HODEL CONSULTING ENGINEERS

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Chideok, Valebridge Road, Burgess Hill.

Flood Risk Assessment

Document Ref: 25246-HOD-XX-XX-RP-C-5801

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Document Control

Document Reference	25246-HOD-XX-XX-RP-C-5801
Project Name	Chideok
Location	Chideok, Valebridge Road, Burgess Hill
Client	Kauto Homes
Title	Flood Risk Assessment

Revision	Purpose	Date	Author	Checked	Authorised
Z01	Initial issue	14/10/25	JRH	MEC	JRH

1 Introduction

1.1.1 Hodel Ltd have been instructed by Kauto Homes to prepare a Flood Risk Assessment (FRA) to supplement a planning application at Chideok, Valebridge Road, Burgess Hill.

1.1.2 An FRA is undertaken to establish the risk to a proposed development for its lifetime and, if required, propose suitable flood risk mitigation measures.

1.1.3 This FRA has been undertaken in accordance with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).

1.1.4 This report has been produced in consultation with relevant authorities, and referenced to established data, documents and guidance that is published by the Environment Agency (EA), the Lead Local Flood Authority (LLFA), the Local Planning Authority (LPA), the Water Authority and the Internal Drainage Board (IDB).

2 Existing Site

2.1 Description

2.1.1 The site is located at Chideok, Valebridge Road, Burgess Hill; National Grid Reference 532364E, 120968N. A copy of the site location plan is shown in Figure A.

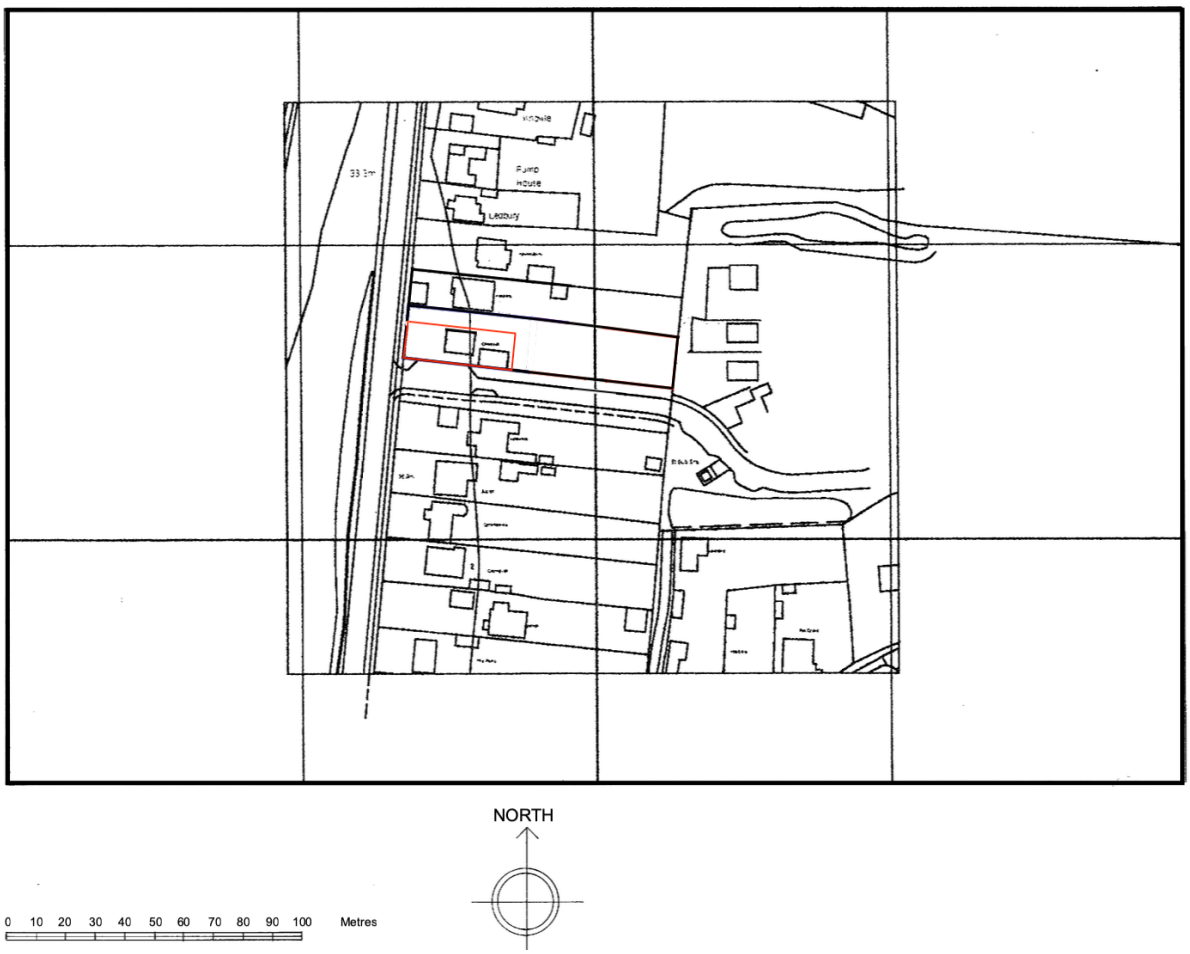


Figure A - Site Location Plan

2.1.2 The site comprises of a detached residential property and garden. The site is bounded by Valebridge Road to the West, Mill Rose way to the south with the principal access from Valebridge Road. Residential properties are to the north and east. The site area measures approximately 0.0524Ha as stated in the planning statement.

2.2 Topography

2.2.1 A topographical survey has been undertaken, this survey shows that the existing ground levels range from circa 34.6 in the NW corner at the east of the site, to circa 37.3 in the SE corner of the site. There is a shallow valley running through the centre of the site in an approximate north south direction.

2.3 Existing Drainage

Sewer records for the site, from Southern Water, show there is a foul sewer past the rear of the site, crossing Mill Rose Way. A copy of the sewer records can be found in Appendix **A**.

3 Proposed Site

3.1 Description

3.1.1 It is proposed to extend the existing property to the rear. A copy of the proposed drawings is provided within Appendix **B.**

3.1.2 The existing and proposed development (without basements) is classed as a More Vulnerable classification based on the Flood Risk Vulnerability Classification table with the NPPF guidance.

3.1.3 It is noted that as the proposal is for a residential extension it is exempt from the sequential test.

3.1.4 Additionally, given that the proposal is for a residential extension of less than 250 square metres, the Environment Agency's Flood Risk Standing Advice will be applicable. This advice is available here: Preparing a flood risk assessment: standing advice - GOV.UK

4 Environmental Setting

4.1 Hydrology

4.1.1 The EA Statutory Main River Map (extract in Figure B) shows that the nearest EA Main River is located circa 400m to the north of the site.

Figure B - Environment Agency Statutory River Map

4.2 Geology

4.2.1 British Geological Survey (BGS) records have been reviewed and shows that the site is underlain by the Weald Clay Formation.

4.3 Hydrogeology

Based on the online Magic Maps service, hydrogeological information has been obtained. The site is underlain by an unproductive aquifer within the Weald Clay Formation.

The site is not located within a groundwater Source Protection Zone (SPZ).

5 Sources of Flood Risk

5.1 Criteria

5.1.1 As assessment of the risk associated with various sources of flooding is required to comply with the NPPF and EA standing advice. This assessment is undertaken with the assumption that the development will have a design life of 100 years (residential).

In May 2022 the EA updated the climate change allowance guidance and this should be consulted to ascertain the appropriate peak river flow and rainfall intensities for the proposed development. This is based on the site location, lifetime of the development, flood zone and vulnerability of the end users.

'BS 8533:2017 – Assessing and managing flood risk in development – code of practice' identifies the forms of flooding as per the below list.

Flooding from rivers (fluvial)

Flooding from sea (tidal)

Flooding from land (surface water)

Flooding from groundwater

Flooding from sewers

Flooding from reservoirs, canals, and other structures

5.2 Flooding From Rivers (Fluvial)

The latest EA flood zone map has been reviewed, and an extract can be found in Figure C. This shows that the site lies within Flood Zone 1 (low probability).

Flood Zone 1 comprises of land assessed as having less than 1 in 1,000 annual probability of river or sea flooding (less than 0.1%) in any year.

Flood Zone 2 comprises of land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year.

Flood Zone 3a comprises of land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability flooding from the sea (>0.5%) in any year.

Flood Zone 3b comprises of land assessed as having a 1 in 20 or greater annual probability of river flooding (>5%) and is often referred to as the functional floodplain.

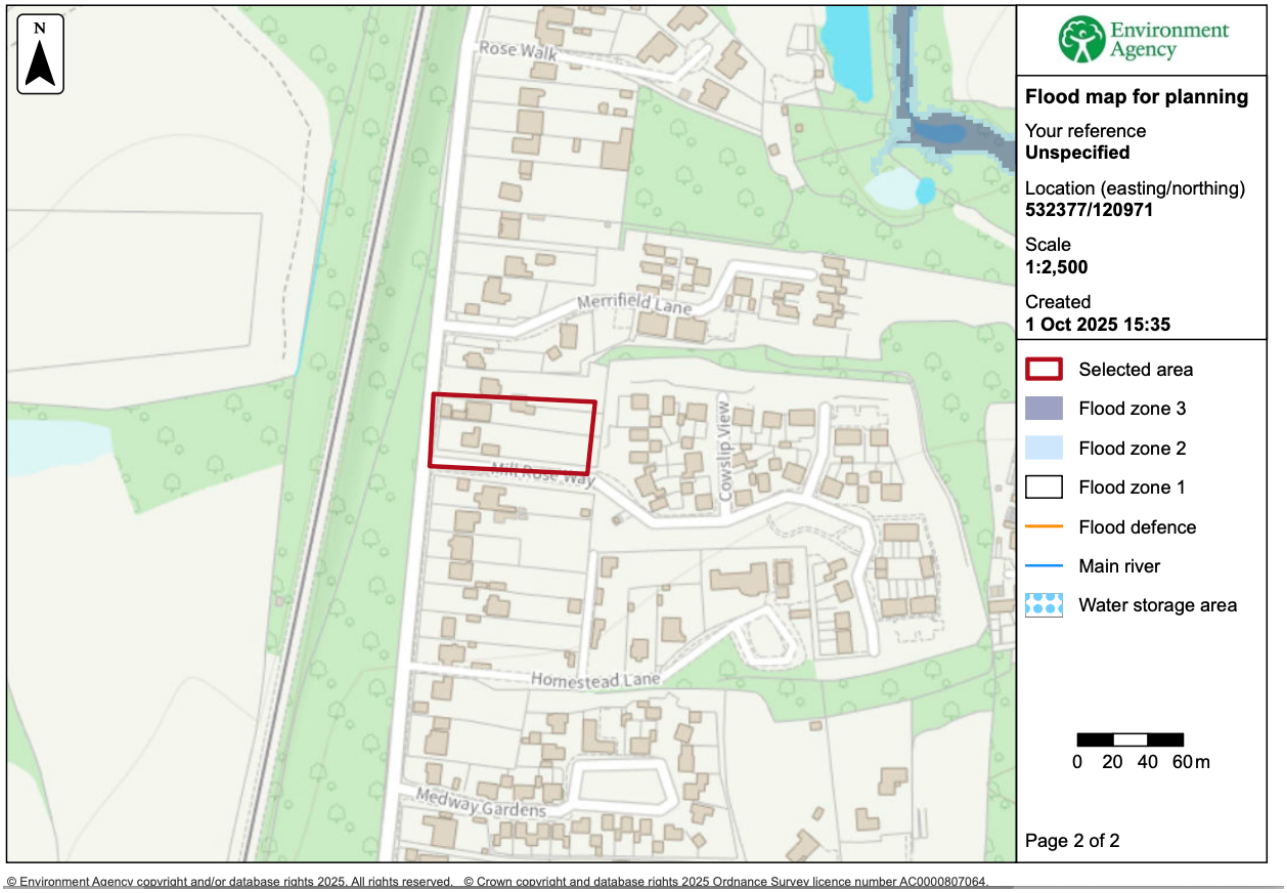


Figure C - Flood map for Planning

5.2.1 It is considered that the flood risk from rivers is very low.

5.3 Flooding From Sea (Tidal)

5.3.1 This is not considered to be a risk due to the inland location of the site.

5.4 Flooding From Land (Surface Water)

5.4.1 During intense rainfall events the ground can become saturated, or man-made drainage systems can be overwhelmed, and this can cause localised floods before reaching a watercourse or river.

5.4.2 The surface water flood map is shown in Figure D. This shows a section of the site is located within an area at risk of flooding during the 1 in 100 year flood event. This area of risk is associated with a small surface water flow path that originates a short distance to the south and flows offsite to the north, with the bulk of the flow path located to the east of the proposed extension.

5.4.3 Whilst this area of surface water flood risk could be classified as medium to high according to some mapping, refence to the site-specific topographic survey illustrates that flood depths would be shallow and limited in their extent.

5.4.4 The overall risk of surface water flooding at the site is considered to be medium to low.

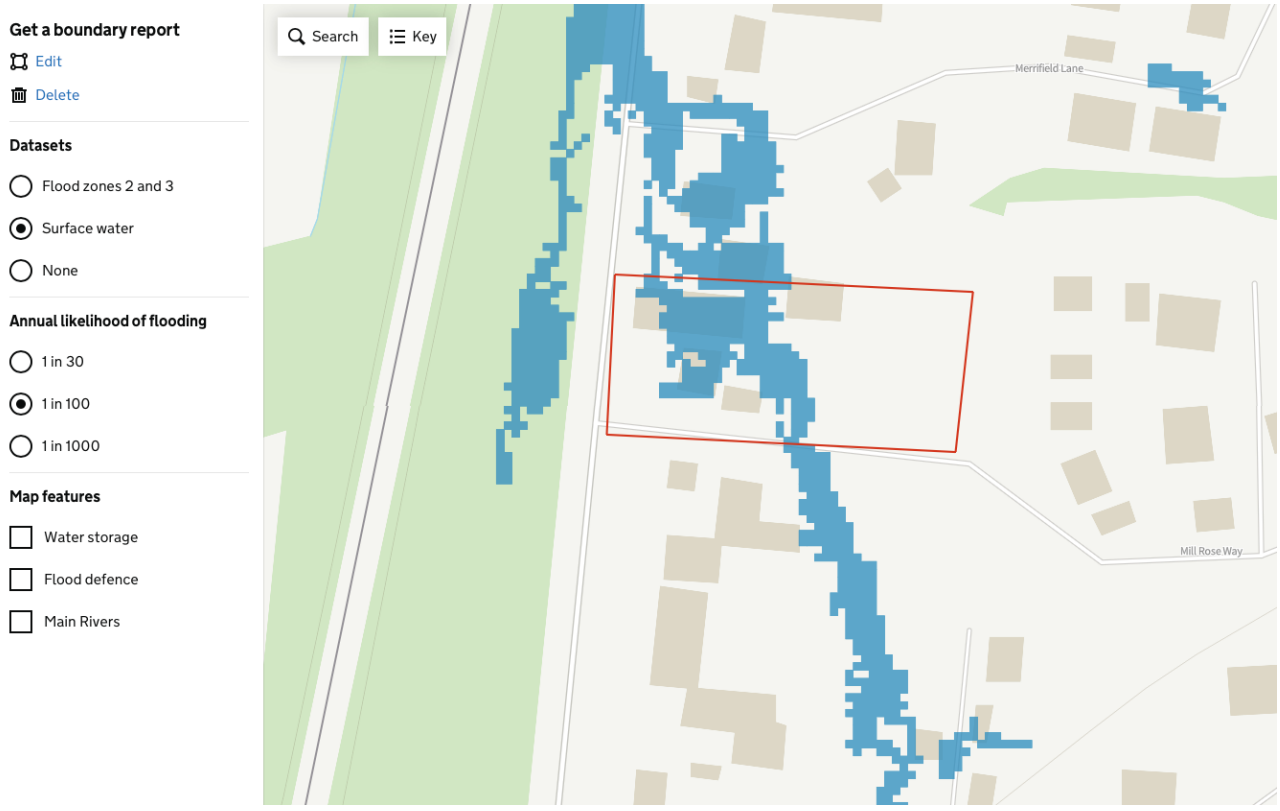


Figure D - Environment Agency Surface Water Flood Map

5.5 Flooding From Groundwater

5.5.1 During long periods of rainfall, the water table can rise and issue out of the ground's surface. This is dependent on average groundwater levels, extent of periods of rainfall and the ground strata.

5.5.2 The EA long term flood risk service notes that flooding from groundwater is unlikely in this area. The underlying Weald Clay bedrock is considered unlikely to contain significant quantities of groundwater.

5.5.3 It is therefore considered that the flood risk from groundwater is low.

5.6 Flooding From Sewers

5.6.1 Sewer flooding can occur when an artificial drainage system is overwhelmed, becomes blocked, or cannot discharge freely at its outfall. This can result in water exiting the system at locations such as gullies and manholes.

5.6.2 The Southern Water sewer records for the site are shown in Appendix A. These show there is no mapped sewer within the confines of the site.

5.6.3 It is therefore considered that the flood risk from sewer flooding is low.

5.7 Flooding From Reservoirs, Canals And Other Structures.

5.7.1 A large release of water from a reservoir may cause flooding. The EA reservoirs flood map is shown in Figure E.

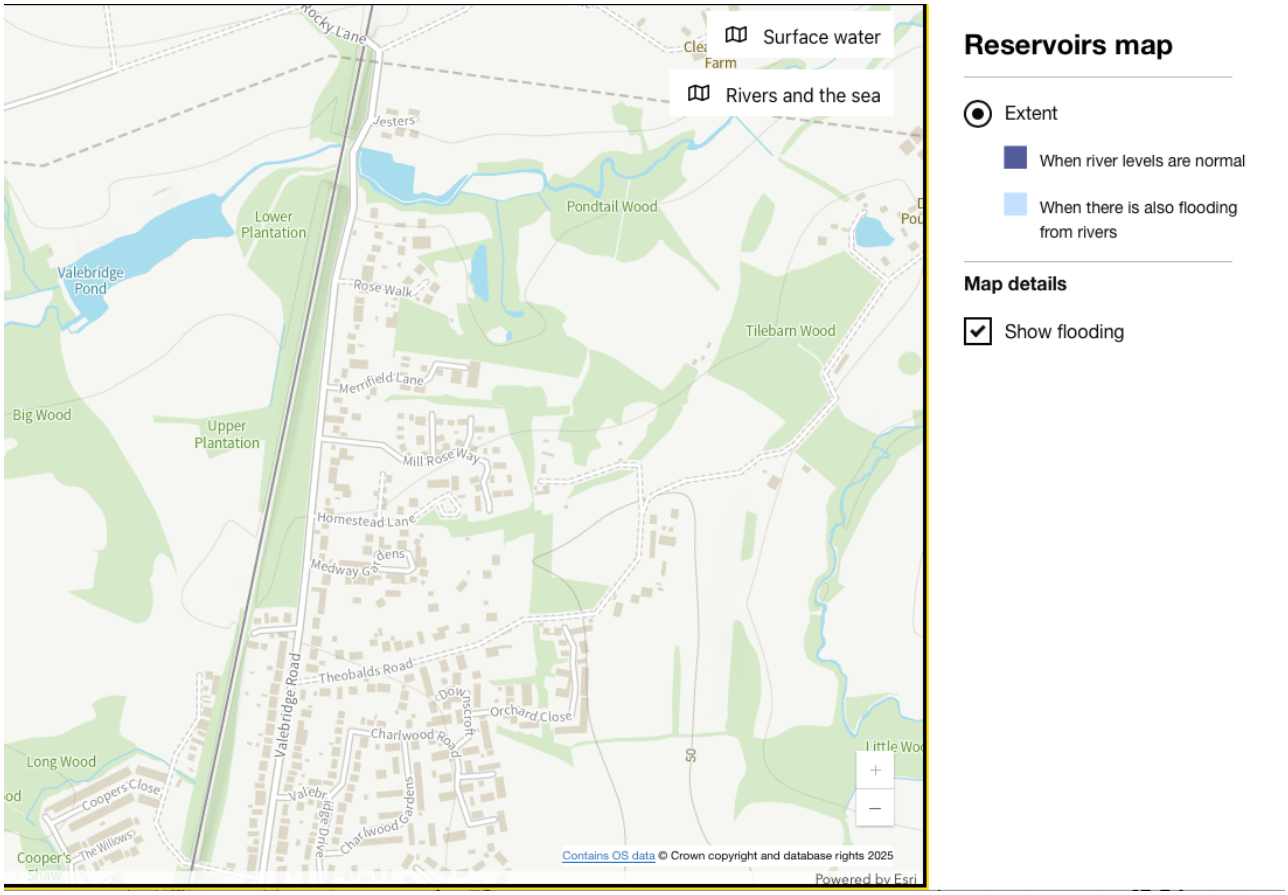


Figure E - Environment Agency Reservoir Flood Map

5.7.2 The mapping has been updated in 2021 to show a modelled reservoir flooding when rivers are running at normal levels, as well as when flooding from rivers is occurring. The EA mapping shows that the site is located outside of an area that may flood from a reservoir in either modelled scenario.

5.7.3 Due to safeguards that are in place through legislation that reservoirs must be maintained, it is considered unlikely that a reservoir failure would occur.

5.7.4 It is therefore considered that the flood risk from reservoir flooding is low.

5.7.5 There are no Canal and River Trust owned canals near to the site.

5.7.6 No other artificial structures in the vicinity of the site are deemed to pose a potential risk that haven't already been explored previously in this report.

6 Mitigation Measures and Residual Risk

6.1 Overview

6.1.1 The site is located within Flood Zone 1 as shown by the EA flood mapping, and the proposed development will comprise of a 'more vulnerable' residential dwelling (consistent with its current use).

6.1.2 The surface water flood map shows some medium to low risk flood risk in the vicinity of the of the proposed extension.

6.1.3 All other sources of flooding were deemed low or very low.

6.2 Flood Compensation

6.2.1 As the site is not within the fluvial floodplain, flood compensation is not required.

6.3 Safe Access/Egress

6.3.1 The site is not within the fluvial floodplain, therefore access and egress investigations are not required.

6.4 Flood Resistance and Resilience Measures

6.4.1 As the proposed extension is not within the fluvial floodplain, it is considered that flood resistance and resilience measures are not required. The risk of flooding from surface water is not considered significant enough to warrant considering any site-specific flood resilience or resistant measures, especially when the existing building threshold and requirement to maintain a level threshold into the proposed extension are considered.

7 Conclusions and Recommendations

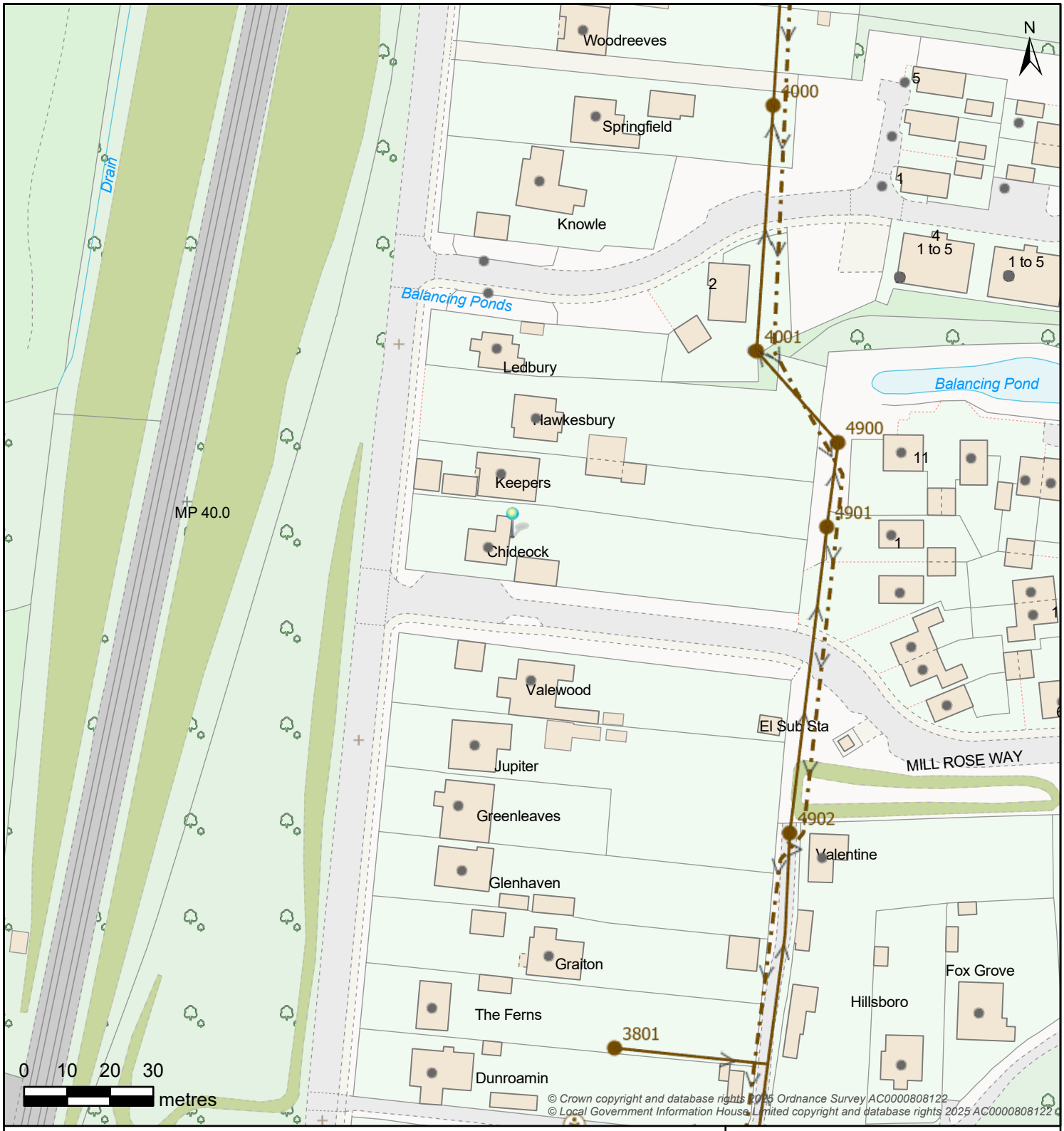
7.1.1 This FRA has been written to be compliant with the NPPF and PPG. It demonstrates that although a small section of the site is located within Flood Zone 2, this is not near the existing house or proposed extension.

Source	Level of Risk	Mitigation
Fluvial	Very Low	None required
Tidal	Very Low	None required
Surface Water	Low to Medium	Ensure building thresholds are at least150mm above surrounding land levels. Areas to the south will be lowered accordingly.
Groundwater	Low	None required
Sewers	Very Low	None required
Reservoirs, Canals and other Structures	Very Low	None required

Table A - Flood Risk Summary

7.1.2 Overall, considering the above points, the development of the site should not be precluded on flood risk grounds.

Appendix A - Sewer Records



Controllable Valve			Flow Control			Inlet-Outfall	
Damboards	Penstock	Valve	Anti Flood Device	Pumped Anti Flood Device	Reflux Valve	Inlet	Outfall

Manhole											
BIF Bifurcation	Cascade	CP Catchpit	Head Of Public Sewer	IC Interceptor Chamber	Manhole	S Soakaway	WO Washout

Outfall Headworks	Overflow Chamber		Pipe Bridge	Pumping Station	
Outfall Headworks	CSO Combined Sewer Overflow	EMO Emergency Overflow	Pipe Bridge	Micro Pumping Station	Pumping Station

Sewer Level Monitor	Storage		Treatment Works	Weir	Wastewater Site
Sewer Level Monitor	Storm Tank	Tidal Storage Tank	Treatment Works	Weir	C Wastewater Site

Wastewater Pipe		Wastewater Use	Developer Services	
Culverted Water Course	Syphon	Foul	Build Over Agreement	Section 104
Drain	Tank Sewer	Combined	Wastewater Area	
Outfall	Trunk Sewer	Sludge	Catchment	
Overflow	Vacuum Main	Treated Effluent	Sub-Catchment	
Rising Main	Decommissioned Pipe	Surface Water		
Sewer		Private		

Map Title: SW Print

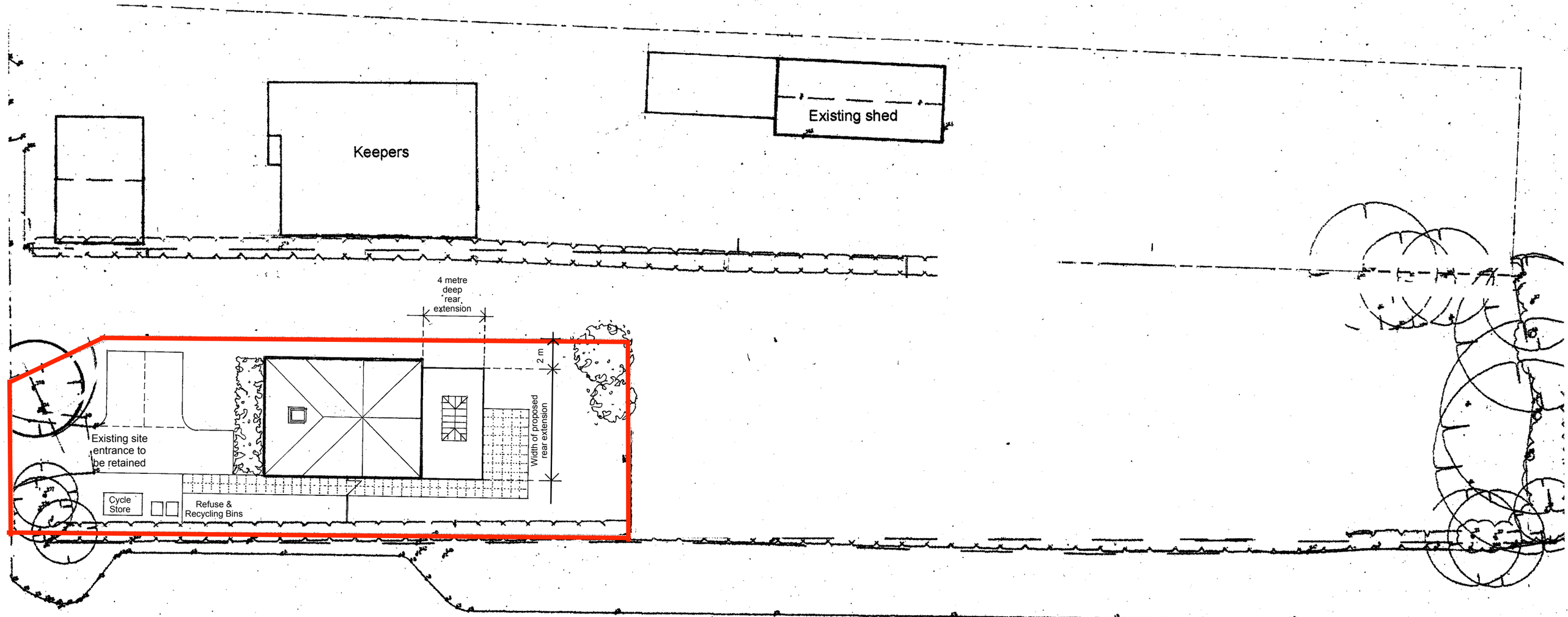
Printed By: Anne.McFarlane2

Date Printed: 08/09/2025

Map Scale: 1250

WATER for LIFE from Southern Water

Appendix B - Proposed Drawings



Client:	Kauto Construction Ltd
Project:	Proposed Alterations and Extensions
Location:	Chideok, Valebridge Road, Burgess Hill
Drawing Title:	Proposed Site Plan

Drawing No:	2024-12-P-004	Rev:
Scale:	1:250 @ A3	
Date:	12/08/2025	
Paper Size:	A3	

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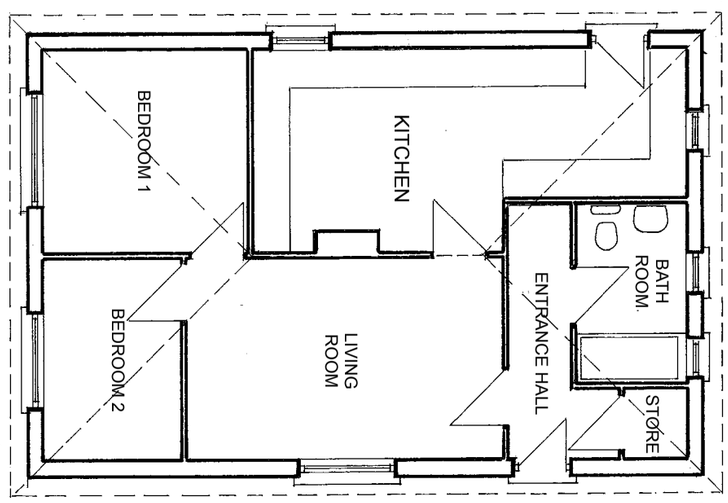
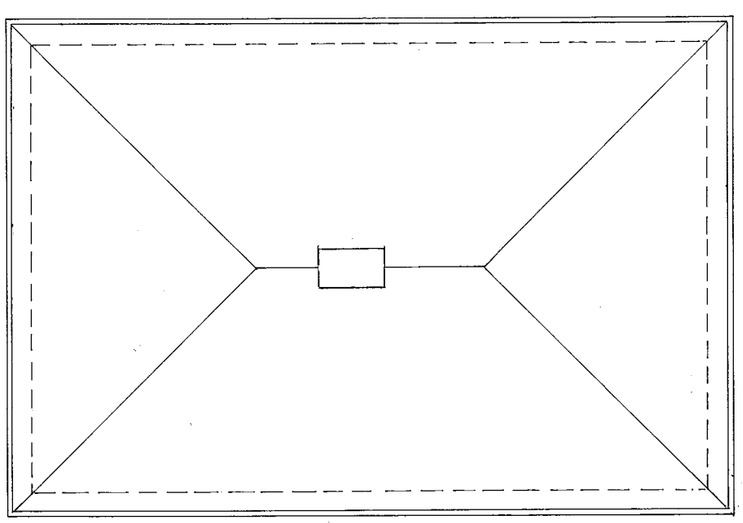
177 Havelock Road, Brighton. BN1 6GN
Tel:07733 304882



EXISTING GROUND FLOOR PLAN

Site Boundary

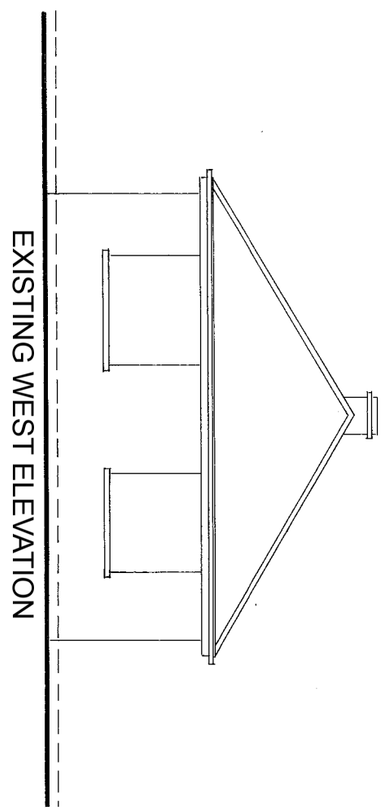


EXISTING ROOF PLAN

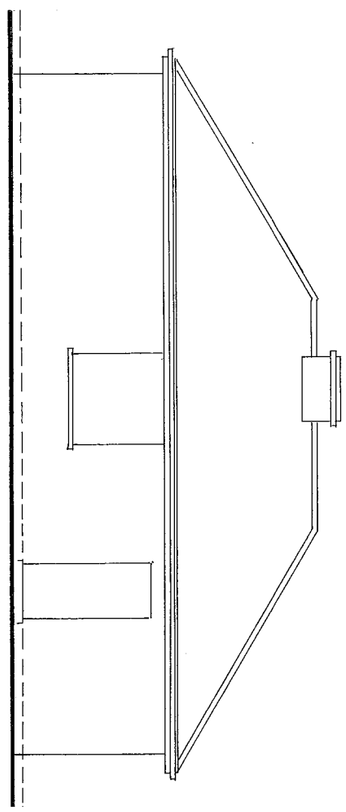
Site Boundary

0 1 2 3 4 5 6 7 8 9 10 Metres

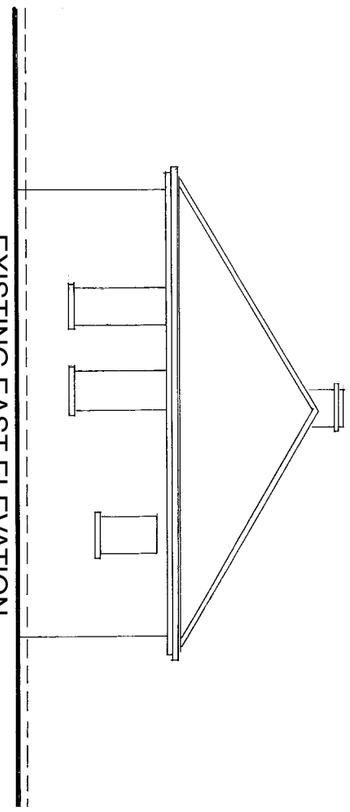
Scale 1:100 @ A3



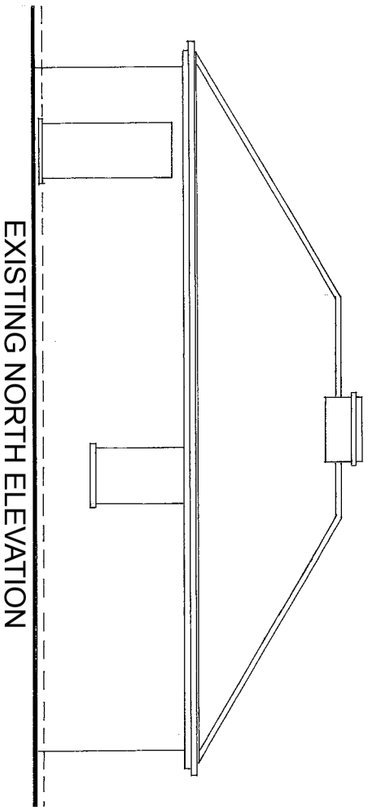
EXISTING WEST ELEVATION



EXISTING SOUTH ELEVATION



EXISTING EAST ELEVATION



EXISTING NORTH ELEVATION

Client:	Kauto Construction Ltd
Project:	Proposed Extensions & Alterations
Location:	Chideok, Valebridge Road, Burgess Hill. RH15 0RT
Drawing Title:	Existing Plans and Elevations for House

Drawing No:	2024-12–F-005
Scale:	1:100 @ A3
Date:	04/08/2025
Paper Size:	A3

Rev:

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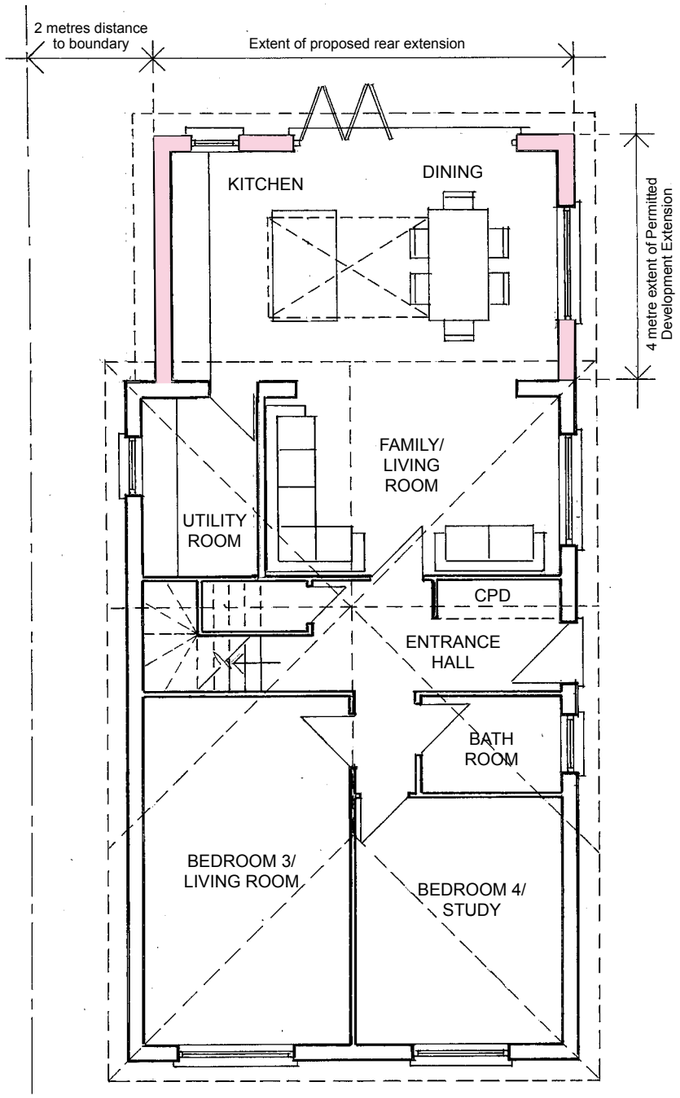
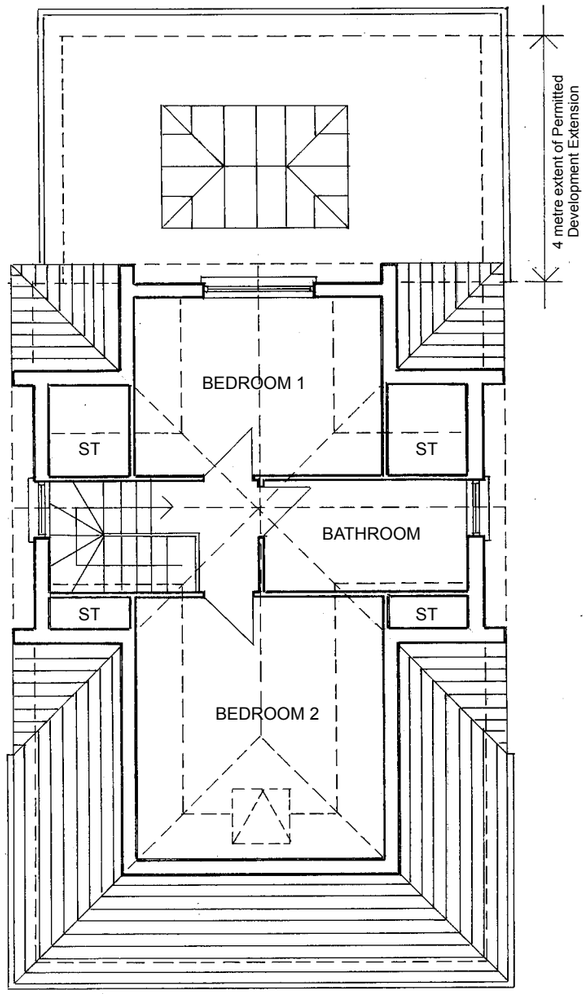
Tel:07733 304882

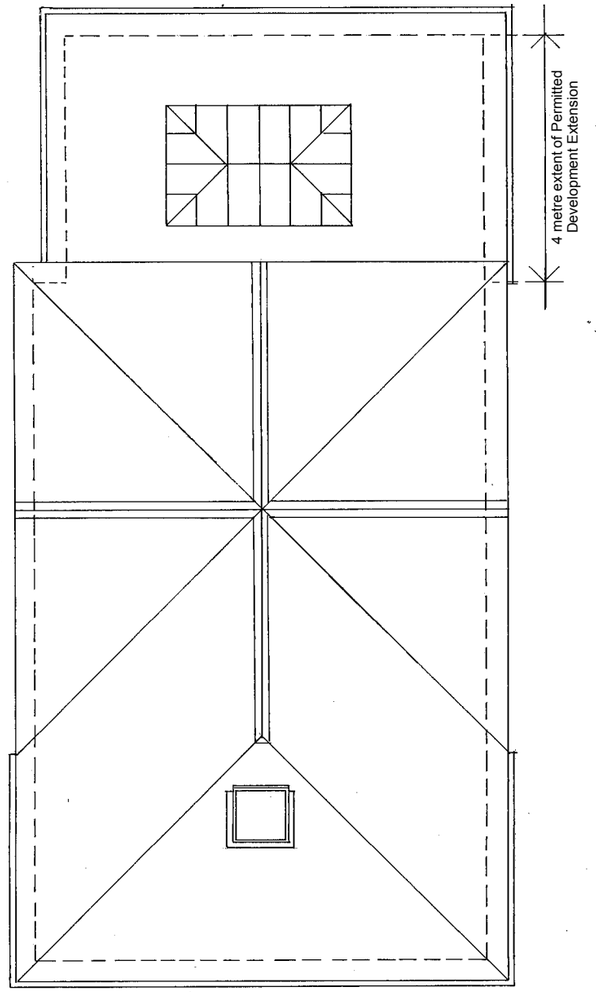
HIP TO GABLE EXTENSION
Maximum of 50 cubic metres allowable volume.
Volume Calculation:
V = A (width) x 1/2 B (height to ridge) x 1/3 C (ridge extension)
V = 7.2 x 2.4/2 x 3.6/3
= 10.368 cubic metres per gable
Proposed hip to roof extension is 3 x Volume calculation = 31.1 cubic metres



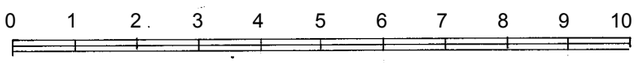
PROPOSED GROUND FLOOR PLAN



PROPOSED FIRST FLOOR PLAN



PROPOSED ROOF PLAN



Scale 1:100 @ A3

Drawing No: 2024-12–P-007
Scale: 1:100 @ A3
Date: 12/08/2025
Paper Size: A3
Rev:

Client: Kauto Construction Ltd
Project: Proposed Extensions & Alterations
Location: Chideok, Valebridge Road, Burgess Hill. RH15 0RT
Drawing Title: Proposed Floor and Roof Plans

Tel:07733 304882

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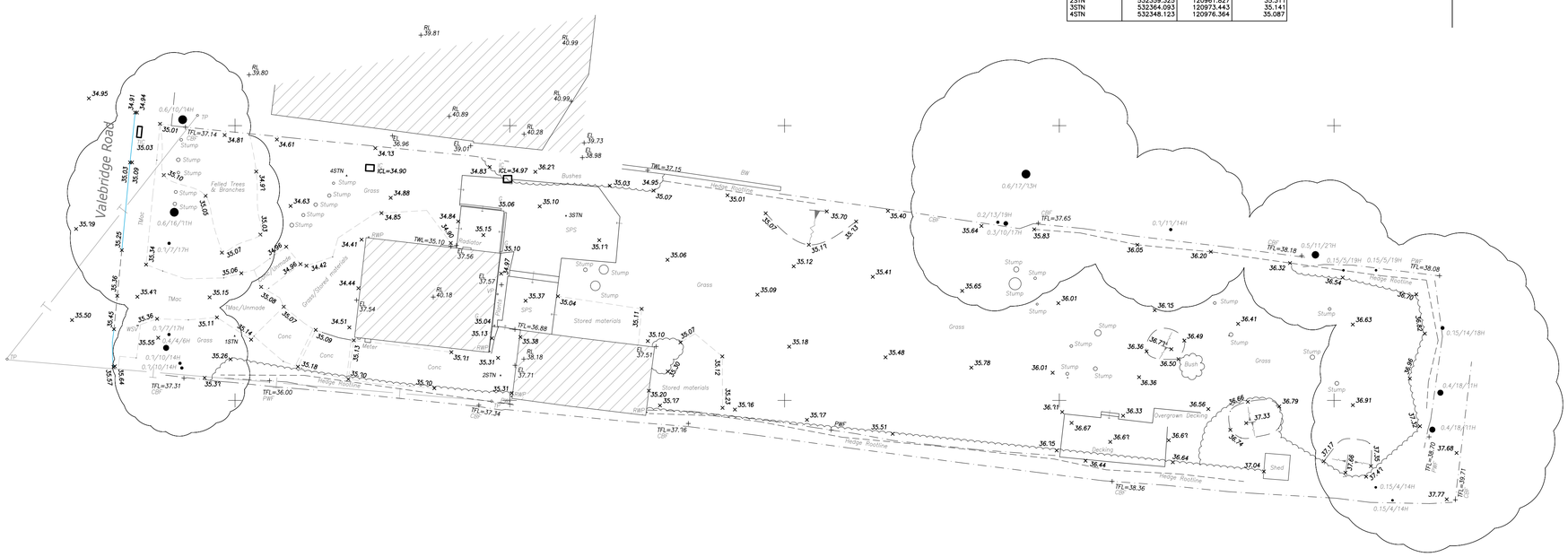
Appendix C – Topographical Survey

532320mE 532340mE 532360mE 532380mE 532400mE 532420mE 532440mE

121000mN 120980mN 120960mN 120940mN 120920mN 120900mN



SURVEY STATIONS			
Name	Easting	Northing	Height
1STN	532339.976	120964.693	35.443
2STN	532359.325	120961.827	35.311
3STN	532364.093	120973.443	35.141
4STN	532348.123	120976.364	35.087

N

5 0 5 10 15 20 25

Scale Bar 1:200

NOTES

- DO NOT SCALE OFF THIS DRAWING EXCEPT FOR PLANNING PURPOSES
- CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK IS COMMENCED
- ALL GOODS MATERIALS AND WORKMANSHIP MUST CONFORM WITH CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE
- COPYRIGHT OF THIS DRAWING IS RETAINED BY THE ARCHITECT AND IT MUST NOT BE REPRODUCED WITHOUT WRITTEN CONSENT

SURVEY GRID:
All information relates to an arbitrary grid and datum and does not relate to Ordnance Survey.

SURVEY DATUM:

All level information relates to TBM/OSBM located on XSTN, value=m.

NOTES:

- Surveyed boundaries may not be legal boundaries.
- Dimensions should not be scaled. All information contained in the drawing should be checked and verified on site prior to any fabrication/construction.
- All utilities have been identified to the best of the surveyors knowledge but cannot be guaranteed. Due to non entry of inspection chambers all pipe sizes should be checked and verified before any works commence.
- Services such as Inspection Chambers and Water Meters etc may be obscured by parked cars or debris.

Topo Key

STREET FURNITURE
BB Bellsha Beacon
BL Basement Light
BO Bollard
BO Bollard
BS BusStop
CPO Concrete Post
EC Electric Cupboard
EP Electric Pole
FB Flower Bed
FH Fire Hydrant Marker
FL Flood Light
FP Flag Pole
FPO Fence Post
JB Junction Box
GM Grid Man
GMK Gas Marker Post
GV Gas Valve
IBO Illuminating Bollard
LH Lamp Hole
LP Lamp Post
LPO Lockable Post
MH Manhole
MPO Meter Post
NP Name Plate
PB Post Box
PM Parking Meter
RPO Reflector Post
RS Road Sign
SIG Signal
STN Survey Station
Tap Water Tap
TCB Telephone Call Box
TL Traffic Light
TLCB Traffic Light Control Box
TP Telegraph Post
TPO Timber Post

PIPES & CABLES
DBC Directly Buried Cable
DP Down Pipe
FWP Foul Water Pipe
GP Gully Pipe
RWP Rain Water Pipe
SP Stand Pipe
SVP Soil Vent Pipe
UTT Unable to Trace
VP Vent Pipe
WP Waste Pipe

LEVELS & DEPTHS
A Approximate
BD Back Drop Depth
CD Cover Depth
CO Chamber Depth
DHL Door Head Level
DSL Door Sill Level
DPC Damp Proof Course
EL Eaves Level
FFL Finished Floor Level
GL Ground Level
ICL Cover Level
ID Invert Depth
IL Invert Level
OD Outlet Depth
OL Outlet Level
PWL Parapet Wall Level
RL Roof Level
SD Sump Depth
SFD Soffit Depth
SFL Soffit Level
SWL Sill Level
TBL Top Level of Bank/Level
TFL Top of Fence Level
THL Threshold Level
TTL Top of Tree Level
TWL Top of Wall Level
USL Underside Level
WL Water Level
WHL Window Head Level
WSL Window Sill Level

FENCES & WALLS
BW Brick Wall
BWP Brick Pier
BRW Brick Retaining Wall
BRW Brick Wall
BWF Barbed Wire Fence
CBF Close Board Fence
CF Corrugated Iron Fence
CLF Chain Link Fence
CPF Chestnut Paling Fence
CRW Concrete Retaining Wall
CW Concrete Wall
CWF Chicken Wire Fence
DI Dilapidated
HR Handrail
IWF Interwoven Fence
LF Lattice Fence
MBF Metal Balustrade Fence
MRF Metal Railing Fence
OBF Open Board Fence
PCF Post & Chain Fence
PNF Panel Fence
PRF Post & Rail Fence
PWF Post & Wire Fence
STW Stone Wall
SRTW Stone Retaining Wall
WMF Wire Mesh Fence

INSPECTION CHAMBERS
AC Access Cover
BH Borehole
CDC Concrete Drainage Channel
EIC Electric Inspection Cover
ER Earth Rod
FH Fire Hydrant
FWIC Foul Water Inspection Cover
GIC Gas Inspection Cover
GM Gas Meter
GRP Grill Pipe
G Gully
IC Inspection Cover
KI Kerb Inlet
LHP London Hydraulic Power
MDC Metal Drainage Channel
MH Monitoring Well
RE Rodding Eye
RI Rodding Eye
SDIC Service Duct Inspection Cover
SV Stop Valve
SWICP Storm Water Catch Pit
SWIC Storm Water Inspection Cover
TCIC Traffic Control Inspection Cover
TIC Telecom Inspection Cover
UIC Unidentified Inspectional Cover
UTR Unable to Raise
WIC Water Inspection Cover
WM Water Meter
WWO Water Wash Out
WSV Water Stop Valve

SURFACES
BPav Brick Paving
Conc Concrete
CPG Concrete Paving
CPS Concrete Paving Slabs
FB Flowerbrick Border
KTC Kidney Flint Cobbles
SPS Stone Paving Slabs
T Tiles
Tarmac Tarmac
TPav Textile Paving
TS Trench Scar

MEASUREMENTS
d Depth(m)
Dia Diameter (cm)
Ø Diameter (mm)
H Object Height (m)

Trees

Tree canopies an heights shown as indicative only. Tree species identified to the best of the Surveyors knowledge. If tree species are important than the services of an Arborist should be employed. Individual tree canopies are shown in a separate layer, called TREES which is turned off for presentation purposes.

Tree Notation: Trunk/Canopy/Height

Symbology

Single Gate
Double Gate
Banking
Step Up
Diameter shown in mm
Survey Station

Linetypes

Telecom Overhead
Power Overhead
Foul Water
Surface Water
Combined Water
Unknown Services
Change of Surface
Drop Kerb
Fence
Wall
Kerb
Building Face
Overhead Feature
Trench Scar
Tree Canopy
Bushes/Foliage/Overgrowth
Tree Canopy Extents

REV	DATE	BY	AMENDMENT

folkes architects
The Old Forge
6 Church Street
Storrington
West Sussex
RH20 4LA
t. 01903 869629
info@folkesarchitects.co.uk

CLIENT
Kauto Homes

JOB TITLE
Chideock
Valebridge Road
Burgess Hill
RH15 0RT

DRAWING TITLE
Topographical Survey
PLANNING ISSUE

DATE	SCALE	DRAWN BY	CHECKED BY
10/10/2023	Shown on A1	KD	MF

JOB NO.	DRAWING NO.	REVISION
23068	1,01	-

Appendix D – Flood Mapping

Flood map for planning

Your reference	Location (easting/northing)	Created
Unspecified	**532377/120971**	**1 October 2025 15:34**

Your selected location is in flood zone 1, an area with a low probability of flooding.

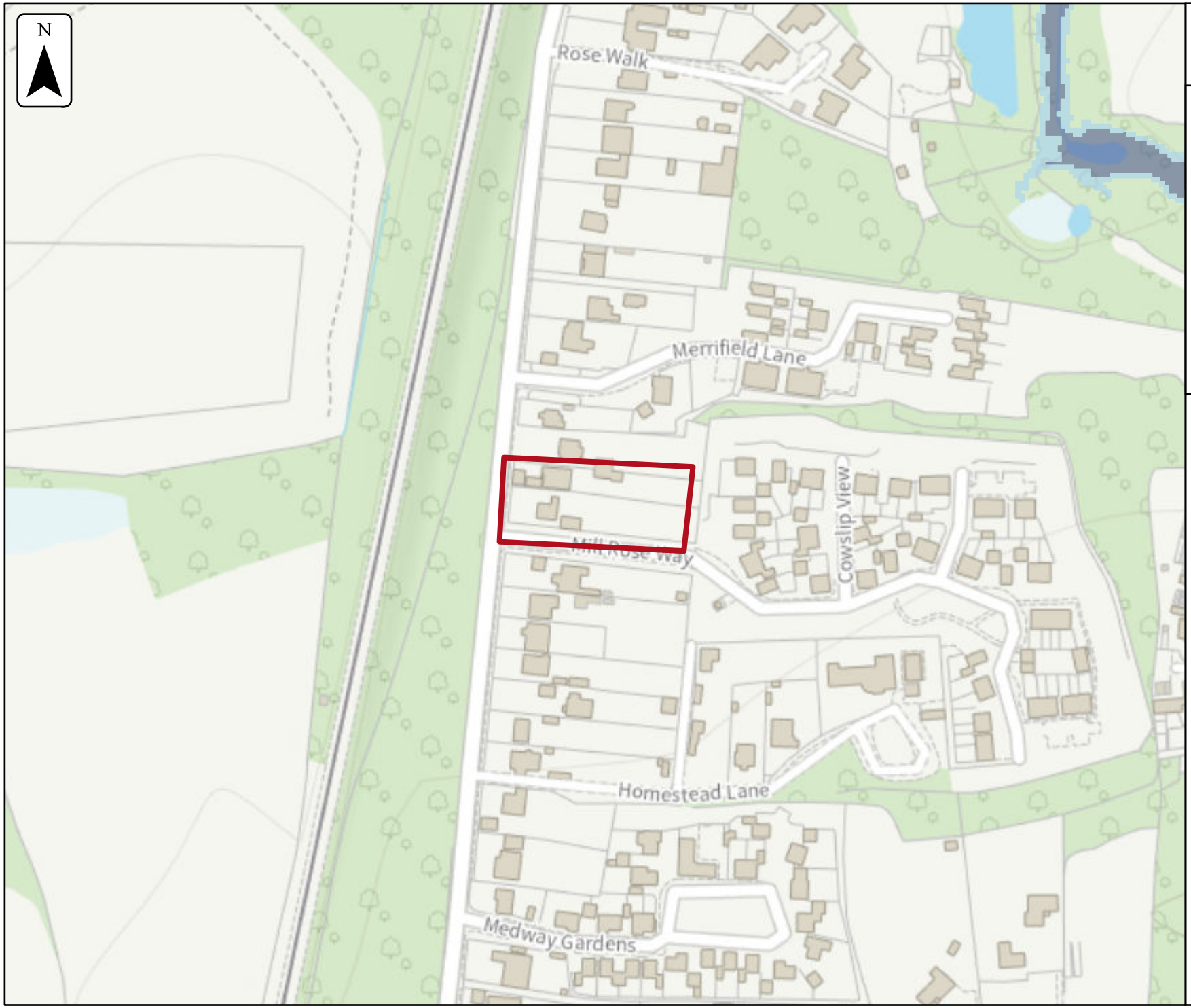
You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.



Environment Agency

Flood map for planning

Your reference
Unspecified

Location (easting/northing)
532377/120971

Scale
1:2,500

Created
1 Oct 2025 15:35

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60 m