FLOODPLAN LIMITED

Project Title: 00396AB 15 Bethel Street

Product: Level 3 Flood Consequence Assessment

Date: 30 April 2024

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FLOODPLAN LIMITED

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Report Revision Log

Report Reference	Date Issued	Issued To	Notes
00396AB	30/04/2023	Client	

1. INTRODUCTION

1.1. PURPOSE OF THE REPORT

FloodPlan have been commissioned on behalf of F. Allareba to produce a Flood Consequence Assessment for 15 Bethel Street, Briton Ferry, Neath, SA11 2HQ. This assessment has been conducted with the understanding that the document will be used as part of a planning permission proposal by F. Allareba.

1.2. LOCATION OF SUBJECT SITE

The site is accessed via Bethel Street.

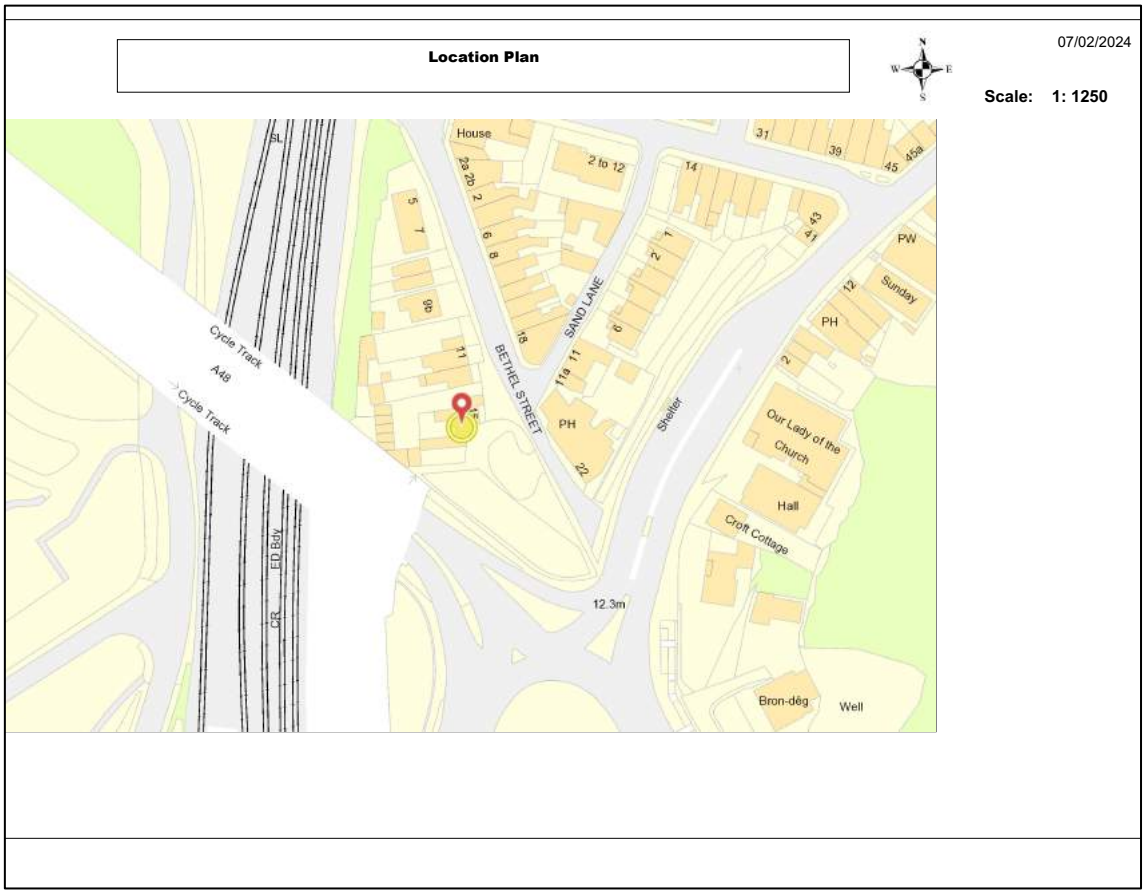


Figure 1: Site Location

1.3. SITE PROPOSALS

The development plans propose the internal reconfiguration of an existing residential dwelling to that of a residential use House of Multiple Occupation (HMO). The proposed use will be residential use, and therefore classified as 'highly vulnerable development'. The development plans also an extension to the rear of the property and how ground flood sleeping accommodation is proposed.

2. ASSESSMENT OF TAN15

2.1. INTRODUCTION TO TAN15

Technical Advice Note 15 (TAN15 is a Welsh Government published document. This document provides guidance to local planning authorities to ensure the effective implementation of the planning policy. The policy seeks to direct development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. For these purposes:

- Direct new development away from those areas which are at high risk of flooding.
- Where development has to be considered in high-risk areas (zone C) only those developments which can be justified on the basis of the tests outlined in section 6 and section 7 are located within such areas

Flood risk (from river and sea) are categorised inro one of the below:

2.2. FLOOD RISK CLASSIFICATIONS

Flood Zone	Description
Zone A	Little or no risk
Zone B	Known to have flooded in the past
Zone C	EA extreme flood outline (0.1%)
Zone C1	Areas of floodplain which are developed and served by significant infrastructure, including flood defence.
Zone C2	Areas of the floodplain without significant flood defence infrastructure

2.3. FLOOD RISK VULNERABILITY CLASSIFICATION

TAN15 categorises buildings by vulnerability. A summary of categories can be seen below:

Vulnerability Class	Infrastructure
Emergency Services	Hospitals, emergency depots, police stations etc
Highly vulnerable	All residential premises, public buildings, schools, libraries etc.
Less vulnerable	General industrial, commercial, retail, car parks etc

2.4. SUITABLE DEVELOPMENT MATRIX

The below table outlines the suitable development type for the flood zone classification assigned by the Environment Agency flood maps.

Flood risk vulnerability classification	Emergency Services	Highly Vulnerable	Less Vulnerable
Zone A			
Zone B			
Zone C1	Justification Test Required	Justification Test Required	Justification Test Required
Zone C2			Justification Test Required

Figure 2: Suitable Development Matrix

Key: Blue Development is appropriate; Red Development should not be permitted; Green Development is appropriate with a sufficient Justification Test.

3. TAN15 SITE ASSESSMENT

3.1. FLOOD ZONE CLASSIFICATION

As per Figure 3, the site is within flood zone B.

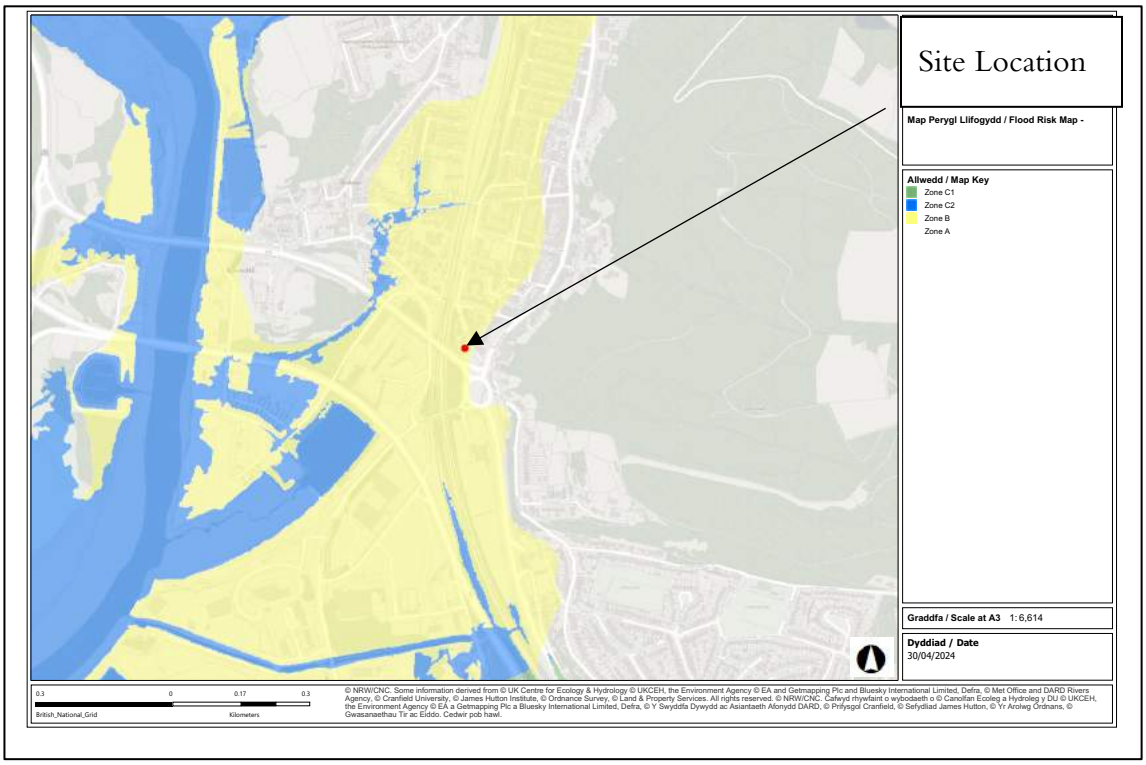


Figure 3: NRW Flood Zone

Where the blue shaded area notates flood zone C2, the green shaded area notated flood zone C1, yellow area notates flood zone B, and the non-shaded areas notates flood zone A.

3.2. LAND VULNERABILITY CLASSIFICATION

The existing land is used as a residential use dwelling and is therefore designated as 'highly vulnerable development' by Tan15. The proposed residential development will also be classified 'highly vulnerable development'. The proposals therefore retain the vulnerability classification of the site.

The proposed extension will convert land used as an existing amenity area to that of residential use.

3.3. SITE SUITABILITY (TAN15)

'Highly vulnerable development' is suitable for flood zone B.

4. FMfP SITE ASSESSMENT

4.1. FLOOD ZONE CLASSIFICATION

As per Figure 4, the site is within flood zone 3 and is not mapped to be defended by formal flood defences. The primary flood risk to the site is from tidal sources:

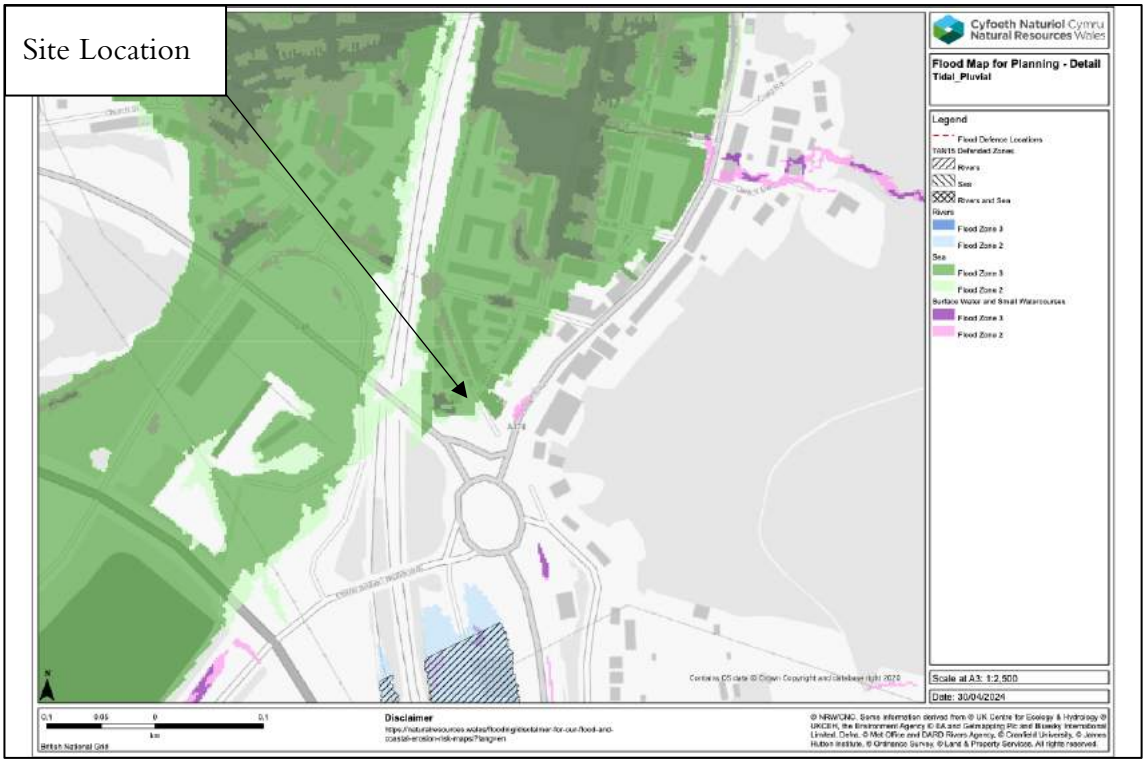


Figure 4: FMfP Flood Zone

5. FURTHER SITE FLOOD RISK

5.1. THIRD PARTY FLOOD RISK DATA SUMMERY

A 'Groundsure' flood report has been acquired for advising this assessment. The full report can be found in Appendix B. The main findings are summarised below:

Type of Risk	Assessment of Risk
Overall Flood Risk	Low
Rivers and the Sea	Low
Surface Water	Negligible
Groundwater	Negligible
Historic Flood	Not identified
Flood Defences	No
FloodScoreTM – insurance rating	Very Low

5.2. SURFACE WATER FLOODING

The Natural Resources Wales surface water flood map Figure 5 shows the site to be affected by localised pluvial flood risk. Mapping suggests this if due to pooling.

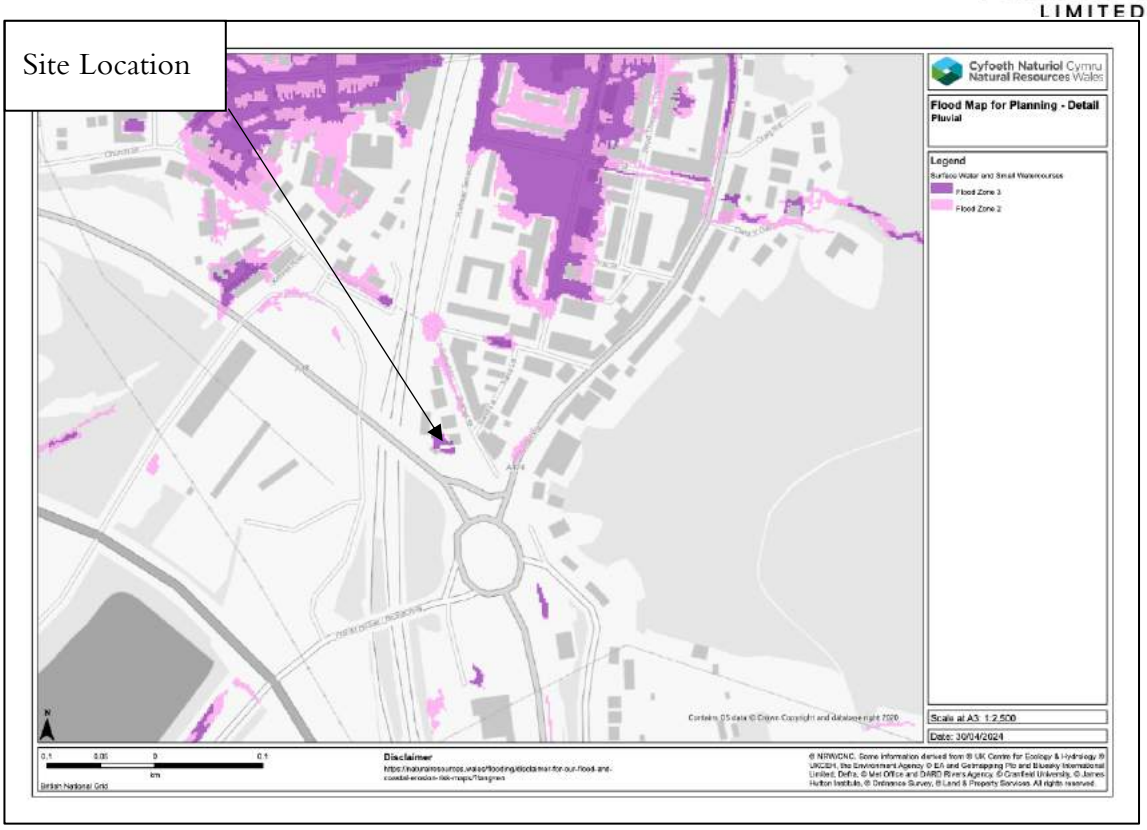


Figure 5: NRW Surface Water Flood Mapping

Where the dark purple shaded area denotes high risk of surface water flooding; the lighter purple notates medium risk, and the pink area denotes low risk.

5.3. TIDAL AND FLUVIAL FLOODING

LiDAR downloaded on the 30th of April 2024 shows the site to have a ground level of circa 7.5mOD. Please note, ground levels vary across the site, with some areas significantly lower than 7.5mOD. The applicant may wish to have levels verified by a topographic survey.

As part of this commission, FloodPlan contacted Natural Resources Wales to request flood modelling data and outputs for the site. Natural Resources Wales confirmed that there was no available flood modelling.

The closest tidal (estuary) node to the site is node label '_484_2'. The Node details can be seen below.

Maximum Projected Sea Level (mOD)			
Node Label	_484_2		
Year 2017	Year 2017 (mOD)	Year 20234(mOD)	Year 2134 (mOD)
T200	6.43	6.46	7.59
T1000	6.69	6.74	7.85
Data collected using the Coastal Design Sea Levels - Coastal Flood Boundary Extreme Sea Levels (2018). Climate Change values have been calculated using Sea Level Allowances (Table 1) found at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances			

The T200CC level is expected to be circa 7.59mOD during the climate change event (2124). Should this level be transferred to the subject site, the site is expected to flood to a depth of circa 0.09m. This report recommends that the ground floor sleeping accommodation be set to 8.19mOD where possible to allow for a 0.6m freeboard. The ground floor units are self-contained, with no access to upper floor safe refuge.

Given the risk of flooding, this report also recommends a flood evacuation plan be considered.

5.4. GROUNDWATER FLOODING

The 'Groundsure' flood report indicates that the site has a negligible risk of groundwater flooding.

5.5. RESERVOIR FLOODING

The site is not believed to be at risk of flooding from reservoir sources.

5.6. CANAL AND ARTIFICIAL WATER FLOODING

The site is at not believed to be at risk of flooding from artificial water sources.

5.7. HISTORIC FLOODING

The 'Groundsure' flood report failed to identify any historic flood events for the site.

6. FURTHER SITE ASSESSMENT

6.1. SITE ACCESS AND EGRESS ROUTES

Access to the site is gained via Bethel Street. Mapping suggests access may be impacted by flood risk during extreme events. Mapping suggests that evacuation to the east may be optimal. A bespoke flood evacuation plan should be considered.

6.2. FLOOD COMPENSATION

The proposals are not expected to significantly displace floodwater.

6.3. FLOOD WARNING AREAS

The below Figure 6, highlights the areas that are considered to benefit from Natural Resources Wales flood alerts. The site is outside of the flood alert area.

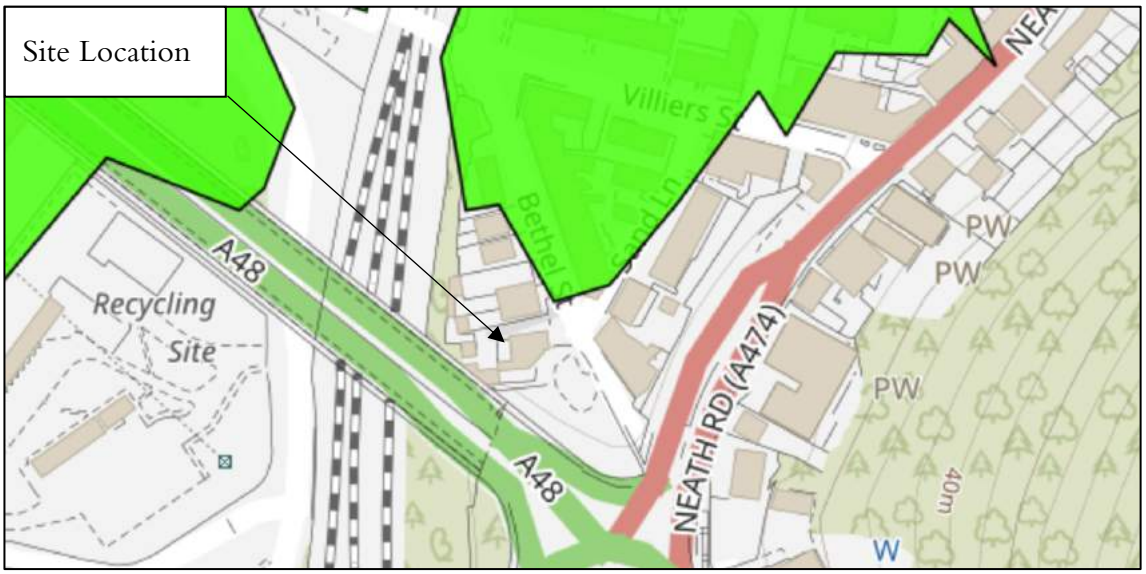


Figure 6: NRW Flood Warning Areas

6.4. AWARENESS OF FLOOD RISK

The developer should be aware that the site is not immune from flooding. It is recommended that future occupiers take the opportunity to develop emergency and non-emergency plans.

6.5. JUSTIFICATION TEST

Not applicable for land within Flood Zone B.

7. FINDINGS AND RECOMMENDATIONS

7.1. FINDINGS

The development plans propose the internal reconfiguration of an existing residential dwelling to that of a residential use House of Multiple Occupation (HMO). The proposed use will be residential use, and therefore classified as 'highly vulnerable development'. The development plans also show ground flood sleeping accommodation is proposed. TAN15 categorises residential use property as 'highly vulnerable development'. 'Highly vulnerable development' is suitable for flood zone B. Extreme tidal flood levels show the site to be at risk, with the consequences of flooding manageable.

7.2. RECOMMENDATIONS

This report recommends the following be considered to lower the risk and/or consequences that flooding may cause to the proposed development:

- Consideration should be given to providing safe refuge on the upper floors of the development and the inclusion of a flood evacuation plan.
- Ground flood finished floor levels should be set to a minimum of 8.19mOD where possible. Where this is not achievable, flood resistance and resilience techniques should be explored.

List of Appendices

Appendix A: Development Proposals

Appendix B: Groundsure Flood Report

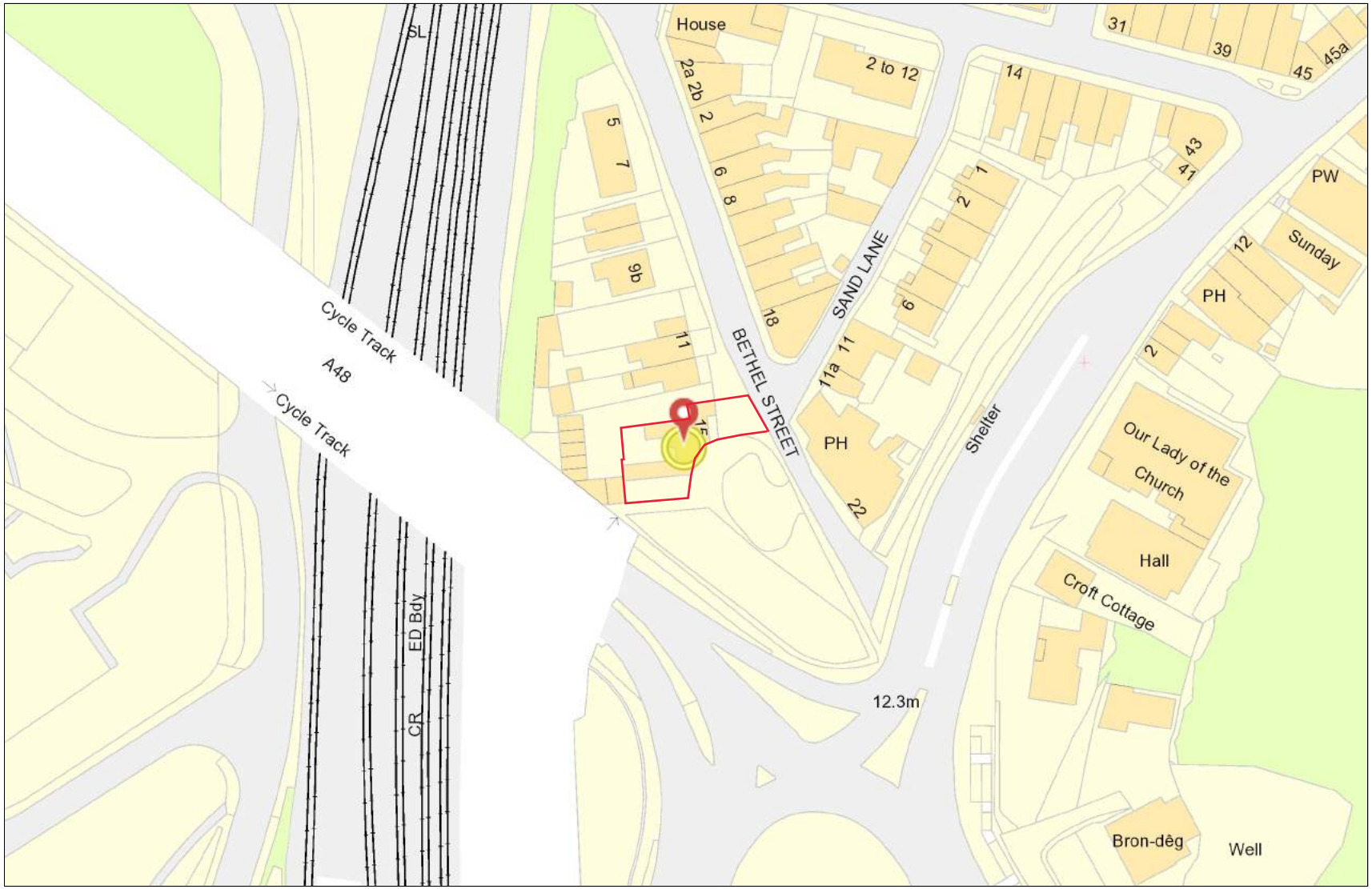
Appendix C: Flood Modelling Data

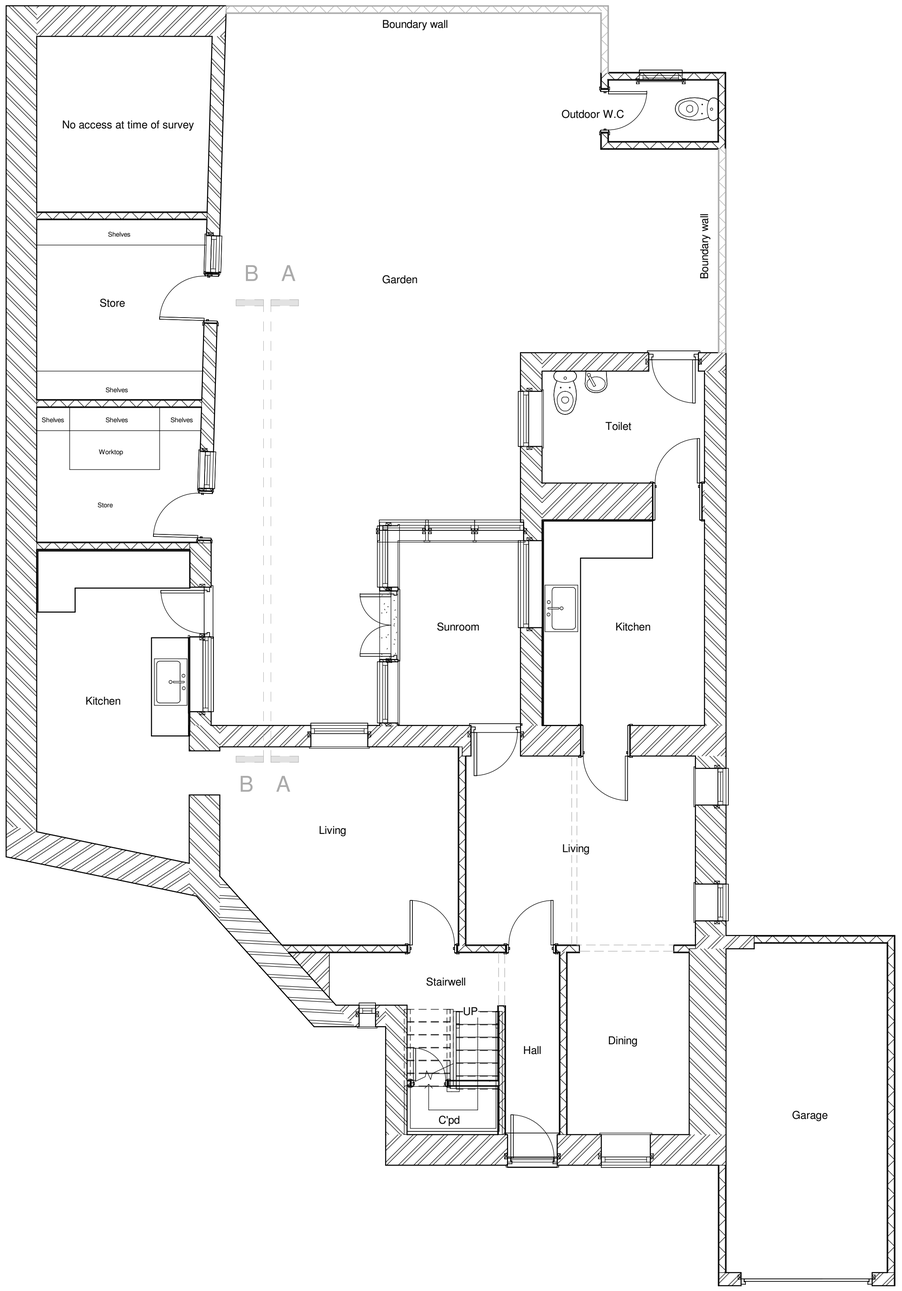
Appendix A: Development Proposals

Location Plan

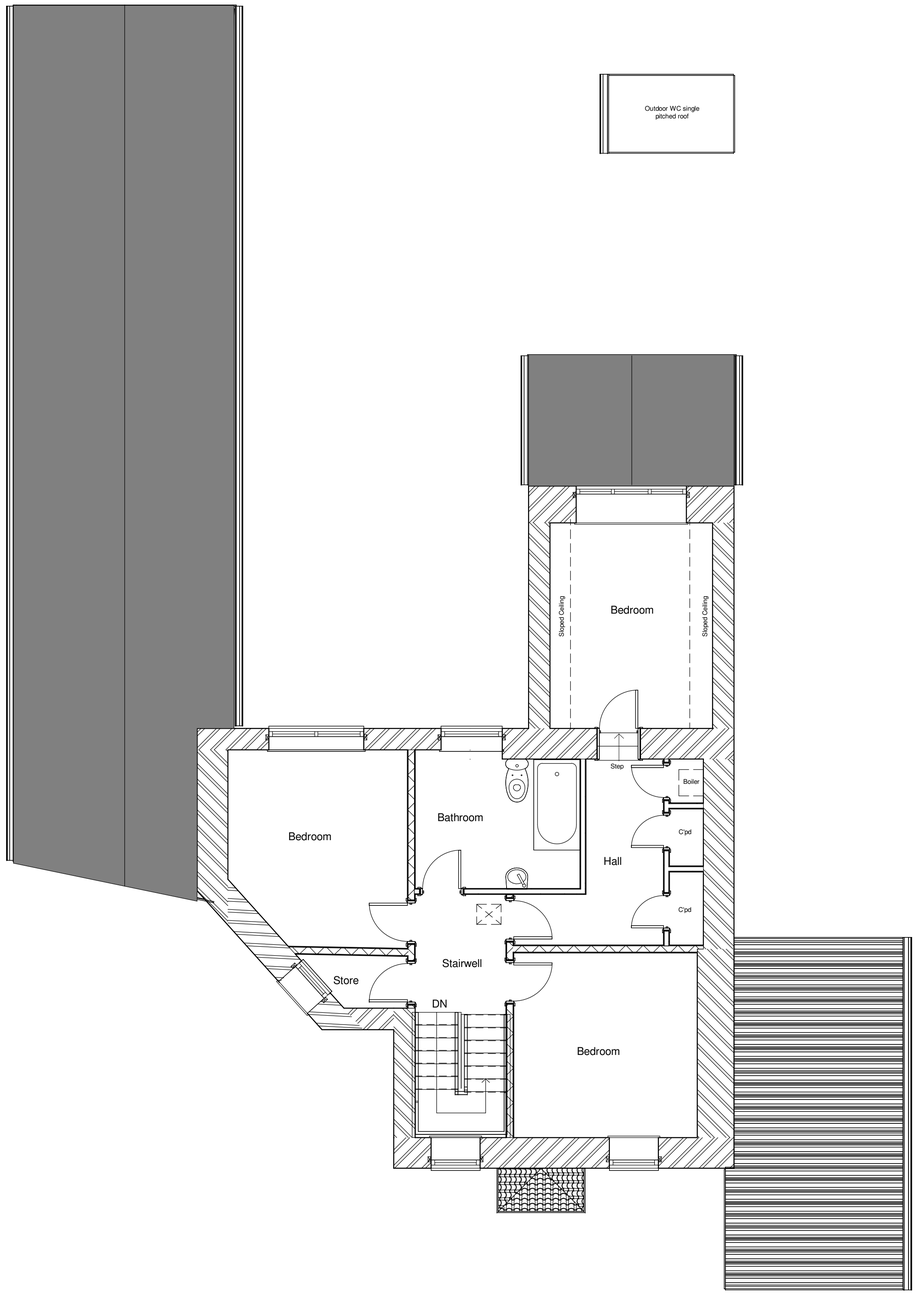
07/02/2024

Scale: 1: 1250

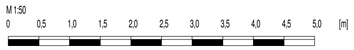




Ground Floor
1 : 50



First Floor
1 : 50



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Rev	Description	Date

CODE	SUITABILITY DESCRIPTION
STATUS	PURPOSE OF ISSUE

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PROJECT
15 Bethel Street

TITLE
Existing Floor Plans

CLIENT
Mr Francis Allareba

DRAWN BY	CHECKED BY	DATE
Author	Checker	02/07/24
SCALE (@ A1) 1 : 50	PROJECT NUMBER 10/01/2024	
DRAWING NUMBER A101		REV

07/02/2024 22:49:46

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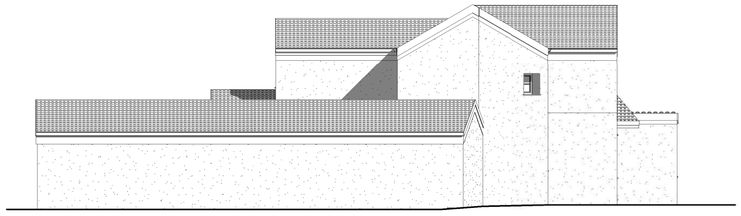
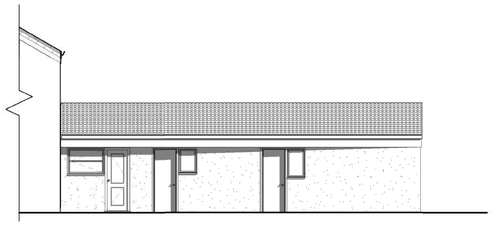


Left Side Elevation
1 : 100



Elevation B-B
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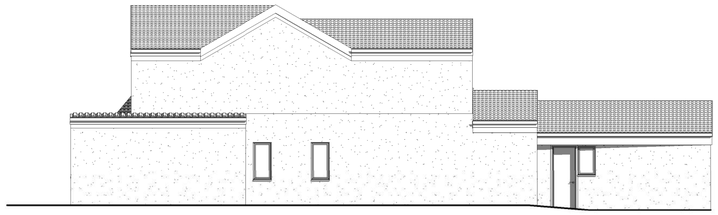
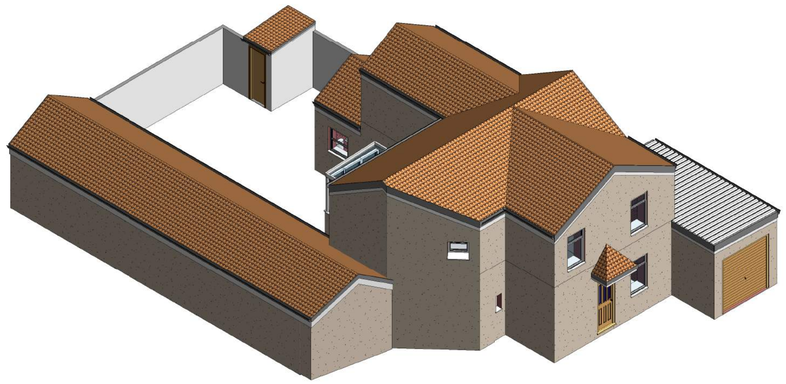
Rear Elevation
1 : 100

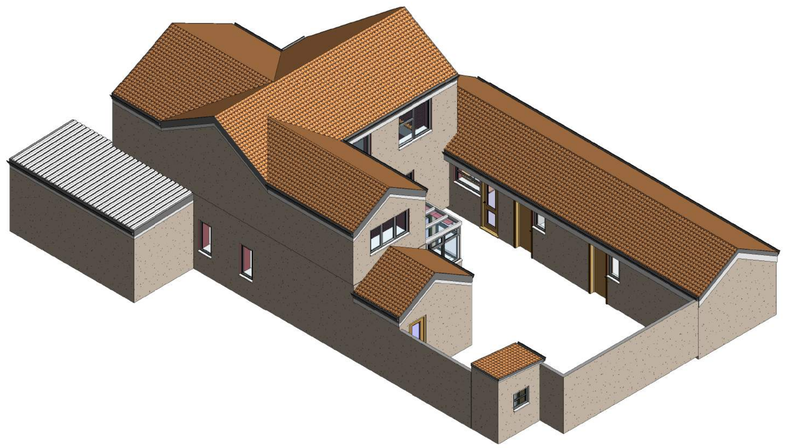


Right Side Elevation
1 : 100

Elevation A-A
1 : 100



3D Front



3D Rear

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STATUS	PURPOSE OF ISSUE

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PROJECT
15 Bethel Street

TITLE
Existing Elevations

CLIENT
Mr Francis Allareba

DRAWN BY	CHECKED BY	DATE
CCS	Client	02/07/24

SCALE (@ A1)	PROJECT NUMBER
1 : 100	10/01/2024

DRAWING NUMBER	REV
A102	

19/02/2024 10:07:30

Site
1 : 200

No.	Description	Date

www.ccs-solutions.co.uk

CODE	STATUS	SUITABILITY DESCRIPTION	PURPOSE OF ISSUE

PROJECT
15 Bethel Street

SHEET
Existing Site Plan

CLIENT
Mr Francis Allareba

Date	Project number	Scale (@ A3)
10/04/2024	10/01/2024	1 : 200

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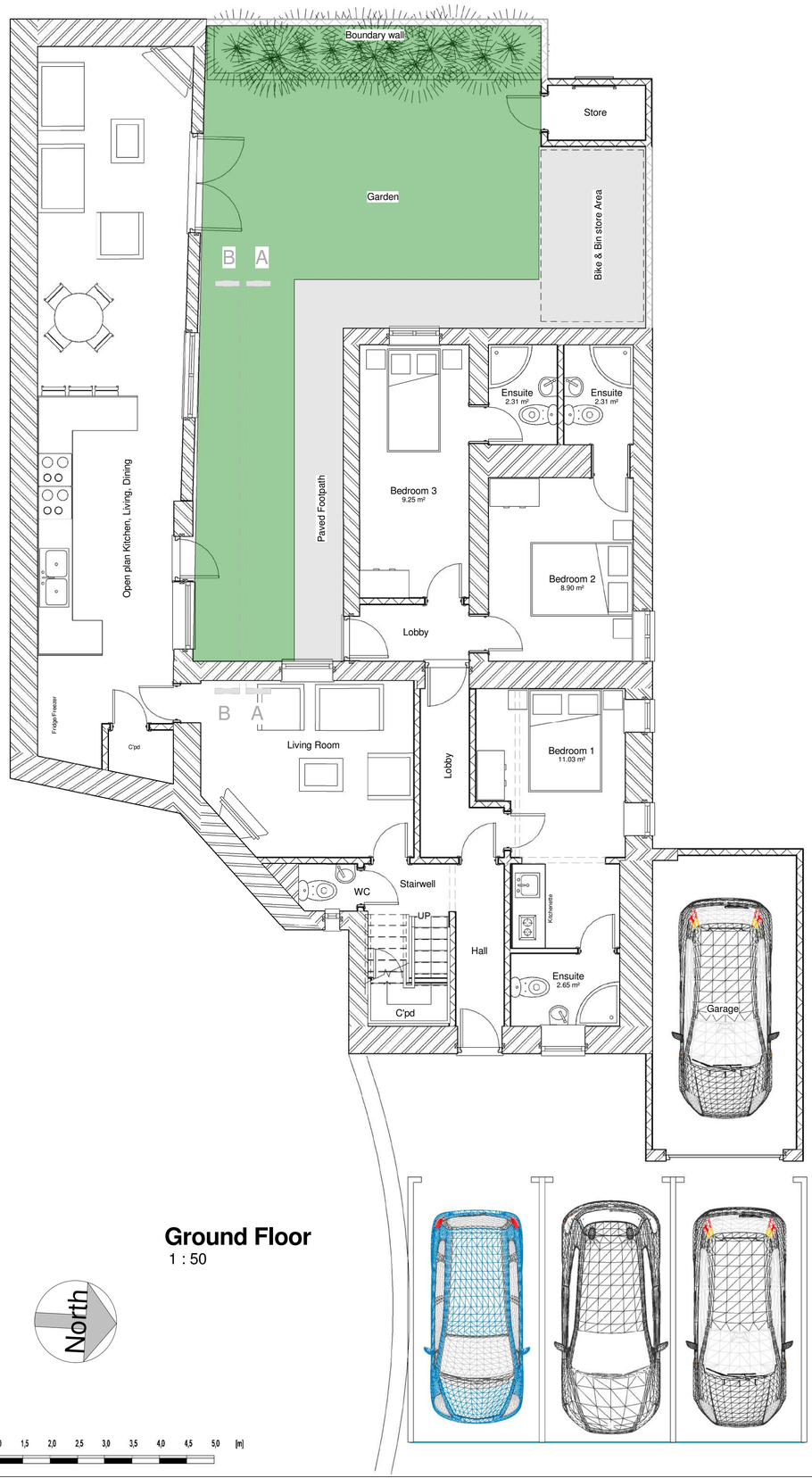
Checked by: Client
DRAWING NUMBER: A103
REV:

07/02/2024 22:41:56



Ground Floor
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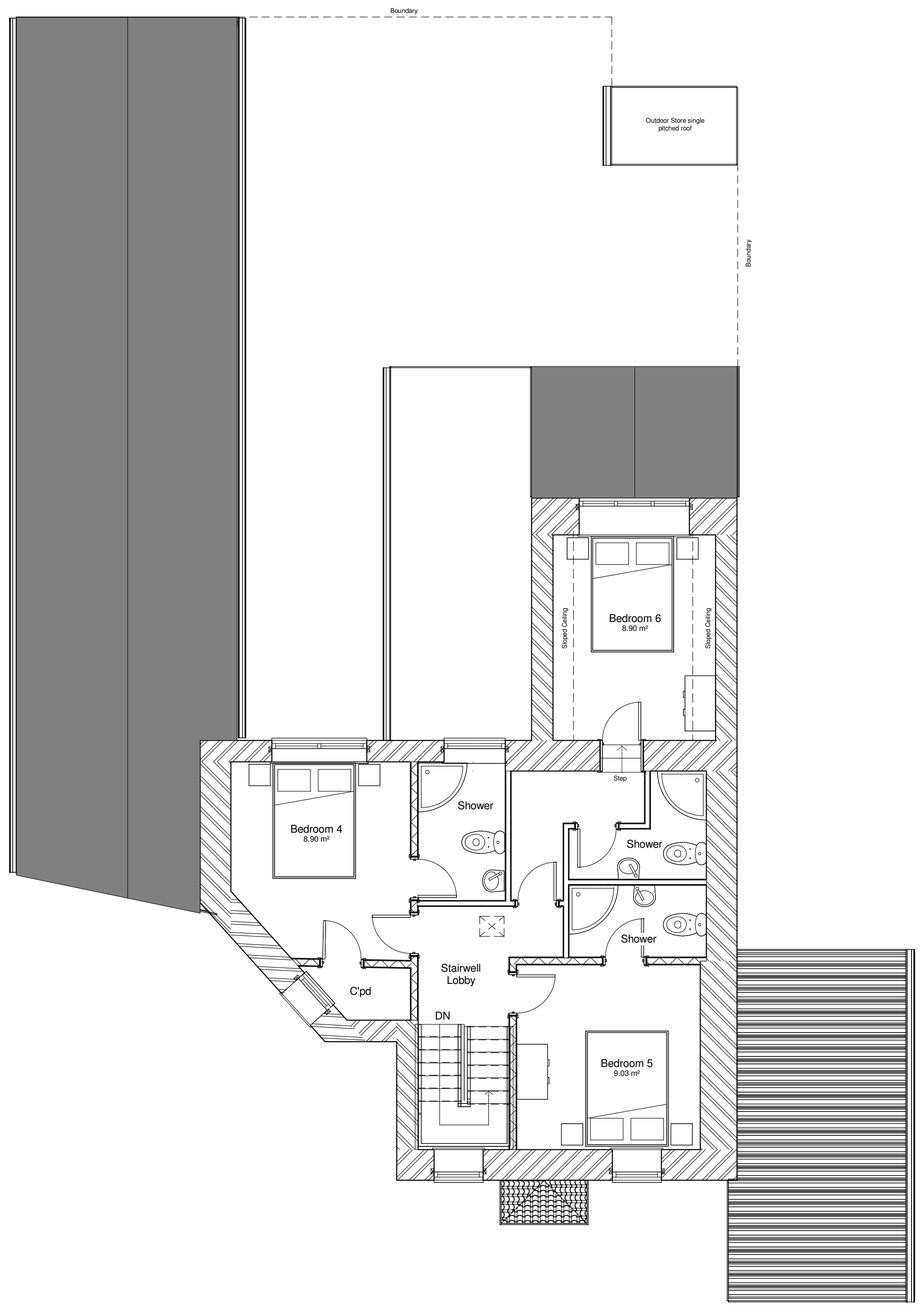

First Floor
1 : 50

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PROJECT
15 Bethel Street

TITLE
Proposed Floor Plans

CLIENT
Mr Francis Allareba

DRAWN BY	CHECKED BY	DATE
Author	Checker	02/07/24

SCALE (@ A1)	PROJECT NUMBER
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DRAWING NUMBER	REV
A104	C

09/04/2024 10:07:18

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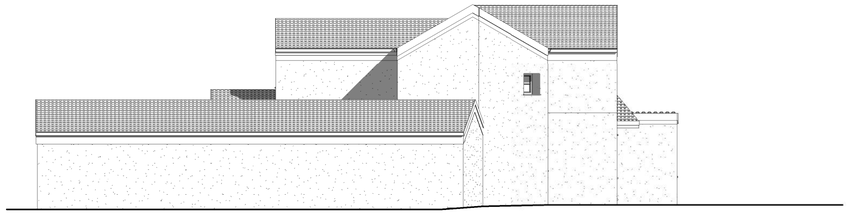

Left Side Elevation
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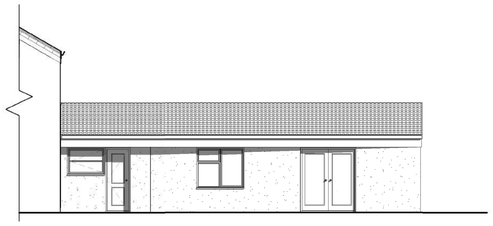

Elevation B-B
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Rear Elevation
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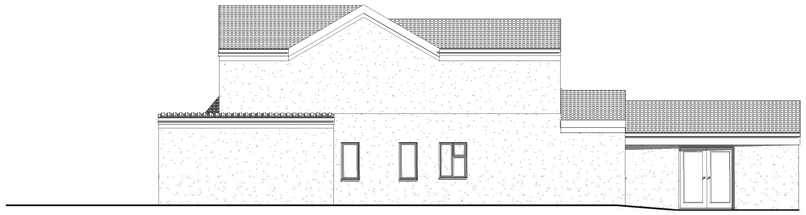

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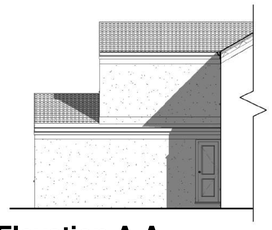

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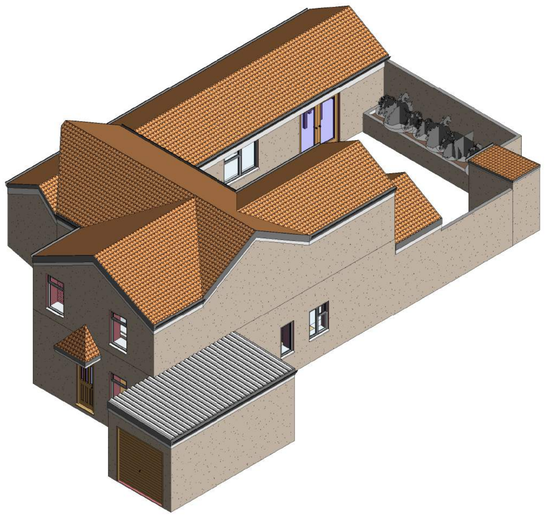
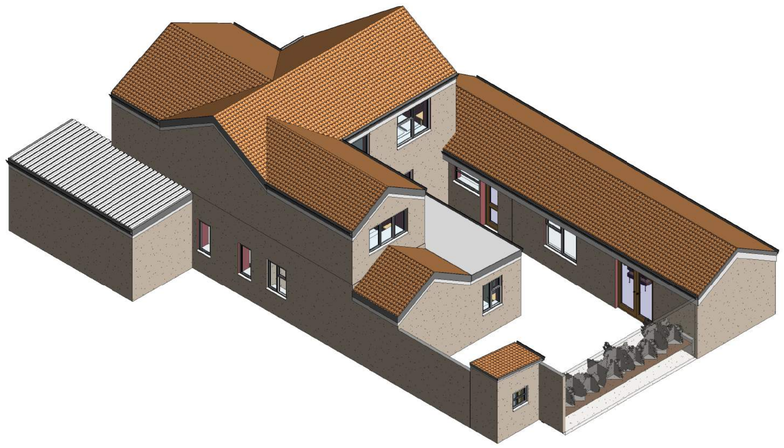


3D Front



3D Rear

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CODE	SUITABILITY DESCRIPTION
STATUS	PURPOSE OF ISSUE

www.ccs-solutions.co.uk

PROJECT
15 Bethel Street

TITLE
Proposed Elevations

CLIENT
Mr Francis Allareba

DRAWN BY	CHECKED BY	DATE
CCS	Client	02/07/24

SCALE (@ A1)	PROJECT NUMBER
1 : 100	10/01/2024

DRAWING NUMBER	REV
A105	

19/02/2024 10:02:12

Site
1 : 200

No.	Description	Date

CCS COMPLETE CAD & STRUCTURAL SOLUTIONS
www.ccs-solutions.co.uk

CODE	STATUS	SUITABILITY DESCRIPTION	PURPOSE OF ISSUE

PROJECT
15 Bethel Street

SHEET
Proposed Site Plan

CLIENT
Mr Francis Allareba

Date	Project number	Scale (@ A3)
10/04/2024	10/01/2024	1 : 200

Drawn by: CCS
Checked by: Client
DRAWING NUMBER: A106
REV:

20/02/2024 12:14:58

Appendix B: Groundsure Flood Report

Groundsure
LOCATION INTELLIGENCE

Flood

15 Bethel Street, Neath, Briton Ferry, SA11 2HQ

Overall Flood Risk

LOW

Groundsure Flood complies with relevant Law Society practice notes on flood risk in property transactions.

Site plan

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Search Results

Rivers and the Sea
Low
page 3 >

Surface Water
Negligible

Groundwater
Negligible

Historic Flood
Not identified

Flood Defences
No

FloodScore™ insurance rating
Very Low
page 5 >

Full assessments for other environmental risks are available in additional Groundsure searches including the Groundsure Avista 7 in 1 report. Contact Groundsure or your search provider for further details.

Overview of findings and recommendations

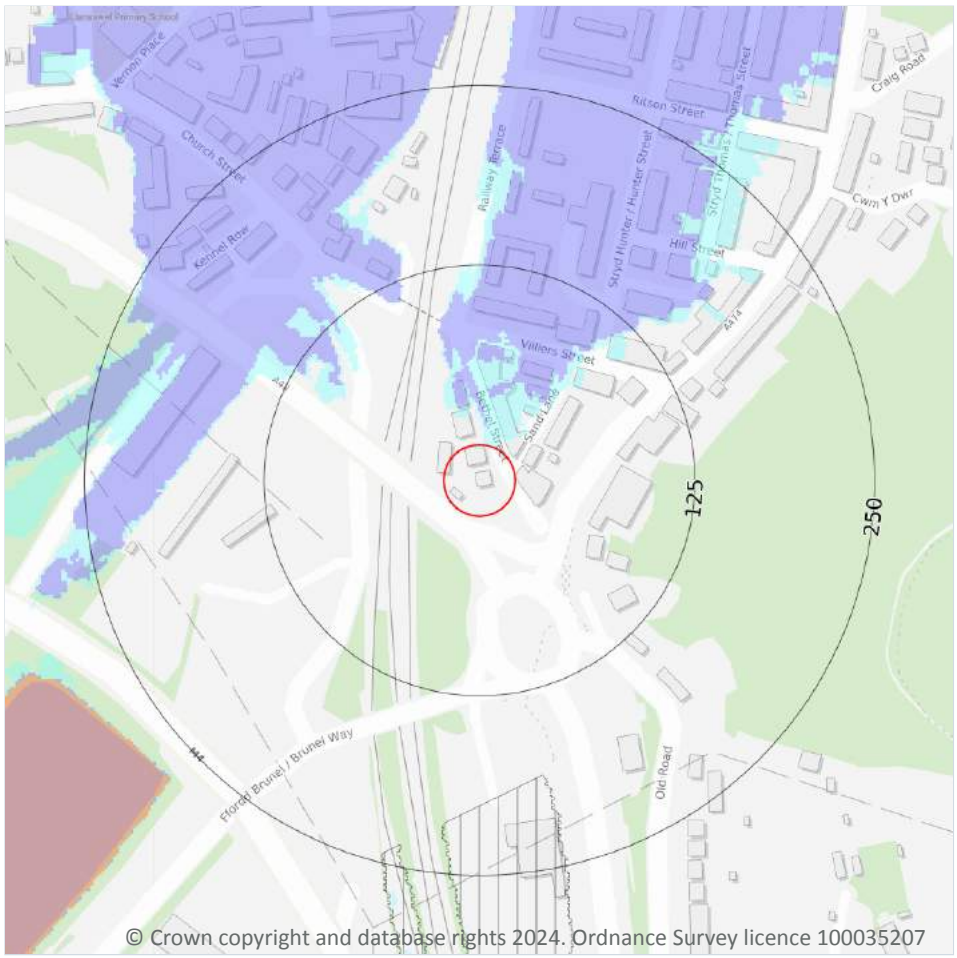
To save you time when assessing the report, we only provide maps and data tables of features within the search radius that we have identified to be of note. These relate to environmental risks that may have liability implications, affect insurance premiums, property values and/or a lender's willingness to lend.

You can view the fully comprehensive library of information we have searched on **page 4 >**.

No environmental risks that Groundsure believe require further action have been identified in relation to the property.

Please note this report has been run on a point location buffered to 25m to account for uncertainties of the size of the property. Therefore some risk assessments and measurements may be overestimated.

Flooding / Risk of flooding from rivers and the sea



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low

- Historical Flood Events
- Areas Used for Flood Storage
- Reduced river/sea flooding risk due to defences
- Proposed Flood Defence Scheme
- Flood Defences

Risk of flooding from rivers and the sea

The property has a Low chance of flooding in any given year, according to Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) data. This could cause problems with insuring the property against flood risk. However, if built before 2009, it may be eligible for insurance assistance from the Flood Re scheme: www.floodre.co.uk/ ↗

RoFRaS/FRAW assesses flood risk from rivers and the sea in England and Wales, using local data and expertise. It shows the chance of flooding from rivers or the sea, taking account of flood defences and the condition those defences are in. The model uses local water level and flood defence data to model flood risk. See page page 5 > for explanation of the levels of flood risk.

Please see page 2 > for further advice.

This data is sourced from the Environment Agency and Natural Resources Wales.

Datasets searched

This is a full list of the data searched in this report. If we have found results of note we will state "Identified". If no results of note are found, we will state "Not identified". Our intelligent filtering will hide "Not identified" sections to speed up your workflow.

Flooding	
Risk of flooding from rivers and the sea	**Identified**
Flood storage areas: part of floodplain	Not identified
Historical flood areas	Not identified
Reduction in Risk of Flooding from Rivers and Sea due to Defences	Not identified
Flood defences	Not identified
Proposed flood defences	Not identified
Surface water flood risk	Not identified
Groundwater flooding	Not identified

Methodologies and limitations

A full list of Groundsure methodologies and limitations is available here: knowledge.groundsure.com/methodologies-and-limitations ↗.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information in your Flood report. To find out who they are and their areas of expertise see www.groundsure.com/sources-reference ↗.

Conveyancing Information Executive and our terms & conditions

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- a small business (or group of companies) with an annual turnover of less than £3 million;
- a charity with an annual income of less than £3 million;
- a Trust with a net asset value of less than £3 million.

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If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure.

If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

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- acknowledge it within 5 working days of receipt
- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:
Operations Director, Groundsure Ltd, Nile House, Nile Street, Brighton, BN1 1HW. Tel: 01273 257 755. Email: info@groundsure.com ↗ If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk ↗ We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

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Appendix C: Flood Modelling Data