



53 Briton Ferry Road, Neath, Port Talbot, SA11 1AR

Flood Consequence Assessment

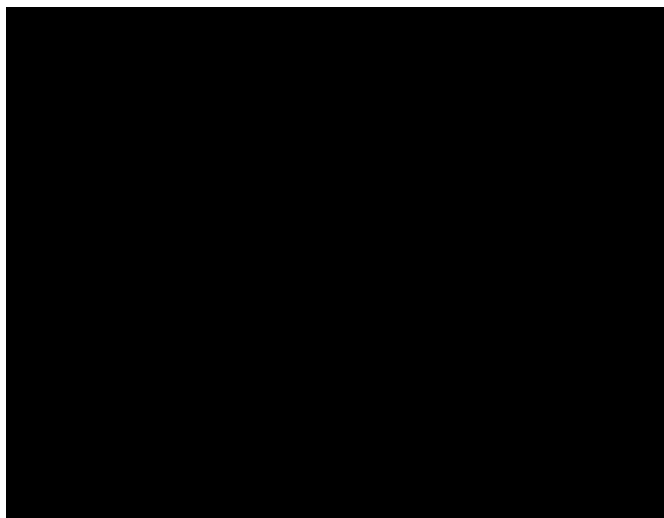
For Grahame Mann

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May 2026

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53 Briton Ferry Road, Neath, Port Talbot, SA11 1AR

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Status	Final
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CONTENTS

CONTENTS	ii
TABLES & FIGURES.....	iv
EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
1.1 Background	2
1.2 Technical Advice Note 15 (TAN15).....	2
1.3 Report Structure	2
2.0 LOCATION & DEVELOPMENT DESCRIPTION	4
2.1 Site Location.....	4
2.2 Existing Development.....	4
2.3 Proposed Development.....	4
2.4 Ground Levels.....	4
2.5 Catchment Hydrology.....	5
2.6 Ground Conditions.....	5
3.0 FLOOD RISK.....	6
3.1 Sources of Flooding	6
3.2 Natural Resources Wales.....	6
3.3 Neath Port Talbot Council.....	6
3.4 Climate Change	6
3.5 Flood Map for Planning	7
3.6 Flood Vulnerability.....	9
3.7 Historic Flooding	9
3.8 Existing and Planned Flood Defence Measures.....	10
3.9 Fluvial (River) Flooding.....	10
3.10 Tidal (Coastal) Flooding.....	13
3.11 Groundwater Flooding.....	17
3.12 Surface Water (Pluvial) Flooding.....	17
3.13 Sewer Flooding.....	18
3.14 Flooding from Artificial Drainage Systems/Infrastructure Failure	18
3.15 The Effect of the Development on Flood Risk	19
3.16 Summary of Site Specific Flood Risk	19
4.0 RISK MANAGEMENT.....	21
4.1 Introduction.....	21
4.2 Finished Floor Levels.....	21
4.3 First Floor Accommodation	21
4.4 Sleeping Accommodation	21
4.5 Flood Resilience and Resistance.....	22
4.6 Flood Warning & Evacuation Plan	22
4.7 Access and Egress Route	24
4.8 Residual Risk	25
5.0 JUSTIFYING THE LOCATION OF THE DEVELOPMENT.....	26
5.1 Assessment Framework.....	26
5.2 Application to the Proposed Development.....	26
5.3 Risk Management Measures.....	27
6.0 SUMMARY AND CONCLUSIONS	28
6.1 Introduction.....	28
6.2 Flood Risk.....	28
6.3 Risk Management.....	28
6.4 Justifying the Location of the Development.....	29
6.5 Conclusion	30

APPENDICES	31
APPENDIX 1 – Existing and Proposed Site Layout.....	32

TABLES & FIGURES

Figure 1 - Site Location.....	4
Table 1 - Peak River Flow Allowances by River Catchment.....	6
Table 2 - Sea Level Allowances (m).....	7
Figure 2 - Flood Map for Planning: Rivers	7
Figure 3 - Flood Map for Planning: Sea.....	8
Figure 4 - Flood Map for Planning: Surface Water and Small Watercourses.....	8
Table 3 - Flood Map for Planning Flood Zones.....	9
Figure 5 - Natural Resources Wales Historic Flood Map.....	10
Table 4 - Natural Resources Wales Defended Modelled Fluvial Data (Neath 5 v1.0 2015)	11
Figure 6 - Natural Resources Wales Defended Modelled Fluvial Flood Outlines (Neath 5 v1.0 2015).....	12
Table 5 - Natural Resources Wales Defended Modelled Tidal Data (Neath 5 v1.1 2023)	13
Figure 7 - Natural Resources Wales Defended Modelled Tidal 1 in 1000 Year Flood Outline (Neath 5 v1.1 2023).....	14
Figure 8 - Natural Resources Wales Defended Modelled Tidal 1 in 200 in 2123 Year Flood Outline (Neath 5 v1.1 2023).....	14
Figure 9 - Natural Resources Wales Defended Modelled Tidal 1 in 1000 in 2123 Year Flood Outline (Neath 5 v1.1 2023).....	15
Table 6 - Natural Resources Wales Undefended Modelled Tidal Data (Neath 5 v1.1 2023)	15
Figure 10 - Natural Resources Wales Undefended Modelled Tidal 1 in 1000 Year Flood Outline (Neath 5 v1.1 2023).....	16
Figure 11 - Natural Resources Wales Undefended Modelled Tidal 1 in 200 in 2123 Year Flood Outline (Neath 5 v1.1 2023).....	16
Figure 12 - Natural Resources Wales Undefended Modelled Tidal 1 in 1000 in 2123 Year Flood Outline (Neath 5 v1.1 2023).....	17
Figure 13 - Natural Resources Wales Reservoir Flood Map.....	19
Table 7 - Risk Posed by Flooding Sources.....	20
Figure 14 - Access and Egress Route.....	25

EXECUTIVE SUMMARY

Flooding may occur during more extreme climate change and exceedance scenarios; however, the nature of flooding, availability of warning and provision of internal refuge ensure the consequences are acceptable in accordance with TAN15.

Providing the recommendations made in this Flood Consequence Assessment (FCA) are instigated, flood risk from all sources would be minimised, the consequences of flooding are acceptable and the development would be in accordance with the requirements of Technical Advice Note 15 Development and Flood Risk (TAN15).

This FCA demonstrates that the Proposed Development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of TAN15. The development should not therefore be precluded on the grounds of flood risk.

1.0 INTRODUCTION

1.1 Background

This Flood Consequence Assessment (FCA) has been prepared by KRS Enviro at the request of Grahame Mann to support a planning application for a change of use of existing ground floor commercial unit and first floor flat into a 3-bedroom dwelling house (“the Proposed Development”) at 53 Briton Ferry Road, Neath, Port Talbot, SA11 1AR (“the Site”).

This FCA has been carried out in accordance with guidance contained in the Technical Advice Note 15 Development and Flood Risk (TAN15) and associated Flood Map for Planning (FMfP). This FCA identifies and assesses the risks of all forms of flooding to and from the development and demonstrates how these flood risks will be managed so that the development remains safe throughout the lifetime, taking climate change into account.

It is recognised that developments which are designed without regard to flood risk may endanger lives, damage property, cause disruption to the wider community, damage the environment, be difficult to insure and require additional expense on remedial works. The development design should be such that future users will not have difficulty obtaining insurance or mortgage finance, or in selling all or part of the development, as a result of flood risk issues.

1.2 Technical Advice Note 15 (TAN15)

One of the key aims of TAN15 is to ensure that flood risk is taken into account at all stages of the planning process; to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest risk.

It advises that where new development is exceptionally necessary in areas of higher risk, this should be safe, without increasing flood risk elsewhere, and where possible, reduce flood risk overall. A risk-based approach is adopted at stages of the planning process, applying a source pathway receptor model to planning and flood risk. To demonstrate this, an FCA is required and should include:

- whether a proposed development is likely to be affected by current or future flooding from all sources;
- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate; and
- satisfy the justification test, including the acceptability of consequences.

A revised TAN15 has now been implemented. This is supported by the new FMfP, which includes climate change information to show how this will affect flood risk extents over the next century. It shows the potential extent of flooding assuming no defences are in place

1.3 Report Structure

This FCA has the following report structure:

- Section 2 describes the location and the existing and Proposed Development;
- Section 3 outlines the flood risk to the existing and Proposed Development;

- Section 4 outlines mitigation measures used to reduce the overall level of flood risk;
- Section 5 provides details of Acceptability Criteria; and
- Section 6 presents a summary and conclusions.

2.0 LOCATION & DEVELOPMENT DESCRIPTION

2.1 Site Location

The Site is located at 53 Briton Ferry Road, Neath, Port Talbot, SA11 1AR (see Figure 1). The National Grid Reference (NGR) of the Site is 275035, 196707. The surrounding land use is predominantly residential, with local roads and gardens forming the immediate context.



Figure 1 - Site Location

2.2 Existing Development

The existing Site currently comprises a ground floor commercial unit and first floor flat (see Appendix 1).

2.3 Proposed Development

The Proposed Development is for a change of use to a 3-bedroom dwelling house (see Appendix 1). The property was originally a 3-bedroom dwelling house which was historically converted into a commercial unit to the ground floor and flat to the first floor.

The proposal does not involve the creation of additional dwellings. No land raising is proposed as part of the development. Further details with regard to the Proposed Development can be found in the accompanying information submitted with the planning application.

2.4 Ground Levels

The Site falls from southeast to northwest, with a maximum ground level of 8.45 metres Above Ordnance Datum (mAOD) on the southeastern boundary and a minimum ground level of

6.99mAOD on the northwestern boundary. The ground level adjacent to the existing house is over 7mAOD. Ground levels are taken from the Welsh Government LiDAR Digital Terrain Model (DTM).

2.5 Catchment Hydrology

The Cryddan Brook is located approximately 200m to the southwest of the Site. The Neath Canal is located approximately 540m to the northwest of the Site and the River Neath is located approximately 580m to the northwest of the Site.

2.6 Ground Conditions

The British Geological Survey (BGS)¹ map shows that the bedrock deposits consist of the Hughes Member - sandstone. These sedimentary rocks are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).

The superficial deposits consist of Glaciofluvial sheet deposits, Devensian - sand and gravel. These sedimentary deposits are glaciofluvial in origin. They are detrital, generally coarse-grained, they form beds, channels, plains and fans associated with meltwater.

Information from the National Soil Resource Institute² details the Site area as being situated on slowly permeable seasonally wet acid loamy and clayey soils with impeded drainage.

¹ https://geologyviewer.bgs.ac.uk/?_ga=2.66736489.617109230.1694767835-1467391725.1694767835

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

3.0 FLOOD RISK

3.1 Sources of Flooding

All sources of flooding have been considered, these are; fluvial (river) flooding, tidal (coastal) flooding, groundwater flooding, surface water (pluvial) flooding, sewer flooding and flooding from artificial drainage systems/infrastructure failure.

3.2 Natural Resources Wales

Information regarding the current flood risk at the application Site, local flood defences and flood risk has been obtained from Natural Resources Wales, which is the most up to date at the time of this FCA. Natural Resources Wales has provided results from the Neath Modelling Study (2015 and 2023).

3.3 Neath Port Talbot Council

Neath Port Talbot Council is the Local Planning Authority (LPA) and the Lead Local Flood Authority (LLFA) and has responsibilities for 'local flood risk', which includes surface runoff, groundwater and ordinary watercourses. Planning guidance written by Neath Port Talbot Council regarding flood risk was consulted to assess the mitigation policies in place. In particular, the Neath Port Talbot Council Strategic Flood Consequence Assessment (SFCA) has been reviewed.

3.4 Climate Change

Projections of future climate change, in the UK, indicate more frequent, short-duration, high intensity rainfall and more frequent periods of long duration rainfall. Guidance included within TAN15 recommends that the effects of climate change are incorporated into FCA. Recommended precautionary sensitivity ranges for peak rainfall intensities, peak river flows and sea level rise are outlined in the following documents CL-03-16 - Climate Change Allowances for Planning Purposes³, Flood Consequence Assessments: Climate change allowances⁴ and Adapting to Climate Change: Guidance for Flood and Coastal Erosion Risk Management Authorities in Wales⁵.

The 9th of January 2014 Welsh Government letter to all Chief Planning Officers (CPO) in Wales and CL-03-16 - Climate Change Allowances for Planning Purposes clarifies and refers to the Natural Resources Wales recommendations that the lifetime of development for residential development is 100 years, and for other development it is considered to be 75 years. Table 1 show the peak river flow allowances by river catchment therefore, the fluvial design event is the 1 in 100 year (+35%) event.

Table 1 - Peak River Flow Allowances by River Catchment

River Basin	Allowance Category	2020s	2050s	2080s
Western Wales	Upper	+20%	+40%	+70%
	Central	+10%	+20%	+35%

³ <https://gov.wales/sites/default/files/publications/2018-11/cl0316-climate-change-allowances.pdf>

⁴ <https://gov.wales/sites/default/files/publications/2018-11/flood-consequence-assessments.pdf>

⁵ <https://gov.wales/sites/default/files/publications/2021-09/adapting-to-climate-change-guidance-for-flood-and-coastal-erosion-risk-management-authorities-in-wales.pdf>

Table 2 - Sea Level Allowances (m)

Local Authority Area	Allowance Category	Mean Sea Level Rise (m) by 2100*	Mean Sea Level Rise (m) by 2120*
Neath Port Talbot	95 th	1.14	1.67
	70 th	0.86	1.24

The Flood Map for Planning (FMfP) represents the best available information on flood risk. The FMfP shows that the Site is located within the following flood zones:

- Rivers: Flood Zone 3 (see Figure 2).
- Sea: Flood Zone 3 (see Figure 3).
- Surface water and small watercourses: Flood Zone 1 (see Figure 4).

Cyfoeth Naturiol Cymru
Natural Resources Wales

Flood Map for Planning - Detail
S3 Briton Ferry Road

Legend
Rivers
Flood Zone 3
Flood Zone 2

Scale at A3: 1:2,500
Date: 28/04/2026

Contains OS data © Crown Copyright and database right 2020

Disclaimer
https://naturalresources.wales/flood-information-for-planning
This map is for planning purposes only. It is not a guarantee of flood risk.

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Figure 2 - Flood Map for Planning: Rivers

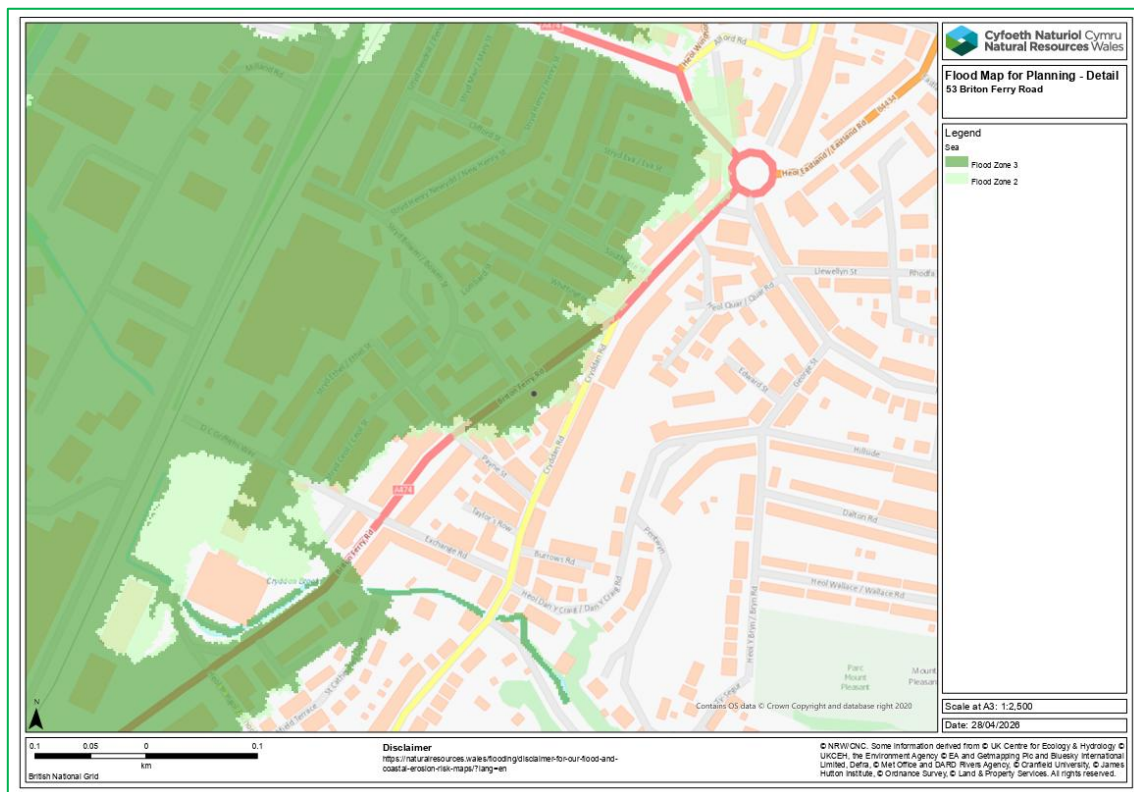


Figure 3 - Flood Map for Planning: Sea

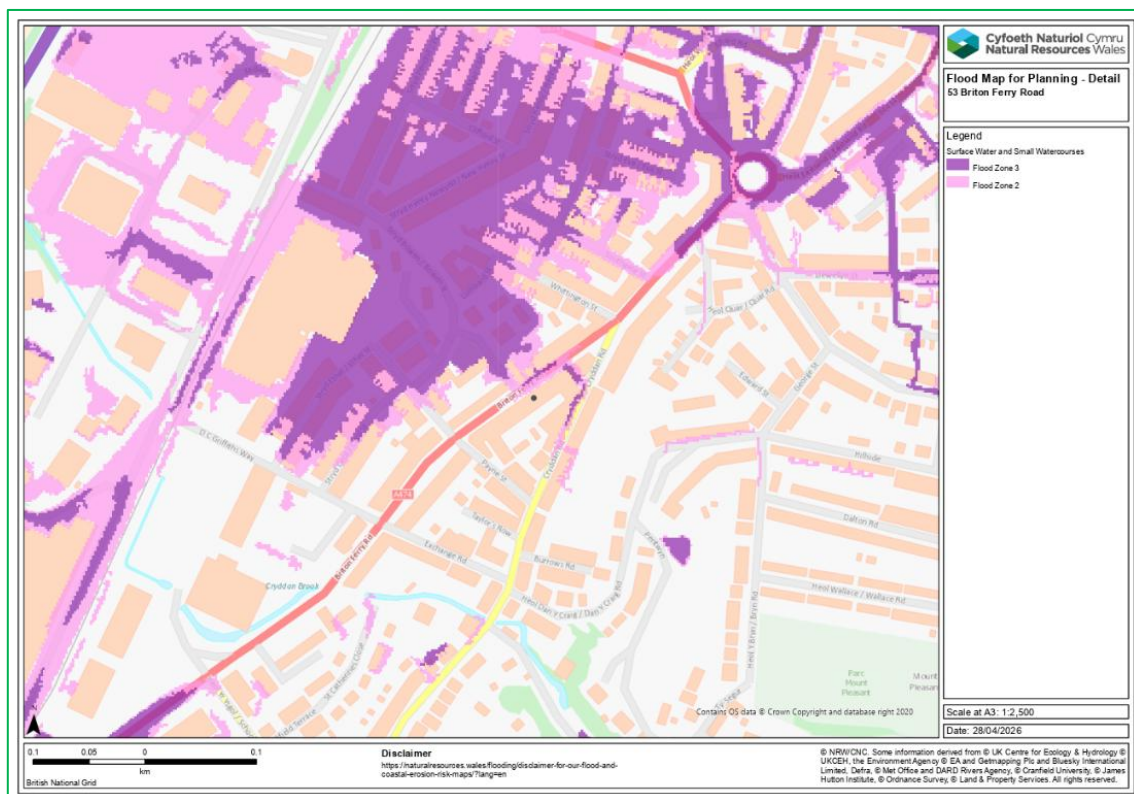


Figure 4 - Flood Map for Planning: Surface Water and Small Watercourses

Table 3 - Flood Map for Planning Flood Zones

Flood Zone	Explanation
Rivers - Flood Zone 2	Areas with 0.1% to 1% (1 in 1000 to 1 in 100) chance of flooding from rivers in a given year, including the effects of climate change.
Rivers - Flood Zone 3	Areas with more than 1% (1 in 100) chance of flooding from rivers in a given year, including the effects of climate change.
Sea - Flood Zone 2	Areas with 0.1% to 0.5% (1 in 1000 to 1 in 200) chance of flooding from the sea in a given year, including the effects of climate change.
Sea - Flood Zone 3	Areas with more than 0.5% (1 in 200) chance of flooding from the sea in a given year, including the effects of climate change.
Surface Water and Small Watercourses - Flood Zone 2	Areas with 0.1% to 1% (1 in 1000 to 1 in 100) chance of flooding from surface water and/or small watercourses in a given year, including the effects of climate change.
Surface Water and Small Watercourses - Flood Zone 3	Areas with more than 1% (1 in 100) chance of flooding from surface water and/or small watercourses in a given year, including the effects of climate change.

3.6 Flood Vulnerability

Applying the Flood Risk Vulnerability Classification in Figure 4 of TAN15, the existing use of the Site is classified as 'highly vulnerable' for the first floor flat and 'less vulnerable' for the ground floor commercial unit. The proposed use of the Site is classified as 'highly vulnerable'. However, it should be noted that the Site will be reverting to its original classification of 'highly vulnerable' as a single dwellinghouse prior to conversion.

Whilst the Site lies within FMfP Flood Zone 3, TAN15 allows development to be considered where a site-specific FCA demonstrates that the consequences of flooding can be acceptably managed. The assessment of flood consequences and mitigation measures is therefore set out in the following sections.

3.7 Historic Flooding

The Natural Resources Wales historic flood map shows that the Site has not historically flooded (see Figure 5). The British Hydrological Society "Chronology of British Hydrological Events"⁶ has no information on flooding within the vicinity of the Site. No other historical records of flooding for the Site have been recorded. Whilst the absence of historic flood records does not preclude flood risk, the available evidence indicates no recorded history of flooding affecting the Site.

⁶ <https://cbhe.hydrology.org.uk/>

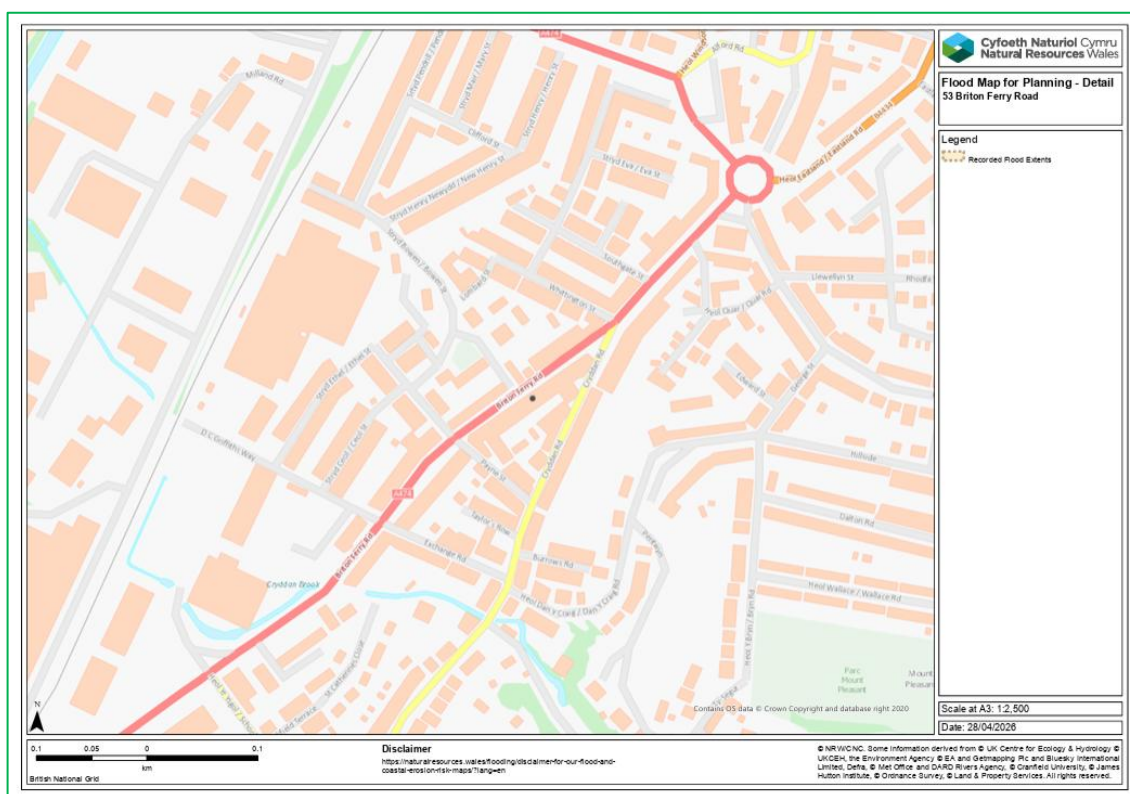


Figure 5 - Natural Resources Wales Historic Flood Map

3.8 Existing and Planned Flood Defence Measures

A flood alleviation scheme for Cryddan Brook is currently being developed by Neath Port Talbot Council, with an estimated project value of approximately £14.60 million. The scheme is intended to reduce flood risk to surrounding properties and critical infrastructure and is expected to be completed by Spring 2027.

Further risk management measures to manage and reduce the overall flood risk at the Site will be used, these are discussed in Section 4.0.

3.9 Fluvial (River) Flooding

Table 4 shows the Natural Resources Wales defended in-channel modelled fluvial water levels at node label 0859I.1, NGR 274998, 196512 for the Cryddan Brook. The Natural Resources Wales modelled defended fluvial flood outlines show that the Site is located within the 1 in 100 year and 1 in 1000 flood outlines (see Figure 6). The Site is also located within the 1 in 100 year (+20%) flood outline.

The fluvial design event for the Site is the 1 in 100 year (+35%) event, the modelled flood data in Table 4 has been updated to take into account the +35% of climate change. The 1 in 100 year event water levels have been modelled at 15.58mAOD and the 1 in 100 year (+20%) event water levels have been modelled at 15.69mAOD. This equates to an increase of 0.11m due to a 20% climate change allowance or 0.0055m per 1% of climate change.

The above has then been pro-rated to calculate the 1 in 100 year (+35%) event which equates to an increase of 0.19m due to a climate change allowance of +20%. This has then been added onto the 1 in 100 year water level of 15.58mAOD to calculate the 1 in 100 year (+35%) water level. Therefore, the 1 in 100 year (+35%) event will have a water level of 15.77mAOD.

The Natural Resources Wales defended flood mapping indicates the Site lies within the defended 1 in 100 year (+20%) event. In the absence of a directly modelled +35% defended scenario, interpolation between available Natural Resources Wales model outputs suggests a higher defended water level may occur; however, site-specific depths and hazards are not available from the dataset. This provides a reasonable precautionary estimate for planning purposes.

The referenced model node is located approximately 200m south of the Site on the Cryddan Brook and therefore does not directly represent flood conditions at the Site. Site-specific flood depths and velocities are not provided within the Natural Resources Wales dataset, and flood behaviour at the Site will be influenced by local topography, floodplain connectivity and hydraulic conditions. Table 4 presents defended in-channel modelled water levels at the referenced node only and should not be interpreted as direct flood levels at the Site.

Floodplain inundation during extreme events would be spatially variable and influenced by local topography, floodplain storage and hydraulic connectivity. The mapped flood extents are therefore considered more relevant in understanding the potential extent of flooding at the Site.

Table 4 - Natural Resources Wales Defended Modelled Fluvial Data (Neath 5 v1.0 2015)

Parameter	2	10	50	75	100	100 (+20%)	100 (+35%)	1000
Water Level (mAOD)	12.96	13.65	15.21	15.51	15.58	15.69	15.77	15.88

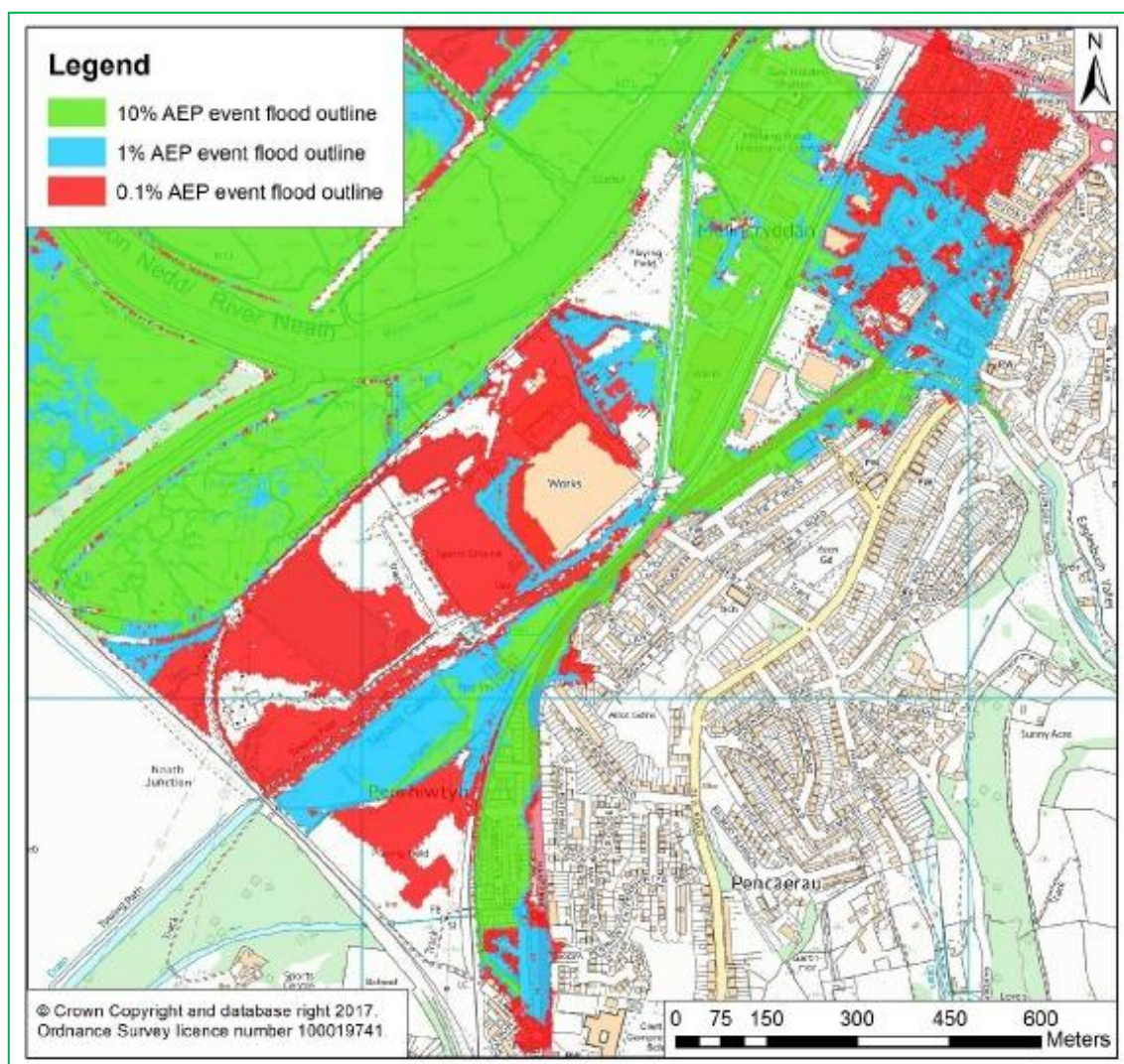


Figure 6 - Natural Resources Wales Defended Modelled Fluvial Flood Outlines (Neath 5 v1.0 2015)

The Site lies within the wider Cryddan Brook floodplain and is shown within the defended modelled fluvial flood extents. Natural Resources Wales model outputs provide defended in-channel water levels at a reference node on the Cryddan Brook; however, site-specific flood depths, velocities and hazard ratings are not provided within the available dataset. Flood behaviour at the Site will be influenced by local topography, floodplain connectivity and hydraulic conditions.

The mapped Natural Resources Wales flood extents are therefore considered the most relevant representation of the potential extent of flooding affecting the Site. The available evidence indicates that fluvial flooding represents a material source of flood risk to the Site. However, the characteristics of flooding within the wider floodplain are consistent with a forecast-led mechanism, allowing flood risk to be managed through warning-led evacuation, internal refuge and physical resilience measures. Given the scale and nature of the Proposed Development, it is concluded that the risk of flooding from fluvial sources is considered to be of a **medium residual risk**.

Residual flood risk is addressed through the mitigation measures outlined in Section 4, with the wider consequences of flooding assessed in accordance with TAN15.

3.10 Tidal (Coastal) Flooding

The Site is located within the lower Neath Valley, upstream of the tidal extent of the Swansea Bay. The River Neath discharges into Swansea Bay via an estuarine system, with tidal influence extending inland to the lower reaches of the river corridor, including the Briton Ferry area. As a result, tidal conditions can influence river levels within the downstream system, particularly during periods of high astronomical tides and storm surge conditions within the Bristol Channel.

Tidal flood risk in the wider area is managed through a combination of engineered coastal defences, including sea walls, rock armour revetments, and raised embankments, supported by tidal outfall controls such as flap valves to reduce saline backflow and limit tide-locking effects.

Whilst the Site is not located directly on the open coastline, coastal inundation is not the primary mechanism; residual tidal influence exists through the estuarine system. During high tide conditions, the outfall of the River Neath may become restricted, potentially leading to elevated upstream water levels (tide-locking), particularly where coincident with high fluvial flows.

Actual Defended Scenarios

Table 5 shows the Natural Resources Wales modelled defended tidal water levels at the Site. The Natural Resources Wales modelled defended tidal flood outlines show that the Site will not be inundated with floodwater for all events up to and including the 1 in 1000 year event. (see Figure 7).

The Site would only be inundated with floodwater during events of a greater magnitude than the defended 1 in 1000 year event, as shown in Figures 8 and 9. These scenarios are considered to represent conservative, low-probability events and provide confidence in the effectiveness of flood risk with defences events.

Table 5 - Natural Resources Wales Defended Modelled Tidal Data (Neath 5 v1.1 2023)

Parameter	200	200 in 2123	1000	1000 in 2123
Water Level (mAOD)	N/A	7.51	N/A	7.82
Water Depth (m)	N/A	0.60	N/A	0.98
Water Velocity (m/s)	N/A	<1	N/A	<1
Hazard Rating	N/A	<1.43	N/A	<1.75

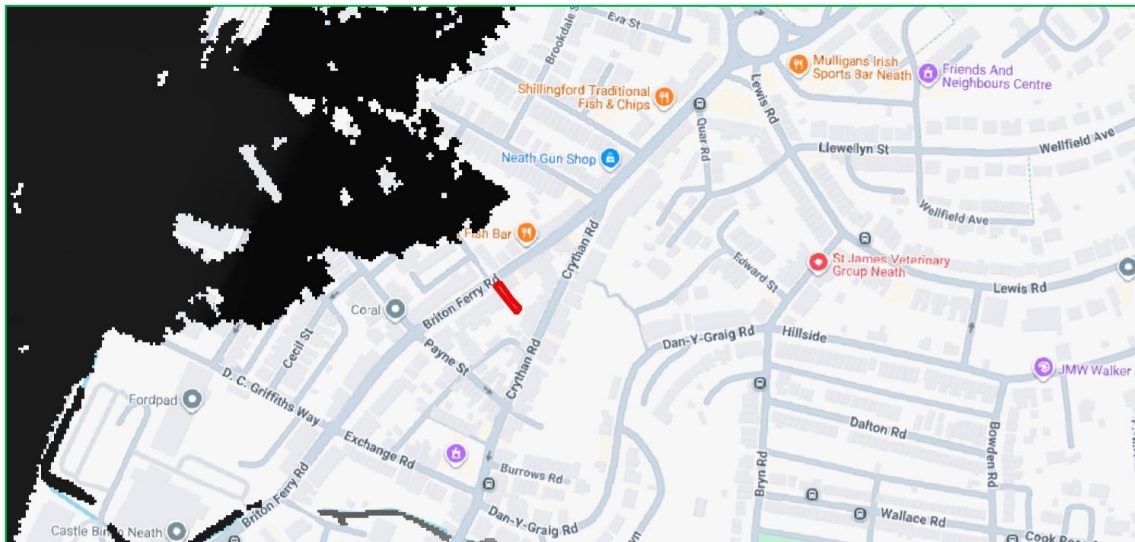


Figure 7 - Natural Resources Wales Defended Modelled Tidal 1 in 1000 Year Flood Outline (Neath 5 v1.1 2023)

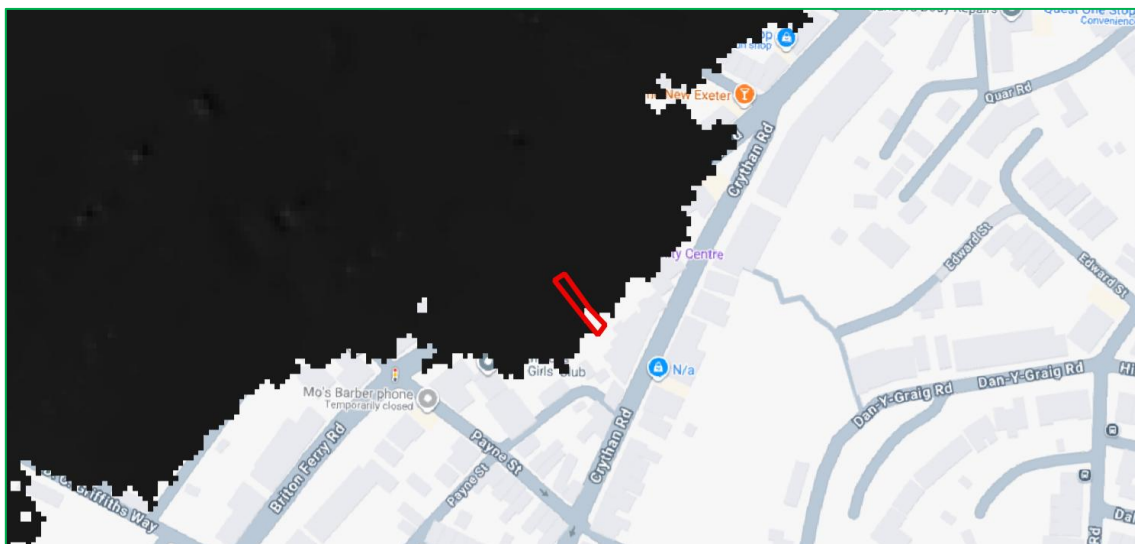


Figure 8 - Natural Resources Wales Defended Modelled Tidal 1 in 200 in 2123 Year Flood Outline (Neath 5 v1.1 2023)

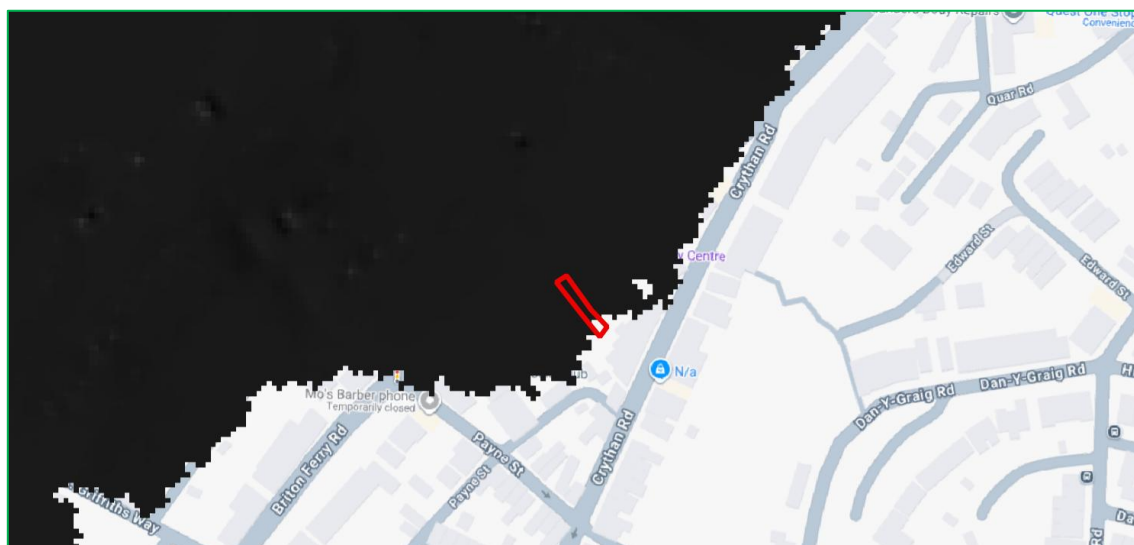


Figure 9 - Natural Resources Wales Defended Modelled Tidal 1 in 1000 in 2123 Year Flood Outline (Neath 5 v1.1 2023)

Residual Undefended Scenarios

Table 6 shows the Natural Resources Wales modelled undefended tidal water levels at the Site. The Natural Resources Wales modelled undefended tidal flood outlines show that the Site will not be inundated with floodwater for all events up to and including the 1 in 1000 year event. (see Figure 10). The Site would only be inundated with floodwater during events of a greater magnitude than the undefended 1 in 1000 year event, as shown in Figures 11 and 12. These scenarios are considered to represent conservative, low-probability events and provide confidence in the effectiveness of flood risk without defences exceedance events.

Table 6 - Natural Resources Wales Undefended Modelled Tidal Data (Neath 5 v1.1 2023)

Parameter	200	200 in 2123	1000	1000 in 2123
Water Level (mAOD)	N/A	7.52	N/A	7.79
Water Depth (m)	N/A	0.60	N/A	0.99
Water Velocity (m/s)	N/A	<1	N/A	<1
Hazard Rating	N/A	<1.43	N/A	<1.75

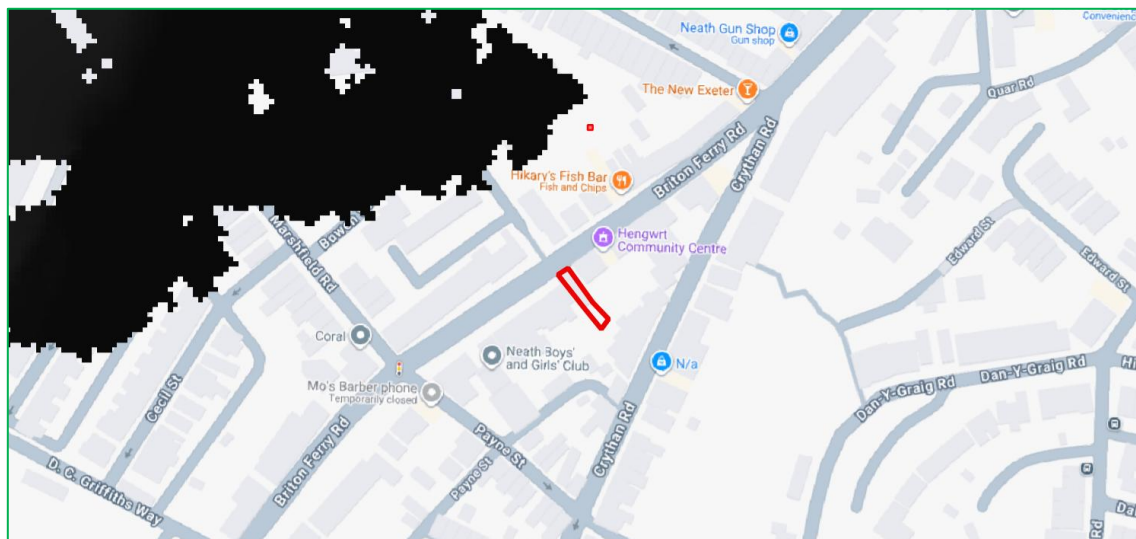


Figure 10 - Natural Resources Wales Undefended Modelled Tidal 1 in 1000 Year Flood Outline (Neath 5 v1.1 2023)

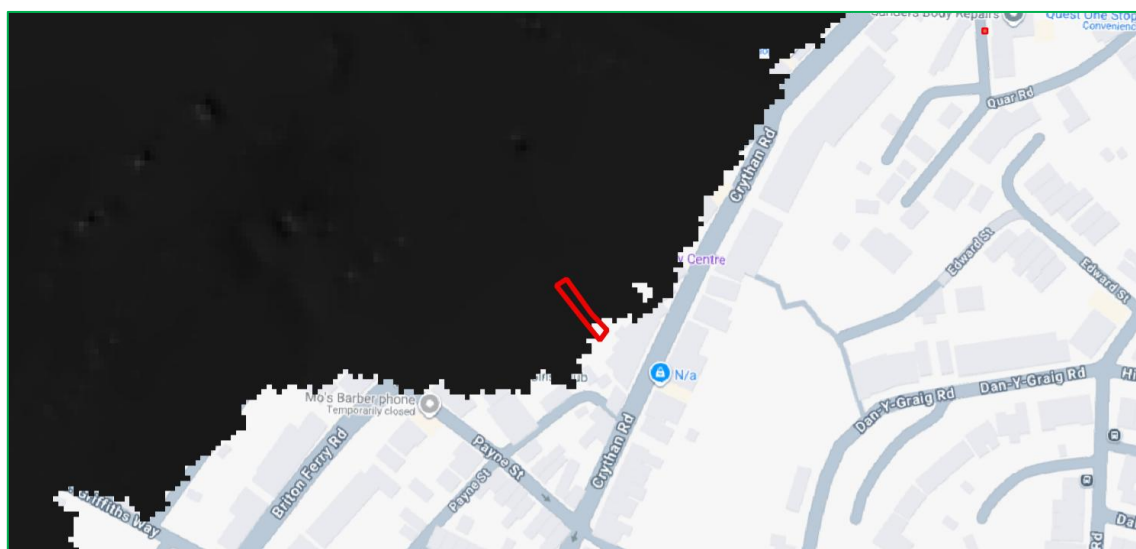


Figure 11 - Natural Resources Wales Undefended Modelled Tidal 1 in 200 in 2123 Year Flood Outline (Neath 5 v1.1 2023)

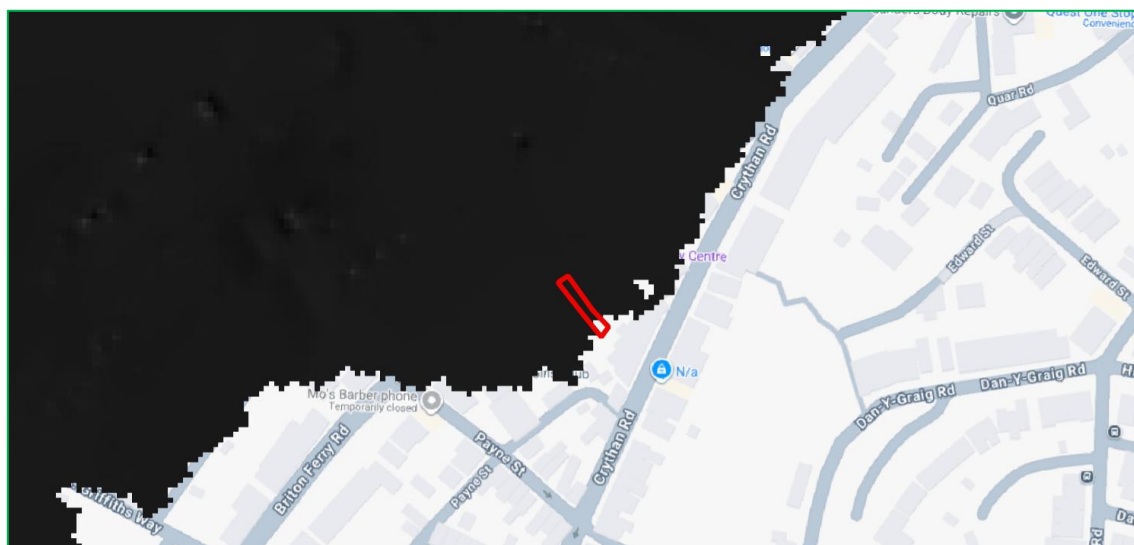


Figure 12 - Natural Resources Wales Undefended Modelled Tidal 1 in 1000 in 2123 Year Flood Outline (Neath 5 v1.1 2023)

Summary

The Site is not affected by tidal flooding under the defended or undefended model scenarios for events up to and including the 1 in 1000 year event. Modelled inundation only occurs under extreme future climate change scenarios beyond the standard defended design events.

Tidal flooding is therefore considered a secondary residual source of flood risk only, with a comparatively low likelihood relative to the primary fluvial flood mechanism. Given the scale and nature of the Proposed Development, it is concluded that the risk of flooding from fluvial sources is considered to be of a **low significance** and the consequences will be acceptable for 'highly vulnerable' development in accordance with TAN15. The flood risk from all sources will be further mitigated by using a number of risk management measures to manage and reduce the overall flood risk at the Site (see Section 4).

3.11 Groundwater Flooding

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

Groundwater flooding tends to occur sporadically in both location and time. When groundwater flooding does occur, it tends to mostly affect low-lying areas, below surface infrastructure and buildings (for example, tunnels, basements and car parks) underlain by permeable rocks (aquifers).

Site ground conditions suggest a low potential for groundwater flooding. The Site is not located within an area of elevated groundwater emergence potential, and the bedrock geology does not suggest susceptibility to groundwater flooding. The risk of flooding from groundwater flooding is considered to be **not significant**.

3.12 Surface Water (Pluvial) Flooding

The Site is not situated near to large areas of poor permeability which may result in surface water flooding. The Site surroundings are relatively flat and there are no large catchments that would tend to generate surface water runoff towards the site. Surface water flow flooding tends

to occur sporadically in both location and time such surface water flows would tend to be confined to the streets around the Site.

The FMfP shows that the Site is located within Flood Zone 1 with less than a 1 in 1000 (0.1%) annual probability of flooding from surface water and/or small watercourses in a given year, including the effects of climate change (see Figure 4). Given the scale and nature of the Proposed Development and the size and location of the surface water flooding sources it has been concluded that surface water flooding poses a very low flood risk to the Site and the risk of surface water flooding is considered to be **not significant**.

3.13 Sewer Flooding

Sewer flooding occurs when urban drainage networks become overwhelmed and maximum capacity is reached. This can occur if there is a blockage in the network causing water to back up behind it or if the sheer volume of water draining into the system is too great to be handled. Sewer flooding tends to occur sporadically in both location and time such flood flows would tend to be confined to the streets around the development.

There are existing sewers located within the vicinity of the Site and these will inevitably have a limited capacity so in extreme conditions there would be surcharges, which may in turn cause flooding. Flood flows could also be generated by burst water mains, but these would tend to be of a restricted and much lower volume than weather generated events and so can be discounted for the purposes of this assessment.

The provision of adequate level difference between the ground floors and adjacent ground level would reduce the annual probability of damage to property from this source to 1 in 100 years or less. Taking the above into consideration, the fact that there have been no infrastructure failure flooding events in the Site area and the Site's topography it can be concluded that the risk of flooding is very low. There are no records of sewer flooding in the vicinity of the Site, the Site is not identified as being at risk of having historically flooded due to sewer overloading and in the absence of confirmed DG5 entries, sewer flood risk is considered very low. It can therefore be concluded that the risk of sewer flooding is **not significant**.

3.14 Flooding from Artificial Drainage Systems/Infrastructure Failure

There are no nearby artificial water bodies, water channels, reservoirs and artificial drainage systems that could be considered a flood risk to the Site. The Natural Resources Wales Reservoir flood map shows that the Site is not at risk of reservoir flooding (see Figure 13). The risk of flooding from artificial drainage systems/infrastructure failure is considered to be **not significant**.

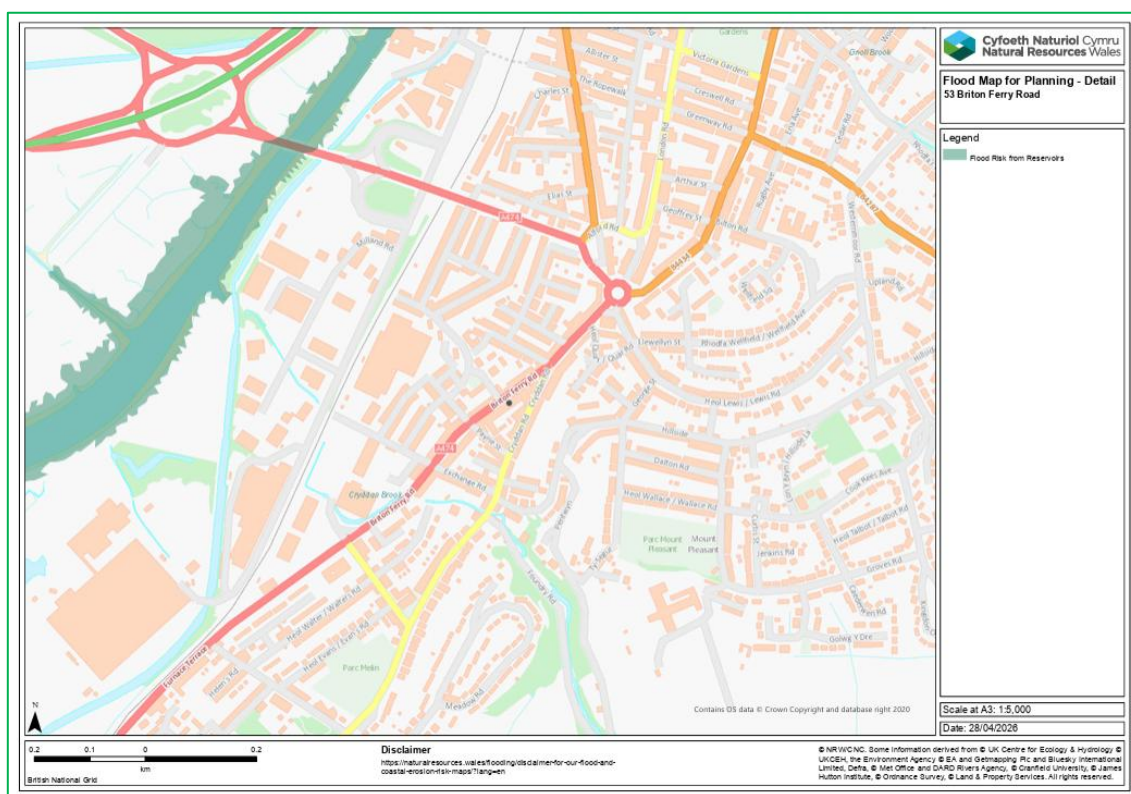


Figure 13 - Natural Resources Wales Reservoir Flood Map

3.15 The Effect of the Development on Flood Risk

The building is existing and no land raising will occur within the Site therefore, the Proposed Development will not impede the movement of floodwater across the Site. This will ensure no detriment to the flood storage capacity of the Site. The overall direction of the movement of water will be maintained within the developed Site and surrounding area.

The conveyance routes (flow paths) will not be blocked or obstructed. There will be no increase in the floodwater levels due to the Proposed Development. There will be no loss in flood storage capacity and no change in the on-site and off-site flood risk. The Site proposals have been shown to be in accordance with TAN15.

3.16 Summary of Site Specific Flood Risk

A summary of the sources of flooding and a review of the risk posed by each source at the Site is shown in Table 7.

The Site is located within the FMfP Flood Zone 3 for fluvial and tidal flooding however, the Site has no history of flooding. The primary, but unlikely, flood risk to the Site is from fluvial flooding from the Cryddan Brook.

The existing use of the Site is classified as 'highly vulnerable' for the first floor flat and 'less vulnerable' for the ground floor commercial unit. The proposed use of the Site is classified as 'highly vulnerable'. However, it should be noted that the Site will be reverting to its original classification of 'highly vulnerable' as a single dwellinghouse prior to conversion. Whilst the Site lies within FMfP Flood Zone 3, this FCA demonstrates that the consequences of flooding can be managed to an acceptable level for the proposed highly vulnerable use. Subject to the

mitigation and management measures identified, the development is considered capable of satisfying TAN15.

The Site lies within the wider Cryddan Brook floodplain and is shown within the defended modelled fluvial flood extents. Natural Resources Wales model outputs provide defended in-channel water levels at a reference node on the Cryddan Brook; however, site-specific flood depths, velocities and hazard ratings are not provided within the available dataset. Flood behaviour at the Site will be influenced by local topography, floodplain connectivity and hydraulic conditions.

The mapped Natural Resources Wales flood extents are therefore considered the most relevant representation of the potential extent of flooding affecting the Site. The available evidence indicates that fluvial flooding represents a material source of flood risk to the Site. However, the characteristics of flooding within the wider floodplain are consistent with a forecast-led mechanism, allowing flood risk to be managed through warning-led evacuation, internal refuge and physical resilience measures. Given the scale and nature of the Proposed Development, it is concluded that the risk of flooding from fluvial sources is considered to be of a **medium residual risk**. A secondary source of flooding has been identified as surface water flooding, which is assessed to pose a **low residual risk**. Residual flood risk is addressed through the mitigation measures outlined in Section 4, with the wider consequences of flooding assessed in accordance with TAN15.

There will be no loss in flood storage capacity and no change in the on-site and off-site flood risk. The Site proposals have been shown to be in accordance with TAN15.

Table 7 - Risk Posed by Flooding Sources

Sources of Flooding	Potential Flood Risk	Potential Source	Probability/Significance
Fluvial Flooding	Yes	Cryddan Brook	Medium
Tidal Flooding	Yes	River Neath	Low
Groundwater Flooding	No	None Reported	None
Surface Water Flooding	No	None Reported	None
Sewer Flooding	No	None Reported	None
Flooding from Artificial Drainage Systems/Infrastructure Failure	No	None Reported	None

4.0 RISK MANAGEMENT

4.1 Introduction

In this flood zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development and the use of flood mitigation measures.

A number of techniques and mitigation strategies to manage and reduce the overall flood risk in the area will be used. This will ensure the development will be safe and there is:

- Minimal risk to life;
- Minimal disruption to people living and working in the area;
- Minimal potential damage to property;
- Minimal impact of the Proposed Development on flood risk generally; and;
- Minimal disruption to natural heritage.

The flood risk at the Site will be reduced by using a number of risk management measures to mitigate and reduce the overall flood risk at the Site.

4.2 Finished Floor Levels

The Proposed Development relates to an existing building and does not involve raising ground levels or altering finished floor levels. It is recognised that finished floor levels are below extreme modelled flood levels under certain defended and undefended scenarios. However, TAN15 does not require all 'highly vulnerable' development in Flood Zone 3 to remain dry in extreme events. Instead, it requires that the consequences of flooding are demonstrated to be acceptable.

In this case, flood risk is characterised by a slow-onset, forecast-led mechanism, with advance warning provided through Natural Resources Wales' flood warning system. The building includes first floor accommodation located a minimum of 2.50m above ground floor level, providing internal refuge well above modelled flood depths.

On this basis, flood risk is managed through warning-led evacuation and internal refuge provision, rather than reliance on raised finished floor levels.

4.3 First Floor Accommodation

First floor accommodation provides internal refuge in the unlikely event that evacuation cannot be completed prior to flooding. The first floor is located substantially above the ground floor level and provides a place of safety for occupants during extreme residual events. This measure forms part of the overall flood consequence management strategy.

4.4 Sleeping Accommodation

All sleeping accommodation will be located on the first floor with no sleeping accommodation to be located on the ground floor. The level of the first floor is located well above any floodwater levels.

4.5 Flood Resilience and Resistance

The development of the layout should always consider that the site is potentially at risk from an extreme event and as such the implementation of flood resilience and resistance methods should be assessed.

Flood risk can be mitigated through the design of building. Flood resistance measures are measures that help resist floodwaters entering a property (airbrick covers are an example of a flood resistance measure). Flood resilient and resistant measures will be used, including:

- Flood doors/barriers will be used on all external doors.
- Windows are a minimum of 1000mm above the external ground levels.
- Sealant will be used around external doors and windows.
- All external doors and windows will be constructed from hard wearing materials with flood seals.
- All electrics wiring, switches, sockets, socket outlets etc. to be located a minimum of 450mm above the finished floor levels.

4.6 Flood Warning & Evacuation Plan

A Flood Warning and Evacuation Plan (FWEP) outlining the precautions and actions you should take when a flood event is anticipated to help reduce the impact and damage flooding may cause will be developed. Sensible precautions would include raising electrical items, irreplaceable items and sentimental items off the ground or where possible moving them to a higher floor, rolling up carpets and rugs and turning off utilities. In addition, consider what actions you would take should the property need to be evacuated including access and egress routes and preparing a flood kit in advance containing warm clothing, medication, a torch, food and wellingtons.

The FWEP is a 'living' document and therefore should be periodically reviewed and updated to provide advice and guidance to occupants in the event of an extreme flood. The Flood Plan will therefore reduce the vulnerability of the occupants to flooding and makes them aware of the mechanisms of flooding at the Site.

The Site is located in a flood risk area; therefore, the Site will participate in Natural Resources Wales flood warning telephone service. The Site will register contact details with the Natural Resources Wales Flood Warnings Service in order to receive Flood Warnings.

Natural Resources Wales operate a free flood warning service providing alerts by phone, text or email when flooding is anticipated providing an opportunity for owners to take necessary precautions, giving enough time for the building to be safely evacuated and mitigation measures to be put in place.

Natural Resources Wales uses Flood Warnings Codes. They can be issued in any order, usually ending with an 'all clear'. They are issued by Natural Resources Wales through their website and Floodline Warning Direct. The flood warning will be passed onto the occupiers and visitors of the Site verbally, by telephone and/or in person. It will be ensured that everyone receives the flood warnings when required. All occupants of the Site will be made aware of the Natural Resources Wales Floodline telephone number and the Flood Warning Codes and their meaning.

The likelihood of a rapid water level rise and possible rapid inundation of urban areas posing a risk to life is considered to be minimal with a forewarning of two (2) days of a pending flood event. The Site is located within a low risk area where the onset of flooding is very gradual (many hours) as per Flood Risk Assessment Guidance for New Development Phase 2, R&D Technical Report FD2320/TR2. The speed of inundation and rate of floodwater rise would be low.

In order for the following evacuation procedures to be effective:

- The Site will register contact details with the Natural Resources Wales Flood Warning Service (Floodline 0345 988 1188) in order to receive Flood Warnings/Alerts.
- The flood warning will be passed onto the occupants and visitors of the Site verbally, by telephone and/or in person. It will be ensured that everyone receives the flood warnings when required.

The following flood evacuation procedures have been developed for the Site, so that the Site is safe during a flood.

Flood Alert

‘Flooding of low-lying land and roads is expected. Be aware, be prepared, watch out!’. The Natural Resources Wales will issue a Flood Alert status when flooding is possible, based upon weather and river/sea conditions.

Be prepared to act on your flood plan. At this stage occupants and visitors should make themselves aware of the Flood Plan and evacuation routes. Prepare a flood kit of essential items. Monitor local water levels and the flood forecast.

Contact Natural Resources Wales Floodline on 0345 988 1188 to get more information periodically and listen to and watch for weather and flood warnings on local radio and television stations.

Flood Warning

‘Flooding of homes and businesses is expected. Act now!’. The Flood Warning alert will be issued when water levels are rising and further rain is expected. The Site will be evacuated. Move family, pets and valuables to a safe place.

Safe access and egress, including emergency access can be maintained for vehicles and/or by foot. Water, electricity and gas supplies should be located and switched off before evacuating. Contact Natural Resources Wales Floodline on 0845 988 1188 to get more information periodically and listen to and watch for weather and flood warnings on local radio and television stations.

Severe Flood Warning

‘Severe Flooding is expected. There is extreme danger life and property. Act now!’. If the Site has not already been evacuated it will be evacuated immediately. Co-operate with the emergency services and call 999 if immediately in danger. Safe access and egress, including emergency access can be maintained for vehicles and/or by foot.

Contact Natural Resources Wales Floodline on 0345 988 1188 to get more information periodically and listen to and watch for weather and flood warnings on local radio and television stations.

Warning No Longer in Force

'Flood Watches or Flood Warnings are no longer in force for this area'. Occupants and visitors should contact the LPA to check that it is safe to return to the Site. Please be careful water may be around for several days. If there is any doubt that appliances may be water damaged they must be checked before switching the power or gas back on. Contact your insurance company as soon as possible to get their approval before arranging any clean-up or repairs.

4.7 Access and Egress Route

Access and egress arrangements have been considered having regard to the characteristics of fluvial flooding affecting the Site, including the typical rate of onset and duration associated with large river systems. These routes must also provide the emergency services with access to the development during a flood event and enable flood defence authorities to carry out any necessary duties during the period of flood. The Access and Egress Route has been assessed having regard to the characteristics of flooding in the area, including the typical rate of onset and duration of flooding associated with large river systems.

The flood management strategy is based on warning-led evacuation occurring in advance of conditions that would affect access routes. Natural Resources Wales flood warnings provide advance notice of developing flood conditions, allowing occupants sufficient time to leave the Site prior to inundation. A primary access and egress route has been identified and is shown on Figure 14.

1. **Primary Route:** via the access road along Briton Ferry Road to the northeast and then south along Cryddan Road.

The strategy does not rely on occupants traversing floodwater during active flood conditions. In the unlikely event that evacuation is not possible, internal refuge is available at first floor level.

Facilities such as community centres, shops etc. are located to the south and east of the Site. There may also be large areas than those shown in the FMfP that are flood free located nearer and within the vicinity of the Site. In the event of a flood warning, vital belongings, including waterproof clothing, necessary medication and essentials for infants and children will be collected.

The identified Access and Egress Route is shown in Figure 14 indicates the exit routes that all people (i.e. occupants and visitors) on Site should follow once a flood warning has been received. Where conditions allow, occupants and visitors should make their way to areas outside of the flood zone.

Evacuation would take place in advance of any conditions under which floodwater would be expected to affect access routes. Therefore, safe access and egress from the Site will be possible. The above factors would, therefore, allow safe access and egress as per TAN15 and Natural Resources Wales guidance.

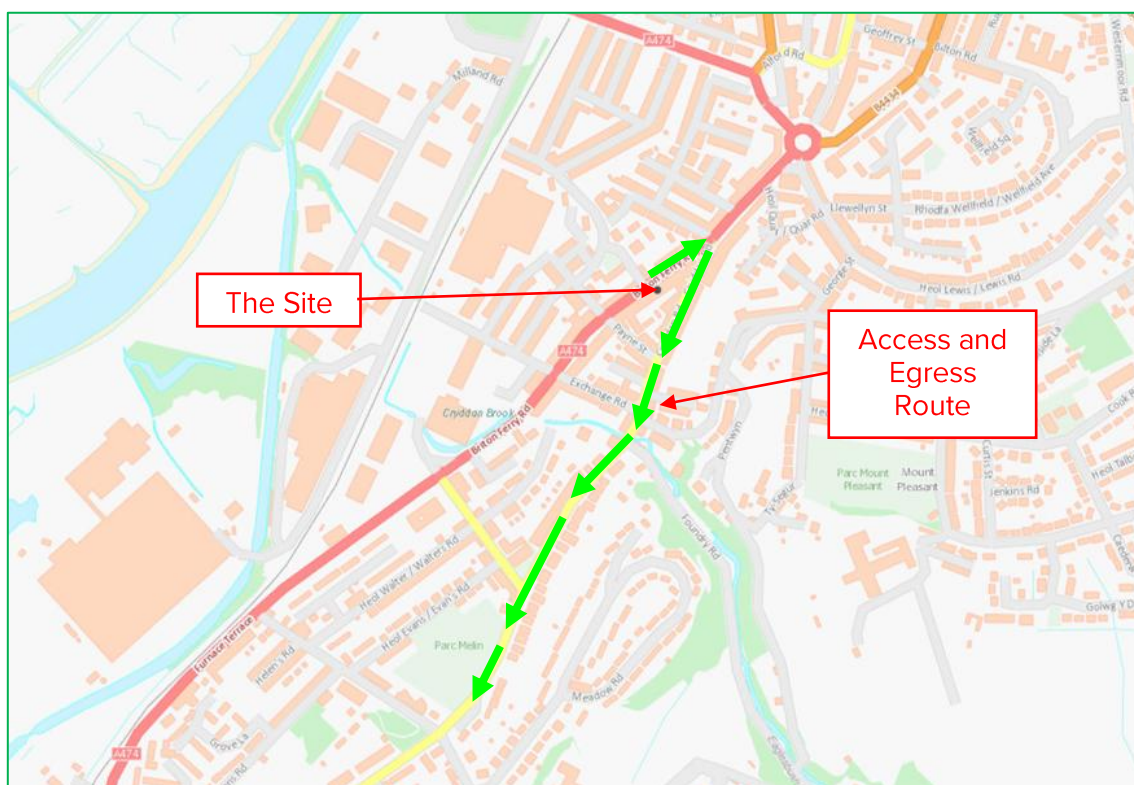


Figure 14 - Access and Egress Route

4.8 Residual Risk

The Site can be justified in accordance with TAN15 as it can be demonstrated that the consequences of flooding can be managed down to a level which is acceptable for the nature and type of Site. The mitigation measures detailed above show that the flood risk can be effectively managed and therefore the consequences of flooding are acceptable.

5.0 JUSTIFYING THE LOCATION OF THE DEVELOPMENT

5.1 Assessment Framework

TAN15 seeks to avoid ‘highly vulnerable’ development within areas at highest flood risk. However, it recognises that development within the FMfP Flood Zone 3 may be acceptable where it can be demonstrated, through a site-specific FCA, that the consequences of flooding are acceptable and can be effectively managed.

Section 11 of TAN15 requires consideration of flood consequence indicators including:

- Flood depth
- Flood velocity
- Rate of onset
- Duration of flooding
- Access and egress arrangements
- Availability of warning
- Vulnerability of receptors

These indicators are applied holistically and are not intended to operate as absolute thresholds. The objective is to determine whether risks to life and property can be managed to an acceptable level over the lifetime of the development.

5.2 Application to the Proposed Development

The Proposed Development comprises a change of use of existing ground floor commercial unit and first floor flat into a 3-bedroom dwellinghouse. No new building is introduced into the floodplain. There is no increase in site footprint, no land raising, and no alteration to floodplain storage or flood routing.

- Accordingly:
- Baseline floodplain conditions remain unchanged;
- There is no increase in flood levels on-site or elsewhere;
- There is no loss of floodplain storage;
- There is no obstruction to flood conveyance routes.

The proposal represents an intensification of an existing residential use within an established building rather than the introduction of new ‘highly vulnerable’ development into previously undeveloped floodplain land. The character of flooding at this location is:

- Gradual in onset;
- Forecast-led;

- Associated with long-duration rainfall events;
- Subject to advance warning via Natural Resources Wales flood warning services.

This flood behaviour significantly reduces the life-safety consequences associated with extreme events.

5.3 Risk Management Measures

The acceptability of development within Flood Zone 3 depends not on whether flooding can occur in extreme scenarios, but whether the consequences of flooding are manageable. In this case:

- Advance warning is available through the Natural Resources Wales Flood Warning Service;
- First floor accommodation provides internal refuge a minimum of 2.50m above ground floor level;
- The absence of physical works or increased flood risk elsewhere;
- Access and egress arrangements allow evacuation prior to peak flood conditions; and
- No increase in flood risk elsewhere arises from the proposal.

In this context, risk to life is managed through early warning, managed evacuation and the provision of internal refuge at first and second floor level. The nature of the flood mechanism, combined with the management measures identified, ensures that life-safety consequences remain acceptable in accordance with TAN15.

Importantly, the proposal does not introduce a new building into the floodplain, does not increase site footprint, does not alter floodplain storage or routing, and does not increase flood risk elsewhere. The proposal represents an intensification of an existing residential use within a building that benefits from flood defences and flood warning systems.

Flood risk is therefore managed through:

- Warning-led evacuation;
- Internal refuge provision;
- Managed emergency planning;
- Physical resilience measures;
- Continued operation of strategic flood defences.

Having regard to the indicators set out in Section 11 of TAN15, the consequences of flooding associated with the Proposed Development are considered acceptable in planning terms.

On this basis, and subject to implementation of the identified mitigation measures, the development satisfies the requirements of TAN15.

6.0 SUMMARY AND CONCLUSIONS

6.1 Introduction

This report presents an FCA in accordance with TAN15 for the Proposed Development at 53 Briton Ferry Road, Neath, Port Talbot, SA11 1AR.

This FCA identifies and assesses the risks of all forms of flooding to and from the development and demonstrates how these flood risks will be managed so that the development remains safe throughout the lifetime, taking climate change into account.

6.2 Flood Risk

The Site is located within the FMfP Flood Zone 3 for fluvial and tidal flooding however, the Site has no history of flooding. The primary, but unlikely, flood risk to the Site is from fluvial flooding from the Cryddan Brook.

The existing use of the Site is classified as ‘highly vulnerable’ for the first floor flat and ‘less vulnerable’ for the ground floor commercial unit. The proposed use of the Site is classified as ‘highly vulnerable’. However, it should be noted that the Site will be reverting to its original classification of ‘highly vulnerable’ as a single dwellinghouse prior to conversion. Whilst the Site lies within FMfP Flood Zone 3, this FCA demonstrates that the consequences of flooding can be managed to an acceptable level for the proposed highly vulnerable use. Subject to the mitigation and management measures identified, the development is considered capable of satisfying TAN15.

The Site lies within the wider Cryddan Brook floodplain and is shown within the defended modelled fluvial flood extents. Natural Resources Wales model outputs provide defended in-channel water levels at a reference node on the Cryddan Brook; however, site-specific flood depths, velocities and hazard ratings are not provided within the available dataset. Flood behaviour at the Site will be influenced by local topography, floodplain connectivity and hydraulic conditions.

The mapped Natural Resources Wales flood extents are therefore considered the most relevant representation of the potential extent of flooding affecting the Site. The available evidence indicates that fluvial flooding represents a material source of flood risk to the Site. However, the characteristics of flooding within the wider floodplain are consistent with a forecast-led mechanism, allowing flood risk to be managed through warning-led evacuation, internal refuge and physical resilience measures. Given the scale and nature of the Proposed Development, it is concluded that the risk of flooding from fluvial sources is considered to be of a **medium residual risk**. A secondary source of flooding has been identified as surface water flooding, which is assessed to pose a **low residual risk**. Residual flood risk is addressed through the mitigation measures, with the wider consequences of flooding assessed in accordance with TAN15.

There will be no loss in flood storage capacity and no change in the on-site and off-site flood risk. The Site proposals have been shown to be in accordance with TAN15.

6.3 Risk Management

The flood risk at the Site will be reduced by using a number of risk management measures to manage and reduce the overall flood risk at the Site. Measures used:

Finished Floor Levels: The Proposed Development relates to an existing building and does not involve raising ground levels or altering finished floor levels. It is recognised that finished floor levels are below extreme modelled flood levels under certain defended and undefended scenarios. However, TAN15 does not require all 'highly vulnerable' development in Flood Zone 3 to remain dry in extreme events. Instead, it requires that the consequences of flooding are demonstrated to be acceptable.

In this case, flood risk is characterised by a slow-onset, forecast-led mechanism, with advance warning provided through Natural Resources Wales' flood warning system. The building includes first floor accommodation located a minimum of 2.50m above ground floor level, providing internal refuge well above modelled flood depths.

On this basis, flood risk is managed through warning-led evacuation and internal refuge provision, rather than reliance on raised finished floor levels.

First Floor Accommodation: First floor accommodation provides internal refuge in the unlikely event that evacuation cannot be completed prior to flooding. The first floor is located substantially above the ground floor level and provides a place of safety for occupants during extreme residual events. This measure forms part of the overall flood consequence management strategy.

Sleeping Accommodation: All sleeping accommodation will be located on the first floor with no sleeping accommodation to be located on the ground floor. The level of the first floor is located well above any floodwater levels.

Flood Resilience and Resistance: Flood resilient and resistant measures will be used, including:

- Flood doors/barriers will be used on all external doors.
- Windows are a minimum of 1000mm above the external ground levels.
- Sealant will be used around external doors and windows.
- All external doors and windows will be constructed from hard wearing materials with flood seals.
- All electrics wiring, switches, sockets, socket outlets etc. to be located a minimum of 450mm above the finished floor levels.

Flood Warning & Evacuation Plan: A Flood Warning and Evacuation Plan outlining the precautions and actions you should take when a flood event is anticipated to help reduce the impact and damage flooding may cause will be developed.

Access and Egress Route: The flood management strategy is based on warning-led evacuation occurring in advance of conditions that would affect access routes. Natural Resources Wales flood warnings provide advance notice of developing flood conditions, allowing occupants sufficient time to leave the Site prior to inundation. A primary access and egress route has been identified:

1. **Primary Route:** via the access road along Briton Ferry Road to the northeast and then south along Cryddan Road.

The strategy does not rely on occupants traversing floodwater during active flood conditions. In the unlikely event that evacuation is not possible, internal refuge is available at first floor level.

Facilities such as community centres, shops etc. are located to the south and east of the Site. There may also be large areas than those shown in the FMfP that are flood free located nearer and within the vicinity of the Site. In the event of a flood warning, vital belongings, including waterproof clothing, necessary medication and essentials for infants and children will be collected.

The identified Access and Egress Route is shown in Figure 14 indicates the exit routes that all people (i.e. occupants and visitors) on Site should follow once a flood warning has been received. Where conditions allow, occupants and visitors should make their way to areas outside of the flood zone.

Evacuation would take place in advance of any conditions under which floodwater would be expected to affect access routes. Therefore, safe access and egress from the Site will be possible. The above factors would, therefore, allow safe access and egress as per TAN15 and Natural Resources Wales guidance.

6.4 Justifying the Location of the Development

The development proposals should be considered by the LPA to satisfy the Acceptability Criteria as set out in TAN15.

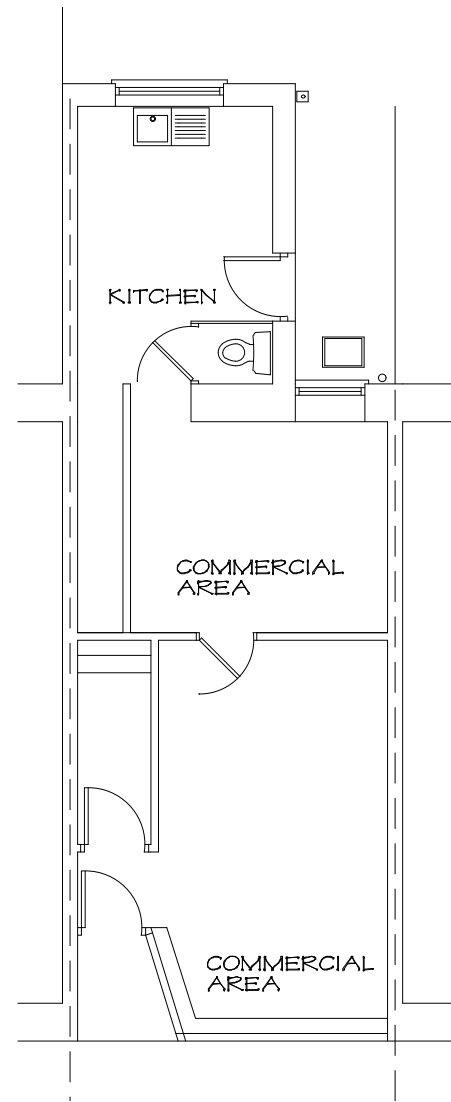
6.5 Conclusion

In conclusion, flooding may occur during more extreme climate change and exceedance scenarios; however, the nature of flooding, availability of warning and provision of internal refuge ensure the consequences are acceptable in accordance with TAN15. Providing the recommendations made in this FCA are instigated, flood risk from all sources would be minimised, the consequences of flooding are acceptable and the development would be in accordance with the requirements of TAN15.

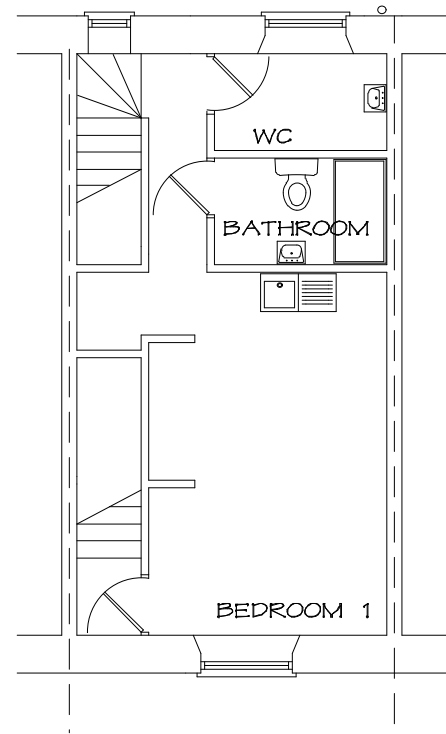
This FCA demonstrates that the Proposed Development would be operated with minimal risk from flooding, would not increase flood risk elsewhere and is compliant with the requirements of TAN15. The development should not therefore be precluded on the grounds of flood risk.

APPENDICES

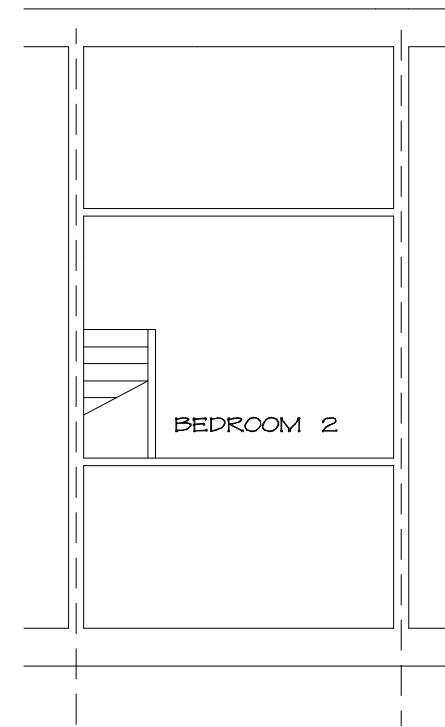
APPENDIX 1 – Existing and Proposed Site Layout



GROUND FLOOR PLAN

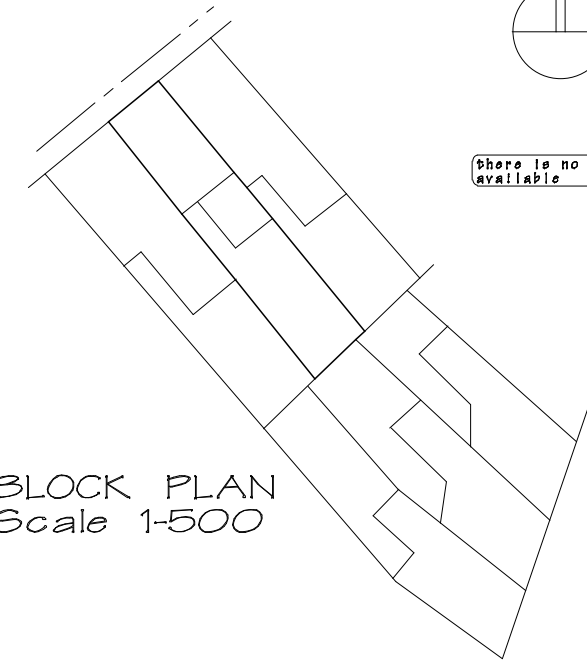


FIRST FLOOR PLAN



ATTIC PLAN

BLOCK PLAN
Scale 1-500



there is no off street parking available

PROPOSED CHANGE of USE at 53 BRITON FERRY ROAD, MELYN, NEATH. SA11 1AR.

DRAWING TITLE
EXISTING LAYOUT

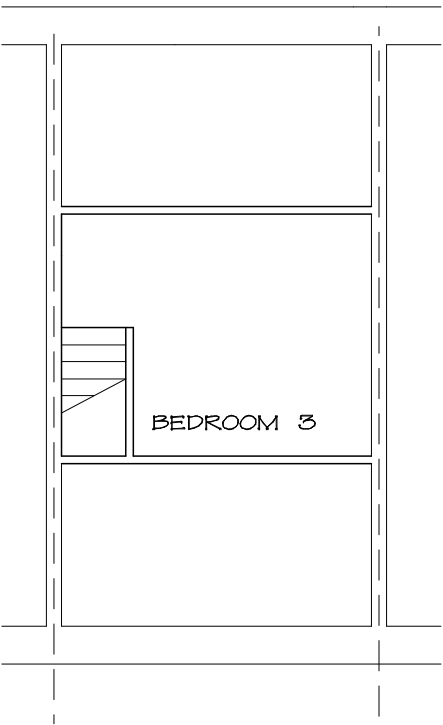
SCALE 1 to 100 @ A3	DATE January 2026.	DRAWING No. 2026/01
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DO NOT SCALE DRAWING. FIGURED DIMENSIONS ONLY TO BE USED.
DISCREPENCIES TO BE REPORTED IMMEDIATELY.

Fire Suppression Standards:
For Residential Sprinklers:
BS 9251: The primary standard for automatic fire sprinkler systems in domestic and residential buildings, focusing on life safety.
For Residential Water Mist Systems:
BS 8458: Specifies requirements for fixed water mist systems in domestic and residential premises, often used for building regulation compliance.
Certificate required

Smoke Alarm
BS 5839-6 (Domestic):
Recommending mains-powered alarms with battery backup

see structural engineers report for floor and roof details



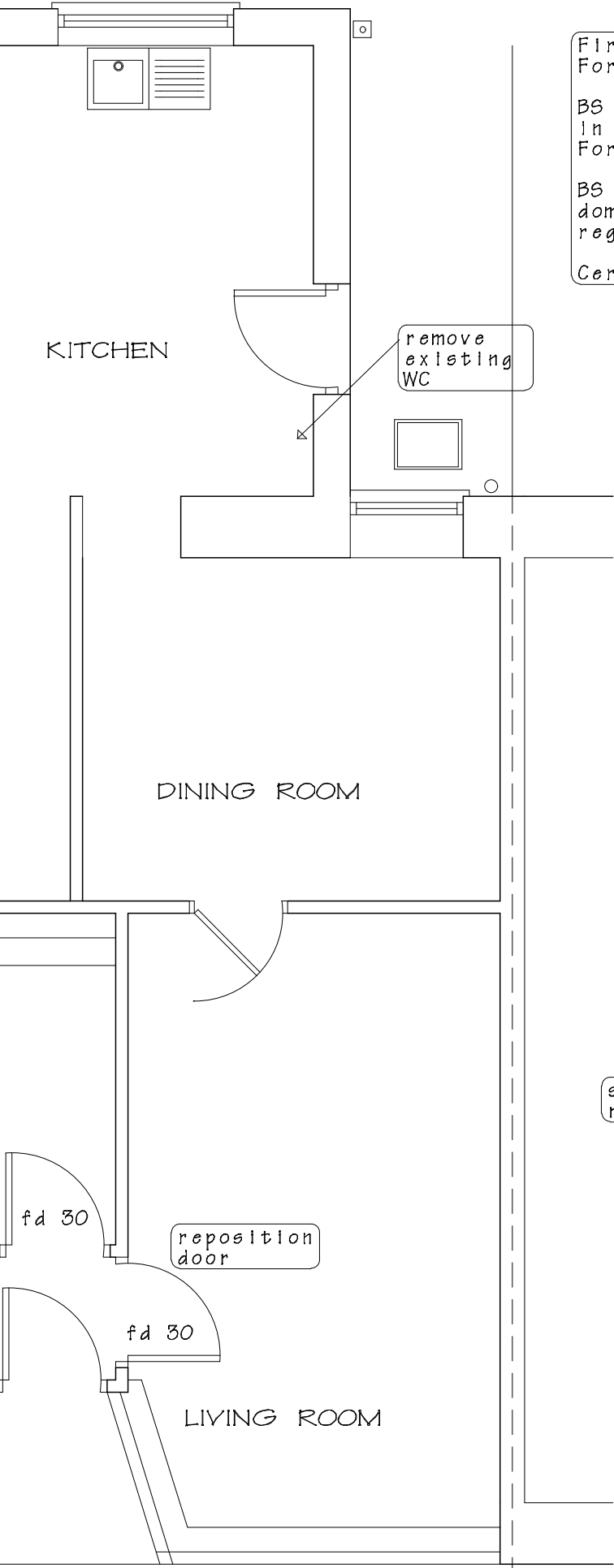
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PROPOSED CHANGE of USE at 53 BRITON FERRY ROAD, MELYN, NEATH. SA11 1AR.

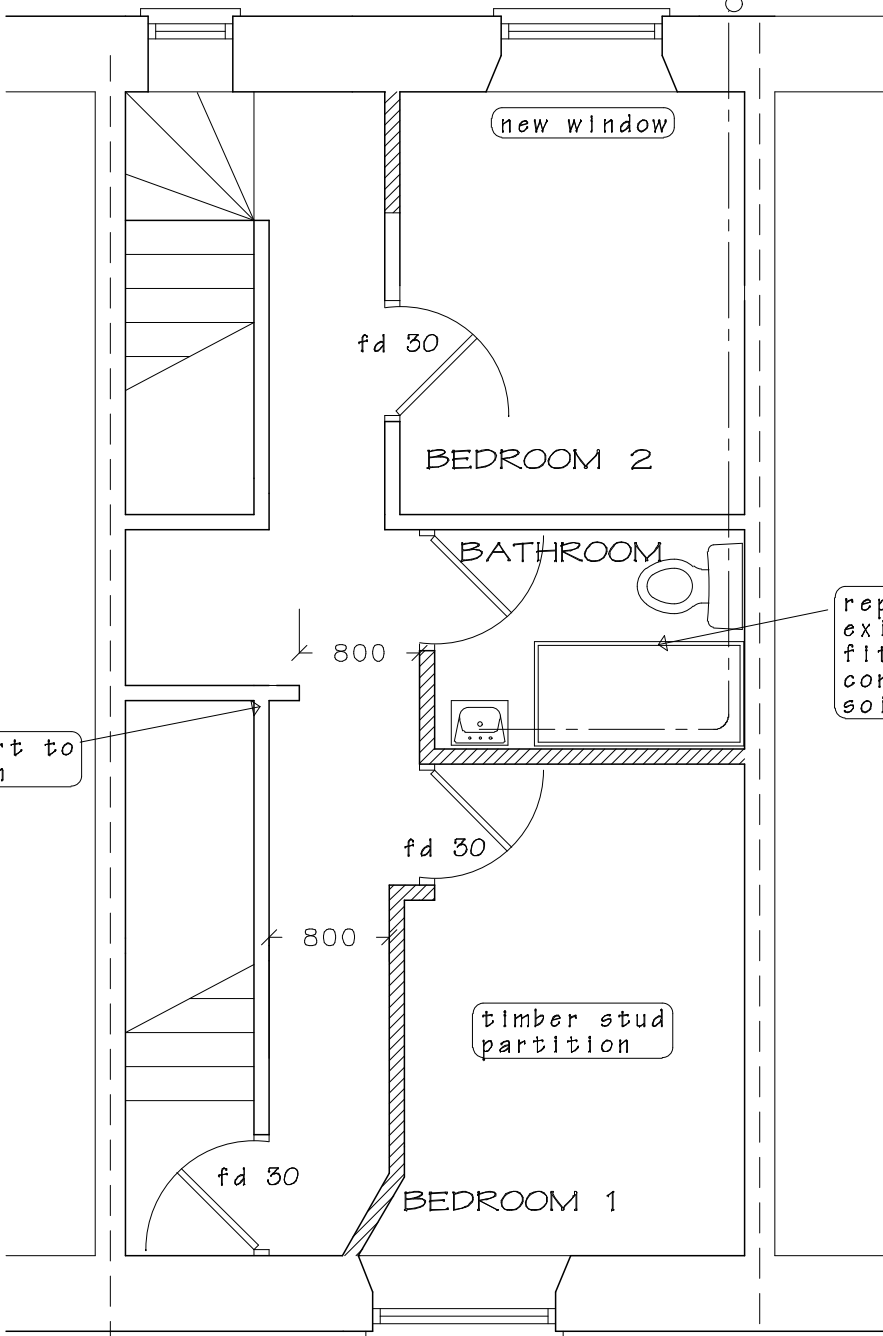
DRAWING TITLE
PROPOSED LAYOUT

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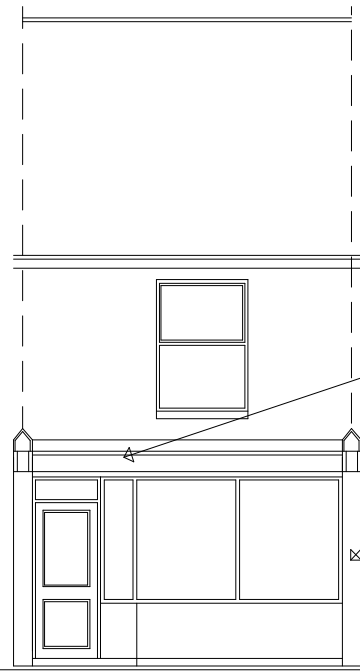
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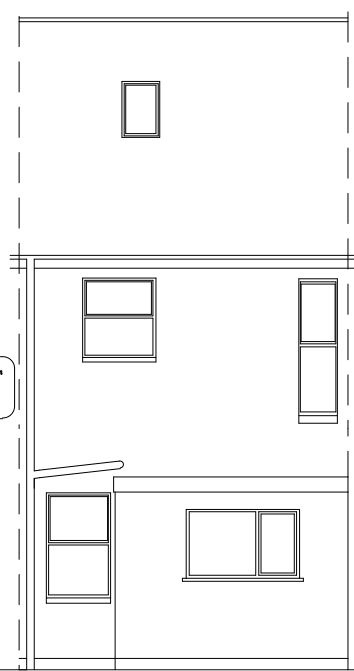
GROUND FLOOR PLAN



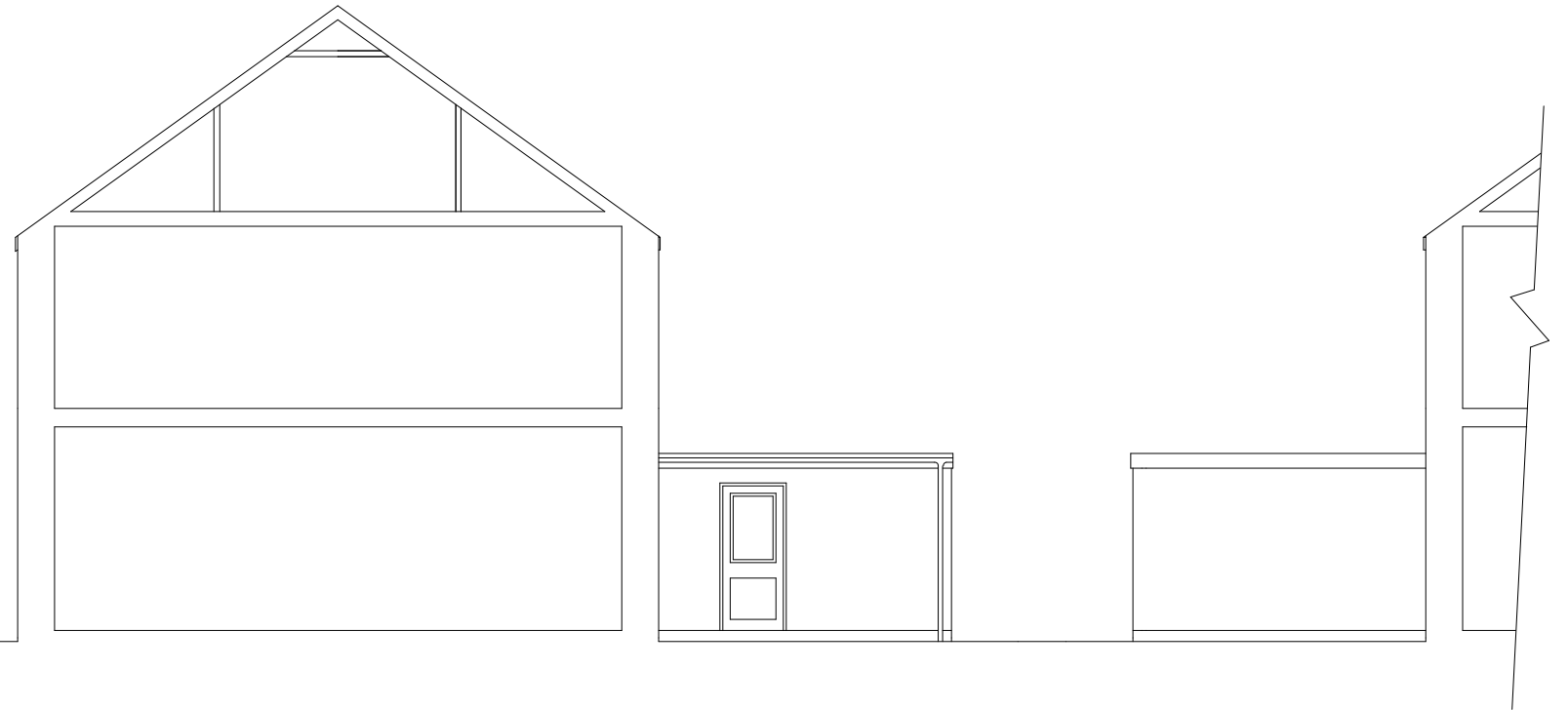
FIRST FLOOR PLAN



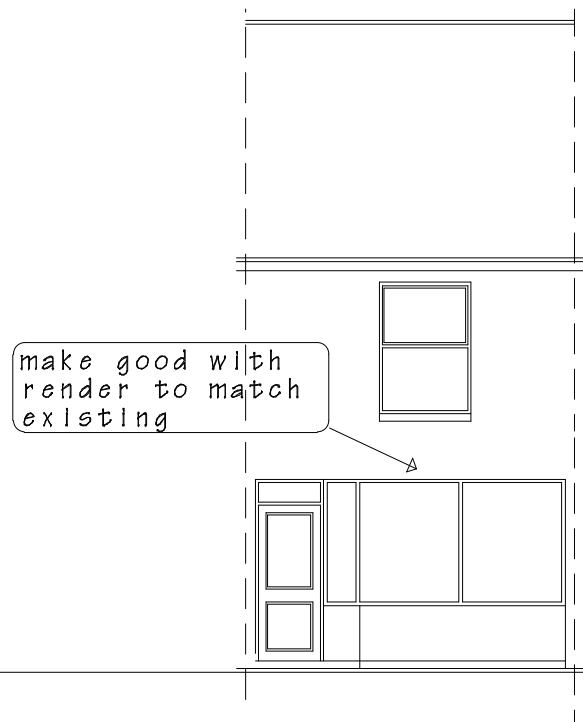
EXISTING
FRONT ELEVATION



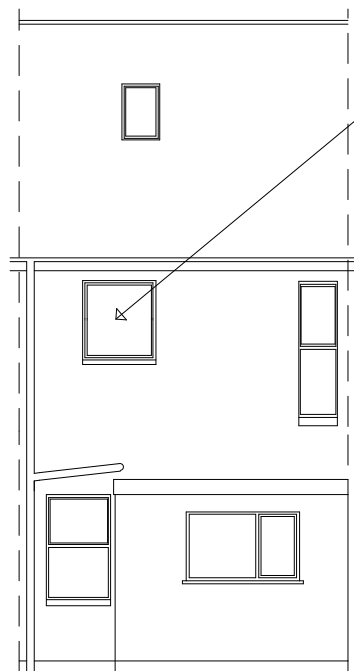
EXISTING
REAR ELEVATION



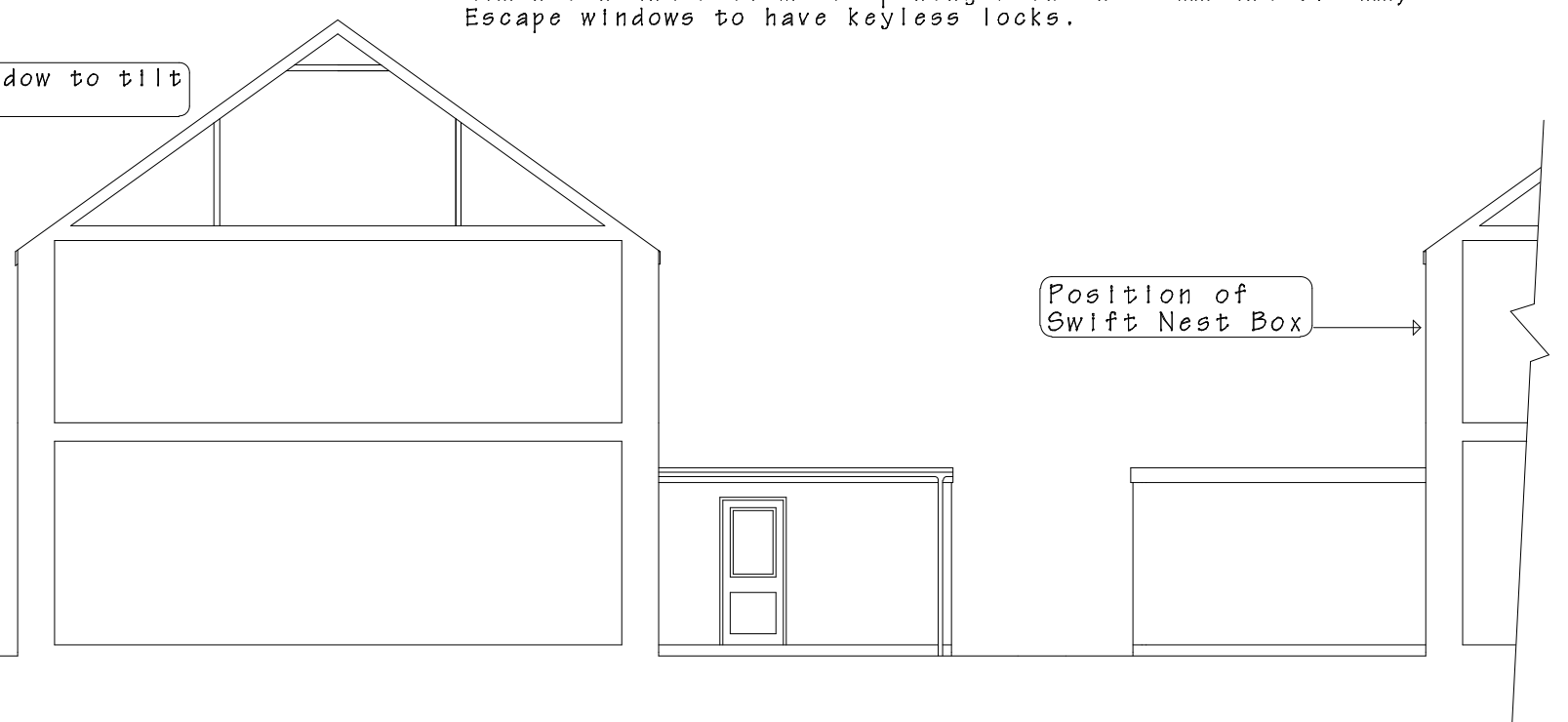
EXISTING
SIDE ELEVATIONS



PROPOSED
FRONT ELEVATION



PROPOSED
REAR ELEVATION



PROPOSED
SIDE ELEVATIONS

All habitable rooms on the 1st floor are to have windows suitable for escape (0.33m²; 450mm x 750mm minimum dimension and bottom of opening between 800mm and 1100mm). Escape windows to have keyless locks.

PROPOSED CHANGE of USE at 53 BRITON FERRY ROAD, MELYN, NEATH. SA11 1AR.

DRAWING TITLE
EXISTING and PROPOSED ELEVATIONS Rev A

SCALE 1 to 100 @ A3	DATE March 2026.	DRAWING No. 2026/01
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DO NOT SCALE DRAWING. FIGURED DIMENSIONS ONLY TO BE USED. DISCREPENCIES TO BE REPORTED IMMEDIATELY.

