

Flood Risk Assessment

20 New Road, Neath Abbey, Neath, SA10 7NH

16 February 2026

Atrium Planning Consultants



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Distribution

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Executive Summary

Ashfield Flood Risk Solutions (“Ashfield”) were commissioned by Atrium Planning Consultants (“the client”) to undertake a Flood Consequence Assessment (“FCA”), in support of a planning application for the conversion of a single dwelling to a HMO at 20 New Road, Neath Abbey, Neath, SA10 7NH (“the site”). This report is based on the latest Planning Policy Wales (PPW) & Welsh Government guidance TAN15 (2025).

The nearest watercourse is the tidally influenced River Clydach, located 128m north-east of the site. Natural Resources Wales (NRW) Flood Risk Assessment Wales (FRAW) mapping indicates the building footprint is located within an area at low risk (0.1% AEP-1% AEP) of flooding from rivers during the present-day defended scenario. The wider site boundary is located within an area at medium risk (1% AEP-3.3% AEP) of river flooding. The Flood Map for Planning (FMFP) indicates the site is located within Flood Zone 3. This is defined as an area with greater than 1.0% AEP of flooding occurring in a given year, accounting for the impact of climate change and assuming no defences are in place.

Ashfield submitted a flood model data request to NRW, and their response comprised of the Neath Phase 2 Hydraulic Model (2016). Analysis of this data indicated the site is at risk of flooding during the 1% AEP, 1% AEP + 25% CC and 0.1% AEP modelled fluvial events. Flood depths of 0.7m are projected adjacent to the southern elevation of the building, level with the lower ground floor, during the 1% AEP +25% CC event. Flood depths are not projected to impact the ground floor during this event. The pre-mitigation risk of fluvial flooding during the present-day scenario is low to moderate, and moderate to high during the future scenario accounting for climate change. Mitigation options are outlined in Section 4 to mitigate against this risk in the long term.

The NRW FRAW mapping indicates an area at medium risk (1% AEP-3.3% AEP) of flooding from surface water encroaches on the rear elevation of the building. The NRW FMFP indicates the site is within Flood Zone 3, an area with greater than 1.0% AEP of flooding occurring in a given year. The areas at risk of surface water flooding are attributed to the lower topographic elevation south of the building and within the wider area surrounding the site. The NRW National Flood Hazard and Risk Map indicates maximum flood depths projected adjacent to the southern elevation are 0.3m to 0.9m. The risk of flooding from surface water sources is moderate, however in reality this may be lower when accounting for the boundary wall that is present externally at lower ground floor level. Mitigation options are outlined in Section 4 to mitigate against this risk in the long term.

The tidally influenced River Clydach is located 128m north-east of the site; however, the NRW FRAW and FMFP datasets indicate the site is not within an area at risk of flooding from tidal sources. Therefore, the risk of flooding from tidal sources is low.

The risk of flooding from groundwater, artificial sources and reservoir failure is low.

The development is currently utilised as a residential building and is therefore classified as ‘highly vulnerable’. It is proposed that the residential use will be maintained and as such, the building will remain classified as ‘highly vulnerable’. Section 11.7 of TAN15 requires all **new** highly vulnerable development to remain flood free during the 1% AEP + CC% event and is allowed to flood to tolerable depths of up to 0.6m during the 0.1% AEP + CC% event.

As the proposal classes as a ‘redevelopment’, the guidance and flooding thresholds stated in Section 11 of TAN15 should be considered with flexibility. In order to reduce the vulnerability of the development, no sleeping accommodation should be located on the lower ground floor (betterment to existing). Sleeping accommodation on the ground floor is indicated to not be at risk of flooding. Further mitigation measures include replacing the lower ground floor door and window with flood resistant equivalent. Additional measures and information are outlined in Section 4. This report therefore demonstrates the proposed development will comply with TAN15 (2025) guidance and is suitable in the location proposed.



1 Introduction

1.1 Authorisation and Context

Ashfield Flood Risk Solutions ("Ashfield") were commissioned by Atrium Planning Consultants ("the client") to undertake a Flood Consequence Assessment ("FCA"), for 20 New Road, Neath Abbey, Neath, SA10 7NH ("the site"). The site location is illustrated in Figure 1.

This report (Revision B) has been prepared in support of a planning application for the conversion of a single dwelling to a HMO. All figures with flood mapping in this FCA have been reviewed and confirmed to be in-line with the latest flood mapping seen online. The existing and proposed plans can be seen within Appendix A for context and will be discussed further in Section 1.3. The details of standard limitations of this report are included within Section 1.5.

Figure 1 - Site Location



1.2 Aim and Objectives

The aim of this FCA is to address the requirements of the Technical Advice Note (TAN) 15) in relation to the provision of a site-specific flood consequence assessment for the proposed development. This assessment aims to satisfy the following core objectives:

- Analysis of flood mapping, topographical data, and online sources to assess whether the site is likely to be affected by flooding now and in the future as a consequence of climate change;



- Outline a summary of TAN15 compliance considering the Flood Zones, and TAN15 guidance in relation to the proposed development type and vulnerability, informed by the baseline assessment of flood risk at the site;
- Where required, present flood mitigation measures necessary to keep the proposed development and occupants safe, whilst ensuring flood risk is not increased elsewhere; and,
- Provide an opinion of the likely impacts of the development on flooding elsewhere.

1.3 Development Proposals

The existing and proposed plans for the development can be seen within Appendix A. The building comprises 4No. storeys, a lower ground floor, ground floor, first floor and second floor. The proposed plans include the conversion to a HMO that shall provide 6No. bedrooms (3No. on the ground floor, 2No. on first floor and 1No. on second floor). Kitchen and living areas will be provided on lower ground floor, with toilets and bathrooms situated on the ground and first floors (with an ensuite provided for the bedroom on the second floor).

There are no proposed changes to the building footprint and the floor levels are understood to remain the same as existing.

1.4 Information Sources

To prepare this FCA, the following information sources and general guidance documents have been used:

- Planning Policy Wales Technical Advice Note (TAN) 15 - Welsh Assembly Government, March 2025;
- Existing Floor Plans - Atrium Planning Consultants, May 2025;
- Proposed Floor Plans - Atrium Planning Consultants, January 2026;
- Western Wales River Basin District Preliminary Flood Risk Assessment¹ - Natural Resources Wales, December 2018;
- South West Wales Strategic Flood Consequence Assessment² - JBA Consultancy, November 2022;
- Pembrokeshire Flooding Latest³ - Western Telegraph, February 2014;
- NRW Flood Model data (RFI. ATI-28430a) comprising of the Neath Phase 2 Hydraulic Model (2016);
- 1m resolution LiDAR data – downloaded online June 2025;
- Natural Resources Wales (NRW) interactive flood maps – accessed online February 2026 and,
- British Geological Survey (BGS) Drift & Geology Maps - accessed online February 2026.

1.5 Report Limitations

This assessment of flood risk is based on the latest available open government flood mapping data. The site boundary has been supplied by the client and the assessment of risk is based on this. This report has been prepared with due care and diligence in accordance with industry best practice and guidance. The conclusions are valid only to the extent that the information provided to Ashfield was accurate and complete at time of receipt.

¹ <https://naturalresources.wales/media/687969/pFCA-report-western-wales.pdf>

² <https://media.npt.gov.uk/media/xnwlwvb0/doc-11-strategic-flood-consequences-assessment.pdf>

³ <https://www.westerntelegraph.co.uk/news/10982139.pembrokeshire-flooding-latest-monday/>



2 Site Overview

2.1 Site Setting

The site, situated in SA10 7NH, occupies an area of approximately 145m² in Neath Abbey, Neath. The site comprises of an existing residential dwelling, with access via New Road to the north and nearby land uses detailed in Table 1.

Table 1 - Surrounding land uses

North	Neath Abbey County Infants School
East	Residential properties
South	
West	

2.2 Site Topography

In the absence of a site topographic survey, 1m resolution Light Detection and Ranging (LiDAR) data has been downloaded for the site and local area. A visual illustration of the LiDAR is presented in Figure 2.

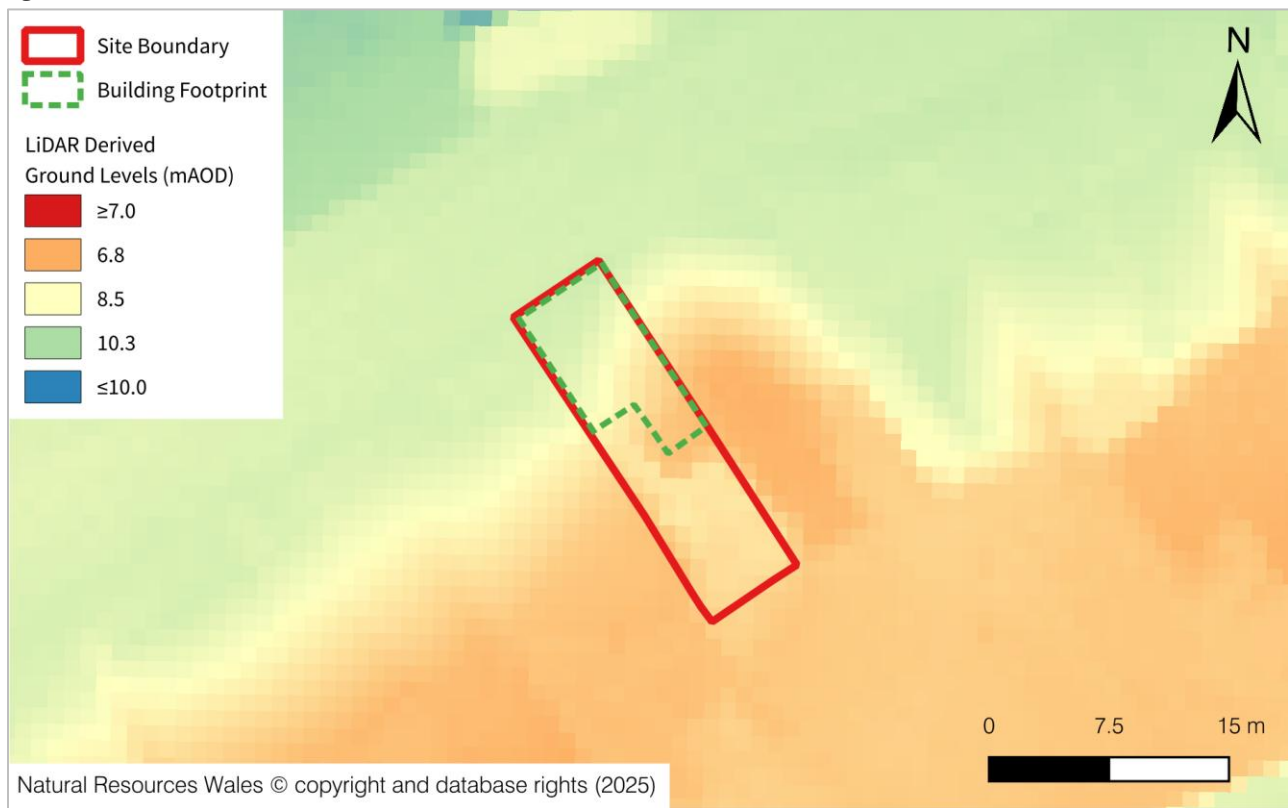
From review of the LiDAR derived ground levels, ground levels within the site boundary are indicated to be lower to the south (rear). The adjacent road (A4230) to the north is indicated to be at a greater elevation than the site.

Ground levels within the site boundary range from 7.5mAOD in the south, to 9.4mAOD in the north adjacent to the A4230. Ground levels adjacent to the southern elevation of the building range from 7.1mAOD to 7.9mAOD. As seen in the existing and proposed plans (Appendix A), the southern elevation is indicated to be at lower ground floor level and as such, the lower ground floor at the rear of the building is assumed to be level with external ground levels. Adjacent to the northern (front) elevation of the building, ground levels are approximately 9.4mAOD.

The site is indicated to be within a topographical depression, located between the A4230 to the north and the parking area to the south. The parking area to the south of the site (22.8m south) is shown to be elevated 1.7m above ground levels within the site boundary.



Figure 2 - LiDAR Derived Ground Levels



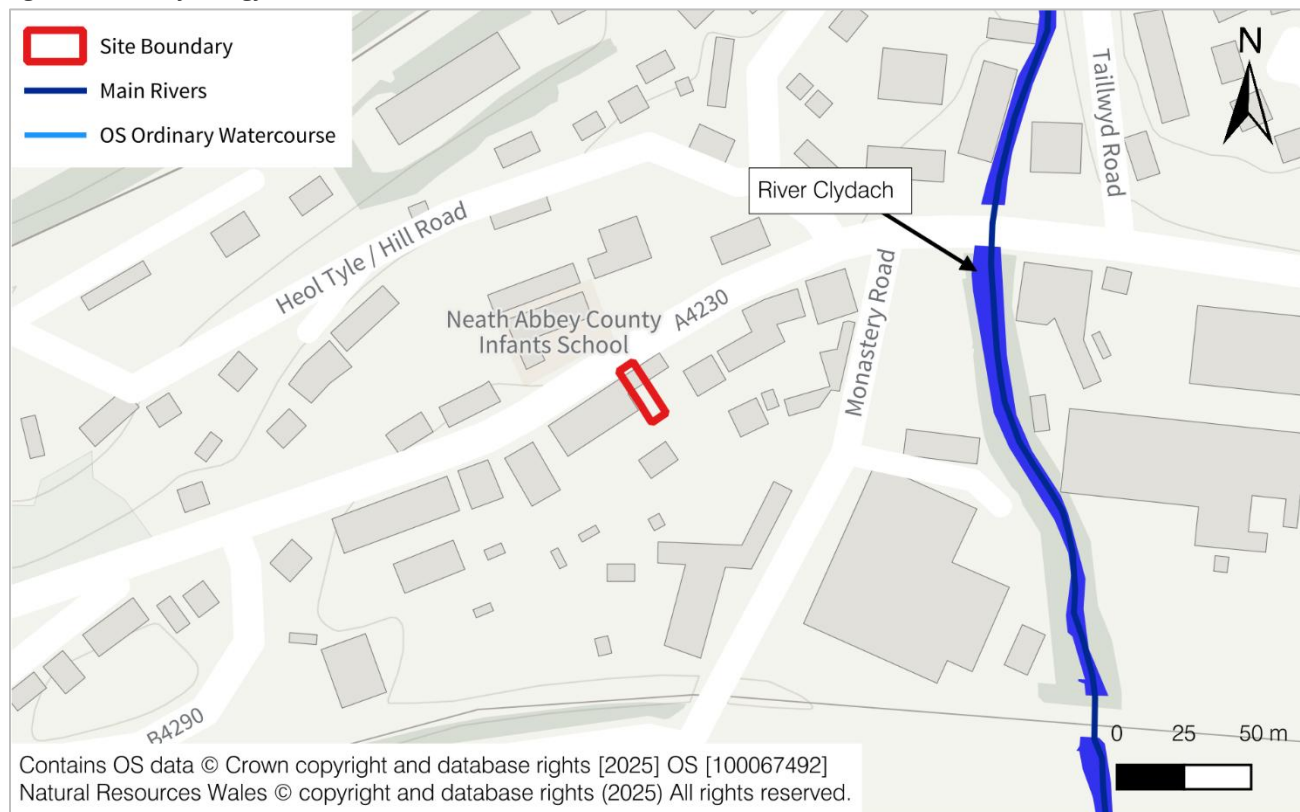
2.3 Local Hydrology

The nearest Natural Resources Wales (NRW) designated Main River is the tidally influenced River Clydach, located 120m east of the site. This flows in a southerly direction until its confluence with the River Neath, approximately 690m south-west of the site.

There are no ordinary watercourses located within 500m of the site. The site is located within the Western Wales River Basin District and local hydrological features are illustrated in Figure 3 for reference.



Figure 3 - Local Hydrology



2.4 Local Drainage

No drainage plans were made available to Ashfield to inform this report. Without any formal drainage plans, drainage connectivity cannot be fully confirmed; however, it is assumed that the onsite drainage network discharges into the public sewer network within the A4230, under the jurisdiction of Welsh Water.

2.5 Flood History

National Records

The NRW Recorded Flood Outlines dataset is a compilation of historical flood events that have occurred across Wales over the past century. Figure 4 indicates that the site is not located within an area that has historically flooded. The nearest recorded flood outline is located approximately 1.4km north-east of the site, attributed to a 1979 flood in Neath from an unknown source.



Figure 4 - NRW Recorded Flood Outlines



Local Authority and Strategic Flood Information

Information Source	On Site	Within 250m
2018 PFRA	No recorded flood incidents found.	No recorded flood incidents found.
2022 SFCA	No recorded flood incidents found.	No recorded flood incidents found.

Additional Information

Upon review of the SFCA, flooding occurred in January 2021 within the neighbouring ward (Skewen), associated with the release of floodwaters from a mineshaft following period of heavy rain. The cause of this was likely due to blockage of drainage within the mine, which led to disused mine shaft 'burst'. This resulted in flooding of approximately 80 residential properties. Following this event, the Coal Authority are said to be constructing a new mine water system to help prevent future flooding from this source. The site was not affected during this event.

Upon review of a BBC News article in October 2021, Cadoxton Road (1.3km north-east) was impassable overnight after a period of heavy rainfall⁴. The site was not impacted during this event.

Historic Flooding Summary

From review of the NRW Recorded Flood Outlines dataset and online documents, it was indicated flooding has occurred within the adjacent ward (Skewen); however, the site did not experience flooding during the 2021 or any previous events.

⁴ <https://www.bbc.co.uk/news/uk-wales-58791024>



3 Flood Risk Evaluation

The following sections provide an evaluation of the flood risk posed to the site. Consideration is given to the severity of flood risk to the site as a whole, making use of existing flood mapping, local strategic studies and available topographic information.

3.1 Tidal Flood Risk

Tidal flood risk affects coastlines, estuaries, and tidal rivers, often during high tides or heavy rain. These floods can cover low-lying land or overwhelm defences. As discussed in Section 2.3, the tidally influenced River Clydach is located 128m north-east of the site boundary.

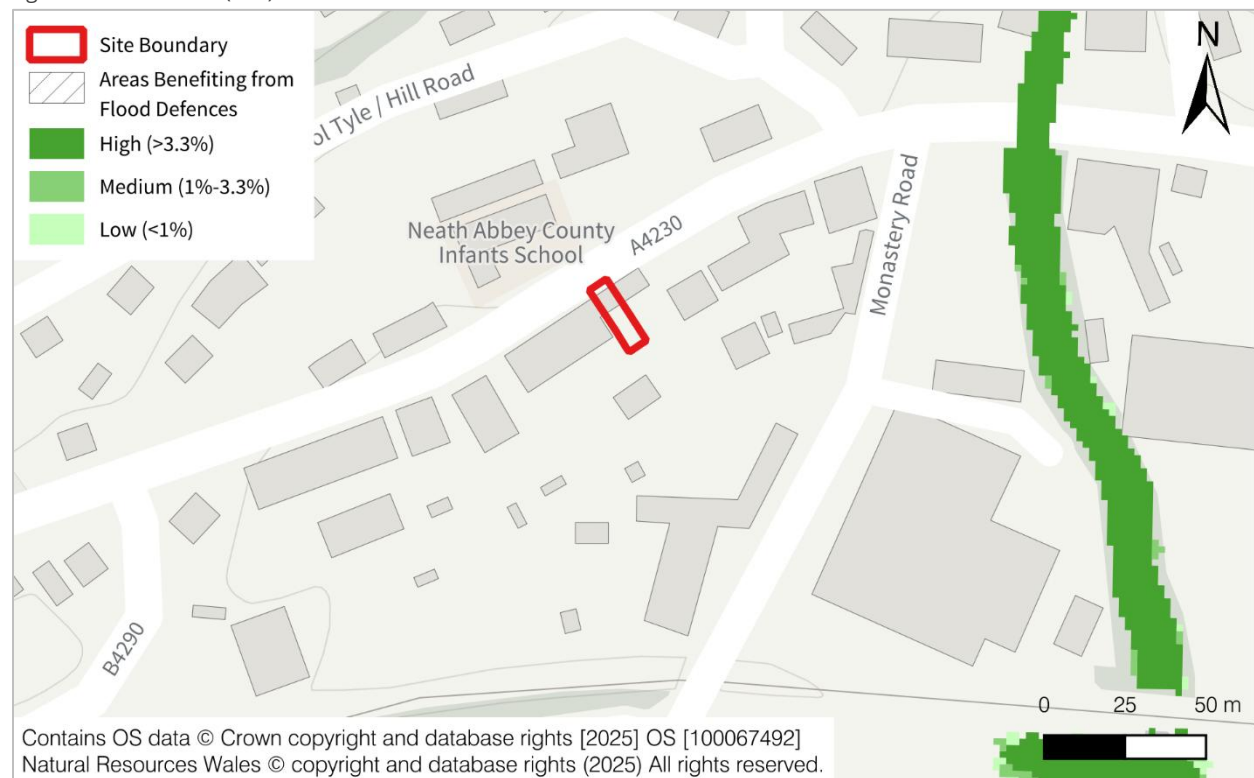
NRW Flood Mapping

The NRW Flood Risk Assessment Wales (FRAW) (Sea) mapping divides the floodplain into risk-based categories based on the present-day, defended flood risk to the site. The following is the definition of the risk categories:

- **High Risk** – Each year, this area has a chance of flooding of greater than 1 in 30 (3.3%).
- **Medium Risk** – Each year, this area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%).
- **Low Risk** – Each year, this area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).

If an area is not covered by one of the above categories, it is considered to be at very low risk of flooding, which is defined as less than 1 in 1000 (0.1%) chance of flooding each year. The NRW FRAW (Figure 5) indicates that the site is not within an area benefitting from formal flood defences, or within an area at risk of flooding from the sea.

Figure 5 - NRW FRAW (Sea)



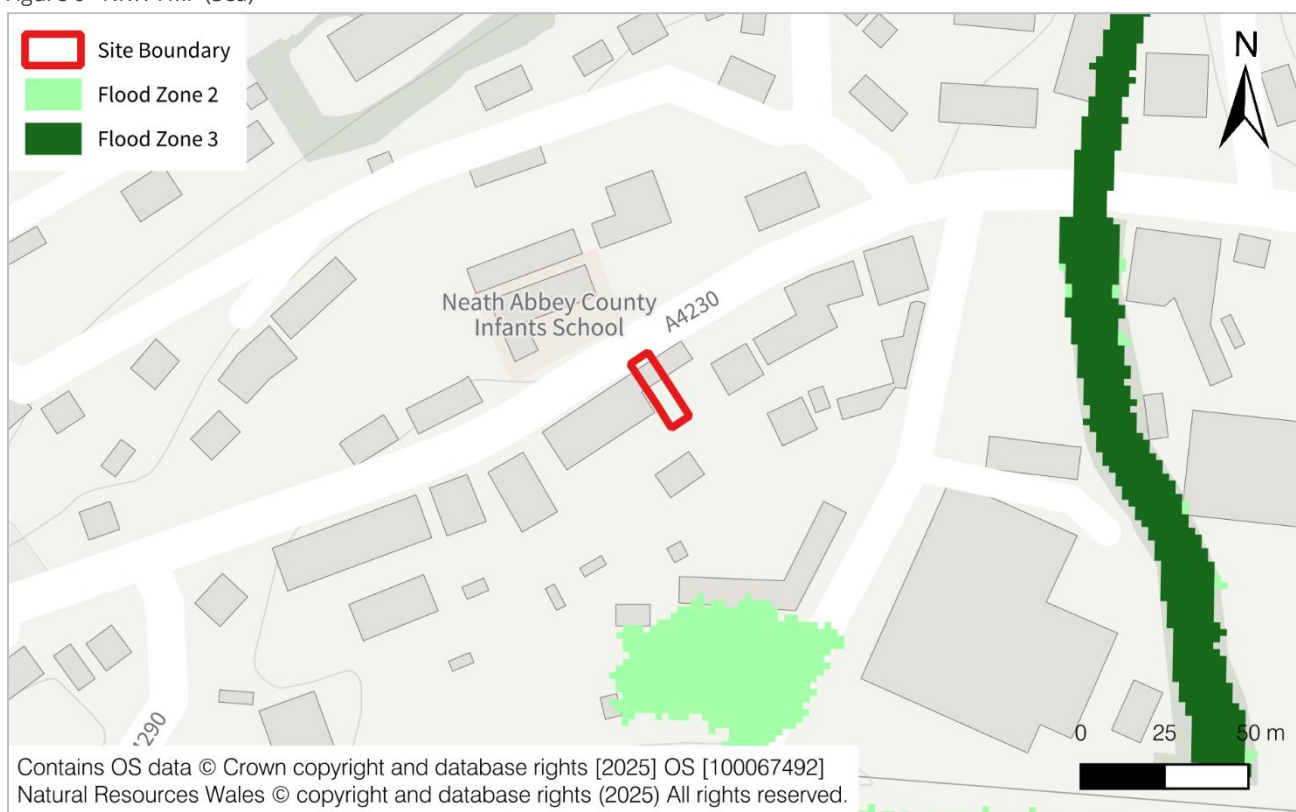


The NRW Flood Map for Planning (FMFP) (Sea) divides the floodplain into risk-based categories and provides an indication of flood risk for the site, accounting for the impact of climate change (sea level rise) and indicates the potential extent of flooding assuming no defences are in place. The Flood Zone categories are defined below:

- **Flood Zone 3** – Areas with more than 1 in 200 (0.5%) chance of flooding in a given year, including the effects of climate change.
- **Flood Zone 2** – Areas with 1 in 1000 to 1 in 100 (0.1% to 1%) chance of flooding in a given year, including the effects of climate change.

The NRW FMFP (Figure 6) indicates that the site is not within either Flood Zone 2 or 3, and therefore the risk of flooding from the sea is less than 0.1% in a given year. A tidal extent is seen 30m south of the site; however, this is not shown to impact the site, or access & egress.

Figure 6 - NRW FMP (Sea)



Tidal Risk Summary

The site is not located within an area at risk of flooding from the sea now or in future scenarios when accounting for climate change. The risk to the site from tidal flooding is therefore considered low. No further consideration is deemed necessary as part of this FCA.



3.2 Fluvial Flood Risk

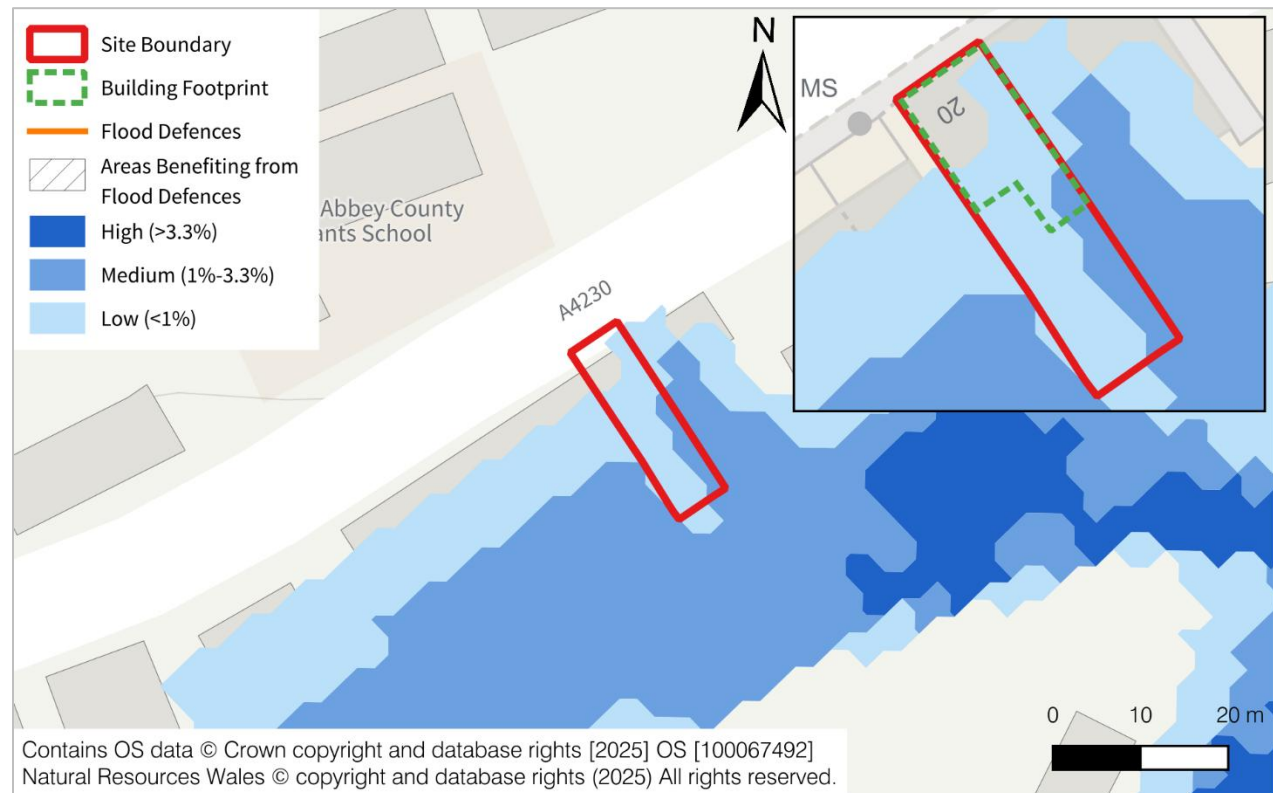
Fluvial flood risk comes from rivers and streams when they overflow, usually after heavy rain or long periods of wet weather. As discussed in Section 2.3, the tidally influenced River Clydach is located 128m north-east of the site boundary.

NRW Flood Mapping

The NRW FRAW (Rivers) (Figure 7) mapping indicates the wider site is located within an area at medium risk (1% AEP-3.3% AEP) of flooding from rivers during the present-day defended scenario.

The footprint of the building is primarily within an area at low risk (<1% AEP) of flooding; however, an area at medium risk is located within the southern corner. The site is not indicated to be within an area benefitting from formal flood defences.

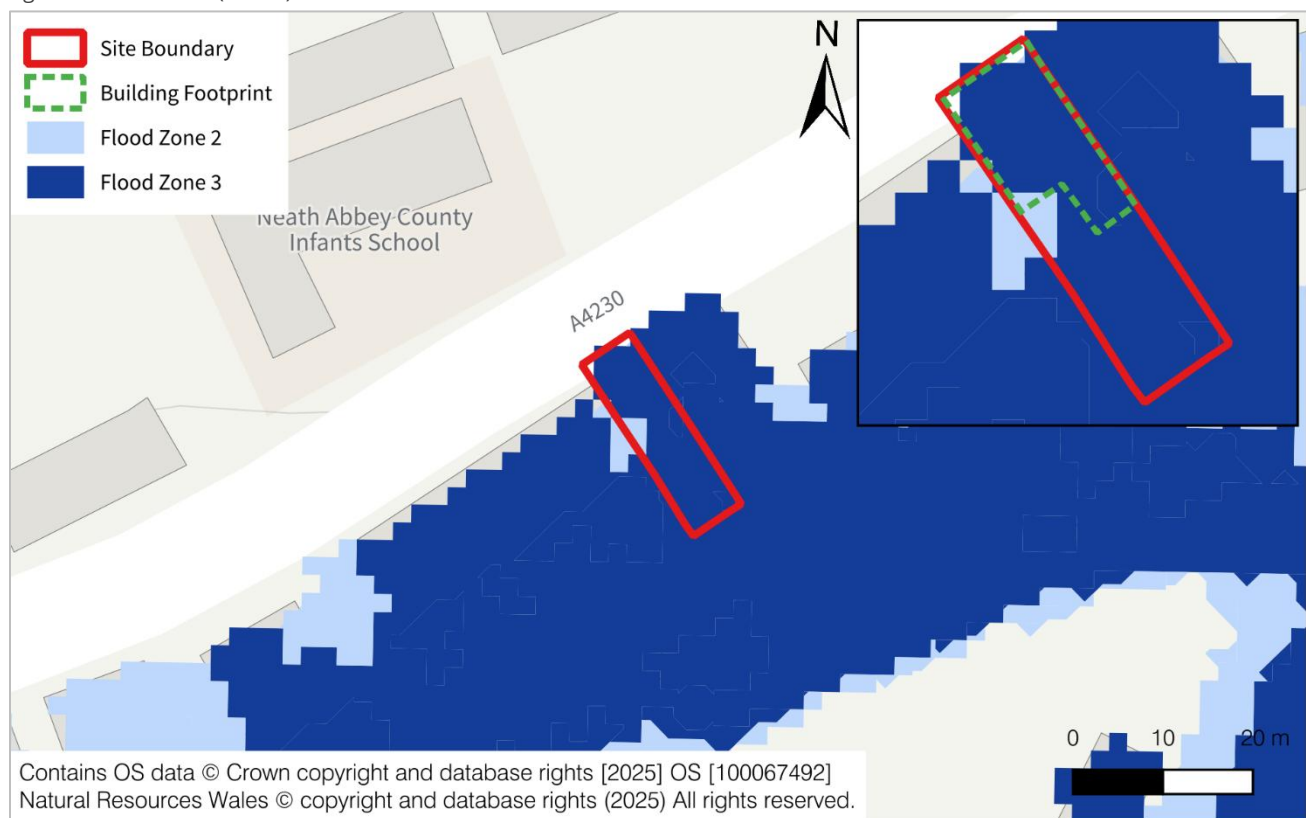
Figure 7 - NRW FRAW (Rivers)



The NRW FMFP (Rivers) (Figure 8) mapping indicates that the site is located within Flood Zone 3. This is defined as an area with greater than 1.0% AEP of flooding occurring in a given year, accounting for the impact of climate change and assuming no defences are in place.



Figure 8 - NRW FMFP (Rivers)



NRW Flood Model Data

A flood model data request was sent to NRW (ATI-28430a) in order to inform this assessment. Their response comprised of the Neath Phase 2 Hydraulic Model (2016) which is a 1D-2D ESTRY-TUFLOW model. Defended scenarios were run for the following fluvial return periods. Figure 9 shows the 2%, 5% and 10% AEP events, which are not shown to impact the building.

- | | |
|-------------|-------------------|
| ■ 50% AEP | ■ 1% AEP |
| ■ 20% AEP | ■ 1% AEP + 20% CC |
| ■ 10% AEP | ■ 0.5% AEP |
| ■ 5% AEP | ■ 0.2% AEP |
| ■ 2% AEP | ■ 0.1% AEP |
| ■ 1.33% AEP | |

Furthermore, undefended fluvial scenarios for the 1% AEP, 1% AEP + 20% CC and 0.1% AEP return periods were also modelled. As the site is not within an area benefitting from formal flood defences, the undefended return periods will be discussed further.

The site is projected to be at risk of flooding during all three undefended modelled return periods, as seen in



Figure 10, which depicts the maximum modelled flood extents during each scenario. Table 2 shows the maximum calculated flood depth adjacent to the rear elevation (lower ground floor) of the building and front elevation (ground floor), based on LiDAR derived ground levels and maximum modelled flood levels obtained from the Neath Phase 2 Hydraulic Model (2016).

Figure 9 – Maximum modelled flood extents

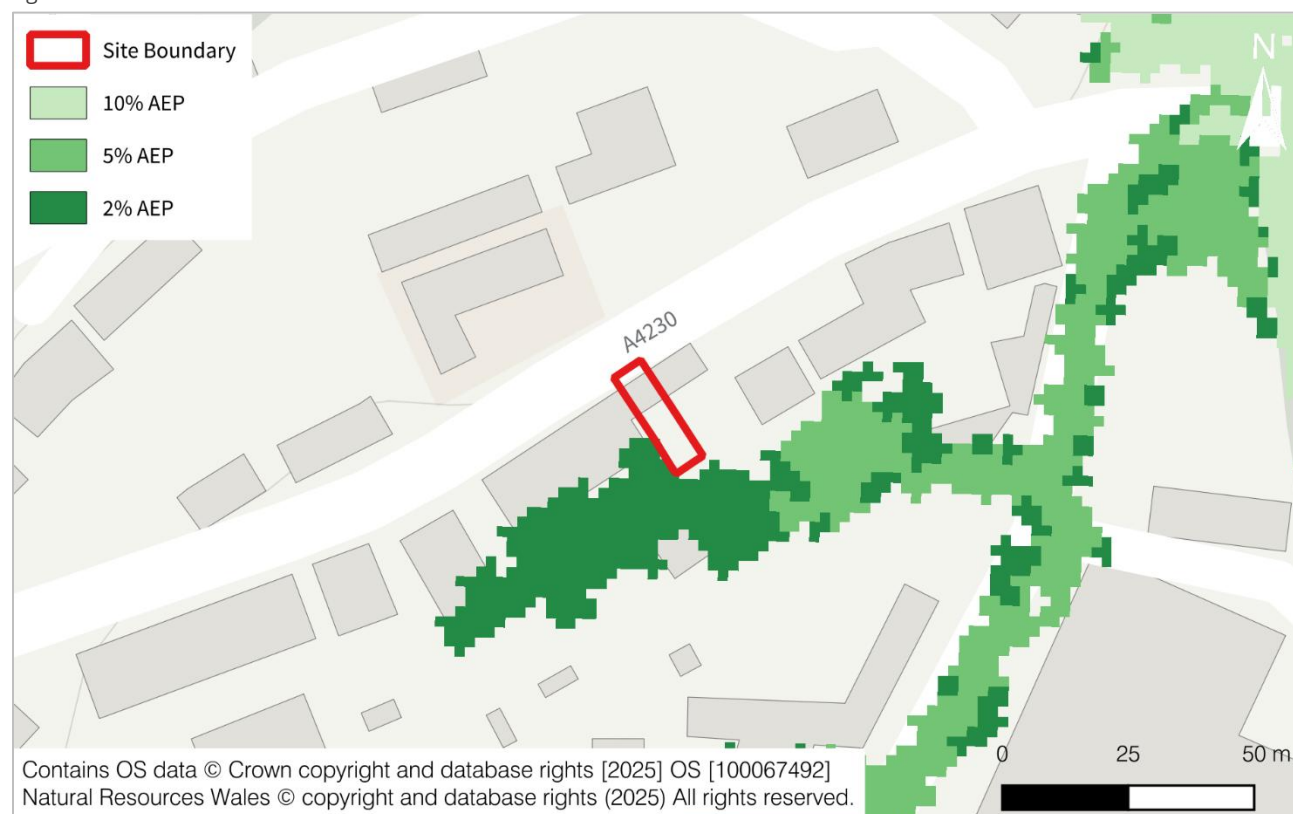


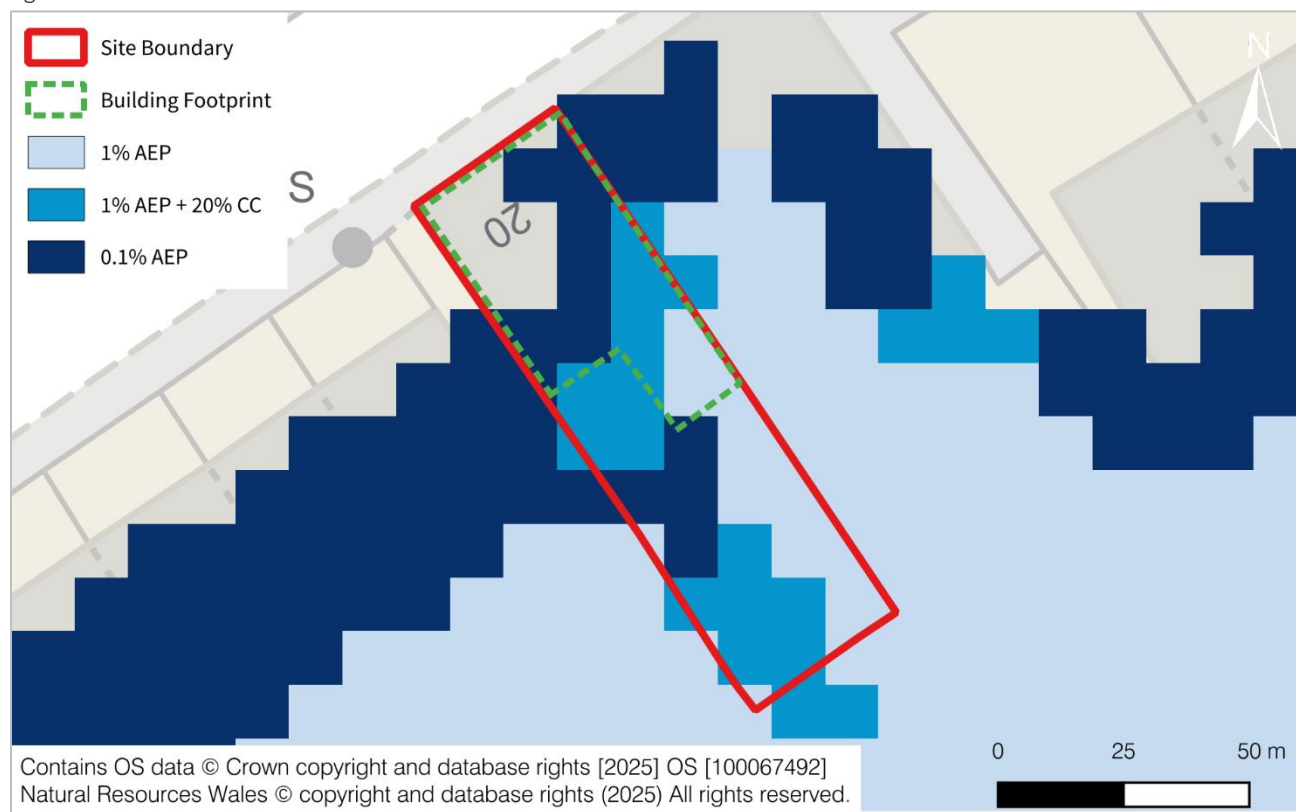
Table 2 - Maximum calculated flood depths adjacent to the building footprint

Return Period	Maximum Modelled Flood Level (mAOD)		Maximum Flood Depth (m)	
	Lower Ground Floor (7.1mAOD)	Ground Floor (9.4mAOD)	Lower Ground Floor (7.1mAOD)	Ground Floor (9.4mAOD)
1% AEP	7.6	-	0.5	-
1% AEP + 20% CC	7.8	-	0.7	-
0.1% AEP	8.8	-	1.6	-

During the modelled 1% AEP, flooding is shown within the footprint of the building, to maximum depths of 0.5m. This is identified to remain isolated within the rear of the building, proposed to comprise a utility room and bathroom. During the modelled 1% AEP + 20% CC event, flooding is shown to extend further within the footprint of the building, to maximum depths of 0.7m adjacent to the southern elevation. During the modelled 0.1% AEP event, flooding is projected within the majority of the building footprint, to a maximum depth of 1.7m adjacent to the southern elevation.



Figure 10 - Maximum modelled flood extents



The Neath Phase 2 Hydraulic Model (2016) includes a 20% allowance for climate change; however, the latest government guidance indicates the required allowance for the Western Wales River Basin District is 30% (when considering a development life span in the 2080's epoch). The NRW Flood Map for Planning dataset utilises a 30% allowance for climate change, in line with the TAN15 (2025) guidelines. Therefore, a combination of both datasets has been used to assess the risk of flooding from fluvial sources and informs the design principles outlined in Section 4.

Fluvial Risk Summary

NRW flood mapping indicates the building is at low (0.1% AEP) risk of flooding during the present-day scenario. However, during the 1% AEP scenario when accounting for climate change, the building is at risk of flooding. A review of the Neath Phase 2 Hydraulic Model indicates the building is at risk of flooding to maximum flood depths of 0.7m during the 1% AEP + 20% CC event. The overall risk to the site from fluvial flooding is considered low to moderate in the present-day scenario, and moderate to high in the long term. Further considerations are made within Section 4 to help mitigate against this identified risk in the long-term.

3.3 Surface Water Flooding

Surface water flooding occurs when local drainage networks are overwhelmed during an extreme rainfall event, causing water to flow over the surface and follow gravity to the lowest point where it often pools. This flood source is increasingly becoming one of the major contributors of flood risk, due to changing weather patterns and increased extreme rainfall events occurring across the UK. This places more pressure than ever on drainage systems, which are often overwhelmed during flash flood events, normally only designed to take between a 1 in 20 and a 1 in 30 return period event.

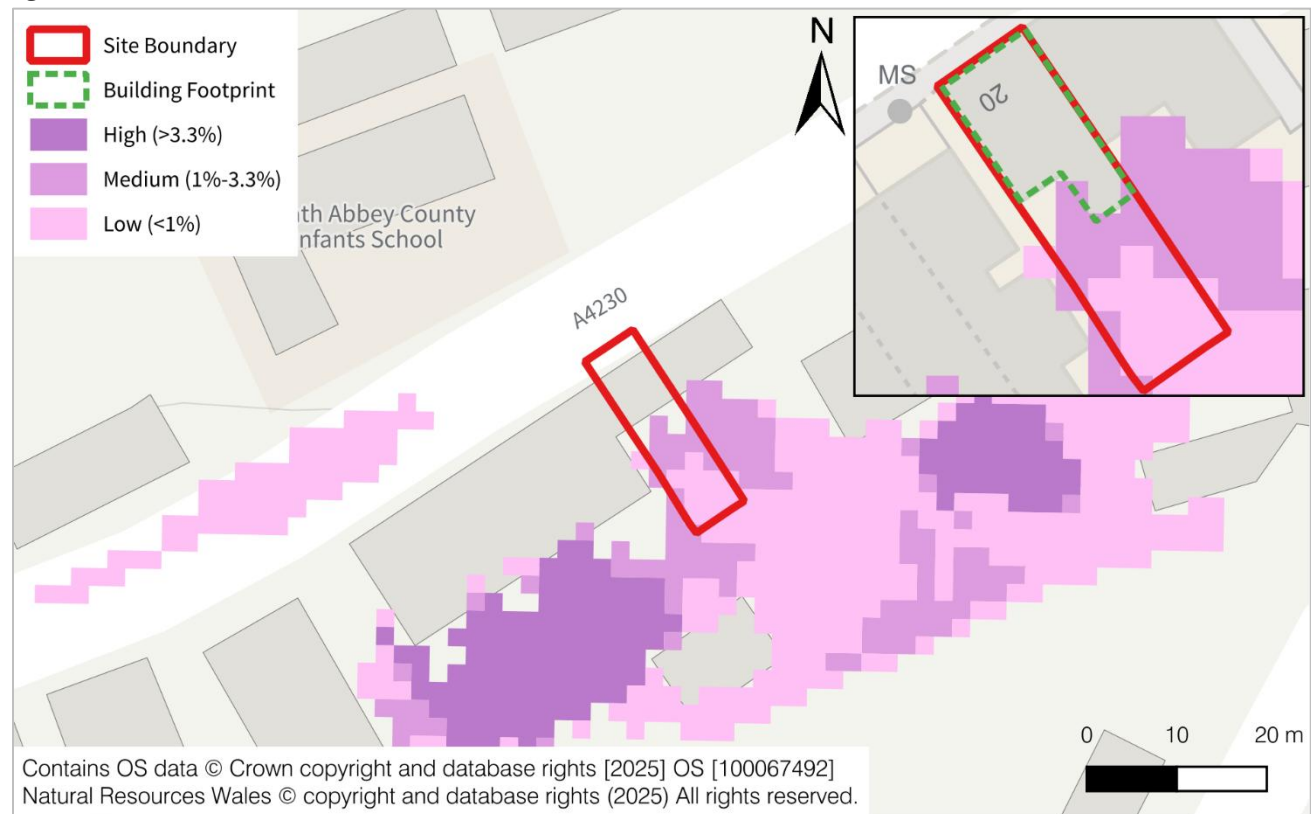


When interpreting the surface water flood map information, it needs to be taken into account that surface water mapping is generated from information that is largely high-level. The flood mapping must be correctly interpreted in order to give a fair representation of the site's surface water flood risk and used only as a guide.

NRW Flood Mapping

The NRW FRAW (Surface Water and Small Watercourses) (Figure 11) indicates that the site is predominantly within an area at low (<1% AEP) risk of flooding from surface water and small watercourses. There are areas at medium risk (1%-3.3% AEP) of flooding shown to encroach on the footprint of the building; however, this is not projected to extend into the building footprint.

Figure 11 - NRW FCAW (Surface Water and Small Watercourses)



The NRW FMFP (Surface Water and Small Watercourses) (Figure 12) indicates the site is located within Flood Zone 3, which is defined as an area with greater than 1.0% AEP of flooding occurring in a given year, accounting for the impact of climate change. This is shown to encroach on the rear elevation of the building; however, this is not projected to impact the building internally.



Figure 12 - NRW FMFP (Surface Water and Small Watercourses)



NRW National Flood Hazard and Risk Map

Whilst the NRW FRAW and FMFP (Surface Water and/or Small Watercourses) mapping shows the extent of any projected flooding, there are no depths maps associated with either dataset. The most recent dataset which shows projected depths of surface water flooding is the National Flood Hazard and Risk Maps (2019), including the 3.3% AEP, 1% AEP and 0.1% AEP rainfall events, based on models of surface water catchment areas.

The site is not shown to be at risk of flooding during a high probability event (Figure 13). During a medium probability event (Figure 14), surface water flooding to depths 0.15m to 0.3m is projected to encroach on the rear elevation of the building. Additionally, there is an isolated area of surface water flooding of depths 0.3m to 0.9m projected to encroach on the northwestern corner of the building. During a low probability event (Figure 15), surface water flooding to depths 0.3m to 0.9m is projected adjacent to the southern elevation, with an isolated area of depths exceeding 0.9m shown to the west of the southern elevation of the building.

The projected surface water flooding is shown to be associated with the area of lower topography the site is within.



Figure 13 - Surface Water flood depths in meters (high probability)



Figure 14 - Surface Water flood depths in meters (medium probability)

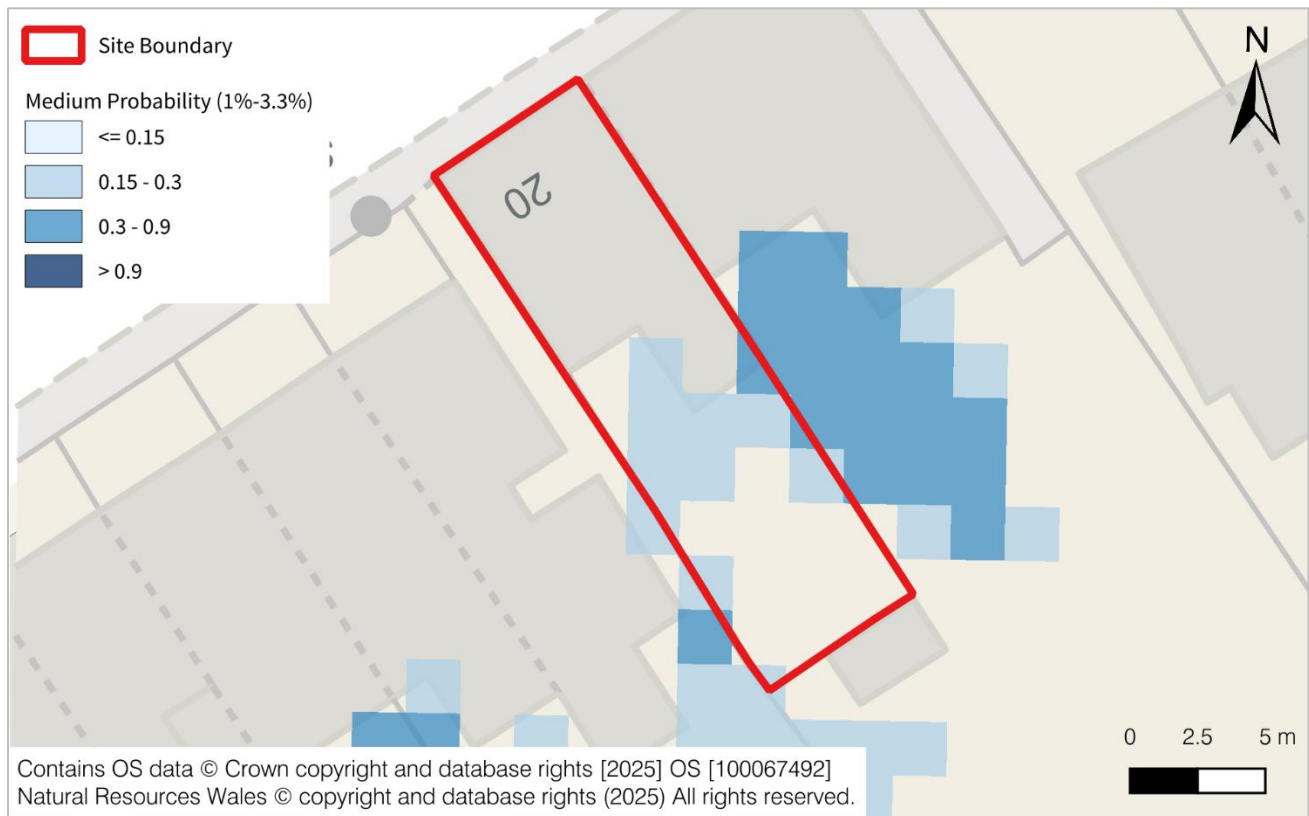
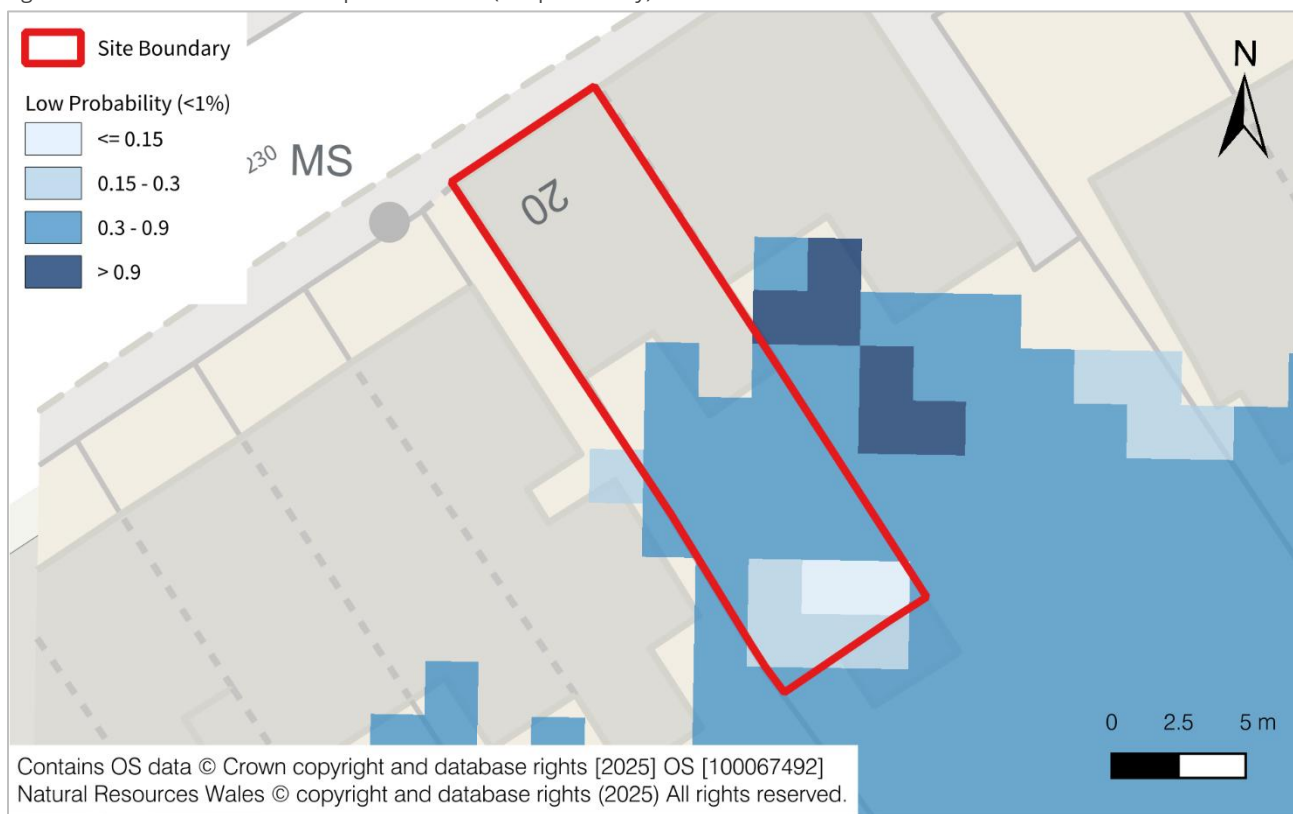




Figure 15 - Surface Water flood depths in meters (low probability)



Surface Water Risk Summary

The site is shown to be located within an area at risk of surface water flooding now and in future scenarios when accounting for climate change. Depths of 0.15m to 0.3m are projected to encroach on the rear elevation of the building during a medium probability event. The risk of surface water flooding is therefore moderate. The risk may be lower when accounting for the boundary wall that is present externally at lower ground floor level. Further considerations are included in Section 4 in order to mitigate against this risk designation in the long-term.

3.4 Groundwater

Flooding from a groundwater source often occurs during or following a period of prolonged wet weather within areas that are low lying underlain by permeable rocks (aquifers). When aquifers are at their maximum holding potential, flooding at surface level can occur from beneath the ground.

Groundwater as a sole flooding mechanism is often regarded as low risk as it often relies on a coinciding rainfall, or flood event from an additional source to become a flood risk. The main contributory factor that will enhance the risk of groundwater flooding, is prolonged periods of high rainfall, which result in the groundwater saturation level rising to the point where it reaches the surface.

Online BGS mapping shows the bedrock geology beneath the site to be the Swansea Member, comprising of sandstone. This is defined as a 'Secondary A' aquifer. Secondary aquifers include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage. Secondary aquifers are subdivided into two types. 'Secondary A' aquifers are defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.



The bedrock is overlain by Devensian Till, comprising of diamicton. This is defined as a 'Unproductive' aquifer. These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

The nearest borehole record (Ref. SS79NW180) with the same underlying geology containing groundwater information is located approximately 15m north-east of the site location, which has a depth of approximately 2.7m below ground level (bgl). Groundwater was not encountered within the borehole record.

It is stated within the PFRA (2018) that there are very few areas in Wales susceptible to groundwater flooding, with any flooding likely to occur as a result of disused mine-workings.

Groundwater Summary

The risk of groundwater flooding affecting the site is considered low. No further consideration is deemed necessary as part of this FCA.

3.5 Artificial Sources

Flood risk from artificial sources would include the failure of man-made drainage or water supply network. Although the likelihood of such an occurrence is highly unpredictable, it is recommended that during construction that the location of any existing below ground services is taken into account, to avoid any inadvertent flooding taking place during the construction phase and in the future.

Upon review of the relevant online documents discussed in Section 2.5 of this report, it was indicated that there have been no reportable instances of historic sewer flooding located at or within the vicinity of the site.

Artificial Sources Summary

The risk of flooding from artificial sources affecting the site is low. Further considerations are included in Section 4 in order to maintain the low risk designation in the long-term.

3.6 Reservoir Failure

Assessment of risk of a reservoir failure may be interpreted as the extent of flooding that would occur, should any reservoir that has a capacity larger than 25,000m³, suffer a catastrophic failure. Mapping of this nature is described by NRW as a very worst-case scenario, with a flood event of this type being extremely unlikely to occur.

The NRW Risk of Flooding from Reservoir Failure mapping (Figure 16) shows that the site is located outside of a reservoir failure extent. The nearest reservoir failure extent is located 415m to the south of the site, attributed to the Ystradfellte Reservoir. Current legislation ensures that reservoirs are inspected regularly, and essential safety work is carried out as required.



Figure 16 - NRW Risk of Flooding from Reservoir Failure



Reservoir Failure Summary

Current legislation states all reservoirs are inspected regularly and the likelihood of failure occurring is considered to be low. Furthermore, the site is not located within the reservoir failure extent and no further consideration is deemed necessary as part of this FCA.

3.7 Summary

Table 3 provides a summary of the classification of risk to the site from all flood sources and indicates where further considerations are required in the context of the proposed development.

Table 3 - Flood Risk Summary

Flood Source	Overall Risk Classification	Additional Considerations
Fluvial	Present-day: Low to Moderate Future: Moderate to High	See Section 4.
Tidal	Negligible	None.
Surface Water	Moderate	See Section 4.
Groundwater	Low	None.
Artificial Sources	Low	See Section 4.
Reservoir Failure	Low	None.



4 Flood Risk in Planning Context

This report has so far evaluated all potential flood risk sources that may affect the site. The following sections describe the identified flood risks in the context of designing out any residual risk to comply with updated Welsh Government TAN15 Guidance, published and adopted on the 31st of March 2025. Recommendations are provided, where required, for the mitigation or reduction of those risks to enable safe development and comply with the local and national guidance.

4.1 TAN15 – Vulnerability to Flooding

As the proposed use of the building is the same as the existing (residential), the development remains classed as a 'highly vulnerable' according to Section 9 of TAN15.

The proposed conversion of the existing dwelling into a HMO is classed as '**redevelopment**' and TAN15 guidance states any proposal will need to be compatible with the tolerable conditions set out in Section 11 of TAN15 and exhibit resilient flood design as described in Section 13 of TAN15.

To decrease the vulnerability of the development to flooding and for there to be minimal risk to life from flooding, there is to be no sleeping accommodation on the lower ground floor. This is an improvement on the current vulnerability, as it is understood that sleeping accommodation is currently provided on the lower ground floor level (Existing Floor Plans, Appendix A). As such, all sleeping accommodation (at ground floor level or above) is elevated above the modelled flood levels for the 1% AEP + 20% CC and 0.1% AEP events and also assumed to be above the equivalent 0.1% +CC flood level.

4.2 TAN15 – Acceptability of Flood Consequences

As per Section 11.7 of TAN15, a **new** development is required to remain flood free during the 1% AEP + CC% event. However, as stated in Section 11.8 of TAN15, this threshold may be applied with more flexibility as the proposal comprises the **redevelopment** of an existing residential building and in this circumstance, the thresholds set out in Figure 5 of TAN15 can be used as a guide only.

Section 11.9 of TAN15 states there is recognition that it may not be possible to keep all development flood-free during an extreme (0.1% AEP + CC%) flood event. It needs to be demonstrated that conditions within the development during an extreme (0.1% AEP + CC%) event will be tolerable and the development does not flood to depths exceeding 0.6m. It is further stated in Section 11.12 of TAN15 that the thresholds as stated above are at which a **new** development is deemed acceptable, and each site must be considered individually in the context of the circumstances which could prevail at the specific site.

During the modelled 1% AEP + 20% CC event, flooding to maximum depths of 0.7m are projected adjacent to the southern (rear) elevation of the building. During the modelled 0.1% AEP event, a maximum depth of 1.7m is projected adjacent to the southern elevation.

Section 11.5 of TAN15 indicates that an FCA (such as this report), should establish if suitable avoidance and mitigation measures can be incorporated to ensure the development is safe and there is minimal risk to life and damage to property. Such mitigation measures which can be incorporated into the proposed conversion of the single dwelling into a HMO are discussed below. This will ensure the safety of the occupants and enhance the



resilience of the building should flood waters from fluvial or surface flood sources encroach on the rear elevation at lower ground floor level.

4.3 Design Principles for Development

It is recommended that, based on the current proposals, the following design principles should be incorporated to demonstrate its long-term resilience to fluvial and surface water flood risk. This follows a hierarchical approach considering floor level, external ground levels and Property Flood Resilience (PFR).

Development Levels

There are no proposed changes to the existing Finished Floor Level (FFL) of the development.

Flood Resilience & Resistance

The following recommendations are made to enhance the flood resilience of the building and accelerate recoverability following any localised fluvial or surface water flooding;

- Replace lower ground floor rear door with a flood resistant door, designed to prevent water ingress. Alternatively, a demountable flood barrier could be implemented;
- Replace single window located at lower ground floor level (rear side) with flood resistant alternative, designed to prevent water ingress during flood conditions;
- Install internal sump and pump system at the lower ground floor level;
- Seal all pipe/cable entry points up to and including ground floor level with a waterproof sealant;
- Install Non-Return Valves (NRV's) on all foul drainage outlets;
- Ensure all external walls up to ground floor level are repointed and resealed where any cracks in the brickwork or mortar are identified and are additionally treated with a waterproof sealant (if appropriate) to stop ingress of any potential flood waters;
- Replace all identified weep vents and airbricks up to ground floor level with flood resilient one-way weep vents and airbricks;
- Incorporate flood resilient flooring into the design at lower ground floor level;
- Raise all electrics and sockets at lower ground level as high as possible and any electrics should be wired from the ceiling down; and,
- Drainage systems should be routinely maintained and cleared.

Upon review of street level imagery, a wall has been identified at the rear of the building. This should also be inspected for cracks in brick work and mortar and where necessary, these should also be repointed and resealed. Furthermore, this should also be treated with a waterproof sealant which would add a level of further protection to the building should flood waters encroach or accumulate at the rear of the building.

A structural surveyor should be consulted prior to the implementation of any building level flood resistance options.

4.4 Impact on Flooding Elsewhere

As the proposed development comprises internal changes only, the building footprint shall remain as existing and therefore there will be no impact on flooding elsewhere. There is no change to hardstanding or impermeable areas proposed and as such, the redevelopment of the existing dwelling will not increase or alter the risk of surface water flooding.



4.5 Safe Access and Egress

The proposed development comprises the conversion of the existing dwelling to a HMO. Access and egress shall therefore continue to be via the existing external entrances on the ground floor (front and rear), in addition to a rear door at lower ground floor level.

The ground floor entrance steps onto the A4230 to the north is not at risk of flooding in all modelled return periods, now and in future. It is recommended that a Flood Management and Evacuation Plan should be implemented, informed by the NRW Flood Warning Service. The site is located within a Flood Alert Area (102WAFF18 – NRW South-West).

It is recommended that future occupants of the HMO sign up for the NRW Flood Warning Service⁵. Should there be a requirement to evacuate, this should be followed as per the wider Flood Management and Evacuation Plan for the building. Safe access and egress is achievable via the A4230 to the north of the site, which is shown in Figure 10 to remain flood free during the 1% AEP + CC% and the 0.1% AEP + CC% events and during high, medium and low probability surface water flood events.

⁵ <https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/?lang=en#:~:text=The%20service%20is%20free.&text=Or%20you%20can%20sign%20up,Type%20talk%3A%200345%20602%206340>



5 Conclusion

This FCA has been produced in support of a planning application for the proposed conversion of a single dwelling into a HMO, to ensure compliance with Welsh Government and Planning Policy Wales guidelines. The site has been assessed for flood risk from a variety of flood sources, concluding the pre-mitigation level of risk of present-day fluvial flooding is low to moderate and the risk when accounting for future climate change is moderate to high. The risk of flooding from surface water is moderate and the risk of flooding from tidal, groundwater, artificial sources and reservoir failure is low.

The development is currently utilised as a residential building and is therefore classified as 'highly vulnerable'. It is proposed that the residential use will be maintained and as such, the building will remain classified as 'highly vulnerable'. However, it should be noted, in order to reduce the vulnerability of the development, no sleeping accommodation shall be located on the lower ground floor. The sleeping accommodation on the ground floor is not indicated to be at risk of flooding. As the proposal classes as a 'redevelopment', the guidance and flooding thresholds as stated in Section 11 of TAN15 should be considered with flexibility.

There are no changes proposed to the internal floor levels which will remain as existing. Section 4.2 has outlined key design principles to enhance the flood resilience of the building.

This report therefore demonstrates that by incorporating the recommended key design principles, the proposed conversion from a single dwelling into a HMO:

- Is suitable in the location proposed and will be adequately flood resistant and resilient;
- Is unlikely to place additional persons at risk of flooding (it shall actually decrease the vulnerability at lower ground floor level), and will offer a safe means of access and egress; and,
- Is unlikely to increase flood risk elsewhere as a result of the proposed development through the loss of floodplain storage, impedance of flood flows or increase in surface water runoff.

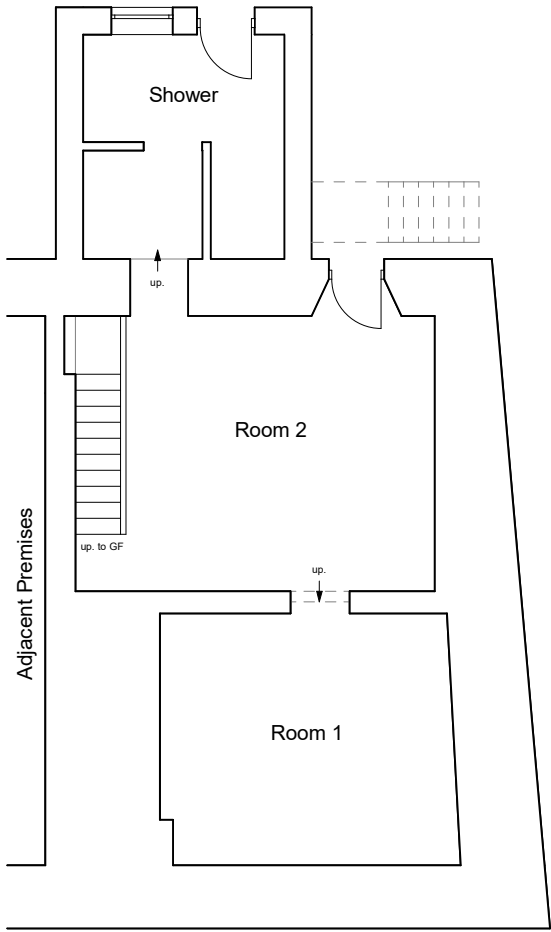


Appendix A

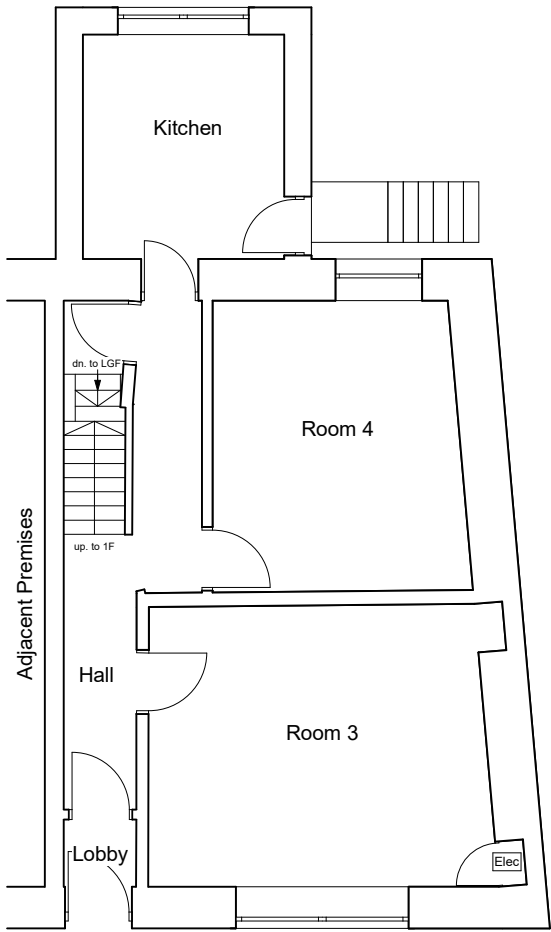
Existing and Proposed Plans



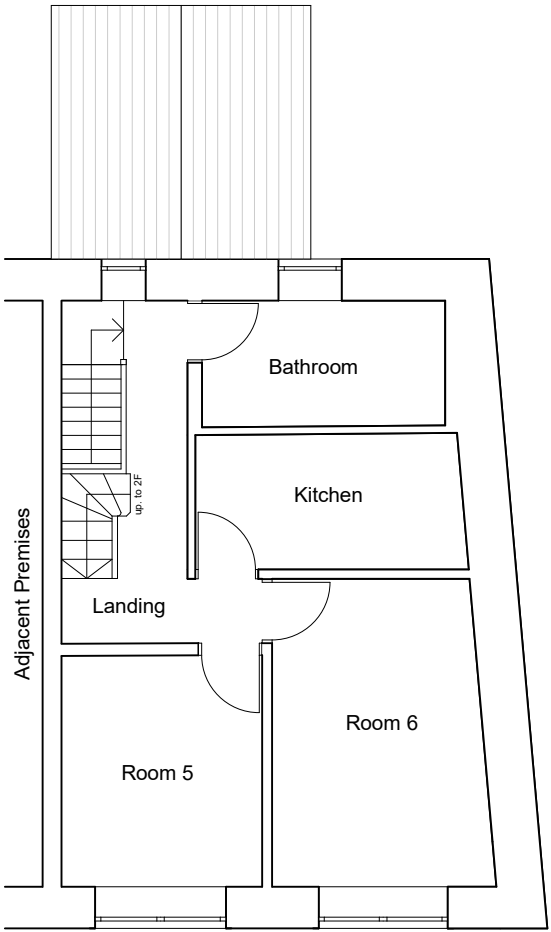
NO.	NOTES
1	All dimensions in millimetres unless otherwise stated.
2	Do not scale off drawing. All dimensions to be checked on site by contractor.
3	Drawings to be used for purposes of Planning Application only.
4	These are not Construction Drawings.
5	The contractor is to set out, check and co-ordinate all dimensions on site during the course of works.



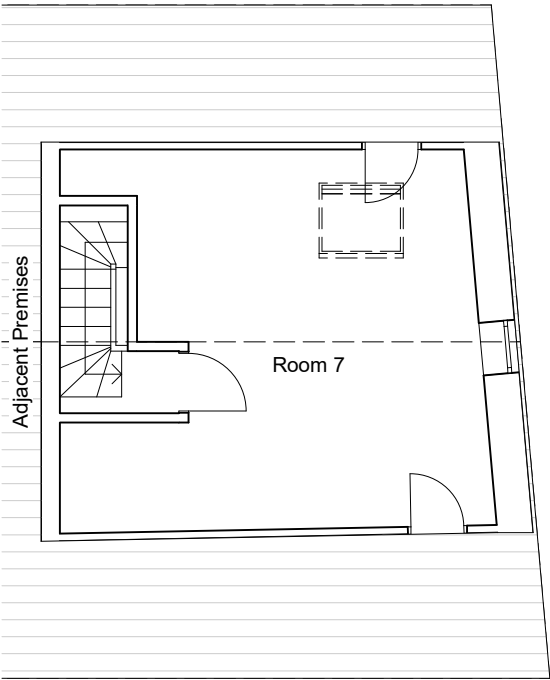
EXISTING LOWER GROUND FLOOR



EXISTING GROUND FLOOR



EXISTING FIRST FLOOR



EXISTING SECOND FLOOR



SCALE 1:100

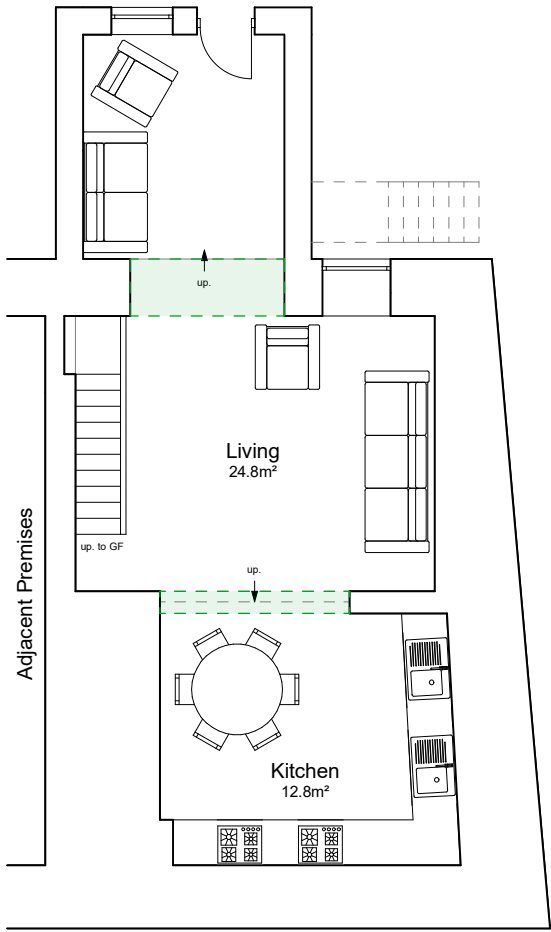


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1	All dimensions in millimetres unless otherwise stated.
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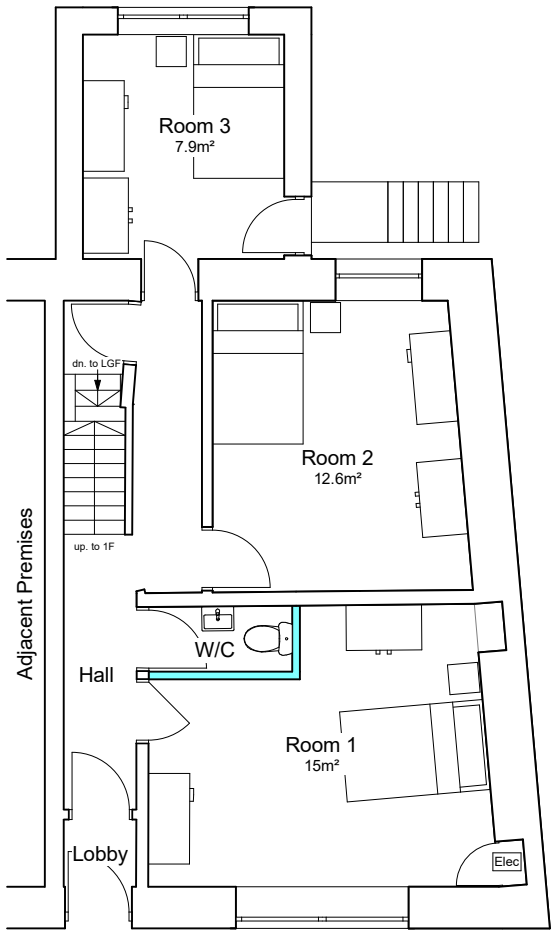
- Existing Walls
- Proposed Walls
- Existing Walls/Doors to be blocked up
- Proposed beams (in accordance with engineers details)

Room Sizes

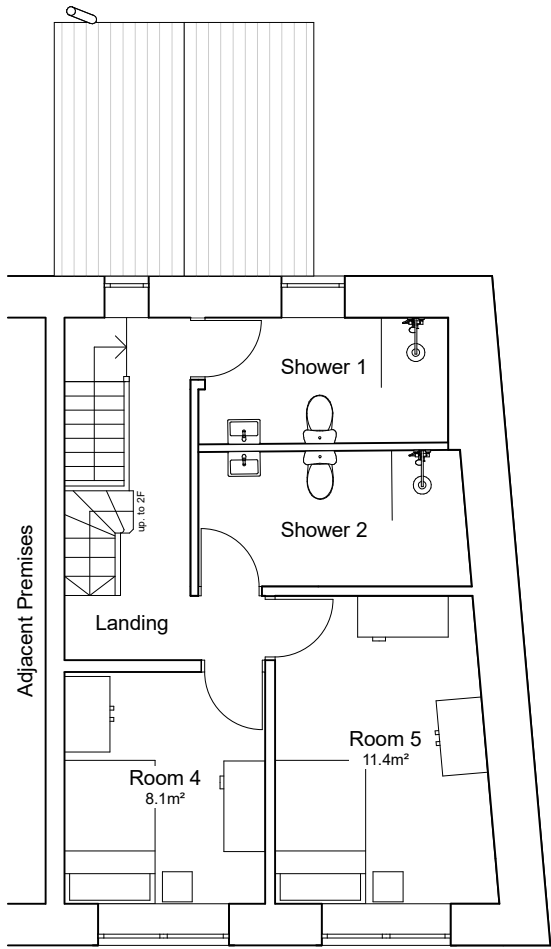
- 2 No. single bed occupancy
 - Room 3 = 7.9m², Room 4 = 8.1m²
- 4 No. double bed occupancy
 - Room 1 = 15m², Room 2 = 12.6m², Room 5 11.4m², Room 6 = 10.5m²
- 2 No. bathrooms
 - 1 No. W/C
 - 1 No. Utility
- 1 No. Living Area - 24.8m²
- 1 No. Kitchen - 12.8m²



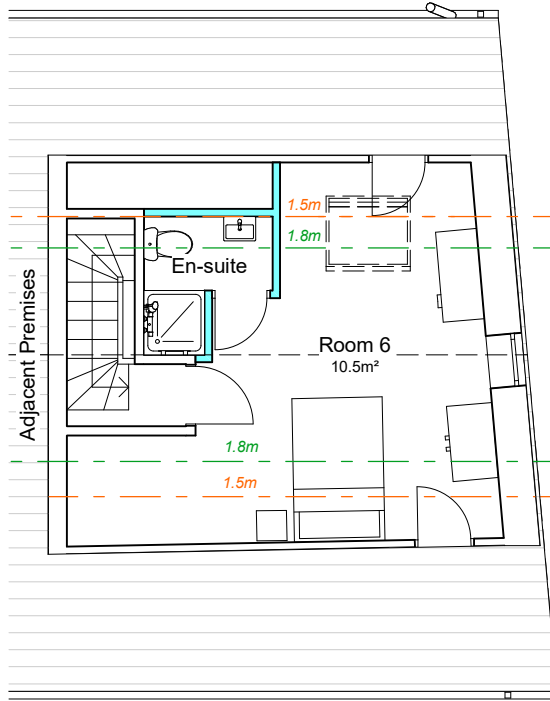
PROPOSED LOWER GROUND FLOOR



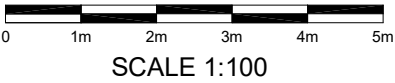
PROPOSED GROUND FLOOR



PROPOSED FIRST FLOOR



PROPOSED SECOND FLOOR



DRAFT
Option 3

REVISIONS:

SHEET TITLE:

Proposed Floor Plans

PROJECT DESCRIPTION:

PROJECT: HMO
SITE: 20 New Road, Neath Abbey SA10 7NH
CLIENT: James Black

MOBILE: 07505 210 952
EMAIL: artiumplanning@icloud.com

DATE:

January 2026

SCALE:

1:100

SHEET:

A-3



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