

Neath RAFA Club Flood Consequences Assessment

Version 1

April 2025

Prepared for:

Ty Newydd Construction Ltd

Unit 2

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NEATH

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This report describes work commissioned by Ty Newydd Construction Ltd, by an instruction dated 6th February. The Client's representative for the contract was Richard Thomas of Ty Newydd Construction Ltd. Hannah Booth of JBA Consulting carried out this work.

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1 Introduction

1.1 Terms of Reference

JBA Consulting were commissioned by Ty Newydd Construction Ltd to undertake a Flood Consequences Assessment (FCA) for the refurbishment of the former Neath RAFA Club at Adastral House, 16 London Road, Neath. This FCA demonstrates the suitability of the proposed development and describes the flood mitigation measures recommended to manage flood risk at the site.

1.2 FCA Requirements

This FCA follows the Welsh Government guidance on development and flood risk set out in the Technical Advice Note 15: Development, Flood Risk and Coastal Erosion (TAN-15). TAN-15 states that:

'The prime objective of a Flood Consequences Assessment is to develop a full appreciation of:

- The risks and consequences of flooding on the development; and
- The risk and consequences (i.e the overall impacts) of the development on flood risk elsewhere.'

To achieve this, the FCA should establish if suitable avoidance and mitigation measures can be incorporated, in a manner compatible with the placemaking aims of Planning Policy Wales, within the site design to ensure that development is safe and there is:

- Minimal risk to life;
- Minimal disruption to people living and working in the area;
- Minimal potential damage to property; and
- Minimal disruption to the sustainable management of natural resources.

2 Site Description

2.1 Site Summary

The refurbishment site is located at the former Neath RAFA Club at 16 London Road, Neath. The site is comprised of the existing Adastral House in the centre of the site with associated parking in the eastern and western extents. The building is accessed by a door along The Ropewalk to its northern elevation, and by a pedestrian ramp on the western elevation.

The site is located a predominantly residential area of Neath and is bound to the north by The Ropewalk, commercial and residential development, to the east by London Road and residential development, and to the south and west by commercial development.

Further information on the site is provided in Table 2-1.

Table 2-1 Site Summary

Parameter	Description
Site Name	Neath RAFA Club
Site area	0.06ha
Existing land use	Social Club
Purpose of development	Residential Development
OS NGR	SS 75302 97244
Local Planning Authorities	Neath Port Talbot Council
Lead Local Flood Authority	Neath Port Talbot Council



Figure 2-1 Site Location

2.2 Site Topography

Figure 2-2 shows Natural Resources Wales (NRW) Light Detection and Ranging (LiDAR) data, which provides details of the site topography. A topographic survey of the site was not available at the time of writing.

Due to the post processing and scale of the LiDAR, it is not possible to estimate the Finished Floor Level (FFL) of the building from the LiDAR, though the ground levels within the car parks and surrounding area can be determined. Ground level in the western car park is estimated at 9.83mAOD, whilst in the eastern car park the ground level is approximately 11.0mAOD. Ground level on The Ropewalk, at the entrance to the building on its northern elevation is 10.64mAOD.

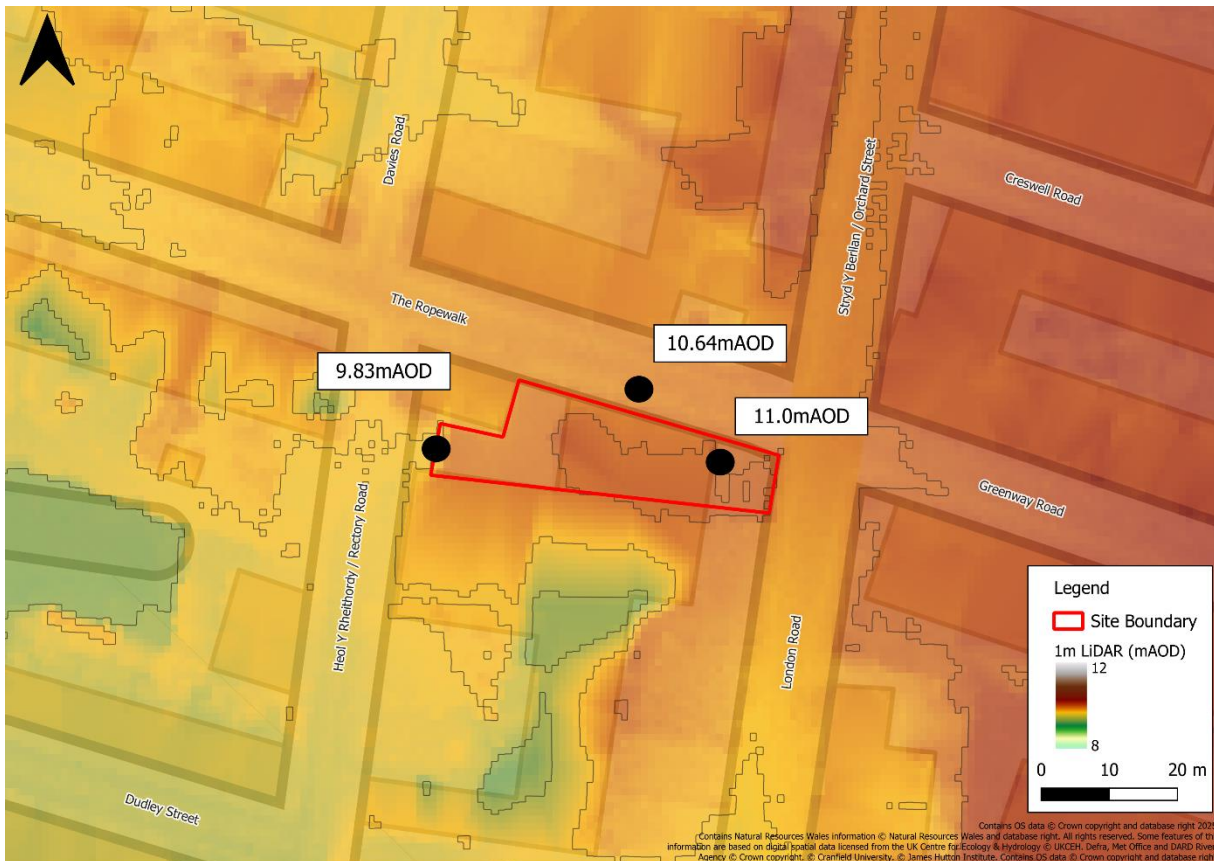


Figure 2-2 Site Topography

2.3 Soils and Geology

The geology of the site has been assessed using the BGS Geoindex¹. The bedrock geology is shown to be Hughes Member comprised of siltstone and sandstone. Superficial deposits are Glaciofluvial sheet deposits comprised of sand and gravel.

The soils on the site have been assessed using the Cranfield University Soilsclapes Viewer² and is comprised of slowly permeable seasonally wet acid loamy and clayey soils.

2.4 Watercourses and flood defences

Figure 2-3 shows the locations of the nearest NRW Main Rivers and ordinary watercourses in the vicinity of the site.

The River Neath, an NRW designated Main River, is located 460m west of the site.

Two ordinary watercourses are located in close proximity to the site. These are the Gnoll Brook, located 360m east of the site, and the Cryddan Brook, located 780m south of the site. The Gnoll Brook flows in open channel until it flows into a culvert (the Neath Interceptor) to the south of Woodland Road. The culvert conveys flows towards the River

¹ <https://www.bgs.ac.uk/map-viewers/geoindex-onshore/>

² <https://www.landis.org.uk/soilsclapes/>

Neath. The Cryddan Brook flows predominantly in an open channel, with small areas along its course culverted, before its confluence with the River Neath.

The Neath Canal is located 370m west of the site and is owned and managed by the Neath and Tennant Canals Trust.

There are no flood defences present along the watercourses near the site, and the site does not benefit from the presence of any flood defences.

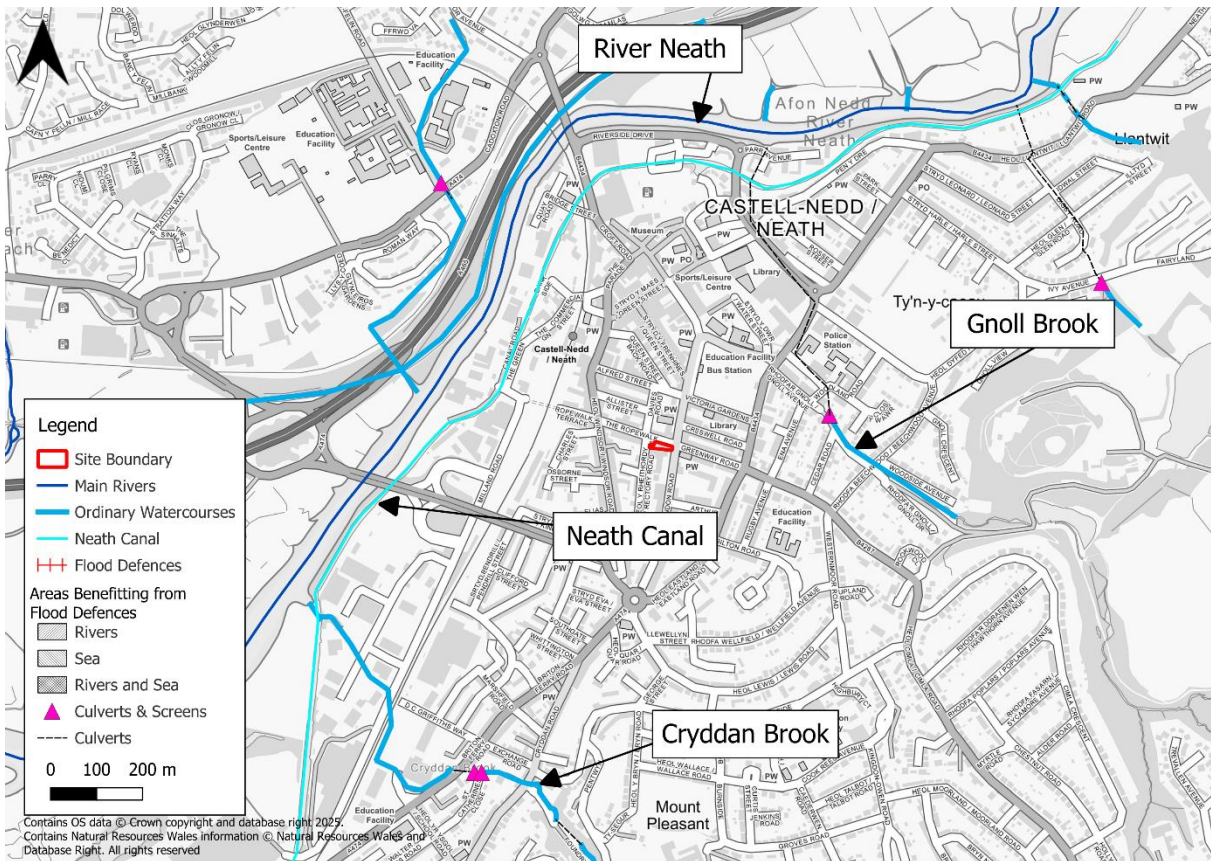


Figure 2-3 Watercourses and flood defences

2.5 Development Proposal

Development proposals include the refurbishment of the building for residential use. Whilst some vertical extensions are proposed to increase floor space on the upper stories, no increase in the building footprint is proposed, and no changes in ground level are proposed within the car parks within the site.

Proposals also include amendments to the northern elevation with the existing door moved to the west of its current position. This change in entrance location does not result in a change to the internal Finished Floor Level of the existing building.

Plans showing the development proposals are provided in Figure 2-4 and Appendix A.

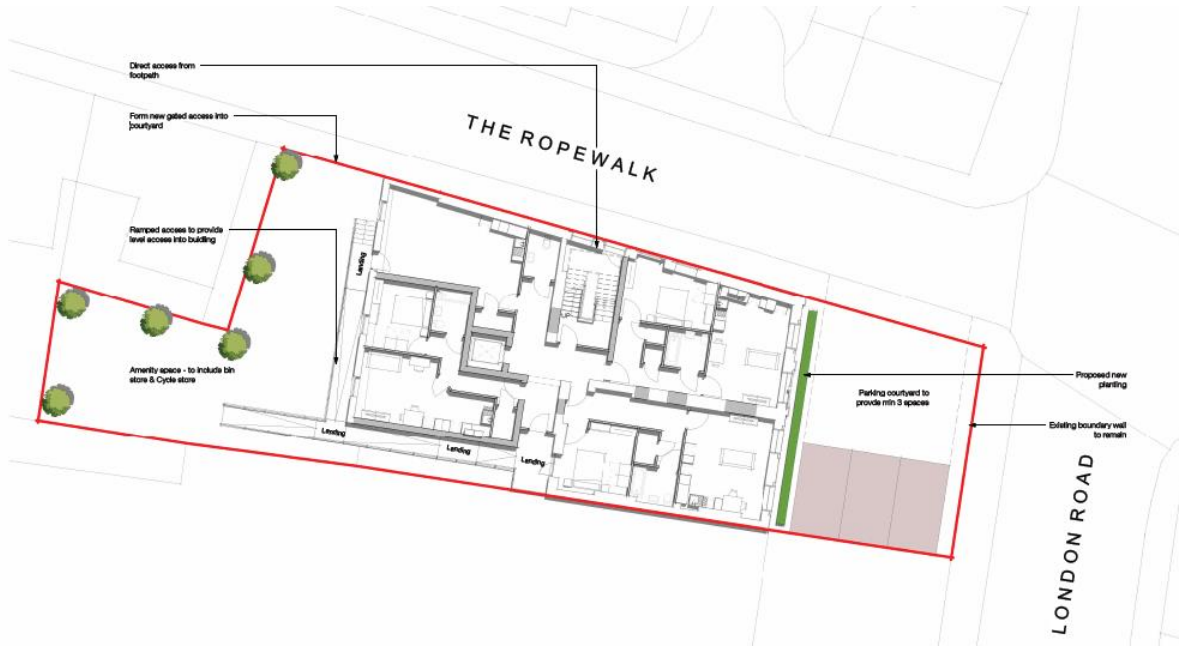


Figure 2-4 Proposed refurbishment plan

3 Planning Policy and Flood Risk

3.1 Planning Context

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which, together with PPW, provide the national planning policy framework for Wales. These policies aim to make all development in Wales is sustainable and improve the social, economic, environmental, and cultural wellbeing of Wales as set out in the Wellbeing of Future Generations Act 2015.

Technical Advice Note 15 (TAN-15), originally introduced by the Welsh Government in 2004 and most recently updated in March 2025, provides technical guidance relating to development planning and flood risk in Wales. TAN-15 provides a framework within which the flood risks arising from rivers, the sea and surface water, and the risk of coastal erosion can be assessed. The approach set out in the most recent update to TAN-15 ensures flooding and coastal erosion are accorded appropriate consideration in plan making and development management decisions.

3.2 Form of Development

TAN-15 recognises two key forms of development: New development and Redevelopment. The definition of both terms is provided in Table 3-1.

Table 3-1 Form of Development

Form of Development	Definition
New Development	Any Development on greenfield land
Redevelopment	Any Development on previously developed land as defined in Planning Policy Wales

As detailed in Section 2.5, development proposals are for the refurbishment of the RAFA Club building. As such, the proposed development is classified as **Redevelopment**.

3.3 Vulnerability Classification

TAN-15 assigns one of three flood risk vulnerability classifications to developments, as shown in Table 3-2. The proposed development is for residential use and is consequently classified as **Highly Vulnerable Development**.

Table 3-2 TAN-15 Vulnerability Classification

Development category	
Highly vulnerable development	All residential premises (including hotels, Gypsy and Traveller sites, caravan parks and camping sites). Schools and childcare establishments, colleges and universities. Hospitals and GP surgeries. Especially vulnerable industrial development (e.g. power generating and distribution elements of power stations, transformers, chemical plants, incinerators), and waste disposal sites. Emergency services, including ambulance stations, fire stations, police stations, command centres, and emergency depots. Buildings used to provide emergency shelter in time of flood.
Less vulnerable development	General industrial, employment, commercial and retail development. Transport and utilities infrastructure. Car parks. Mineral extraction sites and associated processing facilities (excluding waste disposal sites). Public buildings including libraries, community centres and leisure centres (excluding those identified as in Highly Vulnerable category and emergency shelters). Places of worship. Cemeteries. Equipped play areas. Renewable energy generation facilities (excluding hydro generation).
Water Compatible Development	Boatyards, marinas and essential works required at mooring basins. Development associated with canals. Flood defences and management infrastructure. Open spaces (excluding equipped play areas). Hydro renewable energy generation.

3.4 Flood Map for Planning

The Flood Map for Planning (FMfP) is the starting point for consideration of flood risk. The map uses flood zones to indicate the degree to which land is at risk of flooding from rivers,

the sea, surface water and small watercourses. The main zones are Zone 1, Zone 2, Zone 3 and the Defended Zone. The FMfP displays predicted future flood risk with an allowance made for climate change over a 100 year lifetime of development.

3.4.1 Flood Map for Planning - Rivers

The refurbishment site is partially within Flood Zone 3 of the Flood Map for Planning for Rivers, as shown in Figure 3-1.

Flood Zone 3 shows areas with a 1% chance or greater of flooding occurring in any given year, including an allowance for climate change.

The presence of the site within the Flood Zone 3 triggers the requirement for an FCA.

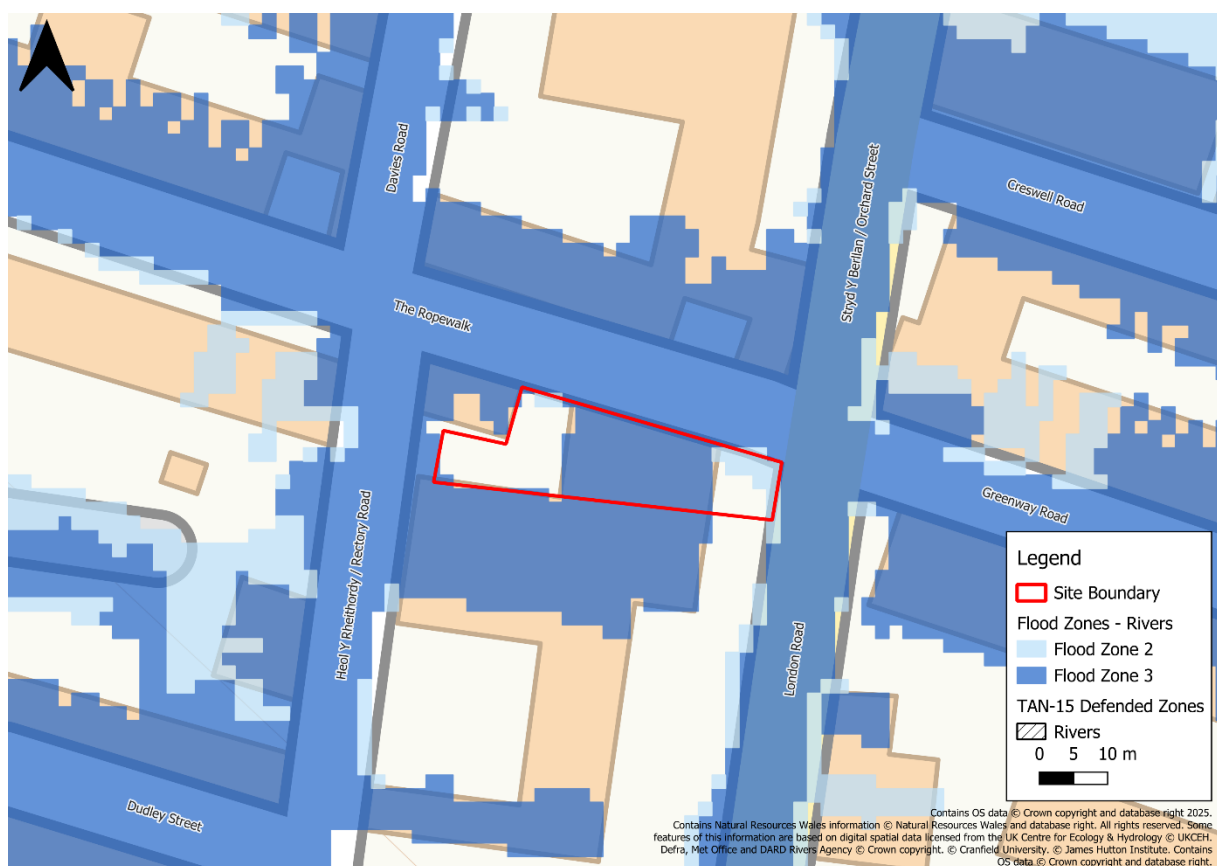


Figure 3-1 Flood Map for Planning- Rivers

3.4.2 Flood Map for Planning - Sea

The entire site is located within Flood Zone 1 of the Flood Map for Planning for the Sea. This area is shown as transparent in the Flood Map for Planning and has not been represented graphically. Flood Zone 1 represents areas that have less than a 0.1% AEP chance of flooding in a given year, including climate change.

All forms of development are suitable within Flood Zone 1.

3.4.3 Flood Map for Planning - Surface Water

The refurbishment site is within Flood Zone 1 of the Flood Map for Planning for Surface Water and Small Watercourses, as shown in Figure 3-2. The surface water flood map does encroach into the north-eastern corner of the site. However, this is as a result of modelling artefacts due to the nature of broadscale modelling, model grid size and the overlays with the OS mapping used to inform the figures. It is consequently considered that the surface water flood extent should be associated with the highways only, resulting in the site being located entirely within Flood Zone 1.

All forms of development are suitable within Flood Zone 1.

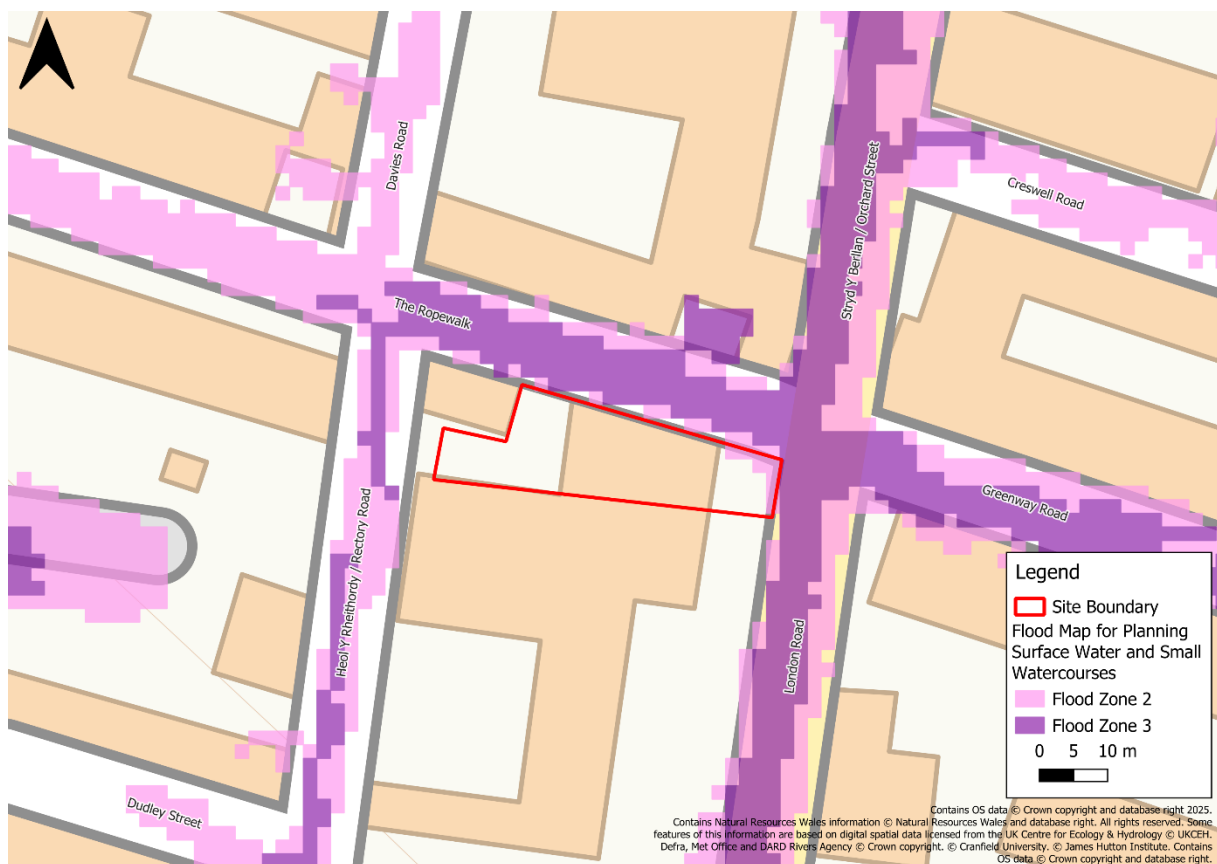


Figure 3-2 Flood Map for Planning- Surface Water and Small Watercourses

3.5 Neath Port Talbot Council Local Development Plan

The Local Development Plan³ is a land use document in which Neath Port Talbot County Borough Council sets out its land use development aspirations for a 20-year period. The current LDP was adopted in 2016 and expires in 2026 with work already begun on the development of the new LDP.

³

https://api.npt.gov.uk/asset?url=https%3A%2F%2Fmedia.npt.gov.uk%2Fmedia%2Fca2fbumd%2Fldp_written_statement_jan16.pdf%3Fv%3D20240823155047

Policy SP7 of the LDP states Neath Port Talbot County Borough Council's intention '*to deliver the 7,800 new dwellings required to meet the economic-led growth strategy, provision will be made for the development of 8,760 additional dwellings between 2011-2026 including a 12.31% flexibility allowance*'. The proposed development at this site would aid Neath Port Talbot County Borough Council's objective of meeting this housing need.

Policy SC1 Infrastructure of the LDP states '*Development within settlement limits that is proportionate in scale and form to the role and function of the settlement as set out in the Settlement Hierarchy will be acceptable in principle*'. The proposed refurbishment site is situated in the centre of the Neath and contributes to the provision of housing in an already established settlement, which is identified as a key settlement in the LDP.

4 Flood Risk Assessment

4.1 Review of Existing Flood Risk Data

This section has been completed using publicly available information only, including the NRW Flood Risk Assessment Wales (FRAW) dataset. It should be noted that the FRAW data set does not include an allowance for climate change. Datasets or modelling with an allowance added for climate change will need to be considered where required.

Table 4-1 below provides a summary of the flood risk to the site from all sources of risk.

Table 4-1 Summary of Flood Risk

Source of Flooding	Onsite Presence	Description
Flood Risk from Rivers	✓	Very Low - Located in an area of high and very low risk of flooding. Further assessment undertaken in Section 5 has shown the risk is very low.
Flood Risk from the Sea	✗	Very Low - Located in an area of very low risk of flooding from the Sea.
Flood Risk from Surface Water and Small Watercourses	✗	Very Low - Located in an area of very low risk of surface water or small watercourse flooding.
Flood Risk from Groundwater	✗	Low - It has been documented that groundwater flood risk in Neath is low
Flood Risk from Reservoirs	✗	Very Low - The risk of reservoir failure is very low
Flood Risk from Sewers	✗	Low - Limited information available, with the current location of sewers unknown.

4.2 Historical Flooding

NRW's map of recorded flood extents does not show any evidence of historic flooding on the site.

Neath Port Talbot Flood Risk Management Plan⁴ recorded flood incidents occurring within close proximity to this site. It was unclear as to whether any flooding had occurred at the site within Flood Risk Management Strategy⁵ due to the scale of mapping presented. However, there is no known history of flooding at the site at the time of writing.

⁴ <https://media.npt.gov.uk/media/xubbj4xn/floodriskmanagementplan15-1.pdf?v=20250117154447>

⁵ https://media.npt.gov.uk/media/m0llscgr/lfrms_npt_local_flood_risk_management_strategy-1.pdf?v=20250117154447

4.3 Flood Risk from Rivers

The site is predominantly at **high risk** of flooding from rivers, according to NRW's Flood Risk Assessment Wales (FRAW) Flood Risk from Rivers map, as shown in Figure 4-1. Areas at high risk have a greater than 1 in 30 year (3.3% AEP) risk of flooding. As shown in Figure 4-2, flooding occurs from the Gnoll Brook and the Cryddan Brook to the east of the redevelopment site.

To assess the impact of climate change on the risk of fluvial flooding, further assessment has been undertaken in Section 5.

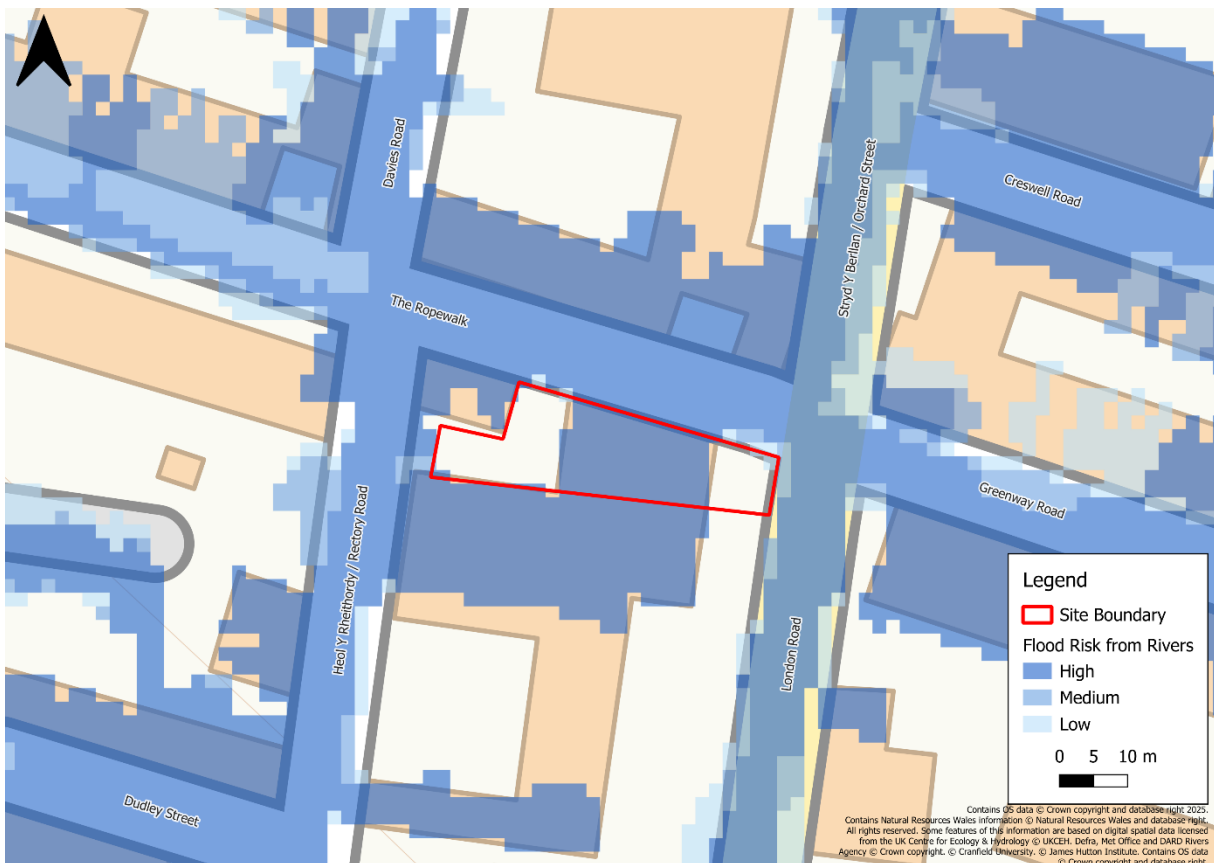


Figure 4-1 FRAW - Flood Risk from the Rivers

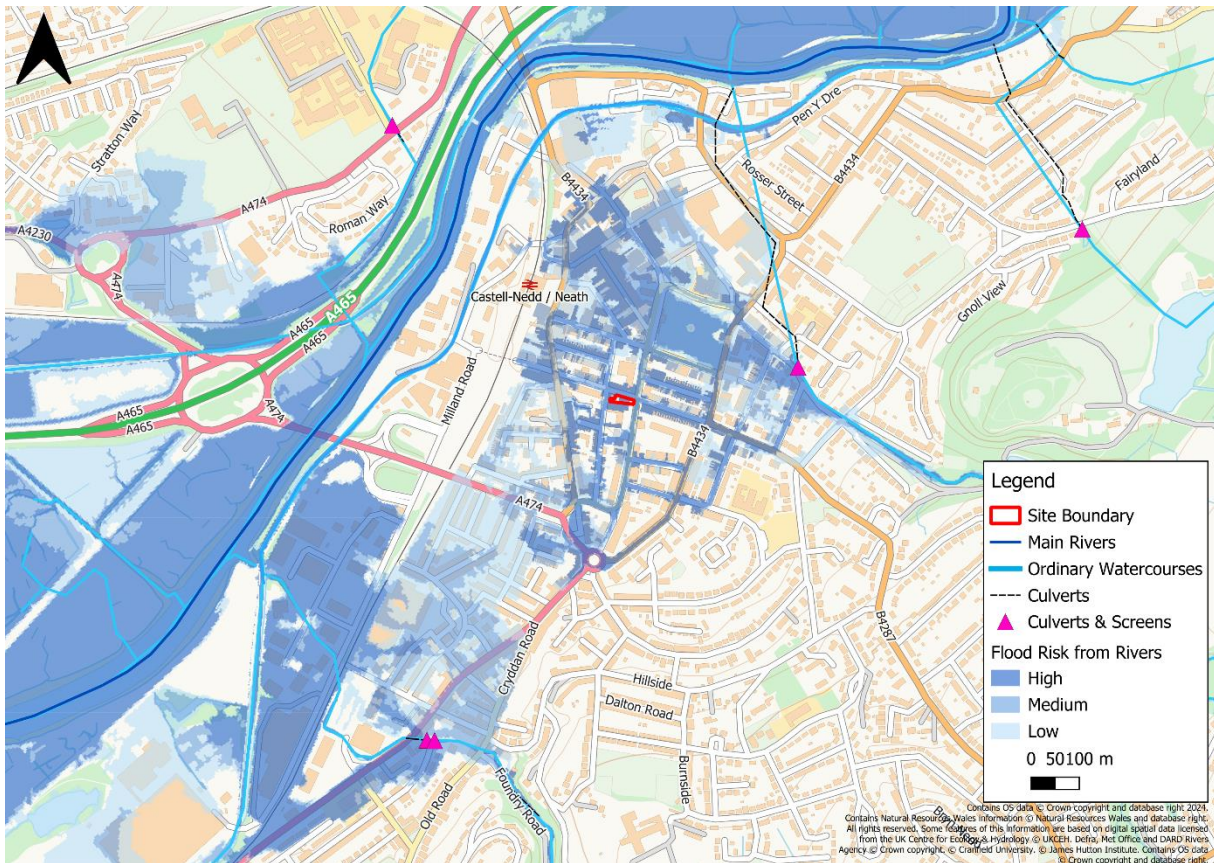


Figure 4-2 FRAW - Flood Risk from the Rivers- wider view

4.4 Flood Risk from the Sea

The site is at **very low risk** of flooding from the Sea according to NRW's FRAW Flood Risk from the Sea map. This means there is less than a 0.1% AEP chance of flooding from this source in any given year.

4.5 Flood Risk from Surface Water and Small Watercourses

The NRW FRAW flood risk from Surface Water and Small Watercourses mapping shows that the proposed refurbishment site is at **very low risk** of flooding, shown as transparent on the map and indicates areas which have a less than 1 in 1000 (<0.1% AEP) chance of flooding in any given year.



Figure 4-3 FRAW - Flood Risk from Surface Water and Small Watercourses

4.6 Flood Risk from Groundwater

Groundwater flooding is caused by unusually high groundwater levels. It occurs as excess water emerges at the ground surface or within manmade structures such as basements. Groundwater flooding tends to be more persistent than surface water flooding, in some cases lasting for weeks or months, and can result in damage to property. This risk of groundwater flooding depends on the nature of the geological strata underlying the site and the local topography.

Neath Port Talbot Flood Risk Management Plan (FRMP) identified no records of historic groundwater flooding at the site.

It can therefore be concluded that the risk of groundwater flooding at the site is **low**.

4.7 Flood Risk from Reservoirs

The NRW FRAW Flood Risk from Reservoirs map illustrates that the proposed refurbishment site is at **very low risk** of reservoir flooding.

4.8 Flood Risk from Sewers

The Neath Port Talbot Flood Risk Management Plan⁶ and Flood Risk Management Strategy⁷ suggests there is no evidence of historic sewer flooding at the site. The FRMP concluded that flooding from sewers does not have significant consequences at a strategic scale. Therefore, it is concluded that there is a **low risk** of flooding at the site

⁶ <https://media.npt.gov.uk/media/xubbj4xn/floodriskmanagementplan15-1.pdf?v=20250117154447>

⁷ https://media.npt.gov.uk/media/m0llscgr/lfrms_npt_local_flood_risk_management_strategy-1.pdf?v=20250117154447

5 Detailed Fluvial Flood Risk Assessment

As identified in Section 4, the predominant source of flood risk to the redevelopment site is from fluvial sources. To better understand the risk of fluvial flooding posed to the site and the potential implications of climate change, further assessment is provided in this section.

Detailed hydraulic modelling has been used to provide an assessment of flood risk from the River Neath. This model includes the representation of the River Neath and its tributaries but does not include the Gnoll Brook or the Cryddan Brook. Therefore, the NRW National Flood Hazard Mapping (NFHM) has been used to provide a further assessment of flooding from these watercourses.

5.1 River Neath

5.1.1 Hydraulic Modelling Availability

The model was originally developed by JBA Consulting for a flood mapping study on behalf of NRW in 2017. The model has since been updated in 2021 to support the Aberdulais Business Justification Case (BJC) which considered additional climate change scenarios.

The results from this study have been used unamended to support the assessment of flood risk to the site from the River Neath, including allowances for climate change.

5.1.2 Model Results

During both the 1% AEP plus climate change event, and the 0.1% AEP plus climate change event, the proposed refurbishment site is flood-free, as shown in Figure 5-1 and 5-2.

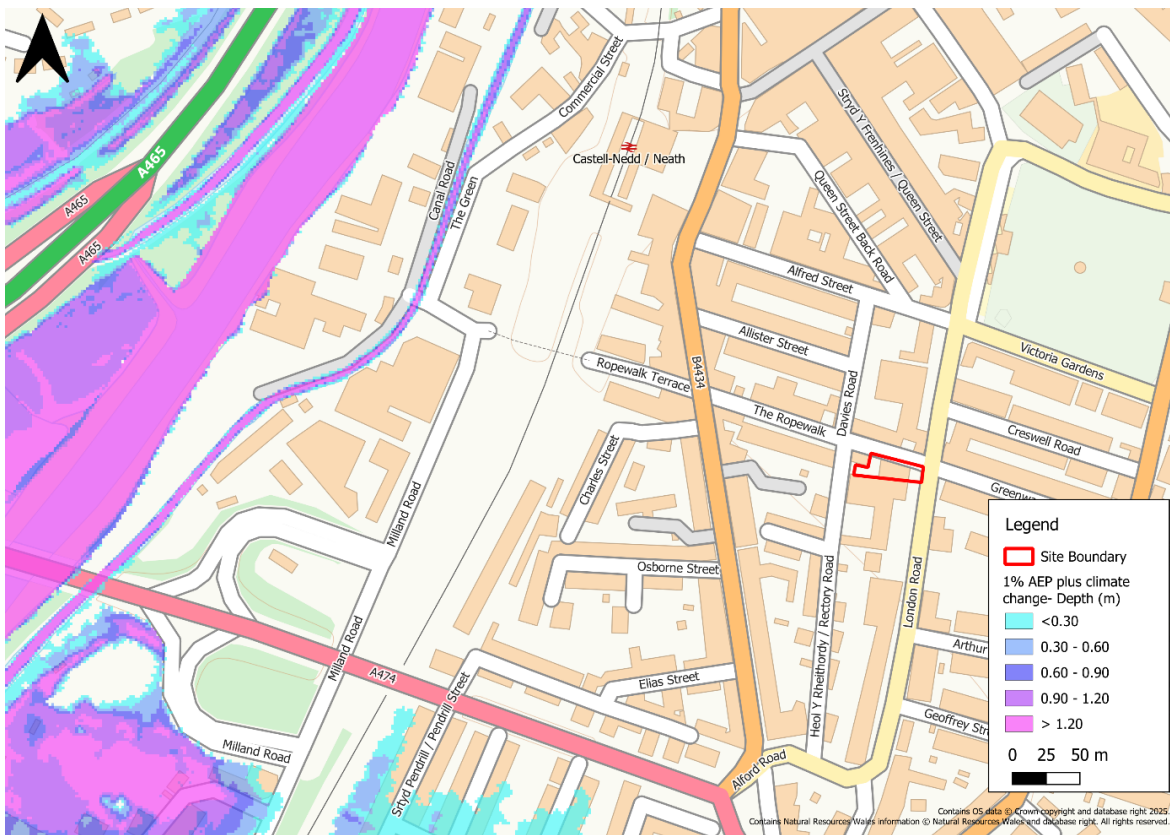


Figure 5-1 1% AEP plus climate change- Flood Depths

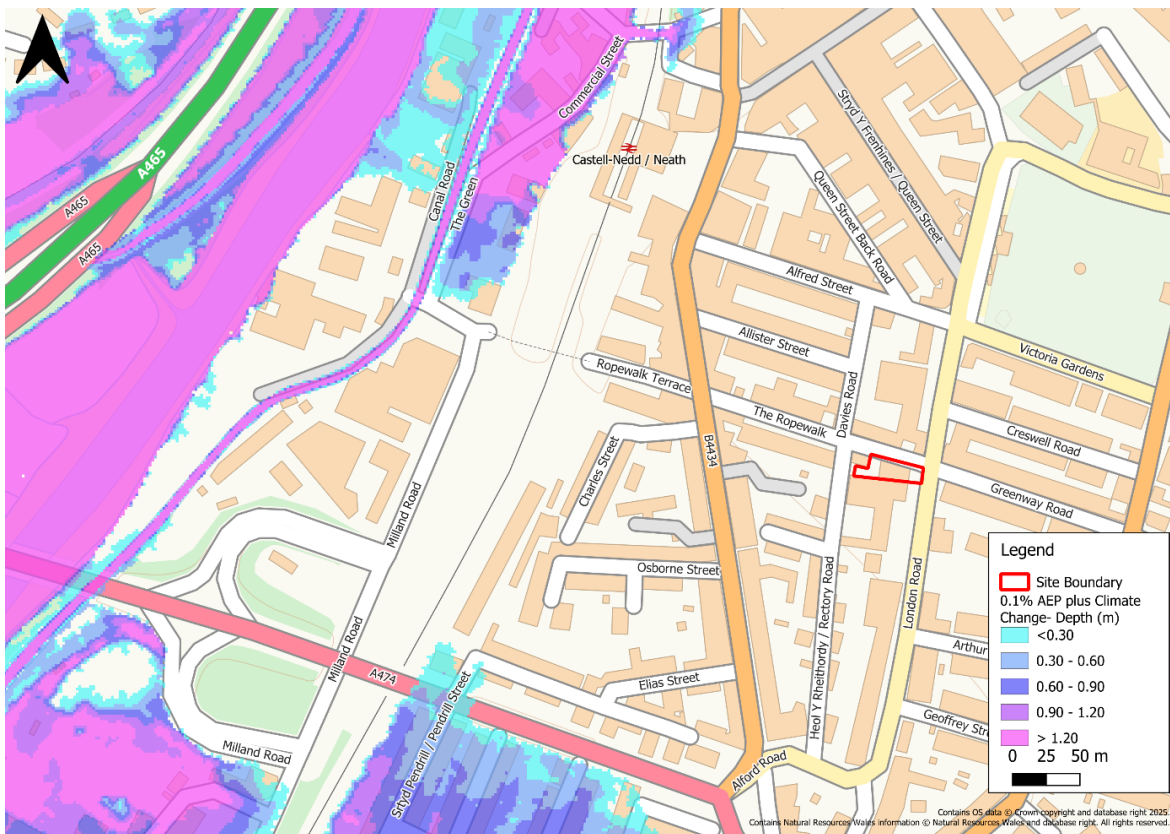


Figure 5-2 0.1% AEP plus climate change- Flood Depths

5.2 Gnoll Brook

The predominant source of fluvial flood risk to the proposed redevelopment site is from the Gnoll Brook. As shown in Figure 4-1, FRAW data indicates that the existing building has a high risk of flooding, equating to a greater than 1 in 30 year (3.3% AEP) chance of flooding each year. The FRAW dataset is comprised of broadscale modelling which involves an element of post-processing of the data. This post-processing involves updates to the model to show flood risk to a building where the dataset demonstrates flooding within the adjacent highway. This is a precautionary approach to management of the dataset and does not consider actual flood levels, or site specific topographic data such as FFLs. Consequently, additional analysis of the flood mechanisms and depths in the vicinity of the site has been undertaken.

The site is predominantly at risk of flooding associated with the Gnoll Brook. The FRAW dataset is based on broadscale mapping, utilising standard best practice approaches and a blanket approach to structures and channel characteristics where no local data exists or has been provided to inform the dataset. This can sometimes lead to an overestimation of flood risk where key structures have not been specified within the broadscale modelling undertaken to inform the FRAW dataset.

The Gnoll Brook is conveyed to the River Neath by the Neath Interceptor north-east of the redevelopment site. Data received from the Lead Local Flood Authority (LLFA) indicates that the Neath Interceptor is comprised of a combination of a 2m dia culvert and a twin barrell 1m dia culvert for the entirety of its length from Woodland Road, to its outfall into the River Neath. Long-sections of the culvert also indicate the presence of steep sections and cascade features along the length of the Neath Interceptor. Due to the complex nature of this structure, it is considered unlikely that this has been represented accurately within the FRAW dataset.

This is further supported by a review of the flood mechanisms associated with the FRAW flood extent. The FRAW flood extent indicates that flooding predominantly occurs as a result of capacity exceedance at Woodland Road and the entrance to the Neath Interceptor, in all design events. Given the known culvert dimensions and indicative capacities as a result, it is considered unlikely that this would occur at the frequency to which the FRAW data suggests. The LLFA have confirmed that they believe the culvert has sufficient capacity to convey the 1% AEP event, with historical flood events associated with the Gnoll Brook arising as a result of channel exceedance following blockage of the culvert and/or upstream trash screens. The FRAW dataset is therefore likely to present a precautionary approach to flood risk, representing blockage scenarios to the Neath Interceptor.

The FRAW dataset is supported by the NRW National Flood Hazard Mapping. This dataset contains predicted flood extents, depths and velocities for both the present day and climate change scenarios. The National Flood Hazard Mapping dataset does not contain the same post-processing features as the FRAW dataset and can therefore often be used to provide a more accurate prediction of flood risk where predicted flood depths are shallow, and no detailed models are available.

The National Flood Hazard Mapping has therefore been used to identify predicted flood extents and depths for both the 1% AEP plus climate change (medium risk), and 0.1% AEP plus climate change (low risk) flood events at the proposed redevelopment site, and are shown in Figures 5-3 and 5-4, respectively.

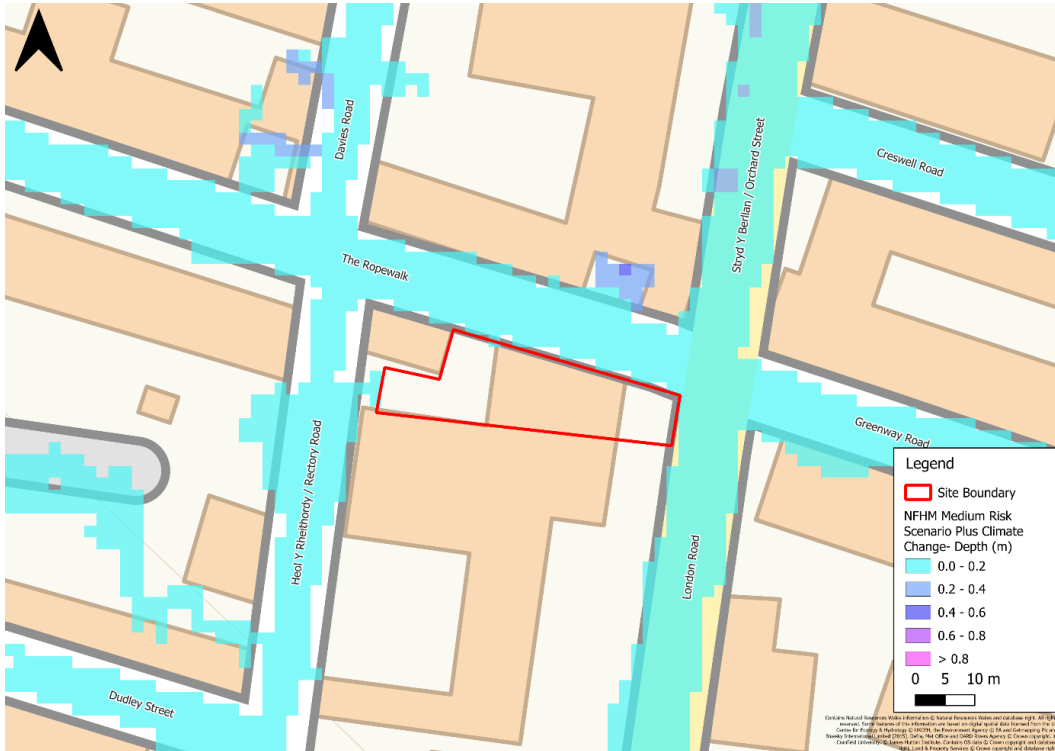


Figure 5-3 Flood Risk from Rivers- Medium Risk (incl climate change) - Flood depths



Figure 5-4 Flood Risk from Rivers- Low Risk (incl climate change) - Flood depths

During the 1% AEP plus climate change event, the proposed redevelopment site is predicted to be flood free, with all predicted flood waters retained on highways surrounding the site. The flood depth on The Ropewalk, at the location of the building entrance on its northern elevation, is 30mm. Whilst FFLs of the proposed redevelopment site have not been provided, a desktop review of the site using Google satellite imagery and Google Streetview indicates that the FFL is raised above local ground levels. The entrance via The Ropewalk is via two steps from the pavement into the property. This assumption is supported by the elevations provided by the project architect (contained in Appendix A) which indicate that ground floor level of the property is raised above local ground levels. Although the entrance to the northern elevation of the property is proposed to be moved, there will be no change in FFL as a result of this minor change. Given the shallow depth of flooding in this event, it is considered extremely unlikely that flood waters would encroach into the property during this flood event.

The flood extent is not predicted to encroach into the western car park, or towards the entrance on the western elevation.

It is therefore concluded that the proposed redevelopment site is flood free during the 1% AEP plus climate change event.

During the 0.1% AEP plus climate change event, the flood extent is predominantly retained within the highway. The flood depth on The Ropewalk, at the location of the building entrance on its northern elevation, is 90mm. As with the 1% AEP plus climate change event, it is extremely unlikely that flood waters shall ingress into the property as a result of the raised FFLs evidenced by the step up into the property.

Flooding is not predicted to occur outside the ramped entrance on the western elevation of the building.

In this event, the flood extent is shown to marginally encroach into the eastern car park to depths ranging from 10mm to 30mm. This predicted flooding occurs where site levels tie into surrounding highway levels to facilitate access into the car park. Given the shallow depths of flooding, this shall have a negligible impact on the redevelopment proposals.

It is therefore concluded that the proposed residential building shall be flood free in the 0.1% AEP plus climate change event, with extremely shallow flooding predicted to the eastern car park. This is within the tolerable conditions of Figure 6, Section 11 of TAN15.

6 Acceptability of Flood Consequences

Whether a development should proceed or not will depend upon whether the consequences of flooding can be safely managed, including its effects on flood risk elsewhere. TAN-15 sets out the key conditions that should be met to demonstrate that development is appropriate for its location.

6.1 Application of Flood Zones to Development Management Decisions

When considering a site for development, TAN-15 sets out the requirements for the form of development in any given flood zone.

For a proposed redevelopment site within Flood Zones 3 of the Flood Map for Planning for Rivers, Section 10.23 of TAN-15 states:

"Other proposals will only be appropriate if they are essential to the Development Plan Strategy to regenerate an existing settlement or achieve key economic or environmental objectives. Any redevelopment proposal must be consistent with the acceptability considerations in section 11. In addition, proposals which include residential development must ensure that such uses do not occur at ground floor level."

Whilst the proposed redevelopment site is located within Zone 3 of the Flood Map for Planning, the detailed analysis of flood risk to the site in Section 5 clearly demonstrates that the redevelopment proposals are predicted to be flood free in all design events. With the known methods for post-processing of the associated mapping products, it is considered that the location of the site within Flood Zone 3 is inaccurate and should be taken into consideration when applying the requirements of Section 10 of the new TAN.

As noted in Section 3.5, the development proposals contribute to SP7 of the LDP, providing additional residential premises within the key settlement of Neath. Policy SC1 outlines the LPA requirements to sustain existing key settlements, permitting developments which are proportionate to the scale and form of the settlement. This redevelopment proposal will result in the re-use and re-vitalisation of an existing structure within a well-established residential area of Neath, promoting development in sustainable locations and utilising existing infrastructure. It is also therefore concluded that the proposals do not result in an over intensification of use of the site.

Furthermore, the application of Section 10.23 of the TAN in its full written form is queried for redevelopment proposals which clearly demonstrate that residential sites are flood free in all design events. It does not make sense to strictly follow the wording of the TAN to prohibit development on the ground floor where these redevelopment proposals are predicted to be flood free. It is assumed that both NRW and the LPA will take a pragmatic approach to determining the acceptability of development in these locations.

Highly Vulnerable Development must be compliant with the tolerable conditions set out within Section 11 of TAN-15, which is demonstrated in Section 6.2.

6.2 Acceptability Criteria

The site has been assessed against the Acceptability Criteria of Section 11 of TAN-15, as shown in Table 6-1 below.

Table 6-1 Assessment of Acceptability Criteria

TAN-15 Acceptability Criteria	Comments	Achieved
No increase in flooding elsewhere.	As the development proposals are for refurbishment of an existing building, of which the footprint will remain unchanged, there will be no increase in flood risk to third parties.	Yes
Occupiers aware of flood risk	Occupiers of the building will be provided with information on the risk to the site in the form of this report.	Yes
Escape/evacuation routes present	Shallow flooding of less than 0.2m is present along The Ropewalk in both the 1% AEP plus climate change and 0.1% AEP plus climate change. This access remains unchanged from the existing access road. Flood depths are shallow and should allow residents to evacuate on foot and by vehicle if required.	Yes
Flood emergency plans and procedures agreed and in place	N/A - The proposed refurbishment building is predicted to be flood free in all events.	Yes
Flood resistant and resilient design	N/A - The site is shown to be flood-free for the duration of its lifetime.	Yes
Acceptable consequences for type of use	Detailed in Sections 6.2 to 6.4	Yes

6.2.1 Frequency thresholds: designing development to be flood free

The required design standard for new development is to be flood free during the 1% AEP fluvial event, plus an allowance for climate change over the lifetime of development. This threshold may be applied with more flexibility for redevelopment.

As per Section 5 of this report, the proposals meet this frequency threshold.

6.2.2 Tolerable conditions: managing consequences in an extreme flood event

The flood free thresholds relate to very serious but not extreme flood events. During extreme flood events there is recognition that it may not be possible to keep development flood-free. Figure 6 of TAN-15 provides indicative tolerable flood depth and velocity conditions for the 0.1% AEP event, including an allowance for climate change. Up to 600mm of flooding is considered tolerable within Highly Vulnerable Developments, and it is understood that some flexibility to this indicative value is afforded to redevelopment sites.

As per Section 5 of this report, the residential building is predicted to be flood free in the extreme event with very shallow flooding of up to 30mm to the eastern car park. This therefore complies with the tolerable conditions as outlined in Figure 6 of TAN-15.

7 Conclusions and Recommendations

JBA Consulting was commissioned by Ty Newydd Construction Ltd to undertake a FCA for the refurbishment of the former Neath RAFA Club at Adastral House, 16 London Road, Neath.

Development proposals include the refurbishment of the building for residential use. No increase in the building footprint or surrounding ground level is proposed.

The residential proposals are classified as highly vulnerable development under TAN-15.

The Flood Map for Planning shows the site to be located within Flood Zone 3 of the Flood Map for Planning for Rivers.

The site is at low risk of groundwater, sewer, and reservoir flooding and very low risk of surface water flooding.

The site is shown to be at High risk of fluvial flooding. However, a review of the NRW National Flood Hazard Mapping as well as information provided by Neath Port Talbot LLFA has indicated that the mapping is likely an overestimation of the flood risk to the site. A review of Google Street View Imagery has indicated that the building entrance points and car parking areas are likely to be significantly higher than the flood depths predicted in both the 1% AEP and 0.1% AEP events, both with an allowance for climate change, resulting in the residential building being flood free in all design events.

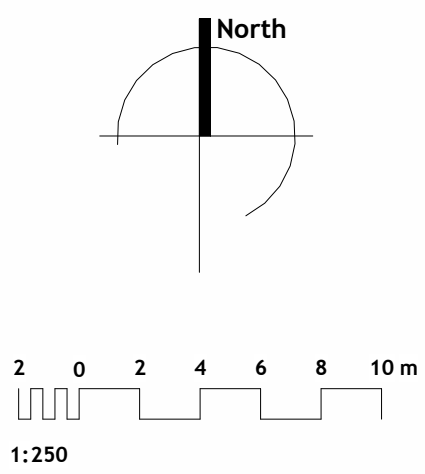
The proposals will result in the re-use and re-vitalisation of an existing structure within a well-established area of Neath, promoting development in sustainable locations and utilising existing infrastructure.

In conclusion, the FCA has found that in respect to flood risk, the proposed development meets the requirements set out in TAN-15 and the aims of Planning Policy Wales.

A Proposed Development Plans



Existing site layout
1 : 200



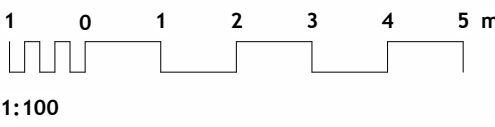
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Project	London Road, Neath
Project number	N596
Client	Owner
Title	Existing site layout
Drawing number	A002
Scale	1 : 200 at A1
Revision	
Status	PLANNING
Drawn	
Date	31.03.2025



Notes

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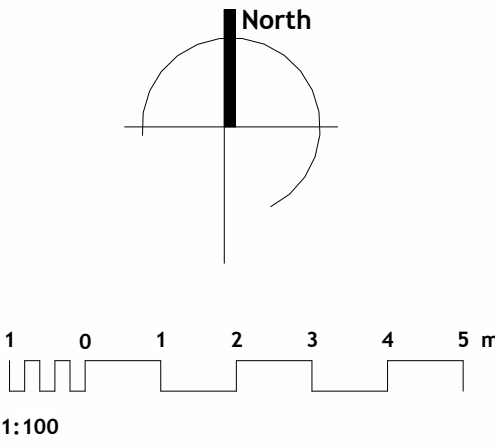
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Project	London Road, Neath
Project number	N596
Client	Owner
Title	Elevations as existing
Drawing number	A004
Scale	1 : 100 at A1
Revision	
Status	PLANNING
Drawn	
Date	03/31/25



Area Schedule (GIA)		
Name	Comments	Area
Plot 1	1b2p Apartment	55 m ²
Plot 2	1b2p Apartment	59 m ²
Plot 3	1b2p Apartment	49 m ²
Plot 4	1b2p Apartment	56 m ²
Plot 5	1b2p Apartment	59 m ²
Plot 6	1b2p Apartment	56 m ²
Plot 7	1b2p Apartment	60 m ²



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Project	London Road, Neath
Project number	N596
Client	Owner
Title	Proposed site layout
Drawing number	A005
Scale	1 : 100 at A1
Revision	
Status	PLANNING
Drawn	
Date	04/02/25

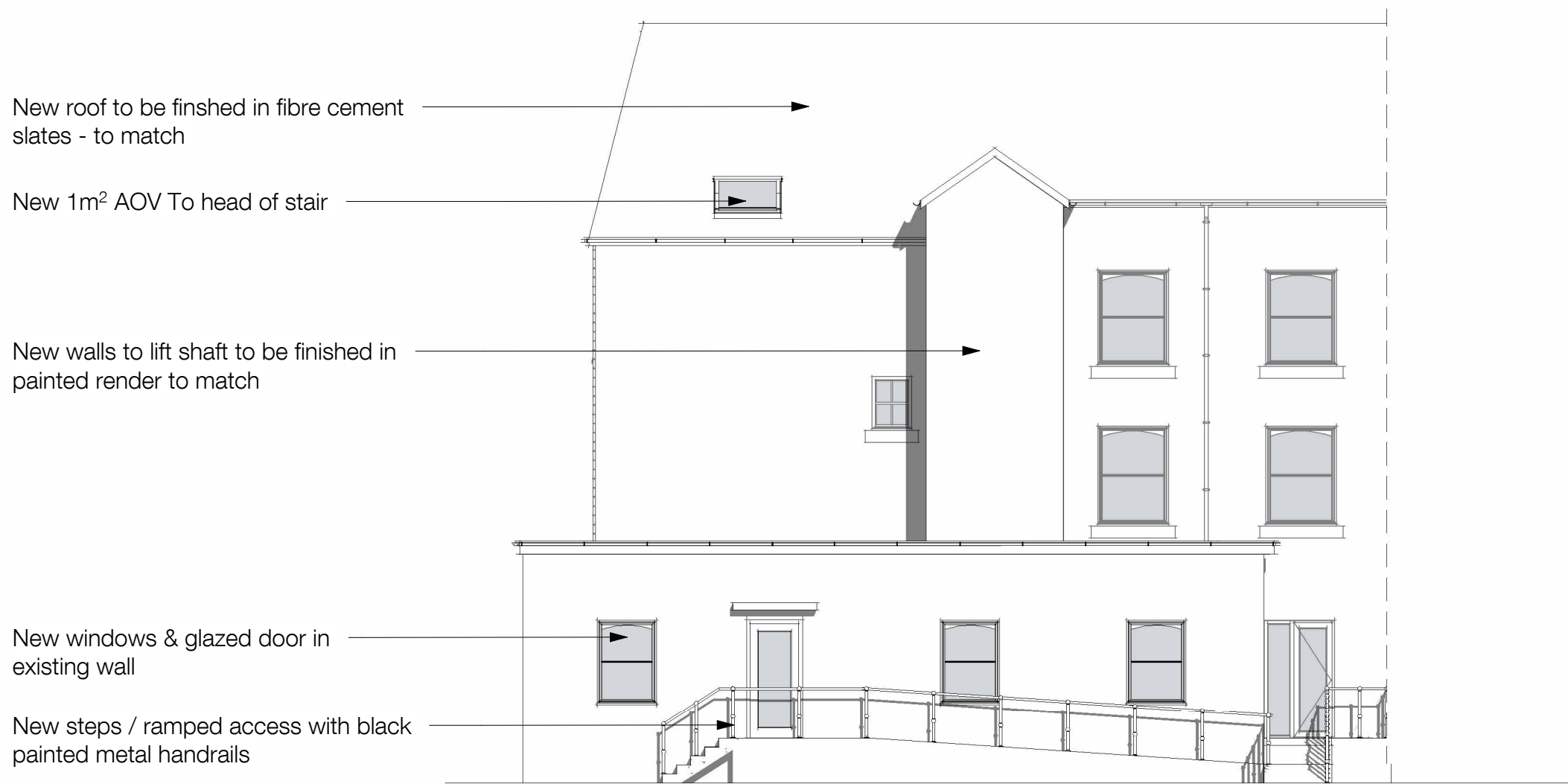
Proposed site layout
1 : 100



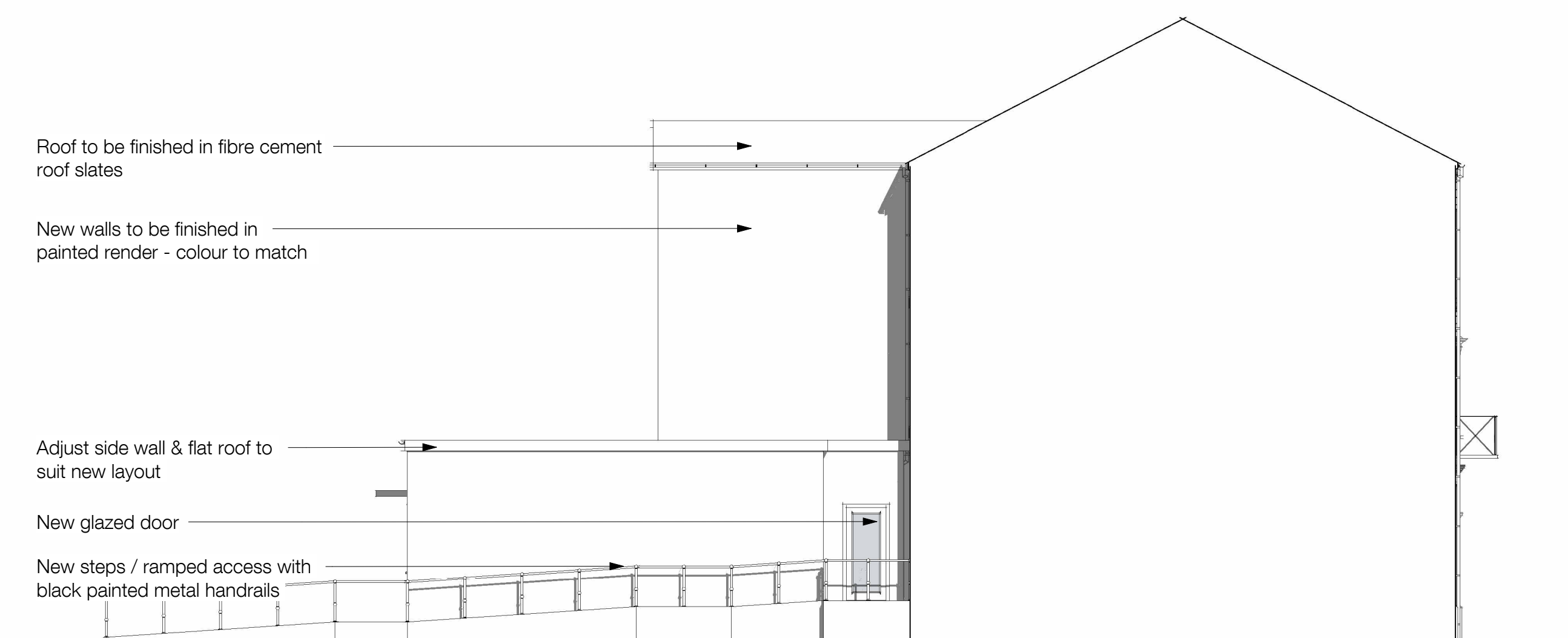
Proposed front elevation
1 : 100



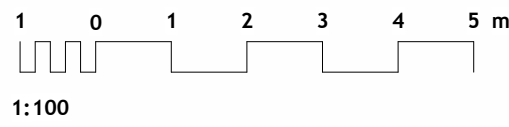
Proposed side elevation
1 : 100



Proposed rear elevation
1 : 100



Proposed side elevation 2
1 : 100



Notes

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Project	London Road, Neath
Project number	N596
Client	Owner
Title	Proposed elevations
Drawing number	A009
Scale	1 : 100 at A1
Revision	
Status	PLANNING
Drawn	
Date	04/02/25

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