Sacred Trinity Church, Salford

Feasibility Study
November 2024

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Brief & Aspirations

1.0 Consultation & Brief

1.1 Introduction

Buttress Architects were appointed to develop viable and sustainable options that re-imagine the church of Sacred Trinity Church, Salford. Our approach to this process has been informed by an understanding of the context, condition and significance of the fabric, and extensive community and stakeholder engagement.

This feasibility study explores several different options to transform the church into a centre for the community, events and enterprise, with flexible accommodation and adaptable facilities.

The study considers four potential options which respond to the context of the site. The options consider could potentially be implemented as a single phase or as a series of smaller phases. All options, whether delivered as a single project or in phases, reflect the historic significance of Sacred Trinity as a landmark building and sensitively respond to the requirement for the church to have a viable sustainable use. This approach will help protect this important heritage asset for generations to come.

Sacred Trinity Church is a Georgian, Grade II* listed building located on Chapel Street in Salford, close to the River Irwell which forms a boundary with Manchester. Blackfriars Street runs to the north east and crosses the nearby river. Bury Street connects to Chapel Street to the south west, and to the north of the church is a hard landscaped pedestrian area with the railway line above.

The church does not sit within a typical churchyard and is instead very much part of the surrounding street-scape. There is an area of green space to the east, which is used as an amenity space in this part of the city. The site is situated within the centre of the Flat Iron Conservation Area, deriving its name from the triangular-shaped plot of land which contained both Sacred Trinity Church and Trinity Market. The plot of land resembles the shape of a flat, hot coal heated iron, once used for ironing clothes.

Salford is undergoing substantial investment over the next 20 years, targeted at employment, new homes and improved infrastructure. Salford City Council has identified four strategic growth locations; Salford City Centre, The Quays and Media City UK, Greater Manchester Western Gateway and Salford's towns. The local economy is expected to grow by over 46% during this time period. As a response to this, the Parochial Church Council wish to explore how Sacred Trinity will respond to the liturgical and non-liturgical role of the church in Salford.

1.4 Previous Consultation

Buttress created a strategy for engagement between the local community and the key stakeholders for Sacred Trinity. The engagement consultations that took place enabled the participants to provide their thoughts, views and concerns as feedback to help support the development of a spatial vision.

1.2 Aims and Objectives

The aims and objectives of the public consultations were to;

- Understand the existing constraints of Sacred Trinity
- Inform a design brief which looks at reordering the church
- To engage with the local community and stakeholders to understand what the local community wants and needs from Sacred Trinity
- To understand the purpose of the church for the community
- The design brief will look at making the church fit for purpose and enhance opportunities to generate revenue
- Creating a sustainable place for liturgical and non-liturgical use

1.3 Approach

The table below outlines the types of groups that Buttress sought to engage with along with the method of engagement. The consultations took place using both online communication methods and face to face engagement to gather initial thoughts and aspirations for the church.

	Type	Where	How
Church community and key stakeholders	1 – 2 – 1, interactive workshop	Online and site.	Interactive workshop, post-it notes exercises and information gathering 1-2-hour session and interview style meeting/questionnaire.
Existing community groups who use the church	1-2-1, Online	Online	Interactive workshop, post-it notes exercises and information gathering 1-2-hour session and interview style meeting/questionnaire.
Local residents and wider community	Drop-in interactive workshops, Online	Online and site.	Approach residents on the street and invite them into space to engage and interact with post-it exercises as well as interview style questions Online video, email address for comments.

1.1 Activities

Activity 1

Participants were presented with drawings of the site. They were asked to highlight, using stickers, what they believed works well and to identify what does not. This feedback was later used to help inform group discussion.

Activity 2

Participants were also asked to use Post-it notes to explore in further detail their positive and negative thoughts on the following;

- Physical building
- The offer and use
- Aspirations
- Other

Activity 3

The third activity required participants to give their opinion on what they thought was fundamental to the future of the church based on the existing facilities and what possible proposals could improve the use of the church.

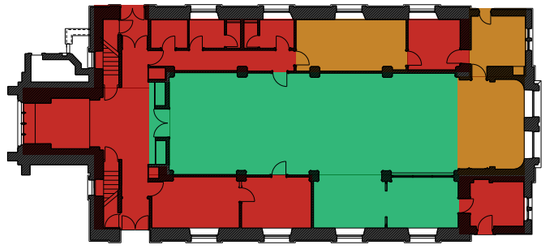
Activity 4

Activity four asked the respondents to place stickers on a series of images that they felt best reflected the culture, ethos and vision for Sacred Trinity.

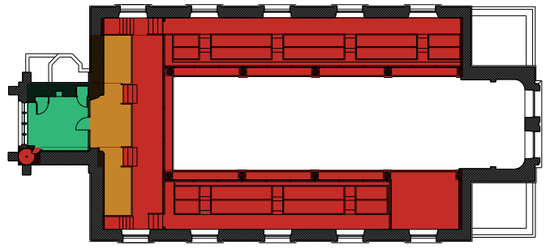
Outcomes

Activity 1

Gathering all of the feedback from Activity 1 helped reveal how well people thought the spaces in the church were used. The drawings below help identify these areas.



Existing Ground Floor Plan



Existing Gallery Floor Plan

Key

Most practically, well used areas

Areas that could be improved

Least successfully used areas

Activity 2 Outcomes

As part of this exercise we gathered feedback from those who participated. The points made were in response to the following questions;

- How could the church be better used by new users?
- How could the church be better used by the local community?
- How could the church be better used by the existing congregation?
- How could the church be better used by existing external users?
- How do you see the future of the church?
- What are the key improvements that could help the church achieve the future you have outlined?

- Library a great idea
- More space for worship, engagement, office to let out etc..
- Forum for isolated groups
- Digital space

- Incorporating local history and awareness
- Tourists, heritage and arts
- Event space
- Open days
- Information point

- Food club/bank
- Welfare rights and debt service
- A safe space for those who need it
- Social group space for more diverse groups

- Art exhibitions and workshops
- Community cafe
- Local community events
- Connecting with other local venues/ organisations

- As a place to contemplate
- Workshops and classes
- Performance and exhibition
- Services & celebrations

- Inviting schools
- Future to be open to all people
- Religious aspects, history of building, local area, art, workshops, architecture, PSHE

- Parking a must
- Free wifi
- Accessibility
- Hot desking
- Free space for business
- Event space
- Music, dance, film

- Breakfast club
- Safe space for all
- Links to external support groups
- Bar / cafe
- Subsidised venue hire

- Easy height seating
- Meeting rooms
- Booking for events
- Quiet hour
- More flexible spaces
- More fundraising
- More diversity

- Regular social events curated by leaders in music
- Important art space
- Important community space
- Thriving worship space

- Usable area upstairs
- Expansion of office space
- Enhanced acoustics
- Accessibility
- Widening of pews
- Improved WC's
- Flexible space

- Goal to be net-zero by 2030
- Modernisation of the church
- Better use of space
- Affordable production offerings
- Bookable space

Activity 3

- The main space is key but the front/balcony is useful too
- The ground area is void at the end of parades?
- Worship space is key – but needs flexibility – small / large events
- The entrance isn't really fit for purpose at the moment – awkward, cramped, inviting – not first great impression for new people
- Entrance a welcoming, showing, practical space
- Nave is a hub of activity
- Worship community space in same service area
- Preserving historic elements that help Sacred Trinity stand out
- Quiet room feels a bit unfriendly at the moment
- Worship, weddings, funerals, baptism, community
- Meeting area is good but could be redesigned to be less awkward
- Flexible space used for events
- Keep quiet room but make it use/access a bit clearer – seems just like a side room at the moment
- Big open flexible main space for worship and events
- Keep the quiet room – ideal for people with autism or those overwhelmed/ anxious.

- Improved and more usable kitchen facilities (catering kitchen)
- Accessible throughout – lifts, signage, sight, sound considering all disabilities.
- Modernised facilities introducing technology, wifi , computer access
- Stand alone community space
- Bar/café
- Office space
- Worship area – this is well positioned in the building
- Well organised upstairs artefacts and availability of learning space
- Side spaces to be better used, good allocation of space appropriate for purpose.
- Upstairs more usable
- More 1-2-1 spaces
- A real emphasis on being a community space
- Better utilisation of spaces available upstairs
- Wider doors for wheelchair access
- This will welcome more of the disabled community
- Community involvement almost irrespective of what or who
- Access to space

- Lift to first floor
- Community engagement and local educational partnership working
- Use of outside space café etc.
- Subsidised drinks like in other cafés full inclusive including local school for after school clubs
- Space for networks (community creative church) to come together, to work together
- Workshop space for school visits
- Access to the first floor (plus better storage to free up that space)
- Booklet of 'interest' items/areas e.g.. What the plaques, hangings, windows & crests represent to give to visitors/educators pre-visit
- A bar/café area
- Group spaces with shared resources
- Community engagement and partnership working
- Event space
- Info for people new to church – why do Christians 'do' church.
- How can non-Christians enjoy the space?
- Altar could be more grand
- Office space that may be used for hot desking and decent wifi

1.5 Activity 1 - Why do you think we are doing this piece of work?

1.6 Activity 2 - Forming the purpose and vision

1

Story - Sunday morning service

- Open table
- Felt welcome when first walked through the door
- Felt welcome so continued to visit
- Adaptable
- Felt it was something I wanted to be part of

2

Story - Beer & carols

- Whole community event
- Its packed and busy
- Cosy and fun
- Space become invaluable to the community
- Inclusive event
- Aside from the pub there are not many spaces you can come together and be social
- Feel connection
- Not service
- Good mix of people in a social and relaxed environment
- Builds community

3

Story - Socialising after service

- The doors used to be locked during service
- People would leave straight after service
- One day people were gathered around and talking to each other after service
- Had a feeling people were looking out for each other
- Felt a natural moment and progression
- Felt acceptances and welcome in that moment
- Boars head symbol of hospitality (is this the connection to history?)

4

Story - Engagement through the pandemic

- Engaged with the community on how to re open
- Managed to have services during the pandemic
- Listening and not compromising
- Continue to be different, a little island surrounded by a changing city
- Congregation are local and from far away
- Managed to make it a place for everyone

5

Verbs

- Welcome
- Connect
- Include
- Elevate
- Transform
- Inspire
- Support
- Encountering
- Beautiful
- History
- God
- Art
- Heritage
- To hear
- To listen
- To please
- To engage
- To pleasure
- To celebrate
- To feed
- To serve
- To comfort
- To bring joy

1.7 Activity 3 - Human Impact

1

Story - Sunday morning service

- Satisfaction after service
- Felt content, peace, happiness, pleasure and patience
- Church understand the needs of the LGBTQ+ community

2

Story - Beer & carols

- Acceptance
- Joy
- Safe space
- Relaxed
- Fun

3

Story - Socialising after service

- Progression
- Peace

4

Story - Engagement through the pandemic

- Listening to community
- Felt safe to access
- A place where the vulnerable and disadvantaged can get help

5

Verbs

- Welcome
- Connect
- Include
- Elevate
- Transform
- Inspire
- Support
- Encountering
- Beautiful
- Content
- Peace
- Happiness
- Pleasure
- Patience
- Safe
- Acceptance
- Joy
- Fun
- Relaxed
- Come as you are
- Valued
- Inclusive

6

Other

- Digital infrastructure
- Who isn't using the space?
- Who is being excluded?
- Church to respond to future communities
- If you took the congregation away what you be left with?
- More potential as evenings are busy and days are slow
- Church events can be difficult to arrange due to other commitments
- I what we have now ideal?
- Represent needs of communities such as LGBTQ+
- Cater to homeless charities but not be overcome by it
- USP - Ancient space but people are progressive

1.8 Workshop 2 - Human Impact

1.7.1 Once the first session was completed, a weeks break was given so that our participants had some time to think, digest and explore the ideas that were initially discussed. In the second workshop we used post-its to list out all the key words and project objectives previously discussed. We then discussed each element identifying what should sit under the vision and what should be included within the project visions. In doing this, a short list of objectives has been generated and a number of project visions drafted.

1.7.2 The next step is for the church to review the project objectives and project visions to agree the final project brief.

1.9 Defining the Brief

Collectively, following a period of reflection on the outputs from both consultation sessions, the following themes have been utilised to define a brief that was co-developed with Sacred Trinity's stakeholders to guide the design proposals moving forwards.

Heritage and Art Exhibition
New interventions should be sympathetically and sensitively integrated with the historic fabric, and opportunities should be explored to celebrate existing exhibitions that take place in the church.

Physical Accessibility
New spaces and facilities should be physically accessible and inclusive. The gallery level is currently inaccessible to non-ambulant users and there are no accessible WCs.

Resilience and Future Proofing
The spaces within the church should be flexible, comfortable and well equipped to accommodate a wide range of uses, bringing a wide demographic of new visitors to the building, securing the building's future viability.

Spaces for Community and Worship
The established spaces should allow Sacred Trinity Church to diversify its offerings, incorporating worship and liturgical functions in addition to a variety of community events and activities.

Flexible and Adaptable Multi-use Spaces
The spaces created should be easily and efficiently adaptable to suit differing uses, functions and occasions.

Sustainability Outcomes
Proposals and strategies should be driven by environmental, social and economic sustainability goals. The church has an aspiration to achieve net zero carbon emissions by the year 2030, therefore, all design options should consider low impact construction and increasing the energy efficiency of the building.

2.0

Site Analysis

2.0 Site Analysis

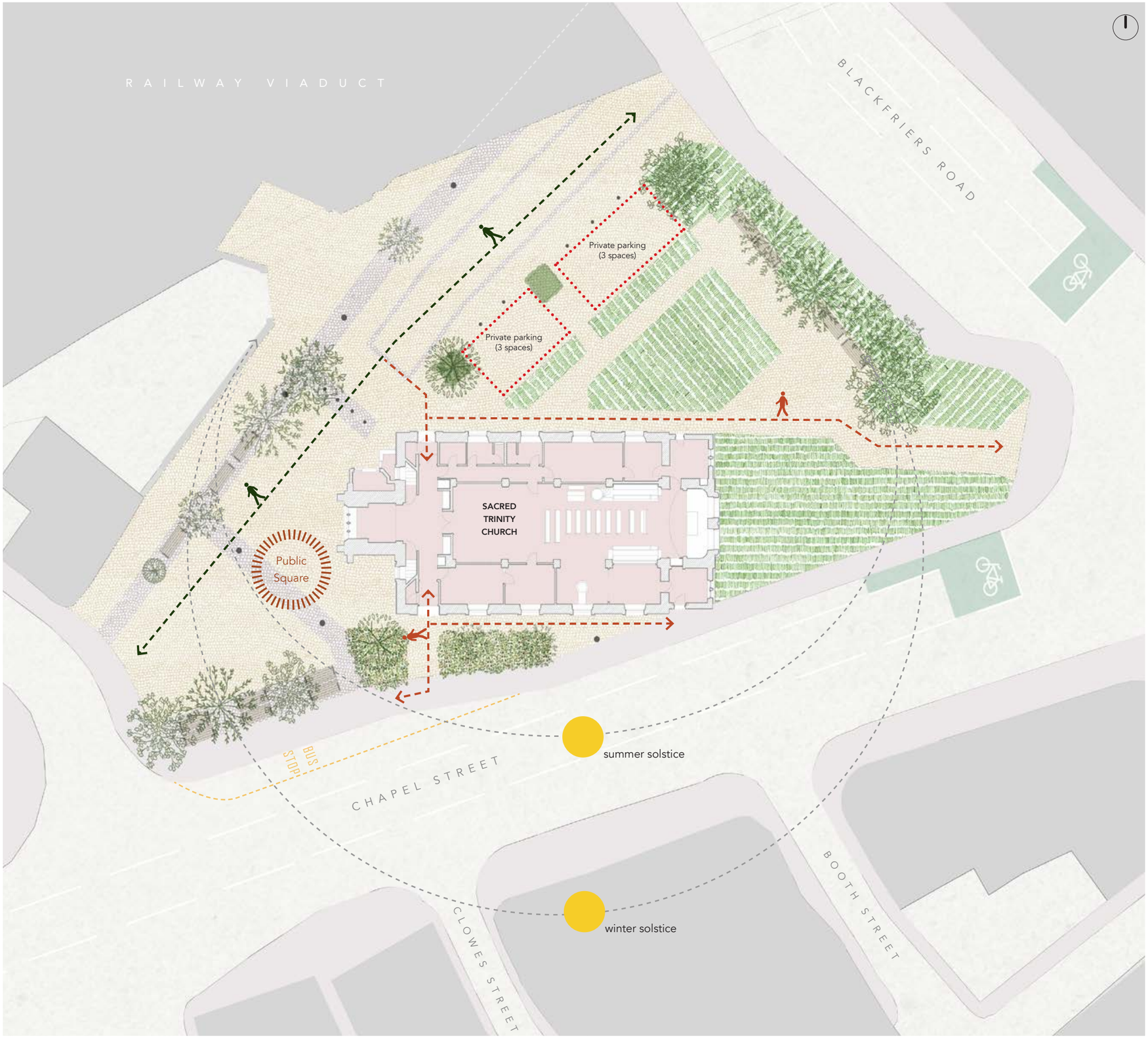
2.1 Analysing the Site Context

To create informed, appropriate and sensitive proposals for the feasibility study, the site, interiors and context of Sacred Trinity have been analysed to provide a holistic understanding of the church.

The church sits at the intersection between Chapel Street and Blackfriars Road. Although Sacred Trinity does not site within a typical church yard, there is an area to the northeast that has landscaped public space with seating and a small public square to the west. The absence of a churchyard arguably gives the church a stronger relationship with the city and the potential to feel more welcoming.

Due to the east / west orientation and closed off aisles, natural light is currently poor within the interior of the building. Artificial light is often used, adding to the energy consumption of the church.

Sacred Trinity is well situated for pedestrians, cyclists and public transport, meaning that as Salford develops further, there is a good opportunity to reach many new people and expand the church's community.



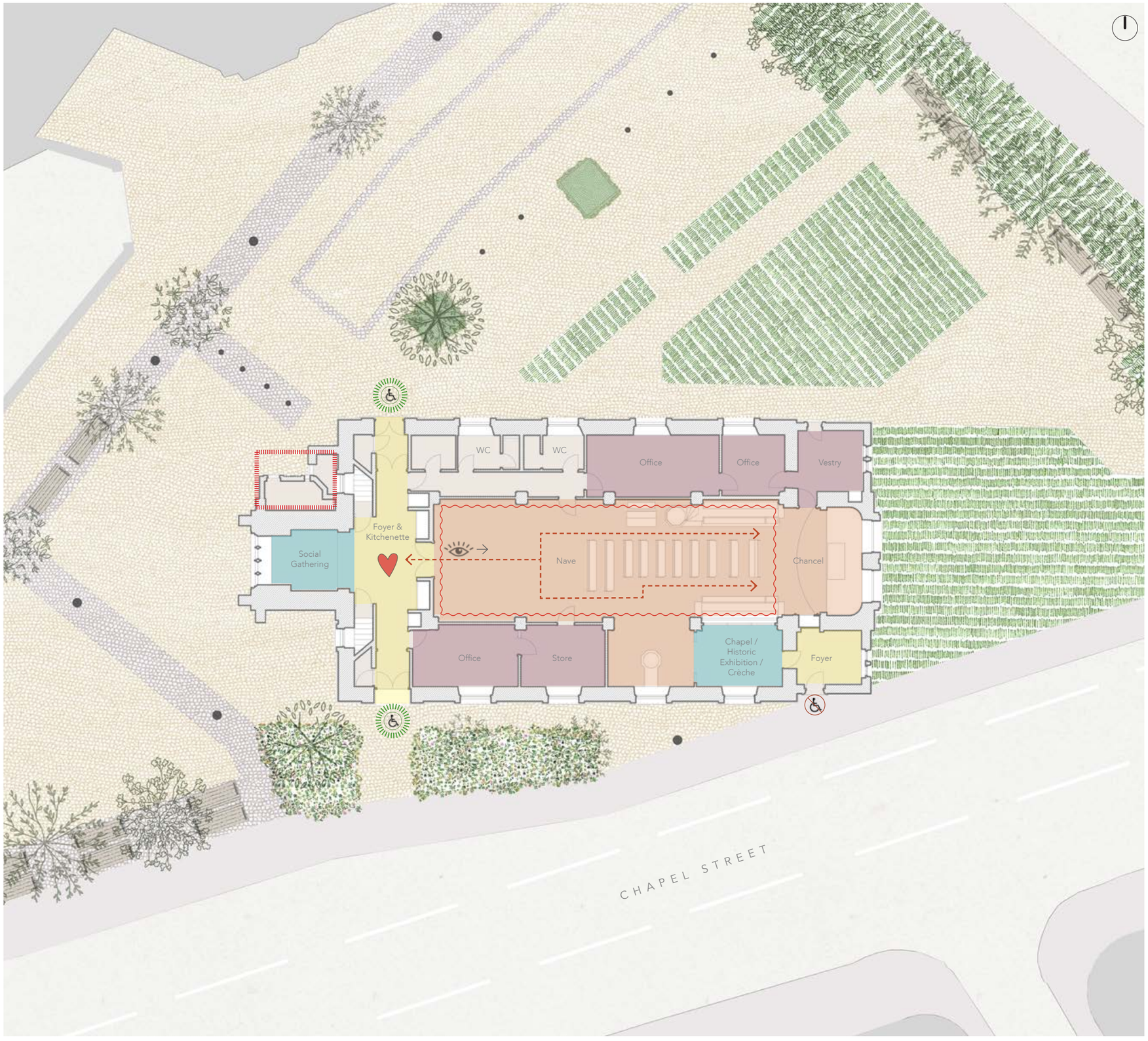
Key

- Primary pedestrian access routes
- Public pedestrian route
- Key underutilised areas
- Public Square - Opportunity for events & partnerships
- Public seating
- Sun Path
- Central community hub

2.2 Understanding Sacred Trinity - Ground Floor

Due to a remodelling in the 1980's, the aisles of the church have been closed off to create office space and toilets. This has resulted in a nave that is poorly lit and not particularly flexible for non-liturgical events. However, the church has successfully hosted many live music events and other community functions. This offer of varied events is to be well considered and enhanced in the proposed design options.

There are extensions to the exterior that were later additions to the church, which are of lesser historical significance than the original Georgian fabric. These areas could be an opportunity to extend the church to create better access to the gallery or accommodate upgrades to the buildings services.



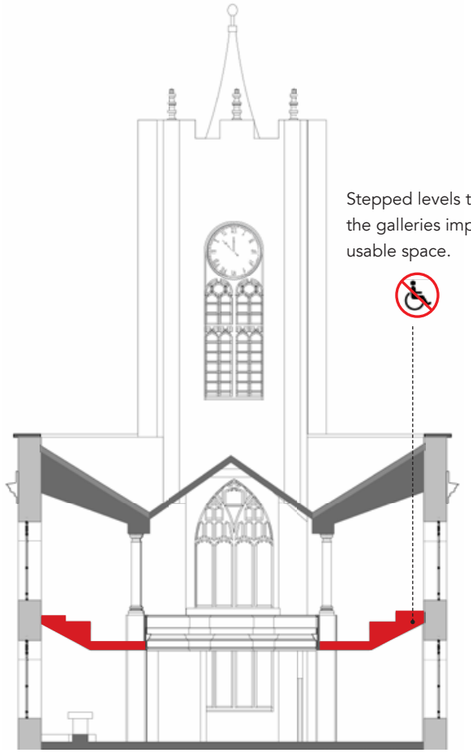
Key

- Primary liturgical and congregation routes
- Views and visual links
- Key nave space to areas
- Fixed liturgical spaces and furniture
- Ancillary spaces
- Accessible and inclusive entrance
- Non-accessible entrance/ pathway
- Key gathering space to unlock potential
- Key community hub/ orientation opportunities
- Later extension with lower historical significant

2.3 Understanding Sacred Trinity - Gallery

The raked pews in the gallery date back to the early Georgian period and contribute heavily to the significance of the church. Their historic importance and stepped design create a considerable constraint on the development of the gallery, with accessibility a key issue. However, there is an opportunity to re-imagine how they are used, potentially for meeting spaces, co-working or audience seating for events. There is another level change at the bell tower, which would also need to be considered in the proposals.

Running the length of the gallery is a low quality curtain wall glazing system, which was installed in the 1980s. This acts as an acoustic and visual barrier to the nave, limiting the use of the gallery for liturgical events and performances.



Stepped levels throughout the galleries impacting on usable space.

Key

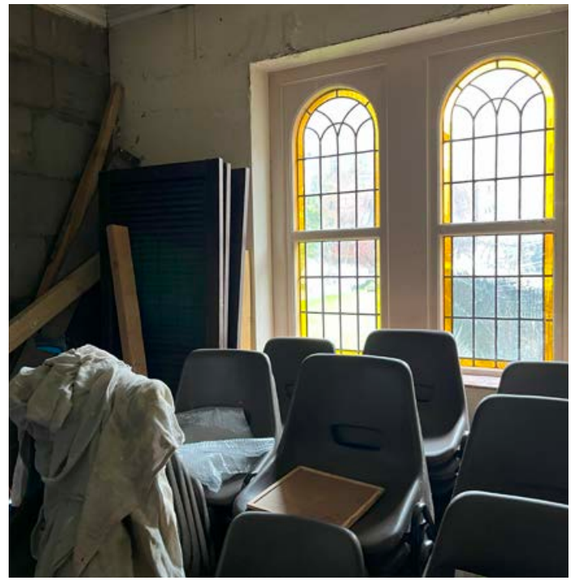
- Historic feature
- Poorly used space and raked pews
- Low quality glazing

2.4 Analysing the Church Internally

The gallery houses the oldest collection of church furniture in Greater Manchester, dating back to 1690. However, these spaces are underutilized as storage. Additionally, existing level changes make the gallery floor inaccessible to non-ambulant users.

The chancel forms the central focal point of the church, with ornate arched windows, gallery organ and Jacobean pulpit. This eastern part of the church is the primary liturgical space.

The gallery perimeter is lined with curtain wall glazing, constructed in the 1980s, which serves as an acoustic and visual barrier between the nave and upper floor. The glazing, now dated in appearance, detracts from the building's historic architecture. Removing the glazing could improve the space's acoustics, as the highly reflective glass currently contributes to longer reverberation times.



The aisles were remodelled in 1980 to create toilets and office spaces. Closing off the aisles in such a way limits natural light to the nave, which is predominantly lit by clerestory windows. Some of the aisle rooms are used as storage, however, there is an opportunity to do more with these spaces.

Storage for musical instruments in the aisle rooms.

The ground floor tower space is used as a social space for informal gatherings. This area acts and extension to the foyer and kitchenette.

The low-quality kitchenette is one of the first features visible upon entering the church, offering an opportunity to either create a new kitchen space or upgrade the existing facilities.

This chapel space currently serves as a crèche and displays the Lancashire Fusiliers flags along with the names of the Salford Lads who lost their lives in the Battle of the Somme. However, the exterior entrance lacks level access, making it inaccessible.

2.5 Initial Response

Opportunities

Arrival sequence

- Spacious entrance
- Accessible entrance

Redundant space

- Opportunity to utilise space at gallery level
- Large windows provide good natural light
- West & East spaces at ground level not original construction and have potential to be modified

Nave & circulation areas

- Hallway widths could be opened up
- Ability to host wide range of events
- Pews are not fixed allowing for greater flexibility
- Objects and wall artefacts are not fixed allowing for greater flexibility

Constraints

Arrival sequence

- Entrance and foyer could be improved aesthetically
- Inappropriate lighting creates dimly lit space
- Seating area in entrance hall is not used well

Redundant space

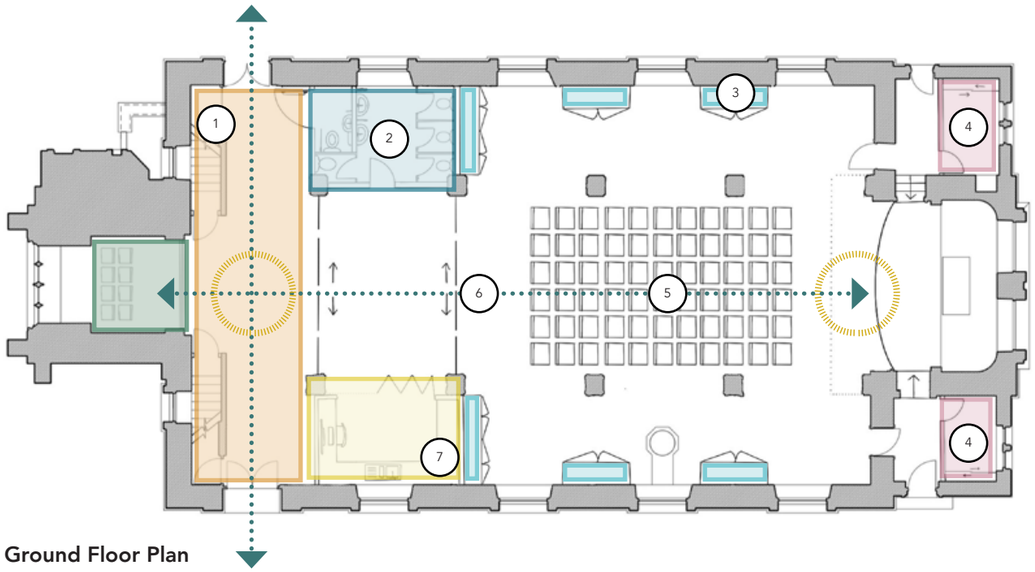
- Fixed pews at first floor provide little flexibility
- Floor level differences at first floor constrain potential use
- Adequate storage provisions needed to de-clutter first floor

Facilities

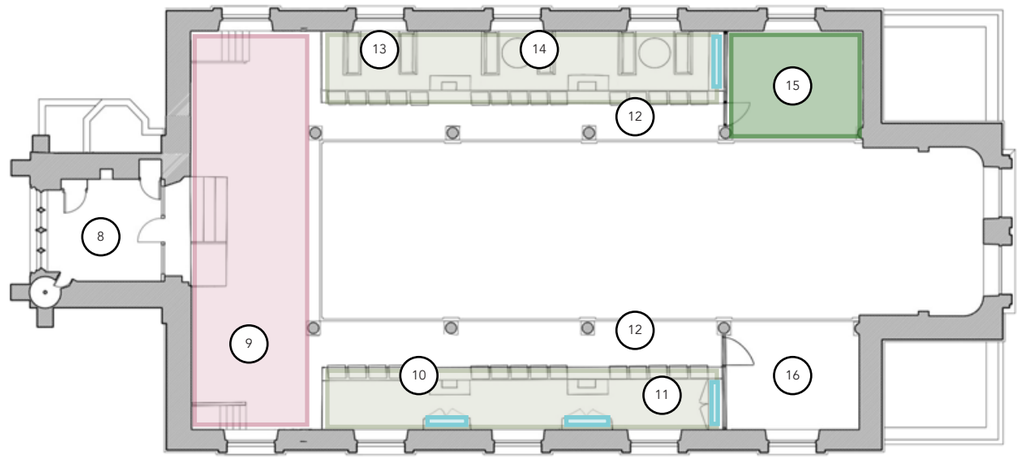
- Updated WC facilities could be provided
- Improved kitchenette facilities needed to cater for groups

Circulation

- Hallways at ground floor are encroaching and could be reconfigured



Ground Floor Plan



Gallery Floor Plan

Key

- Quiet room in West tower
- Kitchen facilities
- Welcome/Orientation/Reception area
- Upgraded WC's
- Flexible meeting spaces
- Open space for meetings and performances
- Parish office
- Storage

1. New welcoming arrival sequence
2. Upgraded facilities
3. Additional storage provision for events groups and performances
4. Vestry & meeting room
5. Reordered Nave provides flexible worship/activity space
6. Moveable screen
7. Upgraded amenities to cater for groups and events
8. Ringing chamber
9. Redundant space made into open flexible space
10. Flexible furniture
11. Creating multi-functional space
12. Open meeting space/seating area
13. Space for informal meetings
14. Re-activating the gallery space
15. Updated office accommodation
16. Organ

3.0

Design Proposals

3.0 Design Proposals

3.1 Overview

Based on the site analysis and insights from the recent consultation, this feasibility study has been developed to explore sensitive and creative ways to enhance accessibility, flexibility, and community offerings at Sacred Trinity Church.

The study considers four options, each responding to the constraints of the existing heritage asset, the brief, and the church's aspirations.

Given the church's Grade II* listing, great care has been taken to ensure that any proposed changes are thoughtfully integrated into the historic fabric, respecting its significance.

Key

- Liturgical /events
- Community
- Co-working / office
- Exhibition / classroom / heritage
- Church ancillary spaces
- WC
- Kitchen
- Storage

Option 01

Unlocking the Aisles

An internal reordering scheme creating a more welcoming arrival space and flexible liturgical space with minimal impact on the existing heritage asset.

- ☒ Enhanced sense of arrival and welcome spaces with seating and storage.
- ☑ Dedicated liturgical space within the chancel with an adjoining vestry.
- ☑ Open and flexible space for a range of community events, gatherings and functions.
- ☑ Loose configurable furniture arrangement to suit all occasions.
- ☑ New accessible ungendered WC's, amenities and a large kitchen and servery.
- ☒ Changing places WC
- ☑ Sub-dividable spaces in the nave to enable thermal and acoustic separation.
- ☒ Maximise gallery space
- ☑ Low level of intervention and impact on the heritage asset.

Option 02

A Space for the Community

An internal reordering scheme creating a dedicated community space and flexible liturgical space with minimal impact on the existing heritage asset.

- ☑ Enhanced sense of arrival and welcome spaces with seating and storage.
- ☑ Dedicated liturgical space within the chancel with an adjoining vestry.
- ☑ Open and flexible space for a range of community events, gatherings and functions.
- ☑ Loose configurable furniture arrangement to suit all occasions.
- ☑ New accessible ungendered WC's, amenities and a large kitchen and servery.
- ☒ Changing places WC
- ☑ Sub-dividable spaces in the nave to enable thermal and acoustic separation.
- ☒ Maximise gallery space
- ☑ Low level of intervention and impact on the heritage asset.

Option 03

Re-imagining the Gallery

An internal reordering scheme creating a dedicated community space, flexible liturgical space and an extended gallery to provide accessible co-working / meeting spaces.

- ☑ Enhanced sense of arrival and welcome spaces with seating and storage.
- ☑ Dedicated liturgical space within the chancel with an adjoining vestry.
- ☑ Open and flexible space for a range of community events, gatherings and functions.
- ☑ Loose configurable furniture arrangement to suit all occasions.
- ☑ New accessible ungendered WC's, amenities and a large kitchen and servery.
- ☒ Changing places WC
- ☑ Sub-dividable spaces in the nave to enable thermal and acoustic separation.
- ☑ Maximise gallery space
- ☒ Low level of intervention and impact on the heritage asset.

Option 04

Extending Church Access

An internal reordering scheme creating a dedicated community space, flexible liturgical space, and further adaptable spaces, including an extended gallery and new build extension to maximise gallery space whilst allowing access co-working / office area.

- ☑ Enhanced sense of arrival and welcome spaces with seating and storage.
- ☑ Dedicated liturgical space within the chancel with an adjoining vestry.
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- ☑ Loose configurable furniture arrangement to suit all occasions.
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- ☑ Changing places WC
- ☑ Sub-dividable spaces in the nave to enable thermal and acoustic separation.
- ☑ Maximise gallery space
- ☒ Low level of intervention and impact on the heritage asset.

3.2 Unlocking the Aisles | Option 1

The first option explores the opening up of the aisles to create a larger, more flexible nave and allowing natural light to fill the space. The traditional Victorian pews are replaced with smaller, movable pews that maintain the order of the church but can be rearranged for different events.

Using folding doors, a new arrival and orientation space is acoustically and thermally separate from the nave, but can be opened up for larger events. An upgraded kitchen servery is created to provide a facilities to community group meetings or catered events such as weddings.

Smaller spaces are created within the nave using the historic pews, which can be used for meetings or religious reflection. The gallery is remodelled to allow some work and meeting space, in addition to audience seating. The Georgian raked pews are unobtrusively adapted to create individual desks.

3.3 Option 1 - Ground Floor Plan

Open up the aisles and nave to achieve a bright, liturgical space that can be easily reconfigured for all kinds of events, such as gigs and weddings. Smaller, modern pews that can be easily moved, whilst maintaining the order of the church.

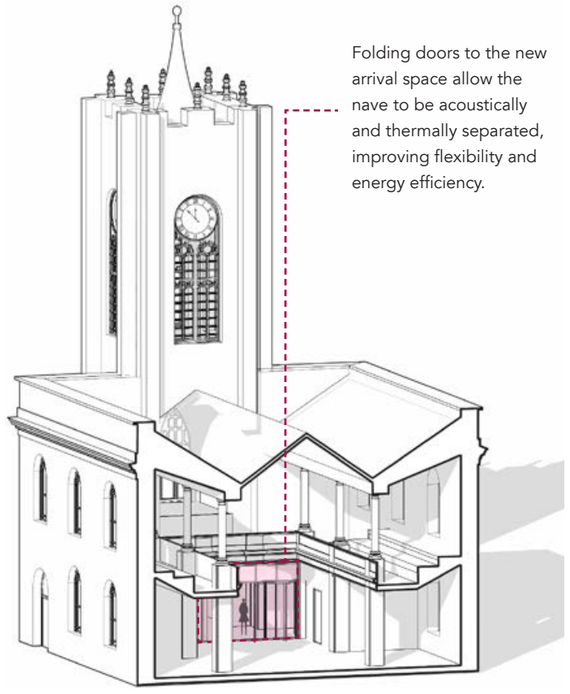
Exhibitions based on activities happening in Sacred Trinity, such as photography and heritage exhibitions, such as the Lancashire Fusiliers memorial. Movable display for maximum flexibility.

Inclusive all gender WC and new accessible WC.

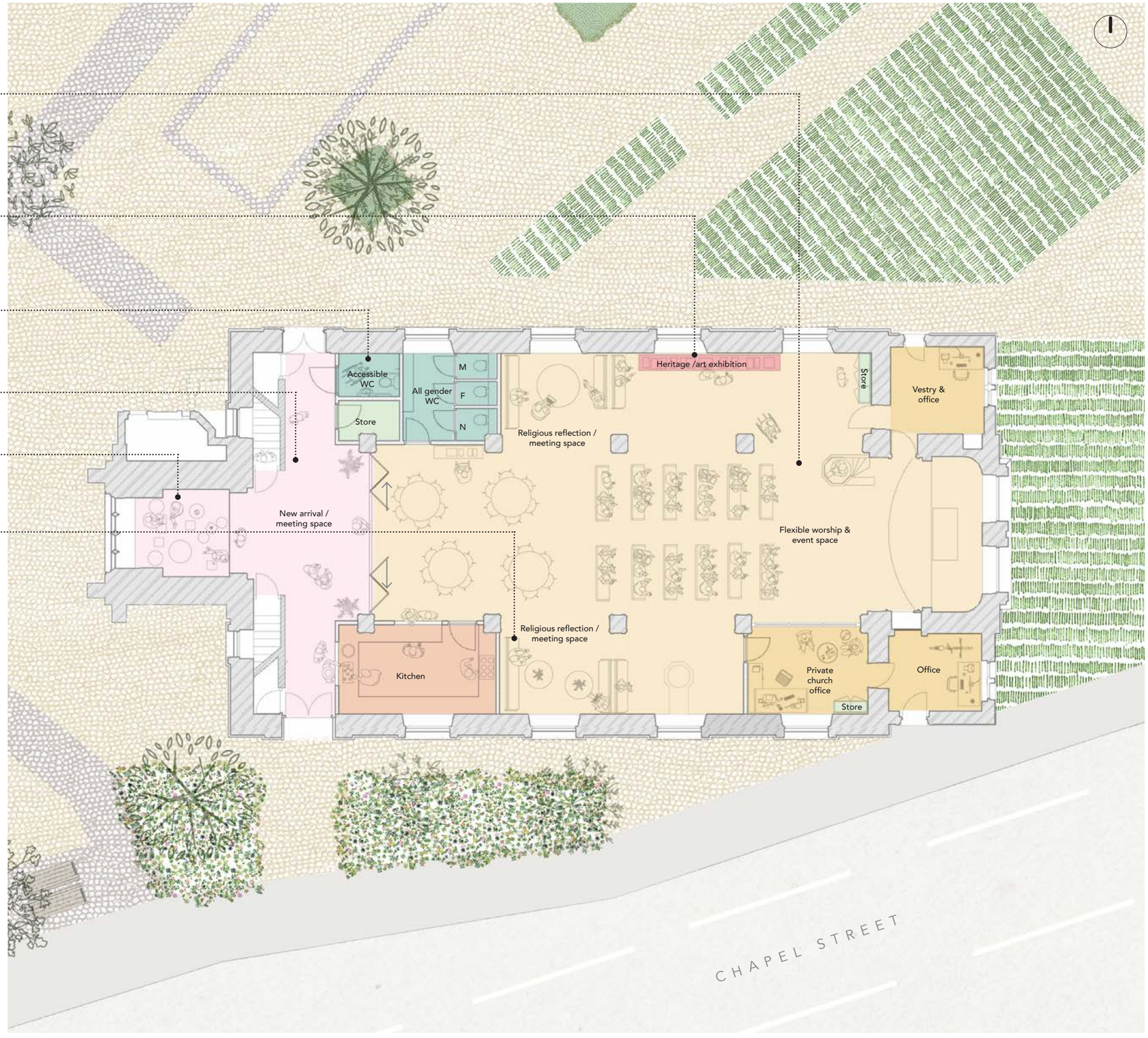
A new celebrated arrival and orientation space. Easily adaptable for social events, informal gatherings, refreshments and community groups.

The tower room becomes an informal social / meeting space.

Historic pews are reordered to achieve more intimate spaces within the nave. Suitable for co-working, meetings, or religious reflection.

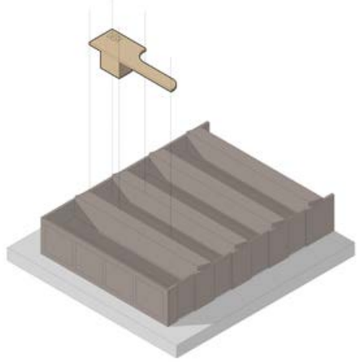


Folding doors to the new arrival space allow the nave to be acoustically and thermally separated, improving flexibility and energy efficiency.



3.4 Option 1 - Gallery Floor Plan

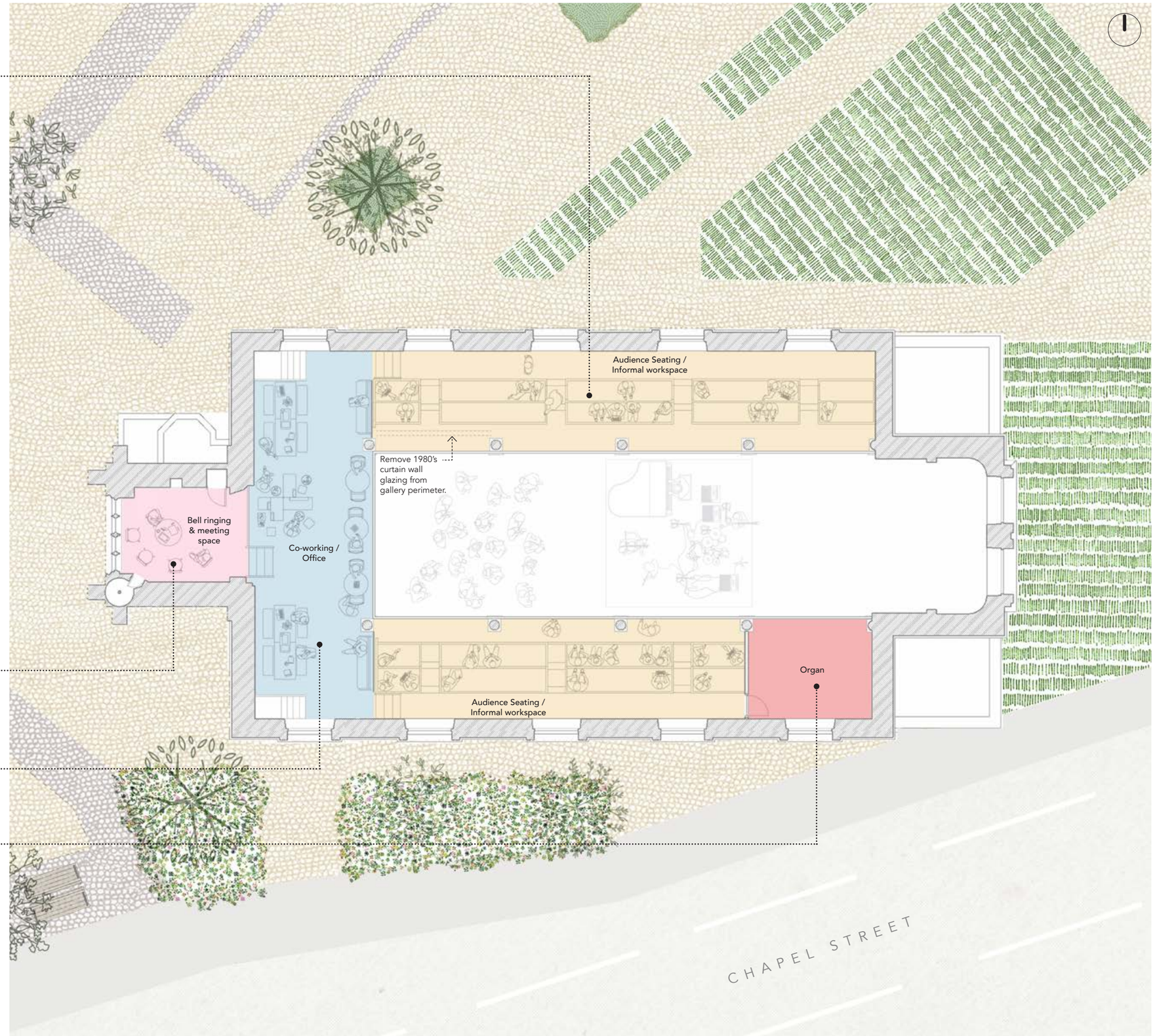
Retain historic pews for audience seating during gigs and events. Historic pews could be unobtrusively adapted to create individual desks for meetings and co-working with integrated lighting and fitted under-desk cupboard to store noise-cancelling headphones and stationary.



The bell ringing chamber also becomes an informal meeting space.

Remove raised floor and introduce office / co-working space. Install booths for privacy.

Retain the organ and other important historic features of the church.



3.5 A Space for the Community | Option 2

The second option builds upon the same principles as Option 1 by opening up the aisles to create a large and flexible liturgical and event space in the nave. A new dedicated community space is created by constructing a small extension that sits within the historic fabric. This intervention allows the space to be acoustically and thermally separate from the nave, but can be opened up for larger events.

Smaller spaces are created within the nave using the historic pews, which can be used for meetings, co-working or religious reflection. The gallery is remodelled to allow some work and meeting space, in addition to audience seating.

3.6 Option 2 - Ground Floor Plan

Open up the aisles and nave to achieve a bright, liturgical space that can be easily reconfigured for all kinds of events, such as gigs. Smaller, modern pews that can be easily moved, whilst maintaining the order of the church.

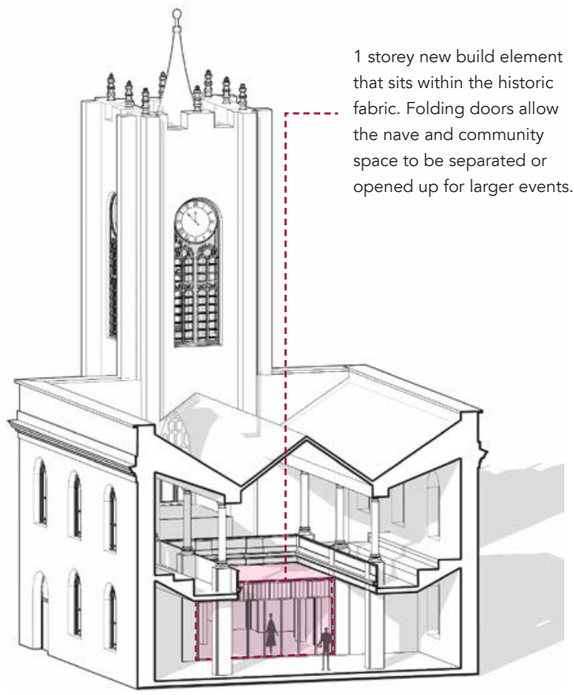
Exhibitions based on activities happening in Sacred Trinity, such as photography and heritage exhibitions, such as the Lancashire Fusiliers memorial. Movable display for maximum flexibility.

Inclusive gender neutral WC and new accessible WC.

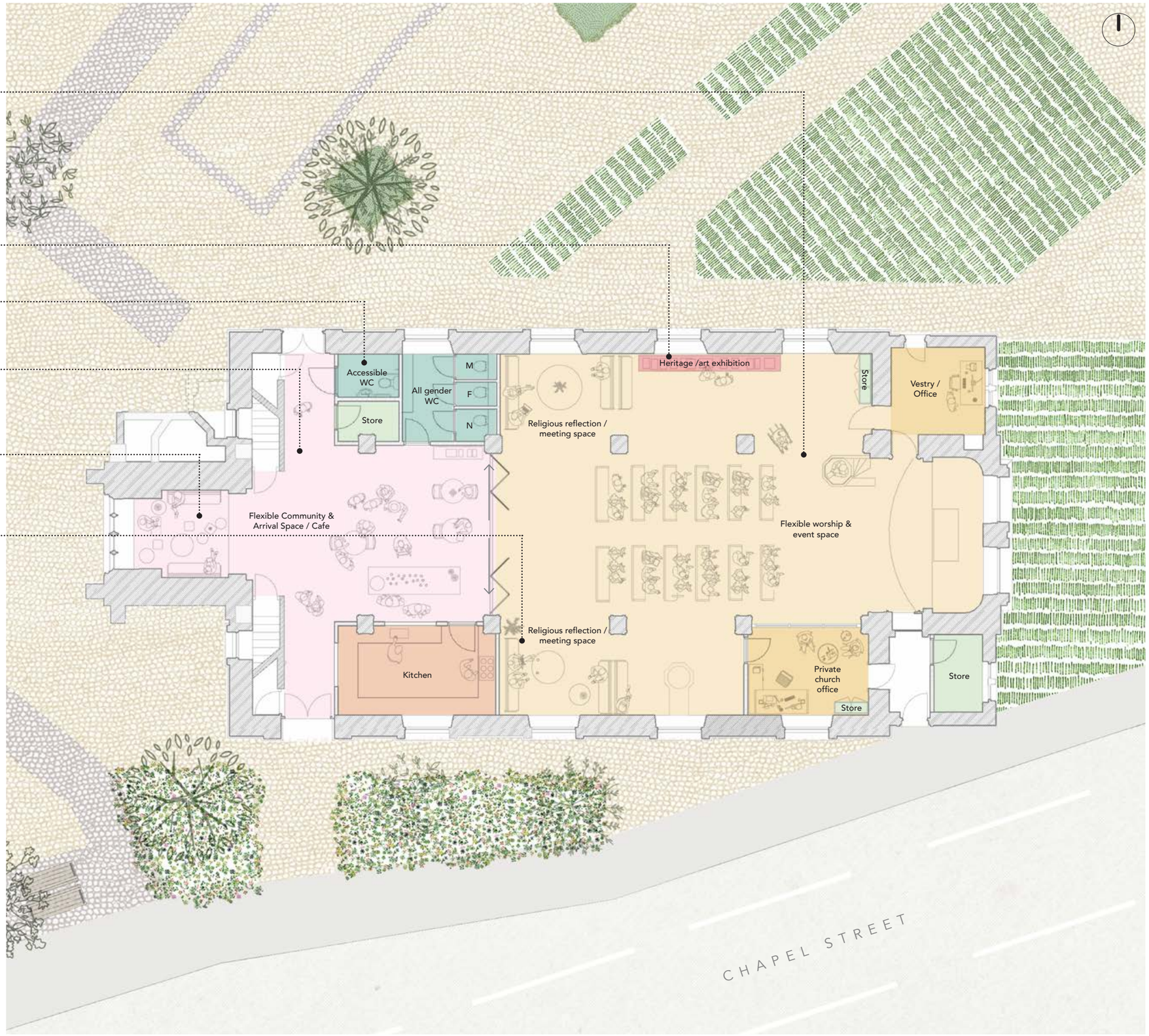
A new celebrated arrival and orientation space. Easily adaptable for social events, informal gatherings, refreshments and community groups.

The tower room is becomes an informal social / meeting space.

Historic pews are reordered to achieve more intimate spaces within the nave. Suitable for co-working, meetings, or religious reflection.



1 storey new build element that sits within the historic fabric. Folding doors allow the nave and community space to be separated or opened up for larger events.



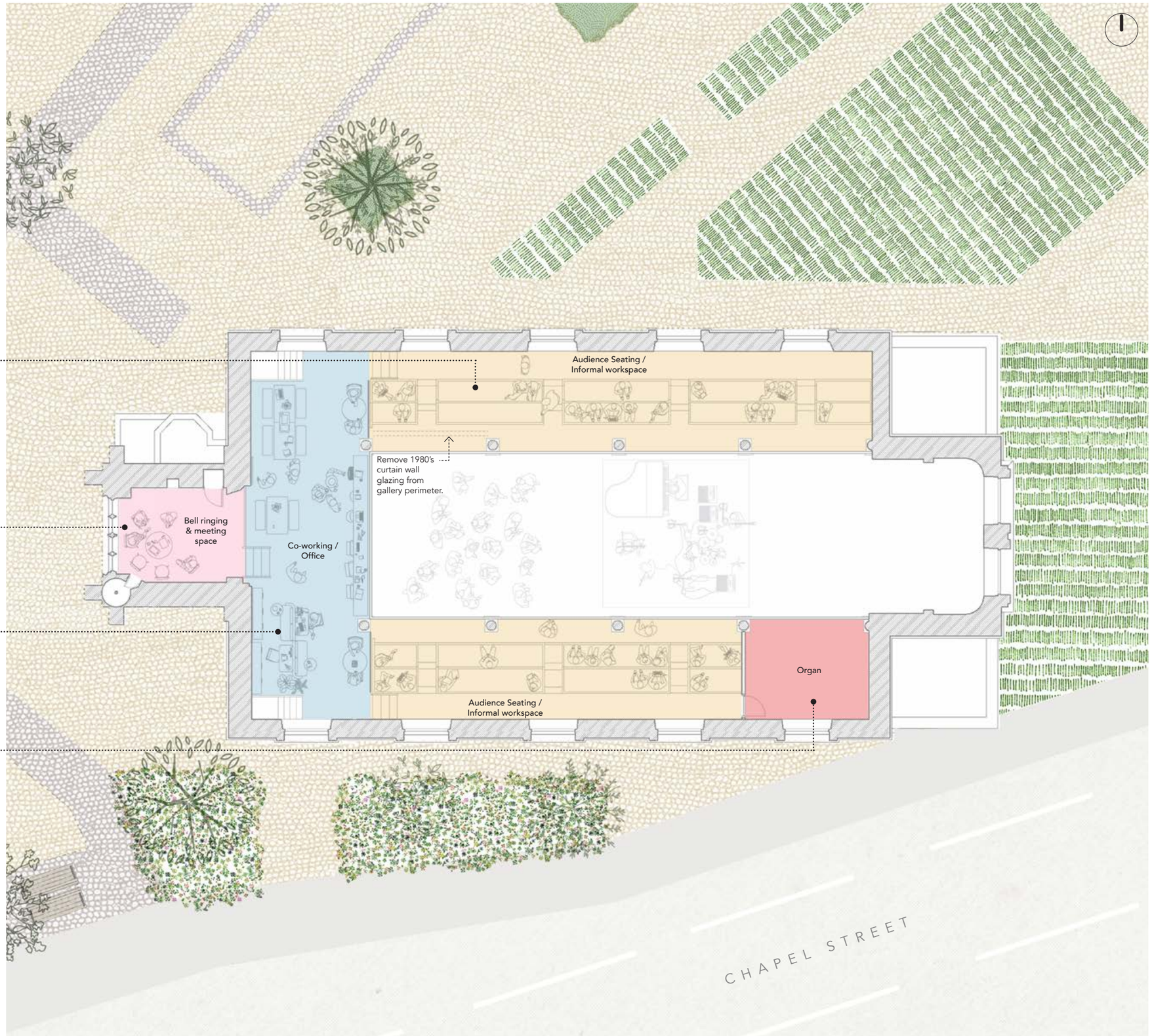
3.7 Option 2 - Gallery Floor Plan

Retain historic pews for audience seating during gigs and events. Unobtrusively adapt the pews to allow informal workspace and meetings.

The bell chamber also becomes an informal a meeting space.

Remove raised floor and introduce office / co-working space. Install booths for privacy.

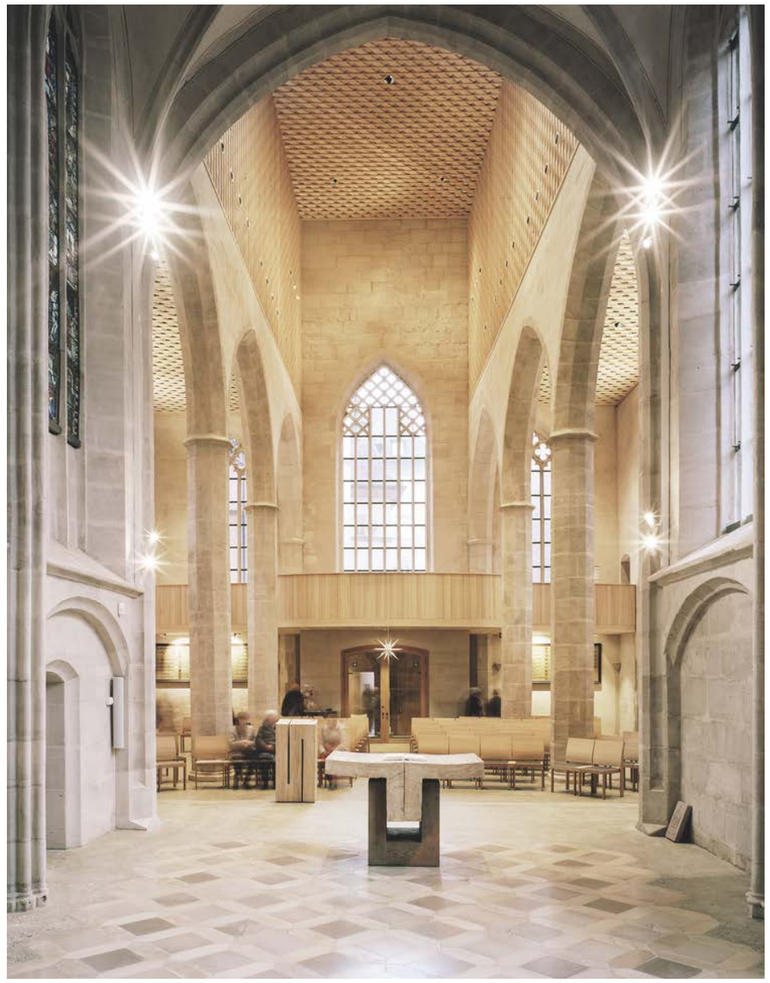
Retain the organ and other important historic features of the church, such as the Georgian staircase layout and raked gallery pews.



3.8 Re-imagining the Gallery | Option 3

The third option explores how the gallery might be re-imagined to maximise its use and be made more accessible with the installation of a lift. The raked pews are of such significance, their full removal was considered to have too much impact on the character of the building.

The key proposal in this option is to move the line of the gallery forward to create a much larger usable space on the first floor. This area would have considerable co-working / office and meeting room offer, whilst maintaining the pews for informal meetings and audience seating. Acoustic curtains are used on the ground floor to divide the space up depending on the required use.



3.9 Option 3 - Ground Floor Plan

Open up the aisles and nave to achieve a bright, liturgical space that can be easily reconfigured for all kinds of events.

Changing exhibitions based on activities happening in Sacred Trinity, such as photography. Heritage exhibitions, such as the Lancashire Fusiliers memorial.

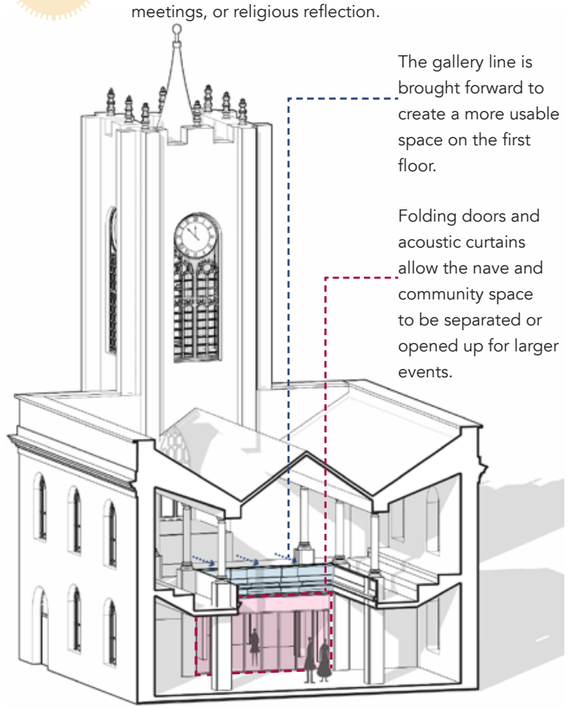
Inclusive gender neutral WC and new accessible WC.

New accessible lift to gallery.

A new celebrated arrival and orientation space. Easily adaptable for social events, informal gatherings, refreshments and community groups.

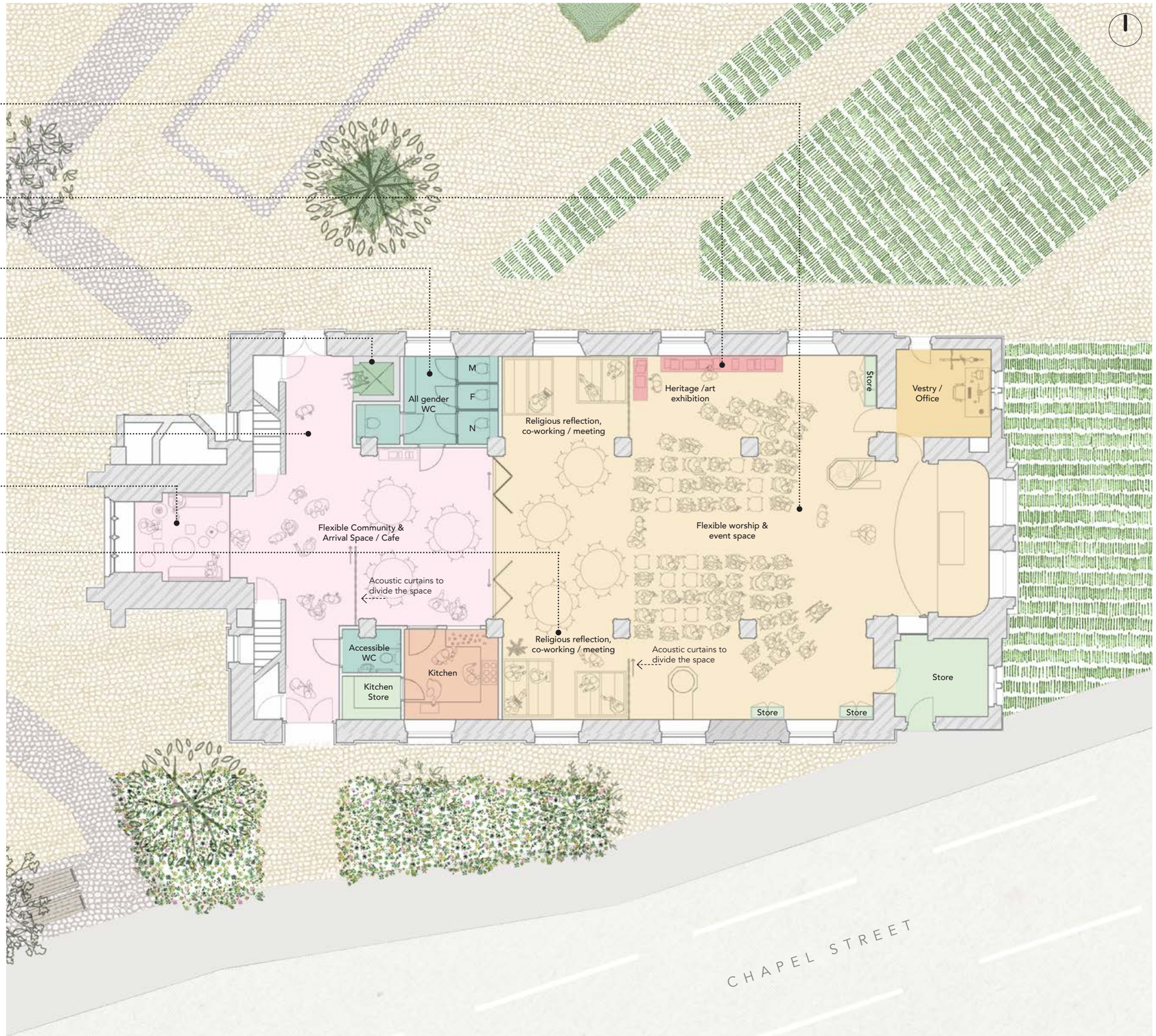
The tower room is becomes an informal social / meeting space.

Historic gallery pews are reordered to achieve more intimate spaces within the nave. Suitable for co-working, meetings, or religious reflection.



The gallery line is brought forward to create a more usable space on the first floor.

Folding doors and acoustic curtains allow the nave and community space to be separated or opened up for larger events.



3.10 Option 3 - Gallery Floor Plan

Part of the feasibility study was to test where a lift might be accommodated within Sacred Trinity. Using 3D modelling, a suitable location for a lift was found adjacent to the north entrance. In this area, the roof achieves the height required for a lift's headroom.

Retain historic pews for audience seating during gigs and events. Relocated end pews to ground floor. Unobtrusively adapt the pews to allow informal workspace and meetings.

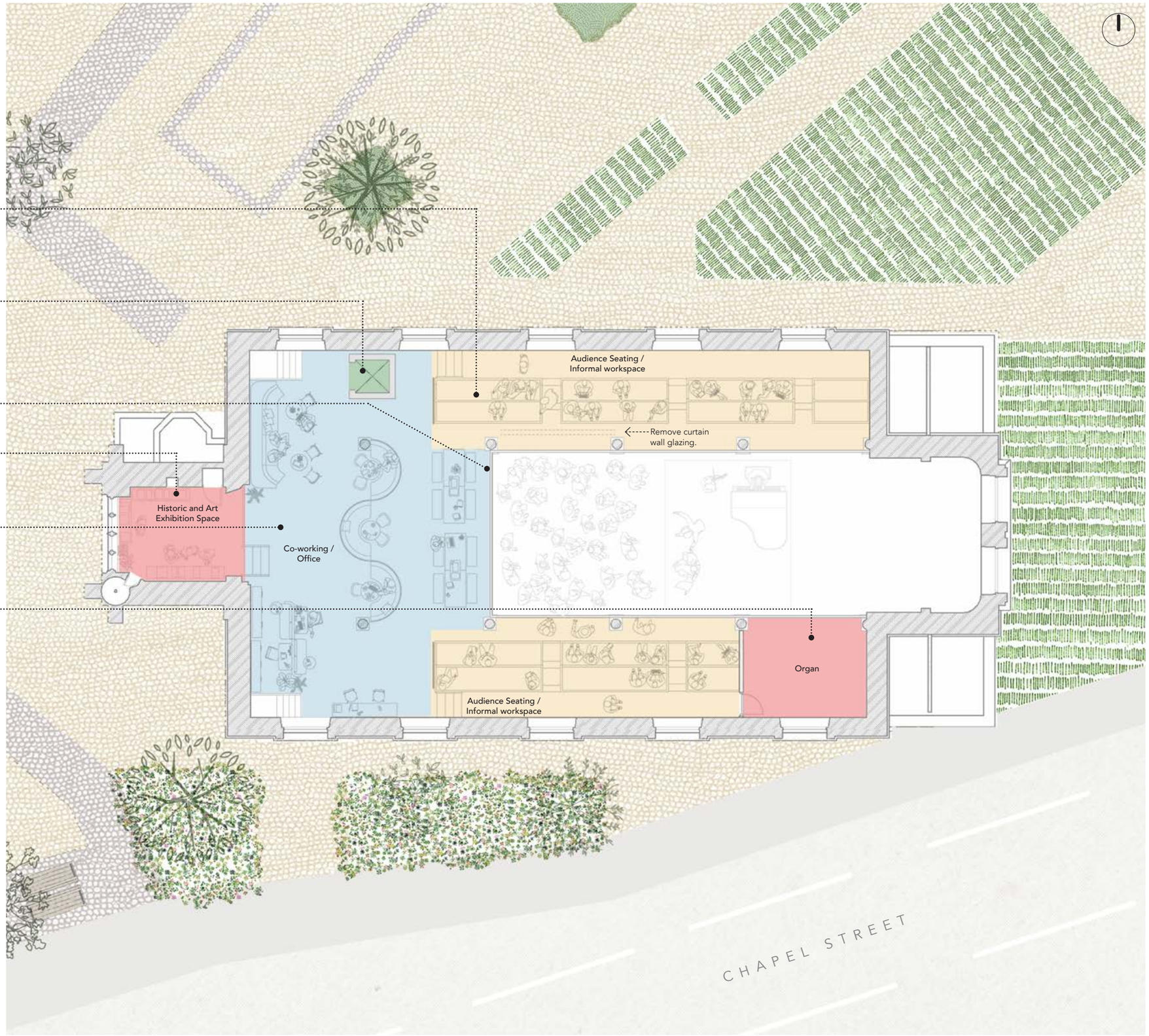
Install new lift to create accessible co-working / office space.

Bring line of gallery forward to allow for more co-working /office space.

The bell ringing chamber also becomes an exhibition space.

Remove raised floor and introduce office / co-working space. Install booths for privacy.

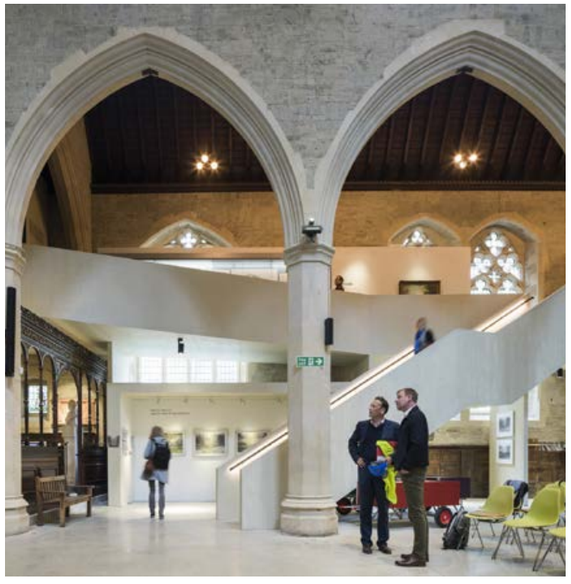
Retain the organ and other important historic features of the church such as the Georgian pews and double staircase layout.

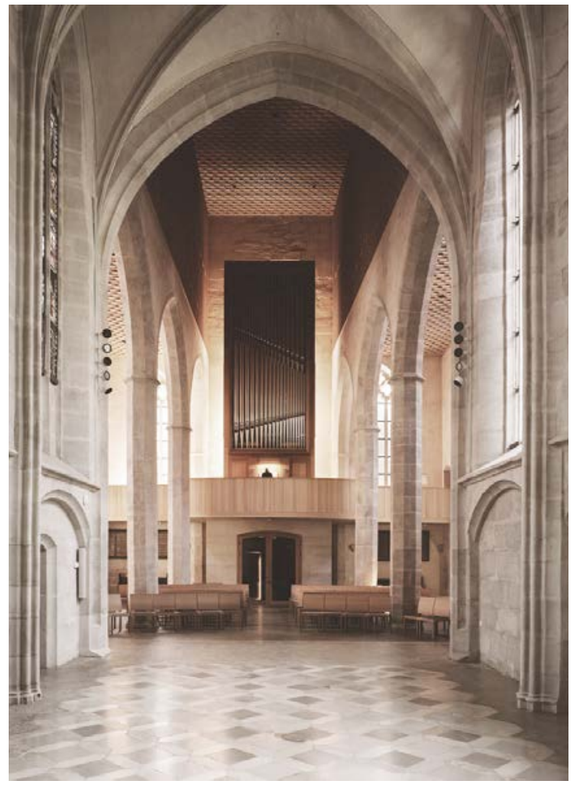


3.11 Extension Feasibility | Option 4

The third option tested the idea of an external extension as a means of accessing the gallery, creating the maximum usable area within the building and a clear distinction between old and new. The more recent Victorian extension to the north west of church was considered of lesser historical significance and created an opportunity to explore a new arrival space that fronts on to the public square to the west and provides accessible circulation to the gallery.

A new changing places WC is added to the ground floor, in addition to a flexible classroom and art space.





3.12 Option 4 - Ground Floor Plan

Open up the aisles and nave to achieve a bright, liturgical space that can be easily reconfigured for all kinds of events.

Flexible classroom / creative space for community groups and local schools.

Inclusive gender neutral WC and new accessible WC.

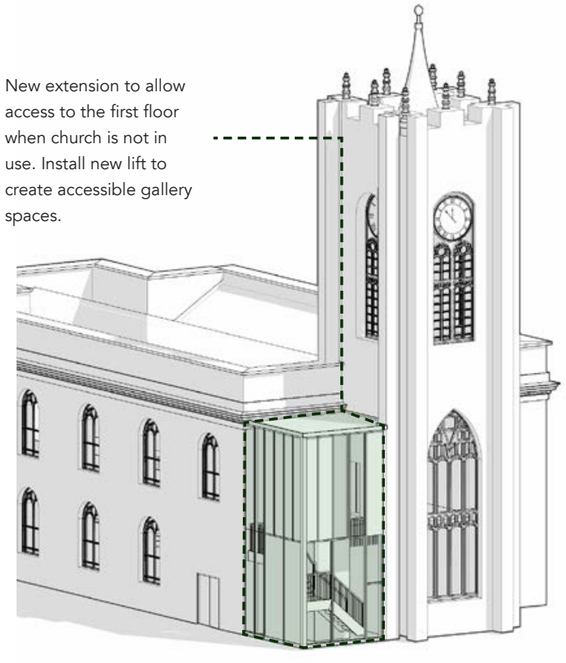
New extension to allow access to the co-working / office space when church is not in use. Install new lift to create accessible gallery spaces.

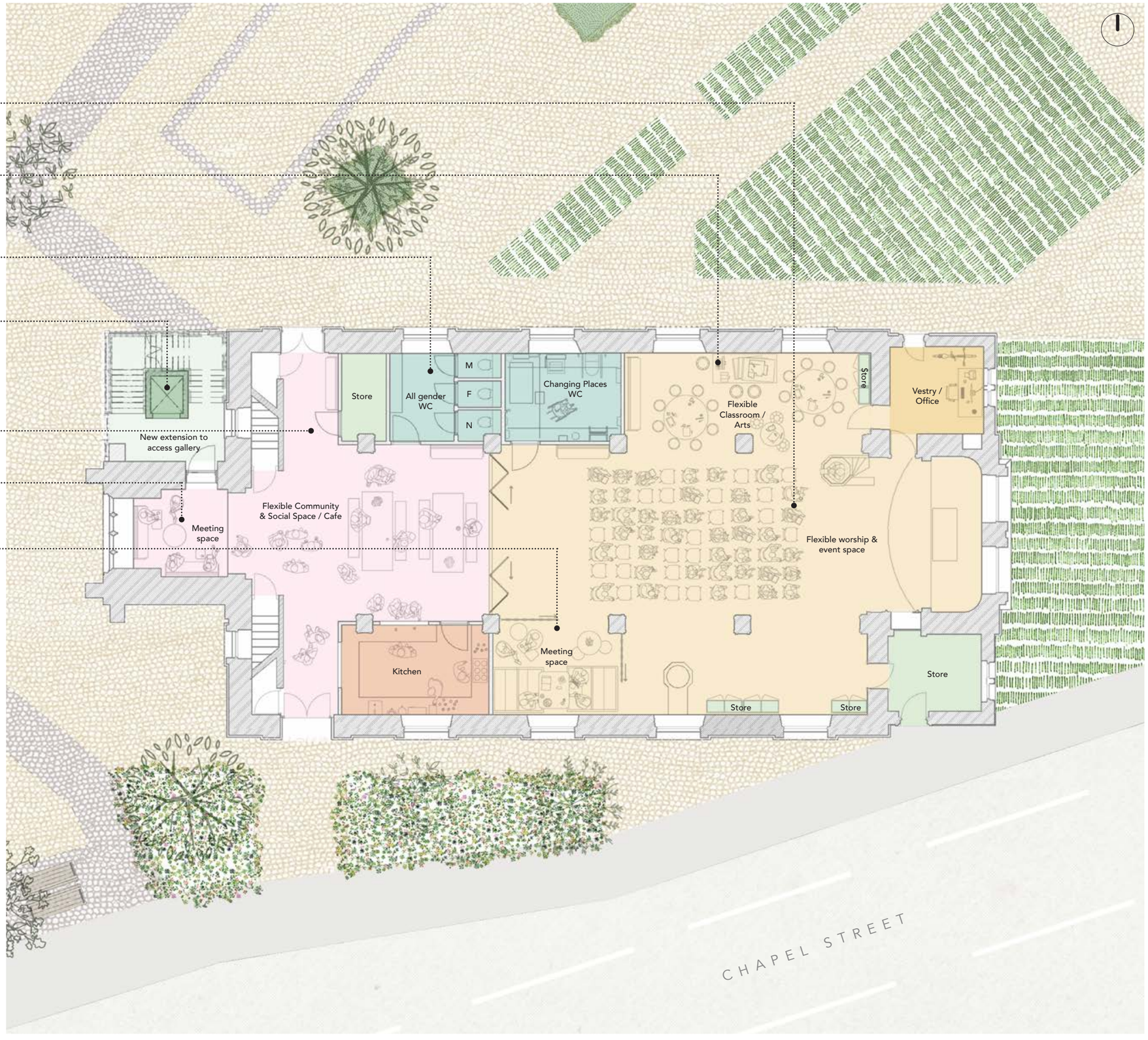
A new celebrated arrival and orientation space. Easily adaptable for social events, informal gatherings, refreshments and community groups.

The tower room is becomes an informal social / meeting space.

Historic pews are reordered to achieve more intimate spaces within the nave. Suitable for co-working, meetings, or religious reflection.

New extension to allow access to the first floor when church is not in use. Install new lift to create accessible gallery spaces.





3.13 Option 4 - Gallery Floor Plan

Retain historic pews for audience seating during gigs and events. Relocated end pews to ground floor. Unobtrusively adapt the pews to allow informal workspace and meetings.

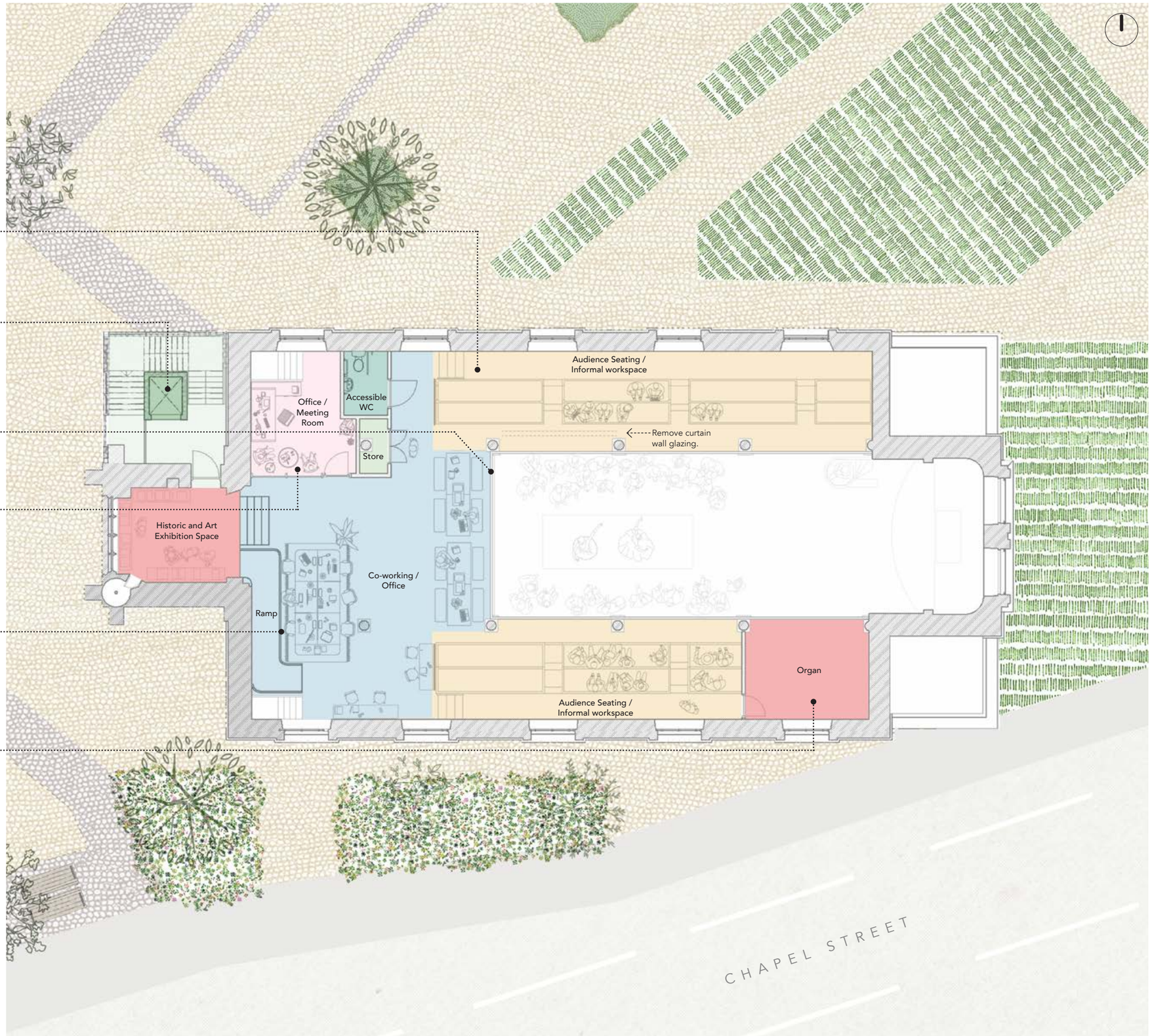
New extension to allow access to the co-working / office space when church is not in use. Install new lift to create accessible gallery spaces.

Bring line of gallery forward to allow for more co-working /office space.

New church office or meeting room.

Remove raised floor and introduce office / co-working space. Install booths for privacy. Ramp installed to create accessible office space.

Retain the organ and other important historic features of the church.



4.0

A Sustainable Church for the Future

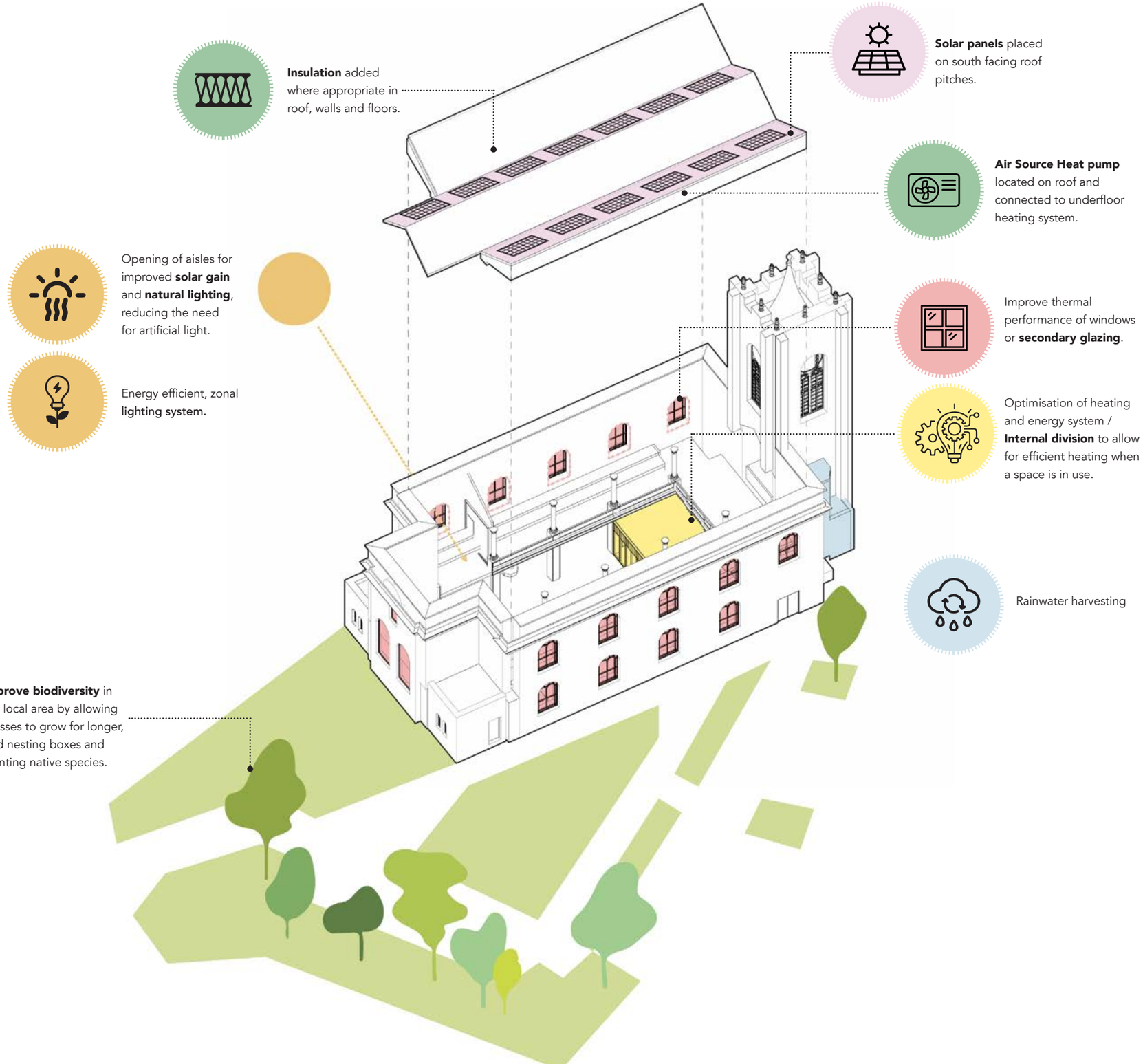
4.0 A Sustainable Church for the Future

As part of the feasibility study, there was a requirement to explore how Sacred Trinity will become a more sustainable building and develop a strategy to achieve net zero carbon emissions by the year 2030. Reducing both the embodied and operational carbon footprint of the project should be a key priority when considering how the church is to be re-modelled.

Strategies for improving heating within the church, as well as ways to holistically incorporate renewable green energy sources, have been investigated at a high level during the design process. Services Engineers, Ingleton Wood, appraised the existing services and provided advice on how the energy efficiency of the church could be improved. Their full report is presented in *Appendix 6.2*. Several key technologies were found to be suitable, such as solar panels, air source heat pump, secondary glazing and creating flexible spaces within the church that can be heated only when necessary.

While the external landscaping around the church is fairly small, there is still an opportunity to improve biodiversity within Sacred Trinity's city centre context by increasing native planting, allowing grasses to grow longer and introducing habitat for birds and insects.

The concepts outlined in the diagram should be thoroughly investigated and refined further with a specialist services consultant to establish their suitability and viability for the site.



5.0

Budget Costings

5.0 Cost Estimate

5.1 Cost Appraisal of Options

A budget cost estimate was undertaken by IWSA Quantity Surveyors to provide an overview of the relative cost of each proposed option. A detailed breakdown of these costs has been provided in **Appendix 6.3 of this document**. Options 1, 2 and 3 were estimated to cost a similar amount of between £2.6m to £2.7m. The fourth option was estimated to be the most expensive, approximately £3.5m, due to the costs associated with building the new extension.

These figures will require further development and review by the project team upon further definition of the brief and programme. All figures are excluding VAT.

Option 01	
Item	**Costs**
Demolition; strip out existing fittings and M&E.	£66,050
Fit Out; internal floor, wall and ceiling finishes; repairs and adaptations to joinery; fixtures and fittings; sanitary fittings; mechanical and electrical services; drainage.	£1,356,300
Preliminaries	£241,800
Fees assumed at 20%	£399,396
Contingency assumed at 20%	£332,380
SUBTOTAL	£2,396,375
Inflation allowance at 10%	£239,625
TOTAL	**£2,636,000**

Option 02	
Item	**Costs**
Demolition; strip out existing fittings and M&E.	£66,050
Fit Out; internal floor, wall and ceiling finishes; repairs and adaptations to joinery; fixtures and fittings; sanitary fittings; mechanical and electrical services; drainage.	£1,358,620
Preliminaries	£242,194
Fees assumed at 20%	£400,047
Contingency assumed at 20%	£333,373
SUBTOTAL	£2,400,284
Inflation allowance at 10%	£239,716
TOTAL	**£2,640,000**

Option 03	
Item	**Costs**
Demolition; strip out existing fittings and M&E.	£66,050
Fit Out; internal floor, wall and ceiling finishes; repairs and adaptations to joinery; fixtures and fittings; sanitary fittings; mechanical and electrical services; drainage.	£1,395,120
Preliminaries	£248,399
Fees assumed at 20%	£410,297
Contingency assumed at 20%	£341,914
SUBTOTAL	£2,461,779
Inflation allowance at 10%	£246,221
TOTAL	**£2,708,000**

Option 04	
Item	**Costs**
Demolition; existing exterior ancillary building, strip out existing fittings and M&E.	£66,050
Extension	£407,000
Fit Out; internal floor, wall and ceiling finishes; repairs and adaptations to joinery; fixtures and fittings; sanitary fittings; mechanical and electrical services; drainage.	£1,415,070
Preliminaries	£320,980
Fees assumed at 20%	£530,184
Contingency assumed at 20%	£441,820
SUBTOTAL	£317,895
Inflation allowance at 10%	£317,895
TOTAL	**£3,499,000**

6.0

Appendices

6.0 Appendices

6.1 Structural Appraisal by Renaissance

SACRED TRINITY CHURCH, SALFORD

INTERNAL REORDERING: FEASIBILITY STUDY

Project No 2403-09

September 2024

Rev: P01

STS-REN-ZZ-XX-RP-S-00001

Author **Emily McKay**
MEng
Date **13.09.24**

Approved **Terry Moran**
MEng MA CEng MIStructE
Date **22.09.24**

CONTENTS

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Rev.	Description	Author	Checked	Date
P01	Issued for comment	E McKay	T Moran	25.09.24

EXECUTIVE SUMMARY

Sacred Trinity Church, Salford, represents a heritage asset of national importance, reflected by its Grade II* Listed status. Though still in regular use, previous interventions and changing needs of those using the church means it lacks the flexibility and accessibility required to allow it to thrive as an inclusive venue.

Proposals for reordering, developed by Buttress Architects in order to address these issues and allow the building to be enjoyed more fully by all, have been considered in this report with regard to the required structural interventions and associated risks.

A 'hybrid' option, incorporating aspects of the proposed options, is recommended as striking the appropriate balance between the various considerations.

Figure 0.1 - Sacred Trinity Church, from the northeast.

1.0 INTRODUCTION

Renaissance have been appointed to undertake a feasibility study and options appraisal for reordering of the Sacred Trinity Church in Salford. Four proposals have been put forward by Buttress Architects to reimagine the church for a more sustainable, flexible future use.

1.1 Building Description

The mainly Georgian, Grade II* Listed Sacred Trinity Church (List entry number 1386185) is located on Chapel Street in Salford. The church grounds are bound by Blackfriars Road to the northeast, Bury Street to the west and Chapel Street to the south. There is no formal churchyard, however to the north of the church is a landscaped pedestrian area and to the west is a small paved public square. Directly north of these external landscaped areas, a railway viaduct runs from the west to the east. The site location is shown in Figure 1.1 below, viewed from the southwest.

The church was founded c.1635, with the main body remodelled in the contemporary Georgian style in 1751. Alterations were made in the Victorian era, understood to include the external stair tower and vestibule adjacent to the north face of the tower, the vestry at the northeast corner, and also parts of the roof structure. A foyer in the southeast corner is apparently of later date. In the 1980's the interior of the church was reordered to provide toilets and office spaces at ground floor. This was achieved by introducing partitions between the nave and the aisles. Glass screens were also introduced at gallery level, separating the galleries from the body of the church. The internal features and layout visible today are therefore a combination of historic interventions and original features.

The building is currently used for religious services along with associated activities and has successfully hosted live music events along with other community functions.

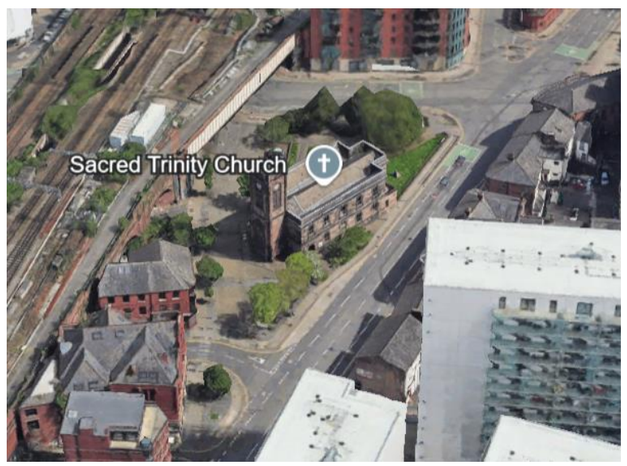

Figure *1.1*: *Site location* (Image © Google)

1.2 Structural Arrangement

The main body of the church comprises two levels above ground; the ground floor level and the gallery level, with a clock tower situated at the west end of the nave. Refer to Figure 1.2 which shows a cross section illustrating the configuration.

The building is constructed of load bearing sandstone masonry with restrained facades, with timber floor construction to the gallery (supported internally on columns most likely of cast iron), and timber floors within the tower.

The nave roof is formed from timber kingpost trusses and purlins. Hidden rafters and battens, concealed by sarking boards, are assumed to support the slate roof coverings. The flat roof of the tower, around the small spire, is formed from timber with leadwork gutters and flashings.

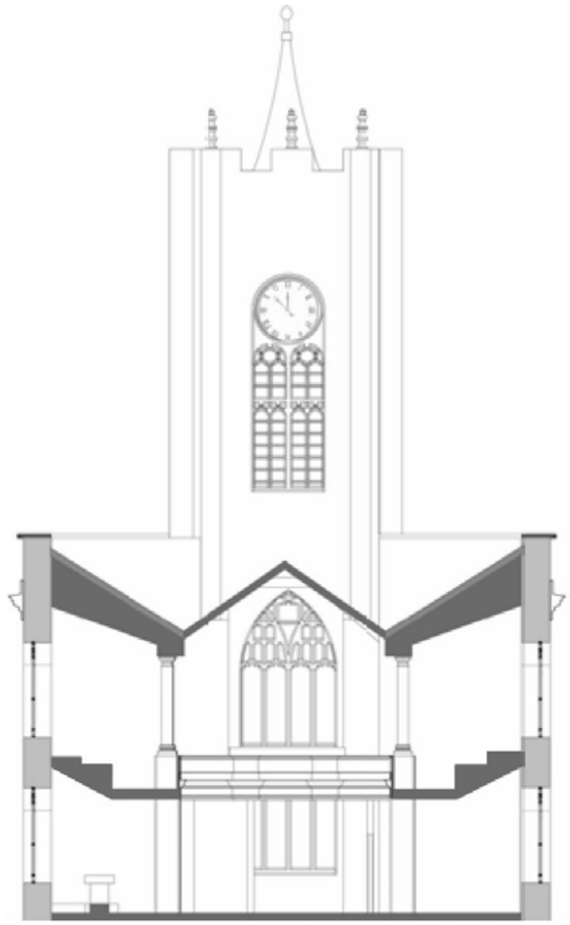

Figure 1.2: Section through church, looking west

The existing arrangements at ground floor and gallery level are shown in Figures 1.3 and 1.4 below, respectively.

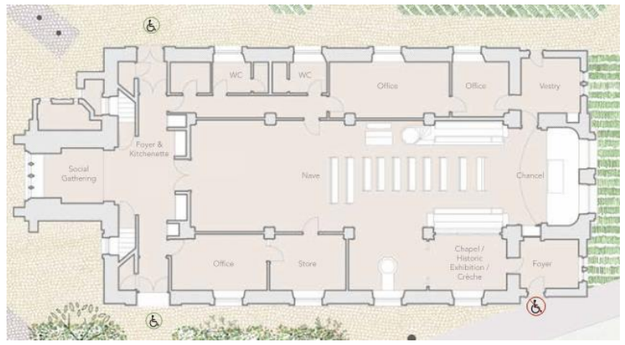

Figure 1.3: Existing Arrangement, ground floor

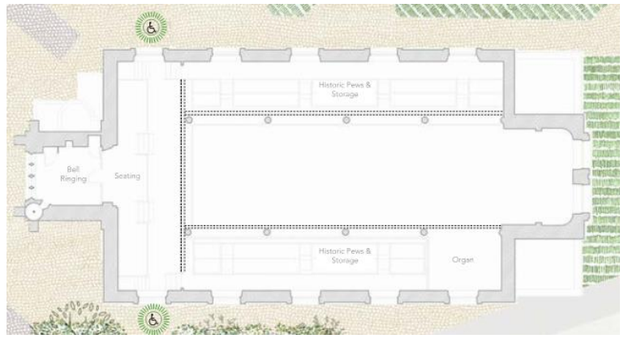

Figure 1.4: Existing Arrangement, gallery level

1.3 Building Condition

A preliminary visual inspection was conducted by renaissance in March 2024 to assess the general structural condition of the church. No opening up was carried out, or finishes removed, therefore observations were limited to items visible, and areas accessible, at the time of the survey. The weather at the time of the inspection was overcast and dry.

The building was found to be generally in a sound state of repair; however, some defects were observed including:

- Evidence of water ingress to ceiling above the northeastern part of the nave, which could have caused decay to timber roof elements.
- The water ingress noted above appeared to correspond to a blocked gutter / rainwater outlet observed at roof level.
- Some loss of mortar from the external faces of the building, which is common for buildings of this age and form of construction.
- Some loss of bed joint mortar locally on the tower and heavy weathering of masonry units, likely exacerbated by the use of cement-based mortars.
- Some apparent decay of the flat timber roof to the tower.

- Spalling of a stone mullion on the north face of the tower, at bell frame level.
- Apparent saturation of the masonry of the external walls at ground level, evidenced by growth of moss / algae and apparent staining.
- Vegetation growing between masonry units on the northeast corner of the vestry, at parapet level.

Although not present at the time of the inspection, it is understood that significant water ingress occurred following the visit, in the area above the organ loft. It is further understood that this water ingress has since been rectified, however details of any damage, and any structural repairs carried out, are not known.

A specialist timber survey is required to confirm the condition of all structural timber elements, particularly those which may have been subject to decay. Other surveys required for some proposed reordering options include archaeological surveys to determine the presence of any graves or other items below floors or the external grounds, and a drainage survey to determine the condition of existing underground surface and foul drainage networks. Refer to the following sections for further commentary on surveys required.

General views of the interior of the church, showing ground floor and gallery levels, are shown in Figures 1.5, 1.6 and 1.7 below.

Figure 1.5: The nave, looking East

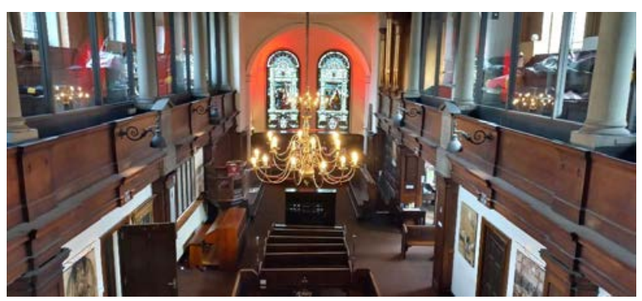

Figure 1.6: The nave, from gallery level, looking East

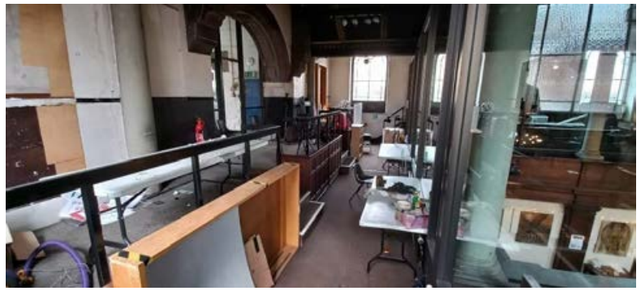

Figure 1.7: Gallery level, looking northwest

1.4 Proposals for Reordering

Four outline options for reordering have been proposed by Buttress Architects, mainly involving internal reordering schemes to create a more flexible and accessible space, possibly allowing the church to be used for a wider variety of events.

These options for reordering generally aim to open up the nave by removing modern partitions to provide a more welcoming experience for visitors, along with re-imagining the gallery spaces which, although contributing heavily to the significance of the building, are currently used for general storage and are essentially unused. The proposals also work to increase accessibility of the gallery level and provide additional welfare facilities, particularly for those with mobility issues.

Also proposed, though outside the scope of this report, is to provide photovoltaic cells on the south-facing roof pitches. Assessment of the existing roof structure, informed by opening-up and specialist timber condition surveys, will be required to inform the feasibility of this aspect of the proposals.

The following section of this report outlines the four proposed options for reordering, offering commentary on the structural interventions which will likely be required for each, as well as any specialist surveys or investigations which may be necessary for the proposals to be developed further.

2.0 REORDERING PROPOSALS

This section should be read in conjunction with both Appendix 'A' and Appendix 'B' of this report.

Buttress Architects have undertaken a study exploring options for reimagining the church through extensive community and stakeholder engagement, studying the church condition and context, and assessing the significance of the building fabric.

The aim is to develop proposals for a sustainable future use of the building , responding to the needs of the ever-expanding City of Salford and to protect and futureproof this heritage asset.

The degree of intervention varies across each option put forward, with Option 1 involving the least intervention, through to more significant remodelling with Option 4. However, each proposed option aims to improve the quality and usability of the gallery space, to provide additional toilet facilities, and to create a generally more welcoming environment through reordering of internal spaces.

2.1 Reordering Option #1

2.1.1 Summary of Proposal

Option 1 can be considered the 'light-touch' proposal with limited structural intervention required. This option comprises reordering of the ground floor through removal of modern partitions between the nave and aisles to reintroduce daylight to the nave and provide a more flexible, open plan space (note this aspect is common to all options). New folding doors would be installed at the west end of the nave, dividing it from the lobby and circulation space and replacing low-quality modern partitions.

The provision of four new WCs is proposed at ground floor to replace the existing pair of WCs, situated to the north-west of the nave, in the former north aisle.

To the south-west of the nave, in the former south aisle, a new kitchen is proposed to replace existing offices.

The proposed Ground floor layout for Option 1 is shown in Figure 2.1.1 below.

Figure 2.1.1: Proposed ground floor layout, Option 1

The historic pews at gallery level would be retained and sympathetically adapted to form desks for co-working use, and the removal of the 1980's glazed screens is proposed, to create a flexible space and seating area for gigs and other events. Also proposed is the removal of the raised access floor at the west end of the gallery – this would be replaced with small lightweight steps to provide access to the bell tower meeting space, or for bell ringing (note that removal of the glazed screens and raised access floor are also common to all options).

The proposed gallery level layout is shown in Figure 2.1.2 below.

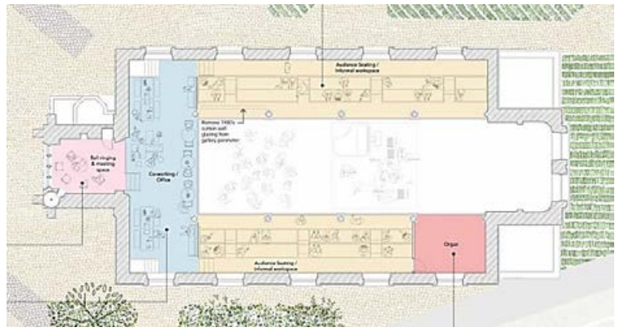

Figure 2.1.2: Proposed gallery level layout, Option 1

2.1.2 Required Structural Interventions

There are limited structural interventions associated Option 1.

Folding doors are a secondary element, to specialist design and detail, however they should be bottom-supported (rather than top-hung) to prevent any vertical load being applied to the gallery structure above. It is assumed that framing for the doors (providing lateral restraint only, along with acoustic and thermal separation as required) can be fixed to the structure above. However, fixings must be discrete and reversible, if possible, in line with conservation best practice and to limit any impact on the historic building fabric.

Should fixing to the existing structure not be possible, independent framing for the doors will be required. This would likely take the form of a 'goalpost' frame, likely formed from steel hollow sections, though possible of timber, supported on discrete footings below the existing floor level, which is understood to be raised somewhat above the historic floor surface below. If this sub-floor void is sufficiently large, it may be feasible to position footings on top of the historic floor surface, though the presence of any voids, and the heritage significance of any historic floor surfaces would need to be assessed and considered.

The additional WCs will require new foul drainage runs; the existing drainage will need to be surveyed to understand whether the current drainage connections to/from the church can be reused. Should a new connection be required, investigation of the perimeter wall and its footing will be required to determine a suitable wall penetration detail. This investigation would likely comprise a small number of hand-dug trial pits immediately adjacent to the wall. The need for any archaeological desk study or watching brief for such investigations should be confirmed by the Architect.

The new kitchen will also require a new foul drainage run. The connection point will be subject to further surveys as noted above and summarised in Section 2.1.4 below.

It is anticipated that no significant structural interventions would be required at gallery level, however this can only be confirmed following removal of the existing raised floor adjacent to the bell tower, and any further specialist surveys required to assess the condition of the existing structural elements forming the gallery and the floor within the tower.

As for all options, the floor structure at gallery level and within the tower will need to be assessed to ensure the existing structure is adequate to accommodate the proposed loading.

2.1.3 Associated Design Risks

Where new foul drainage outlets are required, there will be minor risks associated with forming openings through the existing historic fabric. Works will need to be detailed and sequenced to limit any impact on existing building fabric as far as is practicable. The risk should be eliminated, if possible, by reusing the existing drainage outlets, subject to the assessment of the condition, invert levels, and ease of connectivity through the assumed sub-floor void.

There is a risk of damage to items of archaeological interest such as burials under the original floor of the church. Specialist archaeological advice is required before any excavation or intrusive below ground surveys can be undertaken.

Common to all options, and outside the scope of this feasibility study, is the risk of decay or deterioration of existing structural elements which may require rectification to maintain the serviceability of the building.

Overall, the impact on the existing building fabric, and by extension the potential impact of the structural works on heritage significance, associated with Option 1 is considered to be low.

2.1.4 Further Surveys Required

A survey of the existing below ground drainage runs will be required to determine the condition of the existing drains and their invert levels. Such a survey will be required for all options, as they all involve the provision of additional WC facilities.

Archaeological surveys will be required before any below ground drainage works can be undertaken, both internally and externally, within the church grounds.

Investigation of the church walls and associated foundation size and depth will also be required in this area if existing drainage outlets

cannot be reused, along with investigation of any below ground or substructure voids which may be encountered.

Following removal of the raised floor and glazed screens at gallery level, a further structural survey will be required to inform the need for any structural interventions other than noted above. This survey will be required for all options, as they all involve the removal of the raised floor at gallery level.

If framing for the new folding doors requires footings in the (assumed) sub-floor void, opening up works will be required to ascertain the size of the void. Archaeological investigation of the historic church floor and anything below it will also be required.

As for all options, and as noted in Section 1.3, a specialist timber survey should be undertaken to assess the condition of primary structural timber elements, particularly of the roof and galleries, as far as is practicable.

2.2 Reordering Option #2

2.2.1 Summary of Proposal

As with Option 1, Option 2 includes removing modern partitions at ground floor between the nave and aisles, along with the provision of four new WCs at ground floor, and the provision of a new kitchen space.

In addition, Option 2 includes bringing the line of the internal lobby forwards into the nave, to create a larger entrance lobby and allowing more flexible use for the space it encloses. This new lobby includes a glazed roof at gallery level to create an enclosed single-storey entrance space, with folding doors to allow the floorplan to be opened up during events.

The proposed Ground floor layout for Option 2 is shown in Figure 2.2.1 below.

Figure 2.2.1: Proposed ground floor layout, Option 2

As with Option 1, the glazed screens and raised floor at gallery level are to be removed to create a more open, flexible space. Access to the tower will be achieved via lightweight steps constructed off the gallery floor.

The proposed arrangement at gallery level is shown in Figure 2.2.2 below.

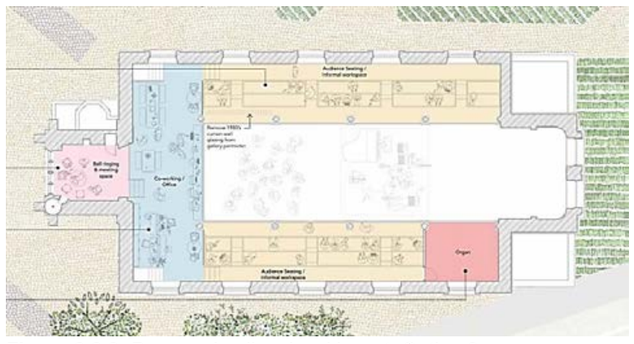

Figure 2.2.2: Proposed gallery level layout, Option 2

2.2.2 Required structural interventions

Section 2.1.2 outlines the interventions required to provide new foul drainage runs associated with the new kitchen and WC's.

A freestanding frame, likely formed from steel hollow sections but potentially of timber, will be required to support the new glazed roof and folding doors forming the lobby structure, as these would be positioned forward of the line of the gallery above. This will avoid the need for any connections into the historic fabric and avoid imparting any additional vertical or horizontal loads at gallery level. Such an approach will also provide a structural solution that is reversible, in line with conservation best practice.

Door openings and the requirement for a flexible space do not allow for vertical bracing to be utilised in the new frame. Stability will instead be provided by portalising the frame (i.e. providing moment-resisting connections between beams and columns, so the frame is self-stabilising). As for the door framing outlined in Section 2.1.2 above, if sufficient space is available below the existing raised floor within the nave, this could potentially be used to accommodate spread footings for the posts of the frame, however this will need to be confirmed by opening-up and archaeological investigation of the historic floor below. To limit the load imparted to the footings, lightweight materials and finishes should be employed wherever possible. Oversized baseplates and spread footings may be required to spread the load accordingly. Movement joints will need to be detailed between the gallery structure and the new frame. Specialist input may be required to inform this detail from acoustic and thermal perspectives.

As for all options, the floor structure at gallery level and within the tower will need to be assessed to ensure the existing structure is adequate to accommodate the proposed loading.

As the proposals at gallery level are similar to those for Option 1, no significant structural interventions are anticipated to be required, however the existing floor structure will require inspection once the raised floor and other modern interventions have been removed.

2.2.3 Associated Design Risks

Refer to Section 2.1.3 for risks associated with provision of new drainage runs, and other risks common to all options.

Risks associated with the new glazed lobby structure include:

- Construction risks: the new frame and any associated footings will need to be built inside the church. To reduce the risk of damage to the historic fabric and to facilitate construction, structural elements will need to be limited in size and spliced together as necessary to limit the lifting equipment required, and to allow for manoeuvrability of structural elements. Wherever possible, structural elements should be limited in weight to allow manual handling. A detailed method statement responding to these risks will be required from the contractor undertaking the works.
- As for Option 1, if spread footings are introduced onto the historic floor, there is a risk of damage to any buried archaeology within the church due to loading from the new frame. As such, archaeological investigation and opening-up works will be required to inform the structural proposals and minimise any such risk. To further mitigate this risk, lightweight materials and finishes should be specified wherever possible.

Overall, the impact on the existing building fabric, and by extension the potential impact of the structural works on heritage significance, associated with Option 2 is considered to be low - medium.

2.2.4 Further Surveys Required

Refer to section 2.1.4 for substructure surveys required associated with new drainage runs.

Similar to Option 1, archaeological investigation of the ground floor / sub floor void will be required, as will further survey of gallery level following removal of the raised floor.

In addition, a full building measured survey will be required to allow detailed structural design and setting out of the new lobby structure.

As for all options, and as noted in Section 1.3, a specialist timber survey should be undertaken to assess the condition of primary structural timber elements, as far as is practicable.

2.3 Reordering Option #3

2.3.1 Summary of Proposal

Option 3 builds on Options 1 and 2, with the following interventions proposed:

Removing modern partitions at ground floor between the nave and aisles to open up the floorplate, along with the provision of four new WCs at ground floor to replace the existing two in the same location, and the provision of a new kitchen space.

Similar to Option 2, this option includes an increased, enclosed entrance lobby space projecting into the nave. However, rather than having a glazed roof, this option uses the lobby roof/ceiling as an accessible space, increasing the usable area at gallery level and enhancing its flexibility for various uses. In addition, a platform lift is proposed within the north aisle, linking ground floor and gallery level, enhancing the accessibility of the gallery space.

The impact of Option 3 on historic building fabric is comparatively onerous, involving similar interventions to Option 2 but also with modifications to the gallery structures. As the roof/ceiling of the lobby would be accessible in this option, vertical loads on the new lobby structure and its footings would be significantly higher. The feasibility of this proposal will be subject to a survey of the sub-floor void and the historic floor beneath, as outlined above for the previous options.

The proposed ground floor layout for Option 3 is shown in Figure 2.3.1 below.

Figure 2.3.1: Proposed ground floor layout, Option 3

As with the previous options, the glazed partitions and raised floor at gallery level will be removed. Removal of part of the historic timber balustrade will also be required to allow access onto the roof of the new lobby.

The proposed arrangement at gallery level is shown in Figure 2.3.2 below; the proposed platform lift is located towards the northwest corner.

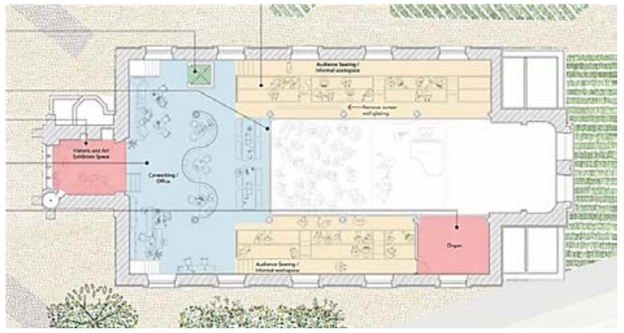

Figure 2.3.2: Proposed gallery level layout, Option 3

2.3.2 Required Structural Interventions

Section 2.1.2 outlines the interventions associated with providing new foul drainage runs for the new kitchen and WC's.

As for Option 2, the new lobby structure at ground floor level should be formed as a freestanding frame that is independent of the existing historic fabric. Again, this new frame is to be portalised to provide stability without the need for bracing or reliance on the existing building for lateral stability. As for Option 2, this frame will likely be formed from hollow steel sections, though timber may also be feasible.

Foundations to the new columns of this frame are critical. With higher loads from the accessible roof/ceiling than associated with Option 2, the associated spread footings will need to be somewhat larger to distribute the loads effectively onto the historic floor level below. These footings will require careful consideration following geometric and archaeological investigation of the assumed sub-floor void. Should it not be possible to form the footings within the sub floor void, excavation would be required to achieve the required footing depth.

The structure for the lift enclosure will also be formed as a freestanding steel frame, with bracing on at least two sides to provide lateral stability.

Existing raking beams supporting the gallery level are assumed to be positioned centrally between the window openings and, as currently shown, the lift void would therefore require partial removal of one primary beam. If possible, the lift should be repositioned to avoid the assumed position of the beam, and localised opening-up works should be undertaken on the soffit of the gallery level to confirm the exact location of the beam and the associated structural arrangement above. The floor opening at gallery level to accommodate the new lift will require trimming out, either with new timber beams or by supporting the trimmed beams on the new shaft structure. The most appropriate way of trimming the opening will depend on the existing structural arrangement, which will need to be confirmed by local opening-up and inspection as noted above.

A pitless lift should be adopted, if possible, to reduce or eliminate the depth of any excavation required. If the assumed sub floor void is of sufficient depth, a shallow pit may be accommodated in its depth, avoiding or minimising any impact on the historic fabric. The foundation details for the lift will be subject to findings from an intrusive investigation at ground floor, already required to inform the lobby arrangement, as noted in previous sections.

Removal of part of the timber balustrade at gallery level is anticipated to be straightforward structurally, though the ends of the remaining balustrade may require enhancement as they will have lost lateral restraint, previously provided by the removed portion.

As for all options, the floor structure at gallery level and within the tower will need to be assessed to ensure the existing structure is adequate to accommodate the proposed loading.

Overall, the impact on the existing building fabric, and by extension the potential impact of the structural works on heritage significance, associated with Option 3 is considered to be medium.

2.3.3 Associated Design Risks

Refer to section 2.1.3 for risks associated with the new drainage runs.

Design risks associated with formation of the new lobby are as per those noted for Option 2, though increased somewhat due to the increased load on any footings and the heavier structural elements likely required to accommodate the accessible roof/ceiling of the lobby structure.

The main risk associated with introduction of the new lift is the loss of primary structural elements at gallery level. This would necessitate significant reframing of the gallery, including utilising the new lift structure to support the existing beams, requiring precise survey and coordination. This intervention would not be reversible and would require the loss of some historic fabric. A suite of temporary propping works would also be required with associated opening up of the gallery soffit.

It is recommended to relocate the existing lift to avoid impacting the existing primary structure, given the impact on historic fabric and the need to interface historic structural elements with new structure.

2.3.4 Further Surveys Required

Refer to section 2.1.4 for substructure surveys required associated with new foul drainage runs.

As for the previous options, investigation of the assumed sub-floor void in the nave would be required, along with further survey of the gallery level following removal of the raised floor.

A full building measured survey will also be required to allow detailed structural design and layout of the new gallery extension frame.

As noted above, local opening up of the gallery floor would be required to inform the design of the structural interventions and any temporary works required for their implementation.

2.4 Reordering Option #4

2.4.1 Summary of Proposal

Option 4 represents the proposal with the most significant interventions to the existing building.

Similar to the other options, Option 4 includes:

- Removing modern partitions at ground floor between the nave and aisles
- The provision of four new WCs at ground floor, including a fully accessible WC
- Provision of a new kitchen space
- An enclosed entrance lobby extending into the nave
- Extension of the gallery level by provision of access to the roof/ceiling of the new lobby below.

In addition to these items, an external extension is proposed in the northwest corner of the building, adjacent to the tower. This extension will include a staircase and a lift, greatly enhancing access to the gallery space. Access to the gallery level will also be possible from the outside of the building, for times when the ground floor of the church is not in use, or to keep the users of the two levels separate.

The proposed ground floor layout for Option 4 is shown in Figure 2.4.1 below.

Figure 2.4.1: Proposed ground floor layout, Option 4

As with previous options, the glazed partitions and raised floor at gallery level are to be removed. Similar to Option 3, the gallery floorplate is to be extended into the nave, above the new lobby space below.

Option 4 also includes the introduction of an accessible WC at gallery level, and a ramp to provide disability access into the tower, along with lightweight secondary stepped access.

The proposed arrangement at gallery level is shown in Figure 2.4.2 below.

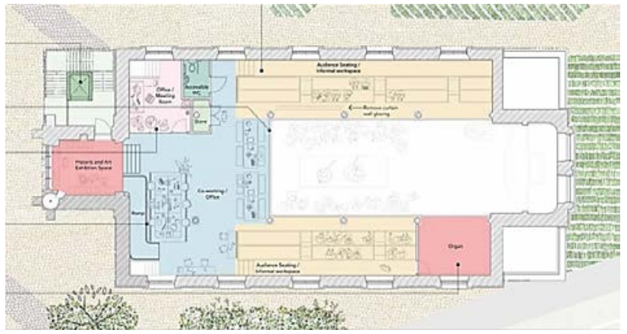

Figure 2.4.2: Proposed gallery level layout, Option 4

2.4.2 Required Structural Interventions

Section 2.1.2 outlines the interventions associated with providing new foul drainage runs for the new kitchen and WCs at ground floor.

If possible, the new WC at gallery level should be aligned to stack with the ground floor toilets. This will remove the need for drainage to be taken along the soffit of the gallery level.

As for all options, the floor structure at gallery level and within the tower will need to be assessed to ensure the existing structure is adequate to accommodate the proposed loading.

Provision of a WC and store at gallery level, as currently shown, will require reconfiguration of the western end of the northern gallery and possible significant alterations to primary structure. However, this will require opening up to inform the existing structural arrangement before any such interventions can be clarified.

The proposed external extension will require the demolition of some parts of the existing building- an octagonal stair turret, vestibule at ground floor and a small external bin store. It is understood that these items date from the Victorian era and are therefore much later in date than the main body of the church, and are considered to hold lower significance. The extension will require a freestanding structural frame to support the new lift, stairs, and façades. This would likely be formed in structural steelwork to provide a lightweight structure, though masonry could be incorporated into the external walls, if required for architectural purposes. Vertical bracing can be provided around the internal lift core for stability, this will help to reduce the size of the framing elements while keeping the braced bays away from the façades, allowing them to be glazed if required.

The size and depth of the new external footings will be subject to a detailed survey of the existing foundations, as well as the small below-ground area at the bottom of the existing stairwell, which is understood to house redundant plant equipment. Levels of the new footings must be kept as high as possible to minimise the risk of undermining the existing walls and to minimise any disturbance to buried archaeology which may be present. To allow for this, a pitless lift, if feasible, will be required to reduce the excavation depth.

Movement joints between the new frame and the existing building fabric will require careful detailing to ensure the new extension remains weathertight, while allowing for differential thermal movement between dissimilar materials.

Overall, the impact on the existing building fabric, and by extension the potential impact of the structural works on heritage significance, associated with Option 3 is considered to be medium.

2.4.3 Associated Design Risks

Refer to section 2.1.3 for risks associated with the new drainage runs at ground floor level.

As for the previous options, investigation of the assumed sub-floor void in the nave would be required, along with further survey of the gallery level following removal of the raised floor.

A full building measured survey will also be required to allow detailed structural design and layout of the new external extension.

Investigation of the existing wall footings, along with some ground investigation, will be required to inform the foundation solution for the new extension.

Drainage for the WC at gallery level, as currently shown, will need to be underslung below the gallery to align with the WCs at ground floor and reduce the number of new drainage pop-ups through the ground floor. There is an associated blockage risk with underslung drainage. If possible, the WC at gallery level should be aligned with those at ground floor to mitigate this risk.

Risks associated with the internal modifications are similar to those noted for Options 2 and 3 in previous sections of this report.

Risks associated with the new external extension include:

- Risk of damage to historic building fabric. Removal of the Victorian elements noted above could lead to some damage to the adjacent parts of the building. The new extension should be structurally independent of the existing building to ensure no damage is incurred by forming connections between existing and new structure and that all interventions are reversible, as far as practicable, in line with conservation best practice.
- Risk of undermining the existing foundations during excavation. Investigation of the existing footings are required to determine their arrangements and depths. Shallow footings and a pitless lift should be adopted, if possible, to reduce the associated excavation depths.
- Risk of existing foundations impacting the available space for new footings. Investigation of existing footings, as noted above, is required to determine the existing footing extents. Should existing footings be larger than anticipated, or other buried obstructions (including buried archaeology) be present, offset footings and / or a cantilevered superstructure may be required.

- Risk of differential movement between the extension and the existing building. Movement joints will need to be detailed accordingly.

2.4.4 Further Surveys Required

Refer to section 2.1.4 for substructure surveys required associated with new foul drainage runs.

As for the previous options, investigation of the assumed sub-floor void in the nave would be required, along with further survey of the gallery level following removal of the raised floor.

A full building measured survey will also be required to allow detailed structural design and layout of the new lobby within the nave, and the external extension.

Should modification of the gallery be required, local opening up of the gallery floor would be required to inform the design of the structural interventions and any temporary works required for their implementation.

Investigation of the existing footings in the location of the new extension is required, including trial pits to determine the size and depth of all footings in this area. Ground investigation, including some geotechnical testing, will also be required. Archaeological input and investigation will likely be required as part of this investigation.

3.0 APPRAISAL OF OPTIONS

3.1 Reordering Option #1

Option 1 is the 'light touch' option for the internal reordering of the church, requiring the most limited structural interventions of all proposals.

While this option does not improve accessibility of the gallery level, removal of previous inappropriate interventions will increase the quality of the gallery level and make it more usable. With very limited impact on the historic fabric, this is option is preferable from a purely conservation perspective.

It is envisaged that interventions to achieve this option would be limited to the introduction of lightweight partitions to enclose new WC and kitchen facilities at ground floor, along with associated modifications to the underground drainage network and the introduction of framing to accommodate new folding doors. Unless these doors are particularly heavy, no structural interventions will be required in the sub floor space of the nave.

3.2 Reordering Option #2

Option 2 encompasses the items typical to all options, and in addition proposes bringing the line of the internal lobby forwards into the nave, creating a larger lobby for flexibility of use, with a glazed roof at gallery level allowing views from the lobby into the nave.

Similar to Option 1, accessibility of the gallery level is not enhanced but becomes more usable through the removal of previous, inappropriate interventions.

Structural interventions associated with this option are likely to be limited to the introduction of spread footings in the assumed sub-floor void in the nave, which is understood to be present but will require further survey and investigation. If lightweight materials and finishes are employed for the lobby structure, any structural impact on the historic floor below will be mitigated.

3.3 Reordering Option #3

Option 3 is similar to Option 2, but the roof/ceiling of the new lobby structure becomes accessible at gallery level, increasing flexibility of use. Accessibility of the gallery level is enhanced by the introduction of a lift, linking it with ground floor level.

Structural interventions associated with the lobby feature of this option are similar to Option 2, though somewhat increased due to the higher dead and imposed loads associated with the accessible roof/ceiling. Structural interventions associated with the introduction of the lift are significant, likely requiring the removal of parts of existing primary structural elements.

3.4 Reordering Option #4

Option 4 includes all aspects of Option 2, but increases accessibility and flexibility of the gallery level through provision of a stair and lift housed in an external extension.

Structural interventions required for internal modifications are as per Option 2; interventions required for the external extension involve removal of some small parts of the existing building and construction of a new structure immediately adjacent to the tower, though not relying on it structurally.

3.5 Comparison of Options

Considering the structural interventions required to achieve each option, the associated risks and potential impact on heritage significance, the following points are noted:

- Option 1, though structurally the most straightforward option, enhances the quality and flexibility of the space within the nave. However, it offers only limited enhancement of accessibility, particularly with regard to the gallery level.
- Option 2 further enhances the quality and flexibility of the space within the nave and likely involves limited structural interventions, however it also offers only limited enhancement of accessibility.
- Option 3 enhances the quality, flexibility and accessibility of both levels of the church, however it likely entails significant structural interventions which may be onerous, considering the potential impact on historic building fabric and any buried archaeology within the nave.
- Option 4 offers the greatest enhancement to quality, flexibility and accessibility of both levels of the church, however it would require the removal of some parts of historic building fabric (albeit somewhat later than the main body of the church). Provision of an accessible roof/ceiling to the lobby within the nave, as per Option 3, may be onerous due to potential impact on any buried archaeology within the nave, and construction of the new external extension may also adversely impact buried archaeology adjacent to the church.

Considering the above, Option 4 would appear to be preferable, however we would recommend that consideration be given to making the roof/ceiling of the lobby structure non-accessible in order to allow the new structure to be as lightweight as possible, simplifying construction and mitigating any risks to historic building fabric and / or buried archaeology within the nave.

It is recommended that a robust costing exercise be undertaken on the four options to further inform the decision-making process.

4.0 SUMMARY & CONCLUSIONS

Sacred Trinity Church in Salford represents a heritage asset of national significance, and a good opportunity to enhance a much-loved building through provision of improved facilities and accessibility which could also allow the building to be used for events such as live music concerts.

Although generally in a sound state of structural repair, some items which require rectification and / or further investigation have been noted, and it is recommended that these be dealt with as part of a larger scheme of works, should a proposal for reordering be taken forward.

Consideration of the commentary in this report, supported by a robust costing exercise and further engagement with stakeholders will allow a decision to be made as to the most appropriate option, or combination of options, to be taken forward and allow the building to be enjoyed by all.

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Sacred Trinity Church, Manchester
Job No. 7000154

Mechanical and Electrical Condition Survey
& Energy Appraisal

Author: S. Lumb
Checked by: P. Webb
Date: 27th September 2024
Status: First Issue

Ingleton Wood

Project Details		
Client:	Sacred Trinity Church, Manchester	
IW Job reference:	7000154	
Supervising Lead:	Peter Webb	
Prepared at:	Unit 16, Thorney Leys Business Park Witney Oxfordshire OX28 4GE	
Report prepared by:	Steve Lumb CEng MCIBSE	
Reviewed by:	Peter Webb CEng MCIBSE	

DOCUMENT HISTORY

Revision	Stage	Date	Author	Checked by
01	First Issue	27/09/2024	S. Lumb	P. Webb

Confidentiality

1.0 CONTENTS

Sacred Trinity Church, Manchester
Mechanical and Electrical Condition Survey & Energy Appraisal
Job No: 7000154 - Date: 27th September 2024

2.0 EXECUTIVE SUMMARY

Sacred Trinity Church was the first parish church to be built in Salford. The main body of the church was rebuilt in 1751 in the contemporary Georgian Style and the Sanctuary and East Wall remodelled in the early 20th century when the southeast porch and vestry was added. The more recent remodelling to include toilets and offices was carried out in the 1980's. The client has employed Ingleton Wood to carry out a visual survey of the mechanical and electrical services within the church and provide comment on suggested energy saving solutions and also works required in relation to the proposed remodelling works.

This report outlines the results of a comprehensive survey undertaken by Ingleton Wood LLP on the 23rd of April 2024.

Summary of Mechanical and Electrical Services

The mechanical and electrical services installation in the building are in a relatively poor condition overall, with the following high-level observations highlighted:

1. Recommend an Electrical Installation Condition Report (EICR) for the electrical systems is carried out and this routine testing should be completed as soon as practically possible.

2. The distribution board within the building does not comply with current regulations over circuit protection and surge protection requirements and will therefore need upgrading.

3. The fire alarm devices are limited and in locations that are not compliant and will not work effectively, they should be relocated to give better protection and additions added where applicable.

4. The hot and cold-water systems include a variety of pipework including galvanised steel, which is known to corrode and contaminate water.

5. Ventilation to isolated spaces, the toilet areas and kitchenette is generally below the standard required by the UK Building Regulations and should be upgraded to this minimum standard.

Solving global challenges one building at a time

3.0 INTRODUCTION

Sacred Trinity Church was the first parish church to be built in Salford. It was founded in 1635 by Humphrey Booth and granted full dignity of a parish church in 1650. The main body of the church was rebuilt in 1751 in the contemporary Georgian Style and the Sanctuary and East Wall remodelled in the early 20th century when the southeast porch and vestry was added. The more recent remodelling to include toilets and offices was carried out in the 1980's.

The client has employed Ingleton Wood (via Buttress) to carry out a visual survey of the mechanical and electrical services within the church and produce a report on their findings on the condition and the likely expenditure that may be required over the next 10 years if no refurbishment works were carried out.

At the end of the report, we have also provided very high-level initial appraisal of various potential energy reduction and renewable energy options that may be worthwhile considering for the site.

3.1 Survey Details

Ingleton Wood LLP were appointed by Buttress Architects on behalf of the client to undertake a detailed condition survey of the mechanical and electrical installations within the church and also carry out an energy appraisal to investigate and suggest ways that the church could save money and be more energy efficient.

A survey was undertaken on the 23rd April 2024 by:

Discipline	Surveyor
Electrical Associate	Steve Lumb CEng MCIBSE

The findings of this survey are detailed in the report that follows.

3.2 Categorisation of Defects

The defects observed have been categorised in accordance with the industry standard condition ratings (A-D).

These categorisation systems are summarised below:

3.2.1 Condition Ratings

Category	Description
A	Condition A - As new condition Typically features one or more of the following: • typically built within the last five years or may have undergone a major refurbishment within this period, • maintained/serviced to ensure fabric and building services replicate conditions at installation, • no structural, building envelope, building services or statutory compliance issues apparent, • no impacts upon operation of the building.
B	Condition B - Sound, operationally safe, and exhibiting only minor deterioration Typically features one or more of the following: • maintenance will have been carried out, • minor deterioration to internal/external finishes, • few structural, building envelope, building services or statutory compliance issues apparent, • likely to have minor impacts upon the operation of the building.
C	Condition C - Operational but major repair or replacement needed in the short to medium-term (generally 3 years) Typically features one or more of the following: • requiring replacement of building elements or services elements in the short to medium-term,

	• several structural, building envelope, building services or statutory compliance issues apparent, or one particularly significant issue apparent, • often including identified problems with building envelope (windows/roof etc.), building services (boilers/chillers etc.), • likely to have major impacts upon the operation of the building, but still allow it to be operable.
D	Condition D - Inoperable or serious risk of major failure or breakdown Typically features one or more of the following: • building is inoperable or likely to become inoperable, due to statutory compliance issues or condition representing a health and safety risk or breach, • may be structural, building envelope, or building services problems coupled with compliance issues, • the conditions are expected to curtail operations within the building (exclude very minor items which can be rectified easily).

4.0 SUMMARY OF BUILDING CONDITION SURVEY

This section of report outlines a summary of the mechanical, electrical, and public health services installed within the building.

4.1 Mechanical Installations

The incoming gas supply to the church enters at low level in the northwest cupboard under the stairs by the entrance door and connects directly to the church's gas meter. There is an isolation valve in a below ground chamber immediately outside this location. The pipework is metal steel to the gas meter and copper throughout the church and around the new boiler installation.

The gas supply feeds a gas fired boiler located in the staircase to the side of the tower above the gas meter location. The boiler is an Ideal Evomax100 wall mounted boiler which supplies 100kW of heat. The boiler is approximately 5 years old and there is an old water tank mounted at high level on the first-floor room adjacent to the boiler's location, it is thought that as the new boiler is a condensing boiler this tank is redundant.

The boiler supplies LTHW pipework passes throughout the building in floor and wall voids. There is cast-iron pipework that supplies various types of radiators throughout the church as well as the domestic hot water tank in the toilet area. As stated, there are a number of different types of radiators/heating elements around the building, from flat panel, 1980's style metal panel heaters, under seat low level radiators to heating tubes around rooms with no other heating output element. The pipework around the more recently installed boiler is copper plus there are other elements of copper pipework around the building. Installing pipework of different material to the same system is likely to cause electrolytic action. For this reason, the pipework is in poor condition and leaks are more likely to occur.

In some of the back-rooms heating is provided by convector heaters with electric fans on them to boost the heating air flow.

The domestic hot water to the church is supplied by the condensing boiler and stored in a tank mounted at high level in the toilet area. The tank is supplied by the LTHW pipework with electric immersion heaters installed. The tank is old and the inside and operation of the cylinder is unknown but appears to be at the end of its economic life.

The domestic cold water is supplied by copper pipework which rises in the northwest staircase of the church to serve the boiler cold water system. There is also a stopcock in the Vestry, but it could not be determined if this is just pipework in the floor void or incoming pipework. The incoming pipework then offsets to supply the domestic hot water cylinder, wash hand basins and WC's.

The heating controls are provided by the timeclock control system with thermostatic controls on the radiators and domestic style wall mounted thermostats. This allows for control and scheduling of the heating, domestic hot water.

There is very little mechanical ventilation in the church, within the toilet areas there are high level mechanical extract fans located in the windows. There is then, to provide make-up air a large wall fan in the wall between the toilet and corridor which is manually operated.

Along both the north and south elevations of the church there are linear grills in the windowsills that link directly to a rectangular grill on the external façade of the building, we believe this is just a void in the stonework which allows ventilation through. The windowsill grills have manually operated sliding elements that stop the air coming through, on several of the windows this element does not work at all or is difficult to operate so air is free to come into the building all year around.

4.2 Electrical Installations

The incoming electrical supply enters the church in the southwest corner in the understairs cupboard. The supply is a three supply with a maximum capacity of 100A, the exact rating could not be confirmed as the fuse carriers have had their rating labels removed.

This supply continues to serve a 12way TP&N distribution board located in the cupboard in the entrance way opposite the incomer. The board is a MEM Memshield 2 which only has four single phase spare ways, and we believe spare/replacement breakers are becoming scarce. This distribution board then goes on to serve all other supplies, equipment and other smaller distribution boards around the church. There is a mixture of cabling installed throughout the property from older mineral insulated cabling to more modern twin and earth cabling. From talking with the personnel on site they do not seem to have any major problems with the electrical systems in the building.

The incoming telephone line appears to be still an analogue line and comes across on poles and connects to the northwest elevation of the tower and then links to the main distribution boxes in the entrance corridor cupboard.

Lighting within the church is a complete mixture of old 1980's 2D style bulkheads to new LED bulkheads, chandeliers, decorative wall lights, small floodlighting fittings, downlighters and on the first floor old 'PAR38' style spotlights. On the first floor the seating area stalls have low level desk mounted style linear lights which were not working during our visit and this area is not in use by the church. The lighting is all manually controlled with switches all over the church to serve different areas. The lighting system could do with an overhaul and upgrade as part of any proposed works to the church.

There are some emergency lights and EXIT lighting throughout the church but not enough to comply with current regulations, the first-floor areas seem to be especially worse than the ground floor. No emergency lighting could be seen at all in the entrance corridor, where people from the first from escape into.

Small power is provided throughout the church by a mixture of recessed and surface wall mounted outlets and in the main nave there are several recessed floor mounted sockets. A lot of these outlets are showing their age and are beyond there recommended life span.

The existing external lighting on the church is minimal with bulkhead style lights on the main entrance/exit doors. There are other columns mounted lights around the church, but we believe they are served by the council.

The church has a basic conventional fire alarm system throughout the church with 8 zones. The panel is in the recess adjacent to the electrical cupboard. There appears to have been some work carried out on the system as there appears to be several junction boxes. The system is not fully compliant but that is not unusual in a historic building like this, but this should be reviewed while considering the design for the proposed works.

The church has an intruder alarm system installed with several panels around the building and a main keypad and PIR detectors located around the ground floor. On the main entrance door there is an intercom button which links to the entry phone in the main office.

A local disabled alarm system was also found to be installed in the toilet area.

The church has a lightning protection system installed on it which links to recessed earth rods at low level around the church. The system is a mixture of tape and rod and some of the fixings have come loose so does need attention, but the system does seem to protect the entire church.

5.0 Potential Energy Reduction and Renewable Energy Options Appraisal

In this section, options to implement energy reduction and low/zero carbon technologies (LZCTs) for the building are explored, both for replacing the existing systems and for reducing the overall carbon emissions.

Technology	Technology Summary	Feasible
Loft Insulation	Improves the heat retention of the building and reduces noise pollution.	**Feasible where accessible** This is the most cost-effective method of achieve increased thermal and noise performance of the building. Consideration should be given to ventilation and dew point calculations.
Secondary Glazing	Improves the heat retention of the building and reduces noise pollution. Could possibly be considered in the back of house areas.	**Feasible but not preferred** This addition would impact on the aesthetics of the building and may hinder passive ventilation. It would have a limited impact on thermal efficiency but would improve noise pollution levels.

Technology	Technology Summary	Feasible
Air Source Heat Pump (ASHP)	Using a refrigeration cycle, this technology is able to collect heat from external air and provide usable heat for wet (LTHW) heating systems. There is only one possible location on the roof of the church behind the parapet on a new platform.	**Feasible** Adding this type of system in combination with the current gas heating system would save energy costs and co2 emissions. There are very possible space constraints for such a system unless it could be located on the roof on some type of platform behind the tower.
Ground Source Heat Pump (GSHP)	Similar to an ASHP but configured to collect heat from the ground through a series of buried pipes. No practical location for the installation of this system.	**Not Feasible** There is no external space for this to be installed
Biomass Boiler	Able to generate heat from responsibly sourced wood fuel, this technology required a significant fuel store and boiler room space.	**Not Feasible** There is no external space for this to be installed
Wind Turbine	Small scale turbines are able to provide a very useful addition of electrical power. They are best suited to exposed areas with consistent wind speeds.	**Not Feasible** The church is surrounded by other buildings which would disrupt wind flow, making the location unsuitable for this technology. Also, getting permission would be contentious and difficult to achieve.
Solar Thermal Panels	A roof mounted solar thermal array would be suitable but would benefit from a central hot water store for the building. This is considered a beneficial and suitable option.	**Feasible,** A plant and panel location would need to be agreed, but the roof is South facing and highly suitable for the technology.
Photovoltaic (PV) Panels	Solar PV collects energy from the sun and converts it into electricity for use in the building. Panels need to be carefully positioned to maximise benefit.	**Feasible** A panel location would need to be agreed, but the roof is South facing and highly suitable for the technology.

From this high-level review, it is recommended that consideration be given to:

- Additional Roof Insulation
- Secondary glazing on specific windows
- An ASHP/Gas hybrid-based heating system.
- Solar thermal panels for hot water generation
- PV panels for electricity generation.

The roof area of the church is ideal for the solar, PV and possibly the ASHP if access can be provided from the internal staircase onto the roof area.

PV Potential Output

From information provided by the client an average electrical consumption from the building between the day and night tariffs is approximately 10861kwh's. We have carried out an example calculation on how much electrical energy would be obtained by installing 13.5kWp of photo-voltaic panels on the existing roof of the church and the output would be 11600kwh's. So, in basic terms the PV would cover the cost of the electrical use of the building.

However, the output profile of the PV system will not match the electrical load profile of the church as the church will be in use in the evening when the PV system will not be producing electricity. This could be overcome by allowing for the exporting of the spare PV electricity during peal hours or by introducing a battery storage system in the building that will store the electrical energy for use the hours of darkness.

Gas/ASHP Installation

At this stage of the project there would be further works required over the energy use of the building especially if the improvement works suggested were carried out to save energy waste. A thermal model should be created to ascertain the exact heat requirement of each space, and the best heating solution agreed whether this be underfloor heating, radiators or electric heaters.

It would seem false economy to remove the newly installed boiler as it could easily have over 15 years of life in it if properly maintained. However, during the design works of the proposed refurbishment it would be sensible to design in the replacement of the boiler with a ASHP mounted on the roof and planned pipework routes to connect back into the churches new distribution system.

6.0 Impact on Mechanical and Electrical Systems with proposed scheme

From the comprehensive options appraisal report issued by Buttress the preferred option at the time of this survey was 'Option 3', the following section gives a brief review of each of the mechanical and electrical systems within the church and the likely works that would be required to each.

Mechanical	
System	**Anticipated Works Required**
Heating	As the existing boiler is only 5 years old it would be uneconomical to strip this out and replace it directly with a ASHP or other system. We would propose to replace all the current heating pipework and systems throughout the church. On the ground floor from our site visit it would appear that an underfloor heating system would be possible to install throughout the main open plan areas. In some of the smaller spaces separate radiators or electric heaters may be best installed. On the first floor we would investigate the best solution between a pipework radiator solution or electric heating system. We would have to carry out a thermal model of the building with all the proposed energy saving solutions incorporated to see what the best heating option would be.
Ventilation	A new ventilation system would have to be developed for the entire church and its new layout including new mechanical ventilation systems for the kitchen, WC's and accessible toilets. It would be ideal to try and use natural ventilation wherever possible and for the larger event space, but this needs co-ordinating with any additional works to the windows and the installation of any secondary glazing.
Hot & Cold Water	Due to the change in layouts and age of the existing pipework it would be more cost effective to replace the hot and cold-water pipework systems throughout the church.
Above Ground Drainage	Due to the toilet areas being reconfigured the above ground drainage system will be redesigned to suit the new layouts. Co-ordination will be required of the spaces with existing underground drainage and any new runs that may be needed.
Controls	A new system of heating and ventilation controls will be installed to each space to provide better controls of each space. These controls will be simple so that anybody is able to understand and control the systems.
Electrical	
System	**Anticipated Works Required**
Distribution	The proposed scheme moves the current electrical distribution cupboard and distribution board so the whole church will have to be rewired from a new location which is what our recommendation would be due to the age and condition of some of the existing cabling.
Lighting	A new lighting scheme will be required as the existing luminaires cannot be reasonably reused and would not suit the new layouts.
Emergency Lighting	A new emergency lighting and EXIT lighting scheme will be required to comply with current British Standards.
Small Power	Due to the change in layouts, relocation of the distribution board and the age of the existing accessories and cabling it would be proposed to rewire the existing small power provisions to the church.
Fire Alarms	Due to the change in layouts, relocation of the fire alarm panel and the age of the existing equipment it would be proposed to rewire the fire alarm provisions to the church.
Data/Telecommunications	The existing telecommunication and data systems in the church is limited so we would propose a more comprehensive system of fixed and wi-fi outlets are installed to cover the entire church.
Security System- Intruder & Intercom	Due to the change in layouts, relocation of the security alarm panel and the age of the existing equipment it would be proposed to rewire the security system provisions to the church.
External Lighting	Minimal works but propose an upgrade to the type of luminaires above the entrance doors.
Disabled Alarms	New disabled alarm will be required for accessible toilet and potential hearing loops with specific areas of the church.
New Lift Installation	The architects are introducing a new platform lift to the proposed scheme, a discussion as to whether this needs to be an evacuation or fire fighting lift needs to be agreed.
Lightning Protection	The existing lightning protection system should be able to be modified and adapted to suit any new equipment on the roof and the existing tapes and rods checked and neatened up.

APPENDICES

Sacred Trinity Church, Manchester
Mechanical and Electrical Condition Survey & Energy Appraisal
Job No: 7000154 - Date: 27th September 2024

A Condition Survey Spreadsheet

The following spreadsheet is designed to indicate the amount of work and associated budget costs that we believe would be required to the mechanical and electrical systems installed in the church over the next 1-10 years if no planned refurbishment works were being proposed.

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Condition Survey Report

Property Name	Sacred Trinity Church	**Budget Cost Summary**		
Address	Chapel Street, Salford M3 5DW			
Date of Inspection	23rd April 2024	Essential	•	£21,500.00
Weather	Clear/Dry	Recommended	•	£198,000.00
Survey Team	Steve Lumb CEng MCIBSE	Investment	•	
Project Reference	7000154	**TOTAL**		**£219,500.00**

Item	ELEMENT	DESCRIPTION	RECOMMENDATION	CONDITION	PRIORITY	ESSENTIAL YEAR <1	RECOMMENDED YEAR 1 - 5	INVESTMENT YEAR 5 - 10	TOTAL COST
				(A, B, C, D)	(1-7)	•	•	•	(£)
	ELECTRICAL ELEMENTS	**DESCRIPTION**	**RECOMMENDATION**	**CONDITION**	**PRIORITY**	**ESSENTIAL YEAR <1**	**RECOMMENDED YEAR 1 - 5**	**INVESTMENT YEAR 5 - 10**	**TOTAL COST**
E1	Fixed Wiring	Test & Inspection	Carry out a full test and inspection of the entire electrical systems in each of the buildings and provided a categorised list of actions from the report.	N/A	1	5000			£5,000.00
E2	Specialist Systems Testing	Fire Alarms, Intruder Alarm	Employ specialist sub-contractors to carry out an independent inspection and test of the fire alarm system and Intruder Alarm system and provide a separate report on the outcomes.	N/A	1	1500			£1,500.00
E3	Main Distribution Board	Distribution Board is outdated and circuit protection is not compliant in all cases	Current distribution board is old and the final circuit protection does not meet current standards and does not include surge protection devices and therefore could potentially be unsafe (subject to electrical test and inspection report) so need to be replaced.	C	3		15000		£15,000.00
E4	Internal & Emergency Lighting Systems	Upgrade of lighting & emergency provisions	The emeregncy lighting and EXIT lighting provision throughout the building does not comply to current regulations so is urgent to upgrade. The general lighting could do with improvements throughout.	B/C	2/3	10000	15000		£25,000.00
E5	Fire Alarm System	Upgrade of existing fire alarm system	Upgrade the fire alarm system in the church to give better protection and comply with current standards.	B	4	5000			£5,000.00
E6	External Lighting	Upgrade external lighting	Replace existing external lighting with new LED luminaires to improve the visual impressions of the building.	B	3		3000		£3,000.00
E7	Replace Church Electrics	Rewire of Church	We would recommend a rewire of the church as part of an overall improvement upgrade to systems.	B	3		30000		£30,000.00
M1	Church LTHW Pipework & Distribution	The pipework supplying the heating is generally past its normal working life with some in poor conditioin and therefore there is significant riskof leaks throughout the building.	The distribution in the property is made up of different metals therefore it is likely that galvanic corrosion has occurred. This will cause the pipework degrade internally and significantlly increase the likelihood of leaks.	C	3		65000		£65,000.00
M2	Church Domestic Hot Water	There are currently a hot water cylinders in the toilet area. This provides the hot water to the toilets.	The system should be tested and operation confirmed and replaced with a more modern and efficient system.	B	3		10000		£10,000.00

Item	ELEMENT	DESCRIPTION	RECOMMENDATION	CONDITION	PRIORITY	ESSENTIAL YEAR <1	RECOMMENDED YEAR 1 - 5	INVESTMENT YEAR 5 - 10	TOTAL COST
				(A, B, C, D)	(1-7)	🔴	🟡	🟢	(£)
M3	Radiators	The current radiators throughout the church have reached the end of their econimic life and should be replaced along with the pipework. We would also suggets adding radiators to the first floor gallery areas.	The radiators should be replaced with new to allow the heating system to meet the heating load. We would recommend that the new radiators are installed to meet the heating requirements. The cost of refurbishing the current radiatorsis anticipated to be more than replacing with new.	C	1		45000		£45,000.00
M4	Mechanical Extract Ventilation	Upgrade mechanical ventilation to isolated rooms, toilets, kitchenette etc	Local mechanical extract fans should be installed to bring the building inline with current building standards.	C	2		15000		£15,000.00
	TOTAL					**£21,500.00**	**£198,000.00**		**£219,500.00**

B M&E Photo Register

Photo MEP 001	Photo MEP 002	Photo MEP 003
 Lightning Protection Earth Pit	 Lightning Protection Tape	 High Level Lighting

Photo MEP 004	Photo MEP 005	Photo MEP 006
 Typical Lighting	 Floor socket in Nave	 Wall light in Nave

Photo MEP 007	Photo MEP 008	Photo MEP 009
 Exit Light at rear of Nave	 Typical wall mounted bulkhead	 PIR Security detector

Sacred Trinity Church, Manchester
Mechanical and Electrical Condition Survey & Energy Appraisal
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Photo MEP 010	Photo MEP 011	Photo MEP 012
 Older bulkheads in side rooms	 Security Alarm Keypad	 Chandelier in side room

Photo MEP 013	Photo MEP 014	Photo MEP 015
 Main Incoming Electrical Supply	 Security Panel	 Lighting at High Level

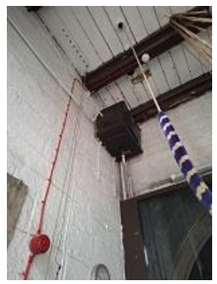
Photo MEP 016	Photo MEP 017	Photo MEP 018
 Water Tank on first floor	 Fan heater at back of Nave	 Radiator in Nave

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Photo MEP 019	Photo MEP 020	Photo MEP 021
 Radiator in Choir Stalls	 Typical Radiator in side room	 Fire alarm detection

Photo MEP 022	Photo MEP 023	Photo MEP 024
 Kitchenette Space	 Floor Void	 Roof Plan

Photo MEP 025	Photo MEP 026	Photo MEP 027
 Entrance area typical Corridor Radiator	 Entrance Intercom	 Gas Meter

Sacred Trinity Church, Manchester
Mechanical and Electrical Condition Survey & Energy Appraisal
Job No: 7000154 - Date: 27th September 2024

Photo MEP 028	Photo MEP 029	Photo MEP 030
 Toilet Extract Fan	 Grills in Windowsills	 External wall and window Ventilation

Photo MEP 031	Photo MEP 032	Photo MEP 033
 Make up air into Toilet	 Water Heater in Toilet	 Toilet Layout

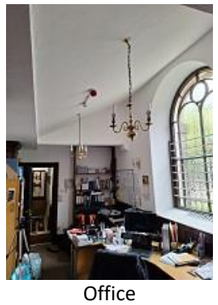
Photo MEP 034	Photo MEP 035	Photo MEP 036
 Office	 Telecom Incomer	 Intercom Phone

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Photo MEP 037	Photo MEP 038	Photo MEP 039
 Main Distribution Board	 Fire Alarm Panel	 First Floor Radiator

Photo MEP 040	Photo MEP 041	Photo MEP 042
 First Floor Lighting	 Old Fluorescent Luminaire	 Boiler & Flue

Photo MEP 043	Photo MEP 044	Photo MEP 045
 Old Redundant Boiler	 Pipework Heating in First Floor Seating Area	 First Floor Exit Signage

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Photo MEP 046	Photo MEP 047	
 External Water Stop-Cock	 First Floor Lighting	

* * * End of Photos * * *

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6.3 Budget Cost Estimate by IWSA Quantity Surveyors

FEASIBILITY COSTS

FOR

SACRED TRINITY, SALFORD

30TH OCTOBER 2024

IWSA Ltd
2 Brighton Villas
Walwyn Road
Colwall
WR13 6QG
ian.wilson@iwsa.co.uk
+44 (0) 7798 565635

Sacred Trinity Salford

Feasibility Costs

30-Oct-24

		Estimate 30th October 2024
	Summary	
	Option 1	£2,636,000
	Option 2	£2,640,000
	Option 3	£2,708,000
	Option 4	£3,499,000

Exclusions/Notes:-

1.0 VAT
2.0 Environmental issues (bats etc)
3.0 Asbestos removal
4.0 Includes 10% inflation allowance

Option 1

Option 1						
Demolitions and Alterations						
Remove loose fixtures and fittings	1	item	£5,400.00	£5,400		
Remove doors and frames	1	item	£975	£975		
Demolish partitions	1	item	£9,310	£9,310		
Take down glazed partitions	1	item	£9,130	£9,130		
Take out pews	1	item	£2,060	£2,060		
Take out WC's and sanitary fittings	1	item	£300	£300		
Strip out electrical installation	1	item	£7,875	£7,875		
Strip out mechanical installation	1	item	£10,500	£10,500		
Strip floor finishes	1	item	£10,500	£10,500		
Protect organ	1	item	£10,000	£10,000		
Building Works						
Reconstruct floor to balcony to form level area	1	item	£25,200	£25,200		
Allowance for general building works	1	item	£210,000	£210,000		
Partitions						
Partitions; timber framework; insulation; plywood both sides; oak battens to outer face; plasterboard to inner face; taped and jointed; decorations; to form kitchen, toilets, store room and private church office; office	1	item	£90,900	£90,900		
Glazed partition to private office	1	item	£13,600	£13,600		
Sliding/folding acoustic partition to arrival space; steelwork to support head track	1	item	£35,000	£35,000		
Doors						
Accessible WC Door	1	no	£1,750	£1,750		
Door to toilet lobby	1	no	£1,600	£1,600		
Toilet doors	3	no	£1,500	£4,500		
Kitchen door	1	no	£1,700	£1,700		
Office door	3	no	£1,700	£5,100		
Storeroom door	1	no	£1,700	£1,700		
Floor finishes						
Toilets and kitchens - non slip Altro or similar with coved skirtings	39	m2	£95	£3,705		
Floor finishes to offices - carpet tiles	40	m2	£75	£3,000		
Floor finishes to nave, welcome space and tower room - stone or similar	282	m2	£200	£56,400		
Floor finish to levelled area of gallery and meeting space	81	m2	£175	£14,175		
Refurbish floorboards to stepped gallery area	124	m2	£100	£12,400		
Ceiling finishes						
Moisture resistant plasterboard; taped and jointed; decorations; to offices, toilets and kitchen	78	m2	£80	£6,240		
Wall finishes						
Wall finishes to existing walls; drylining; breather membrane; insulation; plywood; plasterboard; taped and jointed; decorations	180	m2	£125	£22,500		
Whiterock or similar to kitchen	57	m2	£90	£5,130		
Tiling to toilets	1	item	£10,000	£10,000		
Decorations						
General allowance for redecorations	1	item	£30,000	£30,000		
Fittings						
Kitchen fit out	1	item	£40,000	£40,000		
Office fit out including gallery	1	item	£50,000	£50,000		
Heritage/Art Exhibition	1	item	£15,000	£15,000		
Cupboards/store room fit out	1	item	£10,000	£10,000		
Alter existing pews	14	no	£1,000	£14,000		
Chairs and tables	1	item	£15,000	£15,000		
Modify existing pews to gallery to allow flexible use	1	item	£25,000	£25,000		
Soap dispensers; towel dispensers; mirrors etc	1	item	£5,000	£5,000		
Sanitary fittings						
Less abled WC	1	no	£1,200	£1,200		
WC's	3	no	£1,000	£3,000		
Wash hand basin to less abled toilet	1	no	£950	£950		
Wash hand basins	3	no	£850	£2,550		
Above ground drainage	1	item	£5,000	£5,000		
Electrical						
Electrical installation; lighting; small power; emergency lighting; CCTV; security; data	1	item	£236,250	£236,250		
Allowance for PV installation	1	item	£75,000	£75,000		
Allowance for AV installation	1	item	£40,000	£40,000		
Mechanical						
Retain existing bolier; new pipework and radiators; hot and cold water services; ventilation; kitchen ventilation	1	item	£183,750	£183,750		
Drainage						
Below ground drainage	1	item	£30,000	£30,000		
External Works						
Allowance for hard and soft landscaping	1	item	£50,000	£50,000		
Sub Total						£1,422,350
Preliminaries at 17%						£241,800
Sub Total						£1,664,150
Contingencies at 20%						£332,830
Sub Total						£1,996,979
Fees at 20% including Architect, QS, Structural Engineer, Civil Engineer, Drainage Engineer, Landscape Architect, Archaeologist, Traffic Consultant, Planning Consultant, Project Manager, Acoustic Consultant, Access Consultant, Interpretation Consultant, Community Engagement Consultant						£399,396
Sub Total						£2,396,375
Inflation allowance 10%						£239,625
Total Exc Fees and VAT						£2,636,000

Option 2

	Option 2					
	Demolitions and Alterations					
	Remove loose fixtures and fittings	1	item	£5,400.00	£5,400	
	Remove doors and frames	1	item	£975	£975	
	Demolish partitions	1	item	£9,310	£9,310	
	Take down glazed partitions	1	item	£9,130	£9,130	
	Take out pews	1	item	£2,060	£2,060	
	Take out WC's and sanitary fittings	1	item	£300	£300	
	Strip out electrical installation	1	item	£7,875	£7,875	
	Strip out mechanical installation	1	item	£10,500	£10,500	
	Strip floor finishes	1	item	£10,500	£10,500	
	Protect organ	1	item	£10,000	£10,000	
	Building Works					
	Reconstruct floor to balcony to form level area	1	item	£25,200	£25,200	
	Allowance for general building works	1	item	£210,000	£210,000	
	Partitions					
	Partitions; timber framework; insulation; plywood both sides; oak battens to outer face; plasterboard to inner face; taped and jointed; decorations; to form kitchen, toilets, store room and private church office; office	1	item	£96,300	£96,300	
	Glazed partition to private office	1	item	£13,600	£13,600	
	Sliding/folding acoustic partition to arrival space; steelwork to support head track	1	item	£35,000	£35,000	
	Doors					
	Accessible WC Door	1	no	£1,750	£1,750	
	Door to toilet lobby	1	no	£1,600	£1,600	
	Toilet doors	3	no	£1,500	£4,500	
	Kitchen door	1	no	£1,700	£1,700	
	Office door	3	no	£1,700	£5,100	
	Storeroom door	2	no	£1,700	£3,400	
	Floor finishes					
	Toilets and kitchens - non slip Altro or similar with coved skirtings	50	m2	£95	£4,750	
	Floor finishes to offices - carpet tiles	29	m2	£75	£2,175	
	Floor finishes to nave, welcome space and tower room - stone or similar	282	m2	£200	£56,400	
	Floor finish to levelled area of gallery and meeting space	81	m2	£175	£14,175	
	Refurbish floorboards to stepped gallery area	124	m2	£100	£12,400	
	Ceiling finishes					
	Moisture resistant plasterboard; taped and jointed; decorations; to offices, toilets and kitchen	78	m2	£80	£6,240	
	Wall finishes					
	Wall finishes to existing walls; drylining; breather membrane; insulation; plywood; plasterboard; taped and jointed; decorations	180	m2	£125	£22,500	
	Whiterock or similar to kitchen	57	m2	£90	£5,130	
	Tiling to toilets	1	item	£10,000	£10,000	
	Decorations					
	General allowance for redecorations	1	item	£30,000	£30,000	
	Fittings					
	Kitchen fit out	1	item	£40,000	£40,000	
	Office fit out including gallery	1	item	£45,000	£45,000	
	Heritage/Art Exhibition	1	item	£15,000	£15,000	
	Cupboards/store room fit out	1	item	£10,000	£10,000	
	Alter existing pews	14	no	£1,000	£14,000	
	Chairs and tables	1	item	£15,000	£15,000	
	Modify existing pews to gallery to allow flexible use	1	item	£25,000	£25,000	
	Soap dispensers; towel dispensers; mirrors etc	1	item	£5,000	£5,000	
	Sanitary fittings					
	Less abled WC	1	no	£1,200	£1,200	
	WC's	3	no	£1,000	£3,000	
	Wash hand basin to less abled toilet	1	no	£950	£950	
	Wash hand basins	3	no	£850	£2,550	
	Above ground drainage	1	item	£5,000	£5,000	
	Electrical					
	Electrical installation; lighting; small power; emergency lighting; CCTV; security; data	1	item	£236,250	£236,250	
	Allowance for PV installation	1	item	£75,000	£75,000	
	Allowance for AV installation	1	item	£40,000	£40,000	
	Mechanical					
	Heating; air source heat pumps; radiators; hot and cold water services; ventilation; kitchen ventilation	1	item	£183,750	£183,750	
	Drainage					
	Below ground drainage	1	item	£30,000	£30,000	
	External Works					
	Allowance for hard and soft landscaping	1	item	£50,000	£50,000	
	Sub Total					£1,424,670
	Preliminaries at 17%					£242,194
	Sub Total					£1,666,864
	Contingencies at 20%					£333,373
	Sub Total					£2,000,237
	Fees at 20% including Architect, QS, Structural Engineer, Civil Engineer, Drainage Engineer, Landscape Architect, Archaeologist, Traffic Consultant, Planning Consultant, Project Manager, Acoustic Consultant, Access Consultant, Interpretation Consultant, Community Engagement Consultant					£400,047
	Sub Total					£2,400,284
	Inflation allowance 10%					£239,716
	Total Exc Fees and VAT					£2,640,000

Option 3

Option 3					
Demolitions and Alterations					
Remove loose fixtures and fittings	1	item	£5,400.00	£5,400	
Remove doors and frames	1	item	£975	£975	
Demolish partitions	1	item	£9,310	£9,310	
Take down glazed partitions	1	item	£9,130	£9,130	
Take out pews	1	item	£2,060	£2,060	
Take out WC's and sanitary fittings	1	item	£300	£300	
Strip out electrical installation	1	item	£7,875	£7,875	
Strip out mechanical installation	1	item	£10,500	£10,500	
Strip floor finishes	1	item	£10,500	£10,500	
Protect organ	1	item	£10,000	£10,000	
Building Works					
Reconstruct floor to balcony to form level area	1	item	£25,200	£25,200	
Allowance for general building works	1	item	£210,000	£210,000	
Extend gallery	1	item	£26,000	£26,000	
Partitions					
Partitions; timber framework; insulation; plywood both sides; oak battens to outer face; plasterboard to inner face; taped and jointed; decorations; to form kitchen, toilets and, store room	1	item	£73,350	£73,350	
Glazed screen	1	item	£6,600	£6,600	
Sliding/folding acoustic partition to arrival space; steelwork to support head track	1	item	£35,000	£35,000	
Doors					
Accessible WC Door	1	no	£1,750	£1,750	
Door to toilet lobby	1	no	£1,600	£1,600	
Toilet doors	3	no	£1,500	£4,500	
Kitchen door	1	no	£1,700	£1,700	
Office door	3	no	£1,700	£5,100	
Storeroom door	3	no	£1,700	£5,100	
Floor finishes					
Toilets and kitchens - non slip Altro or similar with coved skirtings	51	m2	£95	£4,845	
Floor finishes to offices - carpet tiles	28	m2	£75	£2,100	
Floor finishes to nave, welcome space and tower room - stone or similar	282	m2	£200	£56,400	
Floor finish to levelled area of gallery and meeting space	81	m2	£175	£14,175	
Refurbish floorboards to stepped gallery area	124	m2	£100	£12,400	
Ceiling finishes					
Moisture resistant plasterboard; taped and jointed; decorations; to offices, toilets and kitchen	74	m2	£80	£5,920	
Wall finishes					
Wall finishes to existing walls; drylining; breather membrane; insulation; plywood; plasterboard; taped and jointed; decorations	180	m2	£125	£22,500	
Whiterock or similar to kitchen	42	m2	£90	£3,780	
Tiling to toilets	1	item	£10,000	£10,000	
Decorations					
General allowance for redecorations	1	item	£30,000	£30,000	
Fittings					
Kitchen fit out	1	item	£25,000	£25,000	
Office fit out including gallery	1	item	£45,000	£45,000	
Heritage/Art Exhibition	1	item	£20,000	£20,000	
Cupboards/store room fit out	1	item	£10,000	£10,000	
Alter existing pews	14	no	£1,000	£14,000	
Chairs and tables	1	item	£15,000	£15,000	
Modify existing pews to gallery to allow flexible use	1	item	£25,000	£25,000	
Acoustic curtains	1	item	£10,000	£10,000	
Soap dispensers; towel dispensers; mirrors etc	1	item	£5,000	£5,000	
Sanitary fittings					
Less abled WC	1	no	£1,200	£1,200	
WC's	3	no	£1,000	£3,000	
Wash hand basin to less abled toilet	1	no	£950	£950	
Wash hand basins	3	no	£850	£2,550	
Above ground drainage	1	item	£5,000	£5,000	
Electrical					
Electrical installation; lighting; small power; emergency lighting; CCTV; security; data	1	item	£242,100	£242,100	
Allowance for PV installation	1	item	£75,000	£75,000	
Allowance for AV installation	1	item	£40,000	£40,000	
Mechanical					
Heating; air source heat pumps; radiators; hot and cold water services; ventilation; kitchen ventilation	1	item	£188,300	£188,300	
Lift					
Platform lift; forming openings through exsiting balcony	1	item	£30,000	£30,000	
Drainage					
Below ground drainage	1	item	£30,000	£30,000	
External Works					
Allowance for hard and soft landscaping	1	item	£50,000	£50,000	
Sub Total					£1,461,170
Preliminaries at 17%					£248,399
Sub Total					£1,709,569
Contingencies at 20%					£341,914
Sub Total					£2,051,483
Fees at 20% including Architect, QS, Structural Engineer, Civil Engineer, Drainage Engineer, Landscape Architect, Archaeologist, Traffic Consultant, Planning Consultant, Project Manager, Acoustic Consultant, Access Consultant, Interpretation Consultant, Community Engagement Consultant					£410,297
Sub Total					£2,461,779
Inflation allowance 10%					£246,221
Total Exc Fees and VAT					£2,708,000

Option 4

Option 4					
Demolitions and Alterations					
Remove loose fixtures and fittings	1	item	£5,400.00	£5,400	
Remove doors and frames	1	item	£975	£975	
Demolish partitions	1	item	£9,310	£9,310	
Take down glazed partitions	1	item	£9,130	£9,130	
Take out pews	1	item	£2,060	£2,060	
Take out WC's and sanitary fittings	1	item	£300	£300	
Strip out electrical installation	1	item	£7,875	£7,875	
Strip out mechanical installation	1	item	£10,500	£10,500	
Strip floor finishes	1	item	£10,500	£10,500	
Protect organ	1	item	£10,000	£10,000	
Extension					
Two storey extension; foundations; glazed walling; roof; openings through existing walls; staircase; lift; doors; internal fit out	1	item	£407,000	£407,000	
Building Works					
Reconstruct floor to balcony to form level area	1	item	£25,200	£25,200	
Allowance for general building works	1	item	£210,000	£210,000	
Extend gallery	1	item	£26,000	£26,000	
Form ramp	1	item	£10,000	£10,000	
Partitions					
Partitions; timber framework; insulation; plywood both sides; oak battens to outer face; plasterboard to inner face; taped and jointed; decorations; to form kitchen, toilets and store room	1	item	£79,200	£79,200	
Sliding/folding acoustic partition to arrival space; steelwork to support head track	1	item	£35,000	£35,000	
Doors					
Accessible WC Door	1	no	£1,750	£1,750	
Changing places WC	1	no	£4,000	£4,000	
Door to toilet lobby	1	no	£1,600	£1,600	
Toilet doors	3	no	£1,500	£4,500	
Kitchen door	1	no	£1,700	£1,700	
Office door	3	no	£1,700	£5,100	
Storeroom door	4	no	£1,700	£6,800	
Floor finishes					
Toilets and kitchens - non slip Altro or similar with coved skirtings	51	m2	£95	£4,845	
Floor finishes to offices - carpet tiles	28	m2	£75	£2,100	
Floor finishes to nave, welcome space and tower room - stone or similar	282	m2	£200	£56,400	
Floor finish to levelled area of gallery and meeting space	81	m2	£175	£14,175	
Refurbish floorboards to stepped gallery area	124	m2	£100	£12,400	
Ceiling finishes					
Moisture resistant plasterboard; taped and jointed; decorations; to offices, toilets and kitchen	74	m2	£80	£5,920	
Wall finishes					
Wall finishes to existing walls; drylining; breather membrane; insulation; plywood; plasterboard; taped and jointed; decorations	180	m2	£125	£22,500	
Whiterock or similar to kitchen	42	m2	£90	£3,780	
Tiling to toilets	1	item	£10,000	£10,000	
Decorations					
General allowance for redecorations	1	item	£30,000	£30,000	
Fittings					
Kitchen fit out	1	item	£25,000	£25,000	
Office fit out including gallery	1	item	£45,000	£45,000	
Cupboards/store room fit out	1	item	£10,000	£10,000	
Alter existing pews	14	no	£1,000	£14,000	
Chairs and tables	1	item	£15,000	£15,000	
Modify existing pews to gallery to allow flexible use	1	item	£25,000	£25,000	
Soap dispensers; towel dispensers; mirrors etc	1	item	£5,000	£5,000	
Sanitary fittings					
Changing places toilet fit out	1	no	£35,000	£35,000	
Less abled WC	1	no	£1,200	£1,200	
WC's	3	no	£1,000	£3,000	
Wash hand basin to less abled toilet	1	no	£950	£950	
Wash hand basins	3	no	£850	£2,550	
Above ground drainage	1	item	£5,000	£5,000	
Electrical					
Electrical installation; lighting; small power; emergency lighting; CCTV; security; data	1	item	£242,100	£242,100	
Allowance for PV installation	1	item	£75,000	£75,000	
Allowance for AV installation	1	item	£40,000	£40,000	
Mechanical					
Heating; air source heat pumps; radiators; hot and cold water services; ventilation; kitchen ventilation	1	item	£188,300	£188,300	
Lift					
Platform lift; forming openings through exsiting balcony	1	item	£30,000	£30,000	
Drainage					
Below ground drainage	1	item	£30,000	£30,000	
External Works					
Allowance for hard and soft landscaping	1	item	£50,000	£50,000	
Sub Total					£1,888,120
Preliminaries at 17%					£320,980
Sub Total					£2,209,100
Contingencies at 20%					£441,820
Sub Total					£2,650,920
Fees at 20% including Architect, QS, Structural Engineer, Civil Engineer, Drainage Engineer, Landscape Architect, Archaeologist, Traffic Consultant, Planning Consultant, Project Manager, Acoustic Consultant, Access Consultant, Interpretation Consultant, Community Engagement Consultant					£530,184
Sub Total					£3,181,105
Inflation allowance 10%					£317,895
Total Exc Fees and VAT					£3,499,000

Buttress

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