

PROPOSED INTERNAL ALTERATIONS AND MEZZANINE
FLOOR
AT
CALNE FREE CHURCH HALL
CHURCH STREET, CALNE
SN11 0HS

FLOOD RISK ASSESSMENT

PREPARED FOR CALNE FREE CHURCH



Ref number: FRA01 25005
By: Dale Roberts MCIAT
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Status: PLANNING APPLICATION



DALE ROBERTS DESIGN
ARCHITECTURAL SERVICES

1. FLOOD RISK ASSESSMENT

2. INTRODUCTION

This Flood Risk Assessment (FRA) has been prepared by Dale Roberts MCIAT of Dale Roberts Design Architectural Services in support of a planning application and Listed Building Consent application for proposed internal alterations and mezzanine floor to the church hall at Calne Free Church, Church Street, Calne, Wiltshire, SN11 0HS.

The site falls within Flood Zone 2 (medium probability of flooding) as defined by the Environment Agency, with a small area of the northeast external corner of the site falling within Flood Zone 3 (high probability of flooding). The building itself is entirely within Flood Zone 2.

Wiltshire Council's Validation Checklist requires a Flood Risk Assessment to accompany planning applications on sites within Flood Zones 2 or 3. This document has been prepared to satisfy that requirement and to demonstrate that the proposed development is acceptable in flood risk terms in accordance with the National Planning Policy Framework (NPPF), Planning Practice Guidance (PPG), and the Wiltshire Local Plan.

3. SITE DESCRIPTION

3.1 Location and Context

The application site comprises the church hall of Calne Free Church, situated at Church Street, Calne, Wiltshire, SN11 0HS. The building is a Grade II listed mid-Victorian structure constructed in 1868, currently in Use Class F1(a) as a place of worship and community hall. The site is within the Calne Conservation Area.

The site is located immediately adjacent to the River Marden, a small chalk stream which flows past the northeast boundary of the site. The proximity of the River Marden is the reason the site falls partially within Flood Zone 3, with the majority of the site in Flood Zone 2.

3.2 Existing Building and Site

The existing building is a stone-built church hall occupying the majority of the application site. The site is accessed from Church Street to the southwest.

The main entrance from Church Street leads directly into the large hall via a 50mm hardwood threshold. There are no steps at the main entrance; the large hall is essentially at ground level. The small hall, located at the rear of the building and geographically closer to the River Marden, has a finished floor level (FFL) approximately 390mm higher than the large hall floor level, accessed internally by two steps (each 195mm). The small hall rear external entrance is reached by two external steps (85mm and 150mm), with an overall rise of 235mm from external ground level to the small hall FFL. This 235mm physical barrier at the small hall rear entrance is a positive characteristic for flood risk, as it significantly impedes surface water entry at that point.

4. FLOOD ZONE CLASSIFICATION AND RISK

4.1 Environment Agency Flood Zone

Site address	Calne Free Church Hall, Church Street, Calne, SN11 0HS
Flood Zone (building)	Flood Zone 2 – Medium Probability
Flood Zone (NE corner)	Flood Zone 3 – High Probability (external areas only)
River	River Marden
Annual probability of flooding	FZ2: Between 0.1% and 1% (1 in 1,000 to 1 in 100)
Vulnerability classification	Less Vulnerable (Use Class F1(a) – place of worship / community hall)

The Environment Agency Flood Map for Planning confirms that the application site falls within Flood Zone 2 (medium probability), with the building footprint entirely within Flood Zone 2. A small area of the northeast external corner of the application site falls within Flood Zone 3.

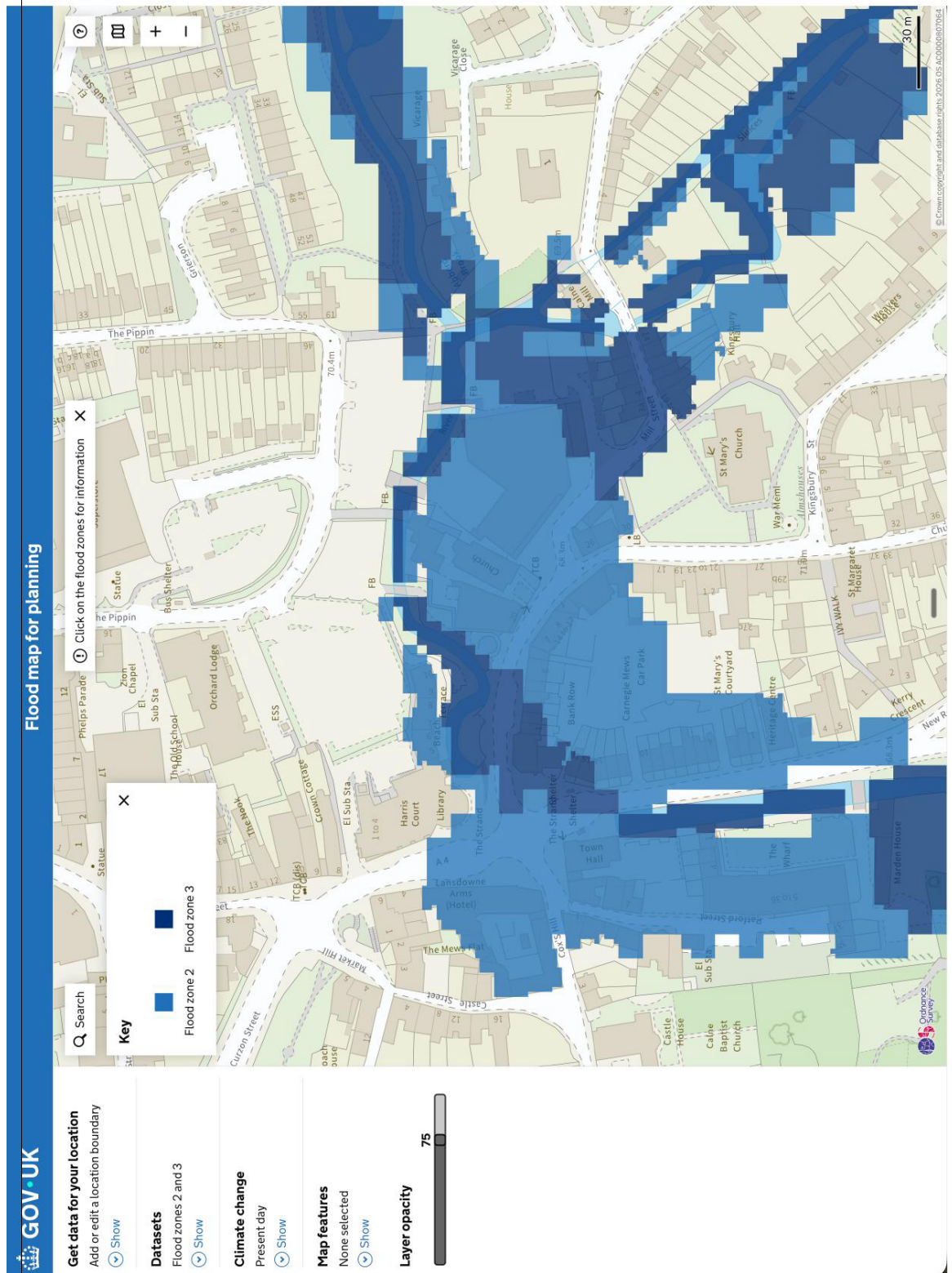


Figure 1: Environment Agency Flood Map for Planning – Calne Free Church Hall, Church Street, Calne (May 2026). Site falls within Flood Zone 2; small area of northeast external corner within Flood Zone 3. Source: Environment Agency/GOV.UK © Crown Copyright and database rights 2026 OS 100026370.

4.2 Vulnerability Classification

The existing and proposed use of the building is Use Class F1(a) – a place of worship and community hall. In accordance with the NPPF Technical Guidance on Flood Risk and the Planning Practice Guidance (PPG), this use falls within the “Less Vulnerable” development category.

For Less Vulnerable development, the NPPF Technical Guidance confirms that such uses are appropriate in both Flood Zone 2 and Flood Zone 3a, subject to the Sequential Test and, where required, the Exception Test. The proposals do not introduce any “More Vulnerable” or “Highly Vulnerable” uses.

5. PROPOSED DEVELOPMENT

The proposals comprise internal alterations and a mezzanine first floor within the existing church hall building, together with associated external alterations. The scope of works is summarised as follows:

5.1 Internal Works

- Removal of existing false ceiling (1960s–1970s) to reveal Victorian king rod scissor trusses
- New mezzanine first floor (steel beams and timber joists, independent structure, no fixings to historic fabric)
- New three-flight staircase (18 risers, 1,000mm width, institutional/assembly standard)
- Platform lift (1,125mm x 1,425mm) providing wheelchair accessible route to first floor
- Toilet refurbishment including new wheelchair accessible toilet facilities
- Widening of internal doorway between large hall and small hall with new sliding folding partition
- New internal store cupboards at ground and first floor
- First floor office above main entrance with internal stepped access

5.2 External Works

- Complete re-roofing with salvaged clay pantiles (95% salvage), breathable membrane system, and thermal upgrade
- Eight conservation-style rooflights on secondary elevations
- Widened rear door to small hall for wheelchair access (1,000mm clear opening)
- Timber wheelchair access ramp at small hall rear entrance (5.0m long, 1:12 gradient, freestanding on pad foundations)
- New fire exit door at base of stairwell (secondary elevation)
- Opening and restoration of three existing stone mullioned windows

The proposals involve no increase in the building footprint, no raising of ground levels, and no reduction of flood storage capacity. The only ground works proposed are the small concrete pad foundations for the freestanding timber wheelchair access ramp (600mm x 600mm x 300mm minimum pads).

6. FLOOD RISK ASSESSMENT

6.1 Impact on Flood Risk

The proposals do not increase flood risk to the site or to third parties elsewhere. The following assessment addresses each relevant consideration:

Building footprint: The proposals involve no extension to the building footprint. All works are internal alterations within the existing building envelope, with the exception of the external ramp structure and minor door alterations. The building footprint remains unchanged.

Flood storage capacity: The proposals do not reduce flood storage capacity on or adjacent to the site. No filling of land is proposed. The small pad foundations for the timber ramp are negligible in volume and do not measurably affect flood storage.

Ground levels: No raising of ground levels is proposed. The large hall floor level, which is at essentially ground level with a 50mm hardwood threshold to Church Street, is maintained as existing. The small hall floor level, which is 390mm higher than the large hall, is also maintained as existing. No reduction in flood storage capacity results from the proposals.

New ground floor accommodation: The proposals do not introduce new habitable ground floor accommodation. The mezzanine floor creates additional space at first floor level, which is above any likely flood level. The ground floor alterations relate to toilets, circulation, and servicing.

Obstruction to flood flow: The freestanding timber ramp structure is a modest intervention (5.0m long x 1.0m wide) positioned at the rear of the small hall. It does not obstruct flood flow paths and is located on the southwest side of the building, away from the River Marden.

Surface water drainage: Re-roofing works maintain the existing roof area and do not increase surface water runoff. The new roof build-up includes a vapour-permeable ("breathable") underlay – a roofing membrane that allows moisture vapour to pass outward from the building while remaining impermeable to liquid water. This is a conservation-appropriate specification for the historic roof structure; it has no bearing on surface water flood risk and does not alter the roof drainage arrangement. Existing rainwater gutters, downpipes, and discharge points are retained.

6.2 Residual Risk

In the event of a flood event reaching the building, the residual risk to the proposed development is considered low for the following reasons:

- The large hall has a 50mm hardwood threshold at the Church Street entrance and is at essentially ground level; the resilience strategy addresses this directly through appropriate material specifications and the provision of first floor refuge
- The new mezzanine first floor provides a critical refuge area above the large hall, which itself has a 50mm threshold and is at ground level. In the event of a flood warning, the first floor (capacity 60 persons) provides safe refuge well above any anticipated flood level while evacuation is organised
- The use (church hall and community facility) is "Less Vulnerable" and therefore appropriate in Flood Zone 2 without requiring the Exception Test
- The building has an established history of use without recorded flood damage

- The proposed improvements include new electrical installations which will be located above potential flood levels where practicable, in accordance with good practice guidance

7. SEQUENTIAL TEST

The Sequential Test, as set out in NPPF paragraph 167 and the Planning Practice Guidance (PPG on Flood Risk and Coastal Change), requires applicants to demonstrate that there are no reasonably available sites in areas of lower flood risk. However, PPG is clear that the Sequential Test applies to new development. Where a proposal involves only alterations to an existing building with no increase in footprint, the Sequential Test is technically passed without the need to search for alternative sites.

The proposals comprise alterations to an existing building in an established Use Class F1(a). No new building footprint is created, no new land use vulnerability is introduced, and there is no intensification of the use. The existing use has continued on this site in unbroken community service since 1868. The Sequential Test is therefore passed on the basis that the proposals do not constitute “new development” requiring sequential site selection.

For the further avoidance of doubt, even if the Sequential Test were applied, it would be passed. The building is a Grade II listed structure of national significance in continuous community use; it cannot be relocated. No sequentially preferable site exists at which the operational, heritage, and community requirements of this congregation could be met. The Exception Test is not required for Less Vulnerable development in Flood Zone 2. The application accordingly satisfies the requirements of NPPF paragraph 167 in full.

Notwithstanding the above, the application has been assessed against the sequential approach. No alternative lower-risk site exists where the operational needs of this established congregation could be met. The proposals are therefore acceptable in sequential terms.

8. FLOOD RESILIENCE AND MITIGATION

The following flood resilience and mitigation measures are incorporated within the proposals or are recommended as conditions of any consent:

8.1 General Resilience Measures

- Electrical installations and services to be located at or above 300mm above the ground floor finished floor level where practicable, in accordance with good practice guidance for buildings in flood risk areas
- The new mezzanine first floor (capacity 60 persons) provides a critical safe refuge area. Given that the large hall is at essentially ground level with only a 50mm threshold, the availability of a first floor refuge area is a significant flood safety benefit of the proposals. Occupants can ascend to first floor level via the staircase or platform lift in response to a flood warning
- The building management to maintain a Flood Emergency Plan, including: registration with the Environment Agency Flood Warning Service; identification of a responsible person; evacuation procedures for congregation and community users; and storage of flood response equipment
- All new ground floor finishes and fixtures – particularly within the new toilet facilities where new partitions, floor finishes, sanitary ware, and service connections are proposed – to be specified

from flood-hardy materials (ceramic floor tiles, vitreous china sanitary ware, stainless steel or chrome ironmongery, moisture-resistant plasterboard, and lime-based plaster) in preference to materials susceptible to flood damage such as timber boarding or standard gypsum plasterboard

- External wheelchair ramp constructed in naturally durable or preservative-treated hardwood with inherent flood resilience; the freestanding structure can be readily demounted if required

8.2 Property Level Resilience (PLR)

The large hall has a 50mm hardwood threshold at its Church Street entrance and is at essentially ground level. In the event of a flood warning, this low threshold presents a risk of surface water ingress to the large hall before occupants can evacuate. To address this, the applicant proposes a dual-strategy of Property Level Resilience (PLR) combining resistance and recovery measures:

1. Resistance – Demountable Flood Barriers. Bespoke demountable aluminium flood barriers (such as the Nautilus system or equivalent) shall be specified for all ground-level external door openings, including the main Church Street entrance and the small hall rear exit door. Upon receipt of an Environment Agency flood warning, barriers are deployed into pre-installed threshold channels. The side channels and threshold profiles shall be powder-coated or finished to match the adjacent stonework and joinery to minimise visual impact on the Grade II listed fabric, in accordance with conservation officer requirements. Demountable barriers are strongly preferred over permanent flood doors for listed buildings, as they preserve the historic timber door leaves and are removable without harm to historic fabric.
2. Recovery – Non-Return Valves, WC Plugs, and Water-Resistant Finishes. As the toilet refurbishment works involve the installation of new foul drainage connections at ground floor level, all new foul drainage serving the ground floor toilets shall be fitted with Non-Return Valves (NRVs) to prevent backflow from the public sewer system during a flood event. NRVs shall also be retrofitted to any existing ground floor foul drainage connections where practicable. In addition, inflatable WC pan plugs (toilet bungs) shall be held on site as part of the flood response kit. These are inserted into the WC pan and inflated to create a watertight seal in the drain pipe, providing a secondary barrier against sewage backflow through the pan in the event that the NRV is overwhelmed or requires maintenance. Suitable proprietary devices are available from suppliers such as CSI Products (csi-products.co.uk). Internal wall finishes within the refurbished toilet areas shall use water-resistant lime-based plasters and renders to a minimum height of 600mm above finished floor level, together with ceramic floor tiles and vitreous china sanitary ware, to facilitate rapid drying-out and cleaning following any flood event.

In addition, existing sub-floor airbricks shall be replaced with self-closing flood-proof airbricks. These devices close automatically when in contact with flood water and reopen when flood water recedes, preventing sub-floor void flooding while maintaining the ventilation function required for the historic floor structure. Replacement airbricks shall be specified in a material and finish sympathetic to the Victorian stone masonry to satisfy the Conservation Officer.

The PLR measures described above have been selected to be appropriate to a Grade II listed building: all are either demountable, retractable, or concealed within service runs, and none require alteration to the historic external fabric beyond minor threshold fixings.

9. PLANNING POLICY COMPLIANCE

9.1 National Planning Policy Framework (NPPF)

The proposals are consistent with the NPPF in the following respects:

- NPPF paragraph 167 (Sequential Test): The Sequential Test is passed. The proposals involve alterations to an existing building with no increase in footprint; PPG confirms the Sequential Test does not require sequential site searching in these circumstances. The Exception Test is not required for Less Vulnerable development in Flood Zone 2.
- NPPF paragraph 168 (Exception Test): The Exception Test is not required for Less Vulnerable development in Flood Zone 2.
- NPPF paragraph 169: The proposals do not increase flood risk on or off the site.
- NPPF paragraph 170: The proposals are consistent with the aim of directing new development to areas of lowest flood risk – the mezzanine floor creates additional space at first floor level, above ground floor flood risk.

9.2 Wiltshire Local Plan

Policy CP51 of the Wiltshire Core Strategy (Flood Risk) requires that development proposals demonstrate they will not increase flood risk and that appropriate mitigation is incorporated. This FRA demonstrates compliance with Policy CP51 by confirming no increase in flood risk, no reduction in flood storage, and appropriate resilience measures.

10. CONCLUSION

This Flood Risk Assessment has been prepared in support of a planning application and Listed Building Consent application for proposed internal alterations and mezzanine floor to Calne Free Church Hall, Church Street, Calne, SN11 0HS.

The assessment concludes that:

- The site falls within Flood Zone 2 (medium probability) with the building itself entirely within Flood Zone 2. A small area of the external northeast corner of the site falls within Flood Zone 3.
- The proposed use (community hall and place of worship, Use Class F1(a)) is “Less Vulnerable” and is appropriate in Flood Zone 2 without requiring the Exception Test.
- The proposals do not increase flood risk on or off the site. There is no increase in building footprint, no reduction of flood storage, no raising of ground levels, and no new habitable ground floor accommodation.
- The only ground works proposed are negligible pad foundations for a freestanding timber wheelchair access ramp, which do not measurably affect flood risk.
- The new mezzanine first floor provides critical refuge accommodation above the large hall level, which itself has only a 50mm threshold to Church Street. The mezzanine (capacity 60 persons) provides a significant flood safety benefit and is accessible via staircase and platform lift.
- Flood resilience measures are incorporated within the proposals, including appropriate location of electrical services, resilient material choices, and the first floor refuge area.
- The Sequential Test is passed. The proposals involve alterations to an existing building with no increase in footprint, and PPG confirms this does not require sequential site searching. The Exception Test is not required for Less Vulnerable development in Flood Zone 2.

The proposed development is acceptable in flood risk terms and complies with the NPPF, Planning Practice Guidance, and relevant Wiltshire Local Plan policies. This application is recommended for approval subject to the proposed flood resilience measures being incorporated as described in this assessment.

11. DOCUMENT INFORMATION

Document reference	25005 / FRA01
Project	Proposed Internal Alterations and Mezzanine Floor
Site	Calne Free Church Hall, Church Street, Calne, SN11 0HS
Client	Calne Free Church
Prepared by	Dale Roberts MCIAT
Date	May 2026
Status	PLANNING
Revision	–