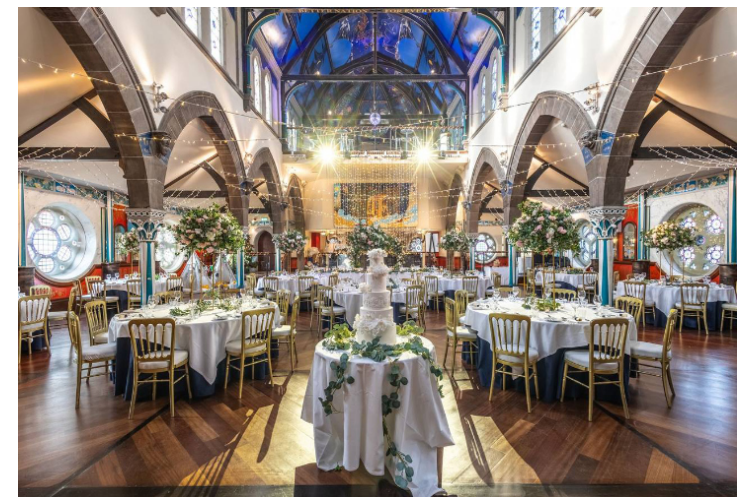


Event rentals offer an income source for the church. The size and flexibility of the space make it suitable for a number of events. Offering multiple rooms of different sizes also adds to the functionality.

- Weddings
  - Possibly the most popular type of event rental.
  - Keeping the organ may be seen as a large benefit to wedding hire.
- Party rentals
  - Similar to weddings, the nave offers a great, flexible space for large parties.
  - A smaller room (or rooms) would also create space for smaller parties.
- Concerts, Recitals, Theatre Performances, Ceremonies, etc.
  - The stage size and location means a concert is easily set up.
  - A study on acoustics and AV equipment may be warranted to ensure the space has good sound for concerts.
- Thought should be given to the amount of storage required for all of these uses. Weddings and parties may want chairs and tables, recitals may just want chairs. Separate AV equipment for events may also need to be stored.



The Posthoornkerk Church in Amsterdam hosts concerts, galleries and exhibitions, among other events.



Both bottom images: Óran Mór in Glasgow was converted into a popular venue for events.





St. Mary Aldermary Church in London contains the popular Host Cafe..



Pip and Jim's Church in Leckhampton often hosts craft fairs.



St. John Hyde Park is home to vintage furniture markets.



Penny Lane Church in Liverpool hosts popular markets.

The nave space is large and flexible enough to hold a number of businesses. However, some business functions may require permanent equipment, or semi-permanent equipment that cannot be easily put away. This would reduce the flexibility of the space.

- Cafe
  - While not included in the design solution, a cafe could be installed in the church - perhaps in one of the transepts.
  - Some equipment can be easily accommodated, such as refrigeration and espresso machines.
  - Installing a commercial kitchen (an oven or stove, in particular) would be very difficult and likely damage the fabric of the church due to exhaust requirements.
    - Because of this, it should be assumed that food cannot be cooked on site.
- Business start up space
  - The large space in the nave could accommodate a number of business types, or simply space for people to set up desks.
  - It may be better to consider the smaller rooms for this function. For example, this could be a good use for the room behind the organ.
- Markets and craft fairs
  - This is a relatively simple use, and likely to be popular.
  - Given the size and flexibility of the nave, a fairly large market could be set up.
  - Storage may be required for this, and it may be worth considering whether the church stores tables for markets, or asks vendors to bring their own.



There are plenty of additional uses that could be accommodated. There are also additional pressures on the space that must be considered.

- Bar
  - A bar will likely be desired for event rentals and gatherings at the church.
  - A mobile bar is recommended, as this offers more flexibility. This may reduce the types of drinks that can be served (for example, a large variety of cocktails may not be possible).
  - Thought must be given to the size of the bar, how it is moved, and where it is stored. There are many options, even beyond these:
    - A rolling bar would be easy to move, but may be bulkier to store.
    - A simple set of folding bars and tables may be easier to store, but may not look as attractive.
  - The owners of the church will need to acquire a license to serve alcohol.
- Summer Camp Accommodation
  - Similar to a creche, offering accommodation for a summer camp will come with additional requirements.
  - A day camp will have similar requirements to a creche, while overnight stays will add requirements, especially to safety equipment.
  - The building likely will not have bathing facilities, limiting the length of time it could be used for overnight sleeping.
- Storage
  - As noted in most uses, significant storage may be required.
  - Thought should be given to how much storage will really be needed.
  - An new, small building could be installed to offer additional storage if needed.
- Mechanical Equipment
  - Modernising all plumbing, electrical and heating systems will likely result in an increase equipment size and space requirements.
  - Outside space will likely be required, especially if heat pumps are installed. This could be enclosed so it does not create an eyesore.



Top: Mobile bars can come in a variety of designs and sizes. They do not necessarily have to look like a bar cart.

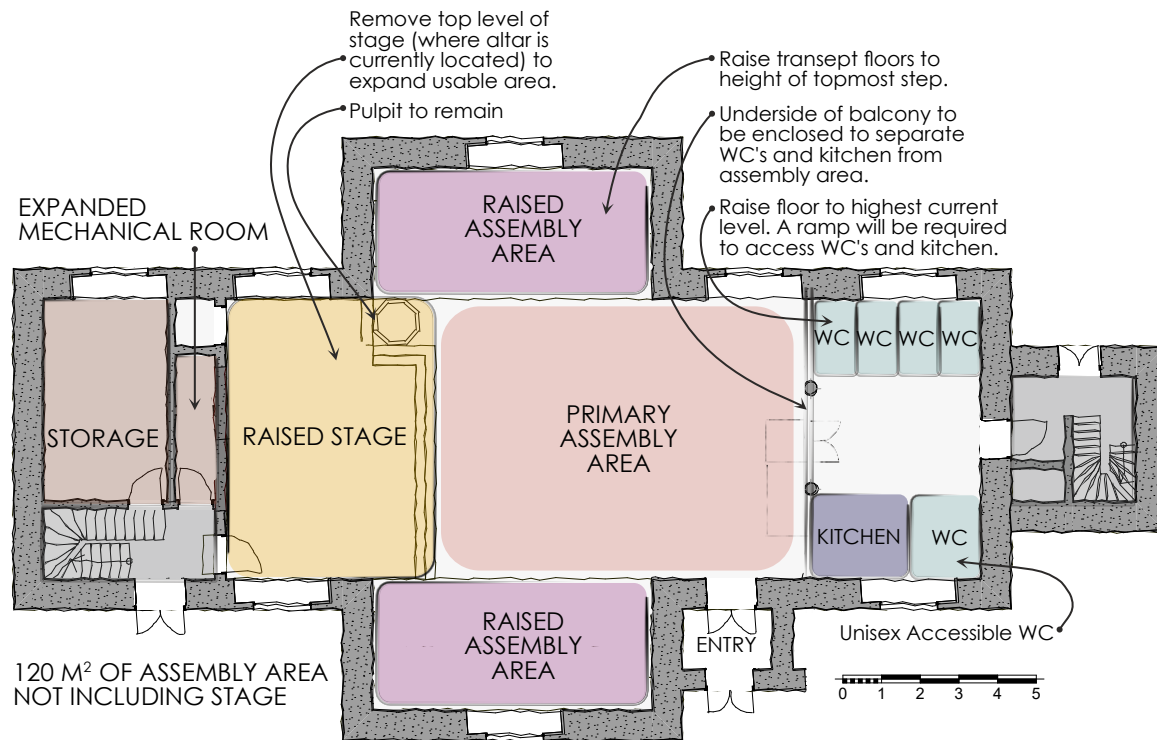
Bottom: Mercato Mayfair includes permanent installed bar facilities. The building is used as a bar and restaurant.

# Design Solution

## Minimum Intervention Solutions

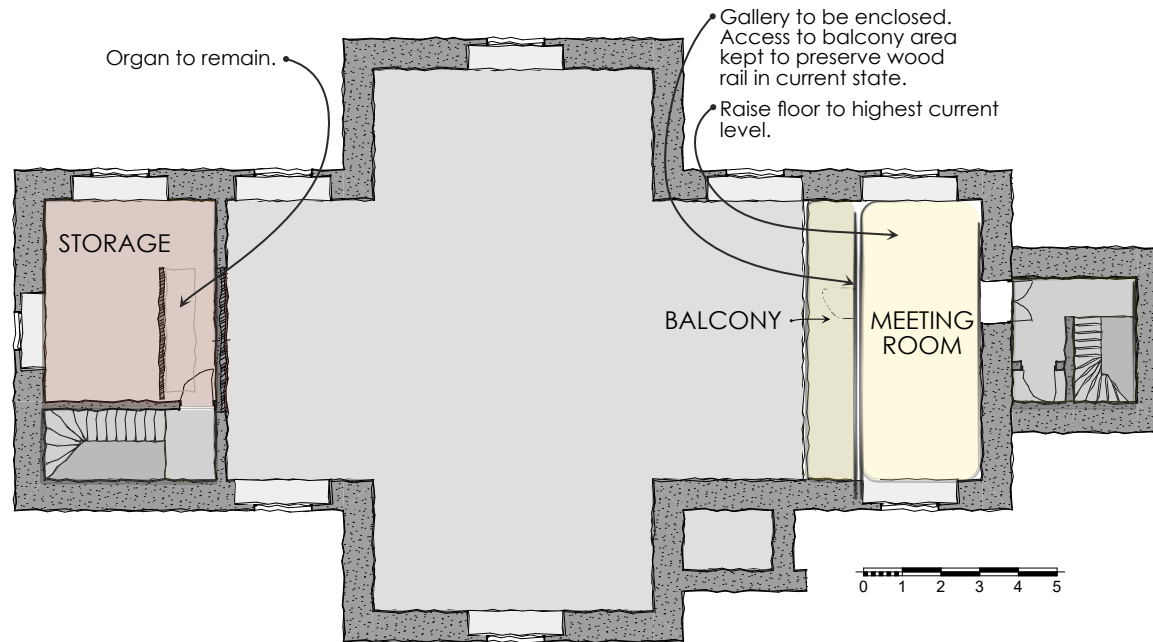






This proposal for a design solution for Kenmore Church focuses on minimising interventions while allowing maximum flexibility of use.

- All existing carpet to be pulled up. Existing timber floors will be kept where possible, including under areas where the floor is levelled.
- All raised areas, part of the stage, and possibly areas under carpets will require new flooring.
- It is preferable to avoid irreversibly altering the tiered and sloped floors of the church. In this solution, the sloped area under and on the balcony, and the stepped transepts, are levelled by raising their floors to their highest level. These areas will require either stairs or ramps to access. The area under the balcony will require a ramp, as the accessible toilet is located in this area.
- The stage is made more usable by removing the topmost level, creating a larger level area. Since a stage is desired for future use, keeping the existing raised area around the altar largely unaltered is preferable.
- The pulpit remains, as it does not significantly impact the stage, or views of the stage.
- The existing toilet has been removed, and the mechanical room expanded. This may not be a large enough space for upgraded equipment, in which case the storage room directly next to it may be used.
- New toilets are inserted below the balcony. All are unisex, and one is accessible, as required.
- The area labelled "Storage" could alternatively be used as an additional meeting room. Storage would need to be either upstairs, or in a new building outside.



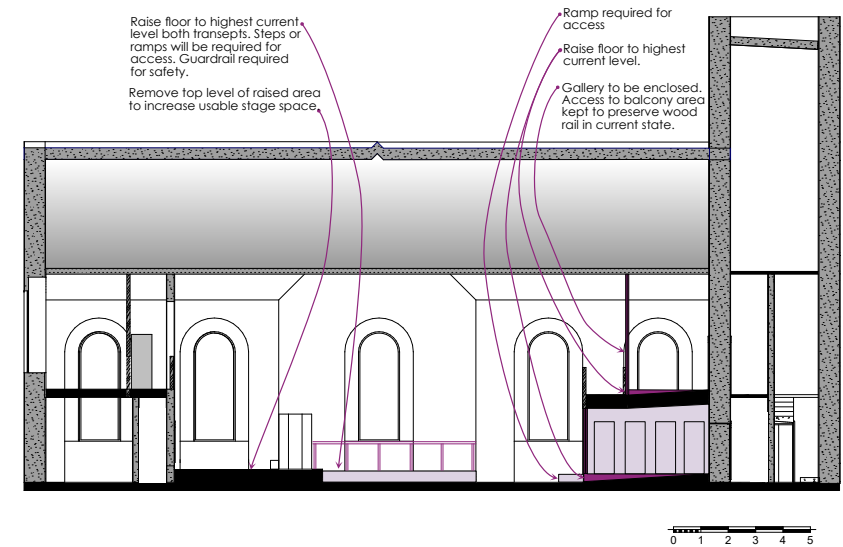
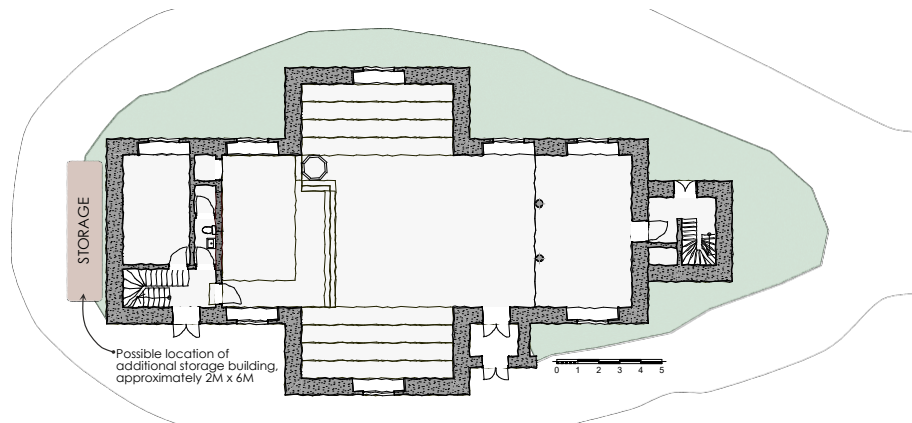
Most of the alterations proposed to the first floor are in the balcony/gallery area. The general approach is similar to the ground floor.

- All existing carpet to be pulled up. Existing timber floors will be kept where possible, including under areas where the floor is levelled.
- All raised areas will require new flooring.
- The sloped area in the gallery are levelled by raising their floors to their highest level. There will be a step down to the remaining balcony area.
- This proposal places a wall at the current partial wall in the gallery. This would keep the enclosed area secure, without being as obvious from the ground floor. It also allows the current partial wood wall to be kept.
- The enclosed room on the gallery would be more efficient to keep warm than the larger area of the church. This would make it ideal for smaller meetings.
- The organ is kept in this proposal, as it adds significant character and may be used for weddings and concerts.
- It may be desirable to fully wall off the area behind the organ, in order to avoid heating it with the rest of the church volume.
- The area behind the organ, labelled "storage", could be rented out for a small business work space or meetings.
  - This may be more useful than storage, as any stored items will need to be brought up and down the stairs.
- Note that it will not be possible to make this floor fully accessible, as the addition of elevators is infeasible.

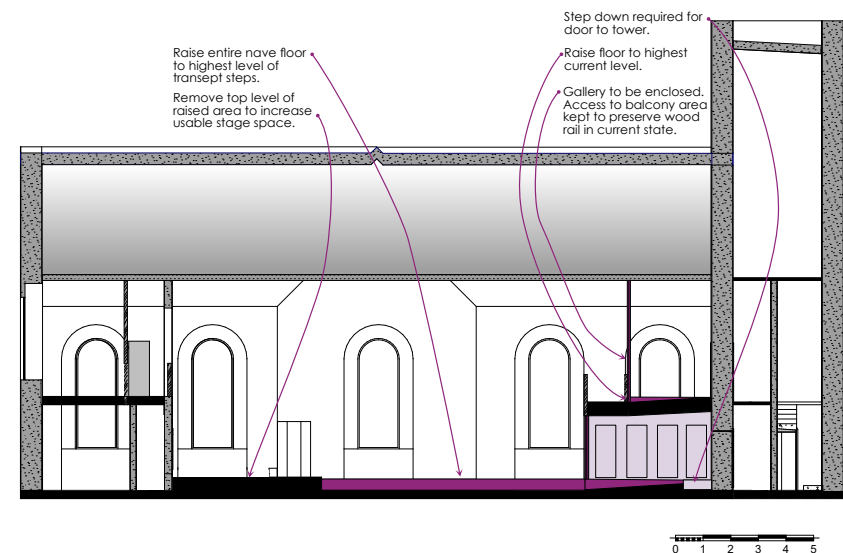


This proposal for a design solution for the Kenmore Church focuses on minimising interventions while allowing maximum flexibility of use.

- Building a new storage building on the southeast end of the church, freeing up interior rooms for other uses.
- Using the proposed storage rooms as meeting rooms or offices
- Using the lower level proposed storage room as a larger kitchen. Note that it will be less accessible than the proposed version, as it is accessed internally over the stage.
- Raising the entire floor to the same level. This has pros and cons:
  - It will be easier to install underfloor heating below a large raised floor, if this is desired
  - It will make access to the full floor easier and smoother
  - However:
    - It will make the stage less prominent. Additional raising of the stage area may be desirable.
  - Access through the main door will require a larger, longer ramp (approximately 6 meters in length). The entry area will need to be raised as well.
  - The bottom edge of door accessing the tower and upper balcony will be below the floor level. Stairs will be required to reach this door.



Floors levelled as proposed at stage, transepts and balcony.



Entire floor raised throughout main church.