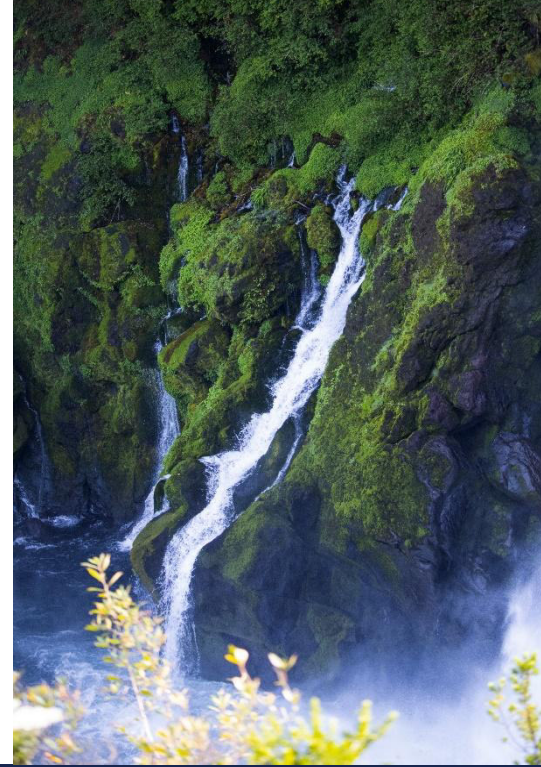




Flood Risk Assessment AEG10641_BN6_Hassocks_01

Site Address: 26 Ockley Lane
Hassock
Mid Sussex
West Sussex
BN6 8BB

UK Experts in Flood Modelling, Flood Risk
Assessments, and Surface Water Drainage Strategies



Document Issue Record

Project: Flood Risk Assessment

Prepared for: Stephen Dallenger-Bradshaw

Reference: AEG10641_BN6_Hassocks_01

Site Location: 26 Ockley Lane, Hassock, Mid Sussex, West Sussex, BN6 8BB

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Summary

Development Description	Existing	Proposed
Development Type	A single residential dwelling.	The client is seeking planning permission for the construction of a rear extension to the existing dwelling.
EA Vulnerability Classification	More Vulnerable	No change - More Vulnerable
Ground Floor Level	The EA LiDAR data shows the ground elevation of the site varies between approximately 47.10m AOD in the east (metres Above Ordnance Datum) and 48.20m AOD in the south-west of the site.	No change.
Level of Sleeping Accommodation	The dwelling is a bungalow, therefore sleeping accommodation is located on the ground floor.	No change.
Site Size	Approx. 595m ²	No change.
Risk to Development	Summary	Comment
EA Flood Zone	Flood Zones 1, 2, and 3	
Flood Source	Fluvial	The proposed development is located in Flood Zone 1 and is at low risk of flooding from all analysed sources.
SFRA Available	Level 1 Strategic Flood Risk Assessment (Mid Sussex District Council, 2024) and Strategic Flood Risk Assessment Level 1 (Mid Sussex District Council, 2015)	
Management Measures	Summary	Comment
Ground floor level above extreme flood levels	Above extreme flood levels.	The proposed development is located in Flood Zone 1 and is at low risk of flooding from all analysed sources.
Safe Access/Egress Route	Yes	Given the proposals consist of a minor development, access/egress arrangements will remain as per existing situation.
Flood Resilient Design	N/A ¹	Not recommended. The proposed development is located in Flood Zone 1 and is at low risk of flooding from all analysed sources.

Site Drainage Plan	N/A ¹	To drain via the existing drainage arrangements on-site. Small scale SuDS, such as rainwater planters or water butts, could be included in external areas to provide a betterment.
Flood Warning and Evacuation Plan	N/A ¹	Recommended that occupier monitor Met Office Weather Warnings for extreme weather events.
Offsite Impacts	Summary	Comment
Displacement of floodwater	Negligible	Development is classified as minor development in terms of flood risk and therefore in isolation should not result in increase in flood risk elsewhere (Paragraph 051 of the PPG).
Increase in surface run-off generation	Negligible	To drain via the existing drainage arrangements on-site. Small scale SuDS, such as rainwater planters or water butts, could be included in external areas to provide a betterment.
Impact on hydraulic performance of channels	Negligible	The nearest watercourse (ordinary watercourse) is approx. 11m from the proposed development.

¹ not required for this assessment

² data not available.

1. Introduction

- 1.1. Aegaea were commissioned by Stephen Dallenger-Bradshaw to undertake a Flood Risk Assessment (FRA) to facilitate a planning application for the proposed development. This FRA has been prepared in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.
- 1.2. This FRA is intended to support a full planning application and as such the level of detail included is commensurate and subject to the nature of the proposals.

Site Overview

- 1.3. The site of the proposed development is 26 Ockley Lane, Hassock, Mid Sussex, West Sussex, BN6 8BB. The site currently comprises of a residential dwelling in the south and garden area across the remainder of the site (Figure 1).



Figure 1: Site Location (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

- 1.4. The client is seeking planning permission for the construction of a rear extension to the existing dwelling. Full development proposals can be found in Appendix A.
- 1.5. In the absence of a topographical survey, Environment Agency (EA) Light Detection and Ranging (LiDAR) data Digital Terrain Model has been used to review the topography of the site.

The EA LiDAR data shows the ground elevation of the site varies between approximately 47.10m AOD in the east (metres Above Ordnance Datum) and 48.20m AOD in the south-west of the site. Analysis of topographic levels indicates that the site generally slopes with a fall to the east, towards the watercourse (Figure 2).

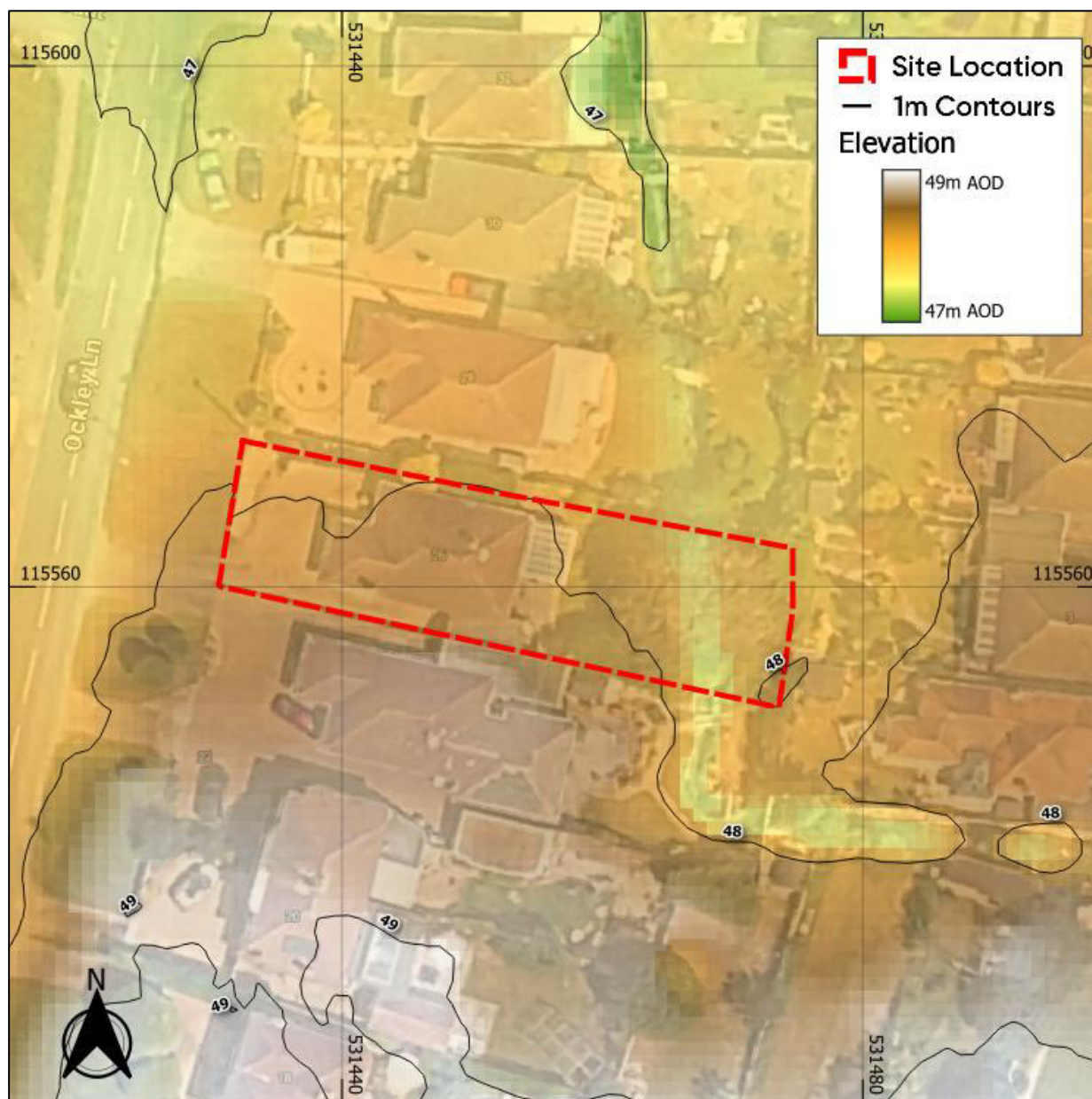


Figure 2: Site Topography (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

- 1.6. Mid Sussex District Council is the Local Planning Authority (LPA) for the site and West Sussex County Council is the designated Lead Local Flood Authority (LLFA). The site sits within the Environment Agency's Solent and South Downs region.

Planning Policy and Guidance

1.7. UK government planning guidance states¹ that an FRA is required for developments which are:

- *in flood zones 2 or 3 including minor development and change of use*
- *more than 1 hectare (ha) in flood zone 1*
- *less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)*
- *in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency*

1.8. The site is in Flood Zone 3 therefore, according to UK government planning guidance, an FRA is required for the proposed development.

1.9. The objective of this FRA is to demonstrate that the proposals are acceptable in terms of flood risk. This report summarises the findings of the study and specifically addresses the following issues in the context of the current legislative regime:

- Fluvial/tidal flood risk
- Surface water flood risk
- Risk of flooding from other sources

¹ <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#when-you-need-an-assessment>

2. Planning Policy

- 2.1. Inappropriate development in a flood risk area could pose significant risk in terms of personal safety and damage to property for the occupiers of the development or for people elsewhere. The approach taken in the assessment of flood risk at the planning stage is set out in national, regional, and local planning policy and associated guidance. This section summarises the key policies and guidance relevant to the proposed development.

National Planning Policy Framework (NPPF)

- 2.2. The National Planning Policy Framework² (NPPF) (MHCLG, 2024) which includes UK Government policy on development and flood risk states:

170. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

181. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*
- b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*
- d) any residual risk can be safely managed; and*
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.*

176. Applications for some minor development and changes of use should also not be subject to the sequential test, nor the exception test [set out below], but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.

- 2.3. Paragraph 051 of the Flood Risk and Coastal Change Planning Practice Guidance (PPG) states:

² <https://www.gov.uk/guidance/national-planning-policy-framework>, last updated Dec 2024

Minor development means:

- *minor non-residential extensions (industrial/commercial/leisure etc): extensions with a floorspace not in excess of 250 square metres.*
- *alterations: development that does not increase the size of buildings, e.g. alterations to external appearance.*
- ***householder development: for example, sheds, garages, games rooms etc within the curtilage of the existing dwelling, in addition to physical extensions to the existing dwelling itself. This definition excludes any proposed development that would create a separate dwelling within the curtilage of the existing dwelling (e.g. subdivision of houses into flats) or any other development with a purpose not incidental to the enjoyment of the dwelling.***

2.4. As such, the proposal would be considered a Minor Development under the PPG.

2.5. Footnote 63 of the NPPF states:

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

2.6. Flood Zones in England are defined as follows:

Table 1: Flood Zone Definitions

Flood Zone	Definition
Zone 1 Low Probability	Land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding.
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or

land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding).

Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

- 2.7. An FRA should be appropriate to the scale, nature, and location of the development. It should identify and assess the risk from all sources of flooding to and from the development and demonstrate how any flood risks will be managed over the lifetime of the development.
- 2.8. An assessment of hydrological impacts should be undertaken, including to surface water runoff and impacts to drainage networks in order to demonstrate how flood risk to others will be managed following development and taking climate change into account.

Local Plan

- 2.9. The Local Plan prepared by the Local Planning Authority, Mid Sussex District Council, sets out the policies for development in the local area.
- 2.10. Policy DPS4.1 Flood Risk and Sustainable Drainage: Flood Risk outlines the requirements for new development within the area. It states:

Proposals for development will need to follow a sequential risk-based approach directing development away from areas at highest risk (whether existing or future risk), ensure development is safe across its lifetime and not increase the risk of flooding elsewhere.

All development should consider flood risk in line with national guidance at the time of assessment, including the need to consider and assess flood risk from all sources consistently. Environment Agency or site-specific flood mapping and the District Council's Strategic Flood Risk Assessment (SFRA) should be used to identify areas at present and future flood risk from a range of sources including fluvial (rivers and streams), pluvial (surface water), groundwater, infrastructure and reservoirs.

The cumulative impacts of all sources of flooding should be considered. Where possible, development proposals should reduce overall flood risk. Particular attention will be paid to those areas of the district that have experienced flooding in the past.

Development proposals must, where required by national policy, be accompanied by a site-specific flood risk assessment.

Development in areas of flood risk will, where relevant, be required to meet national sequential and exceptional tests.

Development classified as 'Highly vulnerable' will not be permitted within areas at 1:100 or greater flood extents now or in the future (flood zone 3a, 3b and equivalent).

Development classified as 'more vulnerable' will not be permitted within areas of 1:30 flood extents now or in the future (flood zone 3b and equivalent).

Where flood management and mitigations are proposed to be utilised within a development, soft flood management methods are preferred over hard engineered solutions.

Sequential and Exception Tests

- 2.11. The Sequential and Exception Tests are applied in specific cases defined by UK Government policy. Their purpose is to drive development to areas of low flood risk and to support developments which improve flood risk for developments in areas at risk of flooding.
- 2.12. The client is seeking planning permission for the construction of a rear extension to the existing dwelling.
- 2.13. As per paragraph 176 of the NPPF:

*Applications for some **minor development** and changes of use should not be subject to the sequential exception tests but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.*

- 2.14. As such, given the development is classified as a minor development, the proposals are not required to be subject to the sequential or exception test.

Summary

- 2.15. This flood risk assessment has been prepared with due consideration to the above local and national policy.

3. Consultation and Review

Documents and Online Mapping

- 3.1. Local Governments and Lead Local Flood Authorities provide documents which contain data and policies on flood risk and new development in their areas. These documents are introduced and briefly summarised below. For the purposes of this FRA, these documents have been reviewed for relevant information and any relevant data is discussed within the appropriate sub heading of this report.
- 3.2. The following sources of information have been reviewed for this assessment:
- Flood Map for Planning on the Environment Agency website <https://flood-map-for-planning.service.gov.uk/>
 - Long Term Flood Risk Information on the Environment Agency website <https://www.gov.uk/check-long-term-flood-risk>
 - National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024)
 - Planning Practice Guidance - Flood Risk and Coastal Change (Ministry of Housing, Communities and Local Government, 2022)
 - Geoindex Onshore (British Geological Survey, 2024)
 - Mid Sussex District Plan 2021 - 2039 (Submission Draft)³, and Mid Sussex District Plan 2014-2031 (Mid Sussex District Council, 2018)⁴
 - Preliminary Flood Risk Assessment Addendum (West Sussex County Council, 2017)⁵ and West Sussex Preliminary Flood Risk Assessment (West Sussex County Council, 2011)⁶
 - Level 1 Strategic Flood Risk Assessment (Mid Sussex District Council, 2015)⁷ Level 1 Strategic Flood Risk Assessment (Mid Sussex District Council, 2024)⁸
 - Local Flood Risk Management Strategy: 2025 - 2030 (West Sussex County Council, 2025)⁹

³ <https://www.midsussex.gov.uk/media/10644/submission-district-plan-2021-2039.pdf>

⁴ <https://www.midsussex.gov.uk/media/1523/mid-sussex-district-plan-2014-2031.pdf>

⁵ <https://www.westsussex.gov.uk/media/2843/pfra-addendum-2017.pdf>

⁶ <https://www.westsussex.gov.uk/media/2842/preliminary-flood-risk-assessment-2011.pdf>

⁷ <https://www.midsussex.gov.uk/media/j3gm5qbl/env10-strategic-flood-risk-assessment-level-1-2015.pdf>

⁸ <https://www.midsussex.gov.uk/media/12345/level-1-sfra-2024.pdf>

⁹ <https://yourvoice.westsussex.gov.uk/35679/widgets/113695/documents/81113>

Preliminary Flood Risk Assessment (PFRA)

- 3.3. The PFRA and its addendum, published in 2011 and 2017 (addendum), is a high-level appraisal of flood risk across Lead Local Flood Authority West Sussex County Council. The flood risk from all sources, including fluvial, surface water, groundwater, and surcharged sewers is evaluated. It is the basis upon which the Local Flood Risk Management Strategy is produced.
- 3.4. The PFRA summarises historical flood incidents in West Sussex County Council. The site is not recorded as having been affected by any flood event.

Strategic Flood Risk Assessment (SFRA)

- 3.5. The SFRA, published in 2015 and 2024, provides the evidence base for the Local Planning Authority Mid Sussex District Council Local Plan and guidance for consideration when determining planning applications. The SFRA seeks to place new development into areas of lower flood risk taking into account current flood risk, future flood risk, and the effect a proposed development would have on the risk of flooding.
- 3.6. The SFRA mapping provided by Mid Sussex District Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

Local Flood Risk Management Strategy (LFRMS)

- 3.7. The Local Flood Risk Management Strategy sets out roles and responsibilities for flood risk management, assesses the risk of flooding in the area, where funding can be found to manage flood risk, and the policies, objectives, and actions of the Lead Local Flood Authority.
- 3.8. The West Sussex County Council LFRMS is used within this report to identify any flood management infrastructure and historical incidences of flooding.

4. Sources of Flood Risk

Fluvial

- 4.1. Flooding from watercourses arises when flows exceed the capacity of the channel, or where a restrictive structure is encountered, resulting in water overtopping the banks into the floodplain.

Main Rivers and Ordinary Watercourses

- 4.2. There are no main rivers in the vicinity of the site. An unnamed tributary of the Herrings Stream, classified as an ordinary watercourse, flows through the eastern part of the site, approximately 11m from the proposed development.
- 4.3. This tributary joins the Herrings Stream to the north-west of the site. The Herrings Stream then continues downstream, becoming designated as a Main River approximately 1.5km north-west of the site.
- 4.4. In accordance with the London Borough of Barnet Local Plan, developers are required to consult the Lead Local Flood Authority where works are proposed within 5m of an ordinary watercourse to determine whether an Ordinary Watercourse Consent (OWC) is required. As the proposed development is located approximately 11m from the watercourse, it is considered that an OWC is unlikely to be required.

EA Flood Map for Planning

- 4.5. According to the EA Flood Map for Planning, the proposed development is located in Flood Zone 1 (Figure 3), defined as land with a low probability of flooding, meaning it has a less than 1 in 1000 annual likelihood of fluvial flooding.
- 4.6. A small area in the east of the site is located in Flood Zone 2 and Flood Zone 3, associated with the Ordinary Watercourse that flows through the site. It appears that, given the extent of the Flood Zones, the fluvial flood risk is to remain within the channel. Flood Zone 2 is defined as land with a medium probability of flooding, meaning it has a between 1 in 1000 and 1 in 100 annual likelihood of fluvial flooding (0.1% to 1% probability each year). Flood Zone 3 is defined as land with a high probability of flooding, meaning it has a greater than 1 in 100 annual likelihood of fluvial flooding (1% probability each year).
- 4.7. The Flood Map for Planning also includes the Flood Zones plus climate change data which shows how the combined extent of Flood Zones 2 and 3 could increase with climate change over the next century, ignoring the benefits of any existing flood defences.
- 4.8. The Flood Zones plus climate change extent does not extend beyond the present-day Flood Zones, indicating that climate change is not predicted to increase the fluvial flood risk to the site.

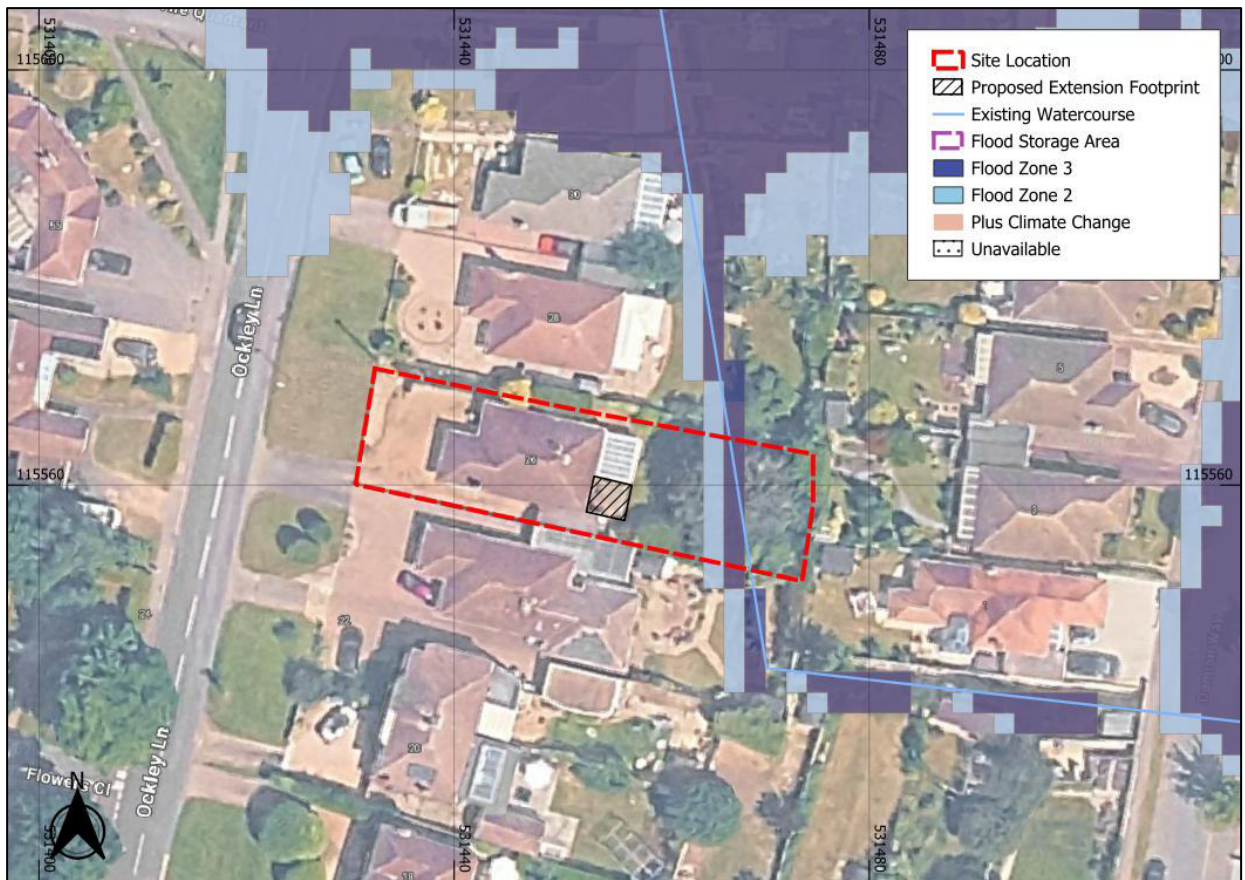


Figure 3: EA Flood Map for Planning (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

Historical Fluvial Flooding

- 4.9. According to the EA's Historic Flood Map and Recorded Flood Outlines dataset, the site and its immediate vicinity, have not been impacted by a fluvial flood event (Figure 4).



Figure 4: EA Historic Flood Mapping (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

Hassocks Modelling Study (2013)

- 4.10. Aegaea hold on file the EA Hassocks Modelling Study (2013). The model assesses an undefended scenario only, as no formal flood defences are present within the study area.
- 4.11. Simulations therefore represent the undefended case and cover the 50%, 20%, 10%, 5%, 3.33%, 2%, 1.33%, 1%, 0.5% and 0.1% AEP events. Updated EA climate change guidance (post-2016) introduced revised peak river flow allowances, which were updated in the study. The model includes a central and upper allowance scenarios of approximately +35%, +45% and +105%.
- 4.12. The EA's peak river flow data for the Adur and Ouse Management Catchment indicates a central allowance of 37% for the 2080s, therefore the 1 in 100 year +35% climate change scenario has been analysed below as the design flood event.

Present Day Scenarios

- 4.13. Based on the Hassocks modelling study, the proposed development lies outside of the flood extent for the 1 in 30 year event, which is used to define the functional floodplain (Flood Zone 3b) (Figure 5). The proposed development is therefore not located within the functional

floodplain. The proposed development is also located outside of the 1 in 100 year, and 1 in 1000 year present day events.

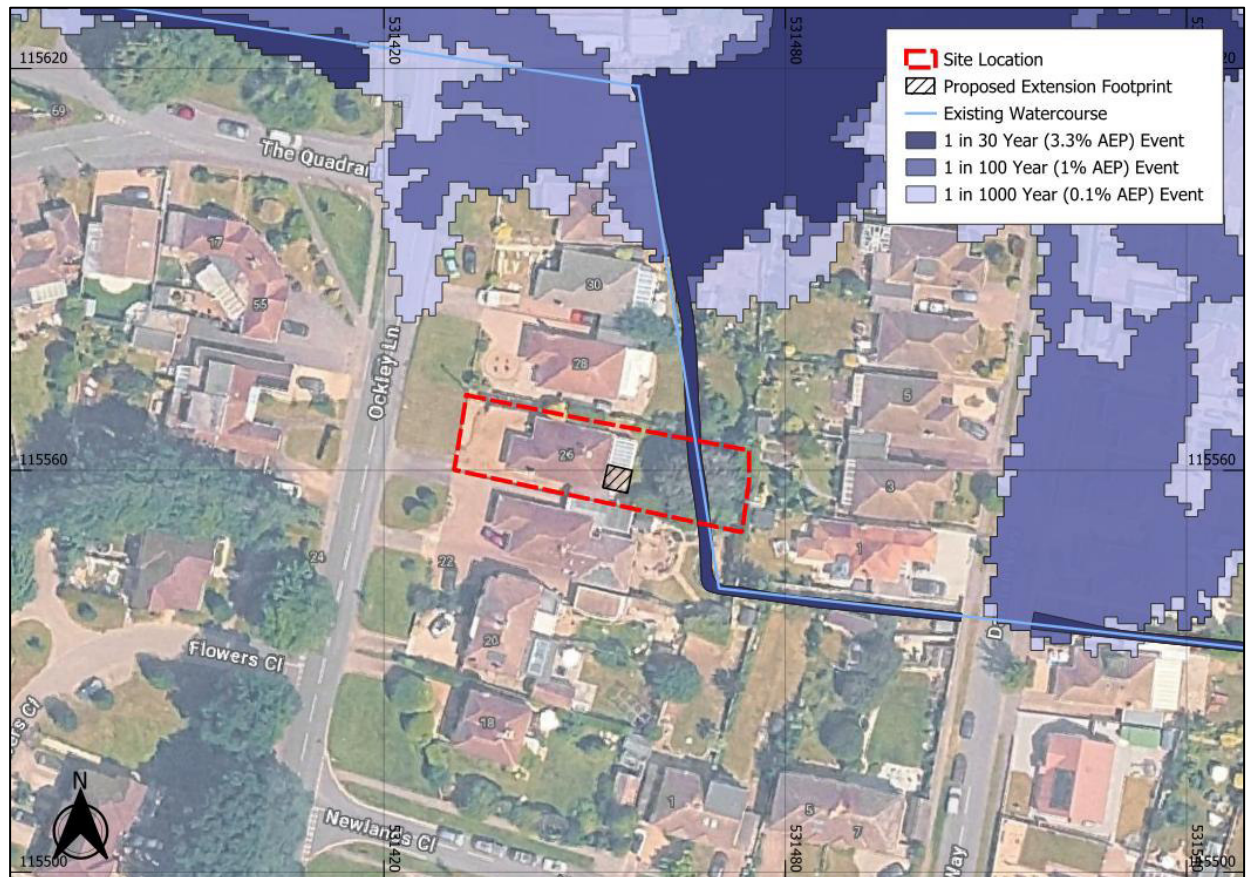


Figure 5: Modelled present day flood extents for present day scenarios. (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

Climate Change Scenario

- 4.14. Based on the modelled flood extents from the Hassocks modelling study, the entire site and proposed extension lie outside of the 1 in 100 year plus 35% climate change flood extent (Figure 6).

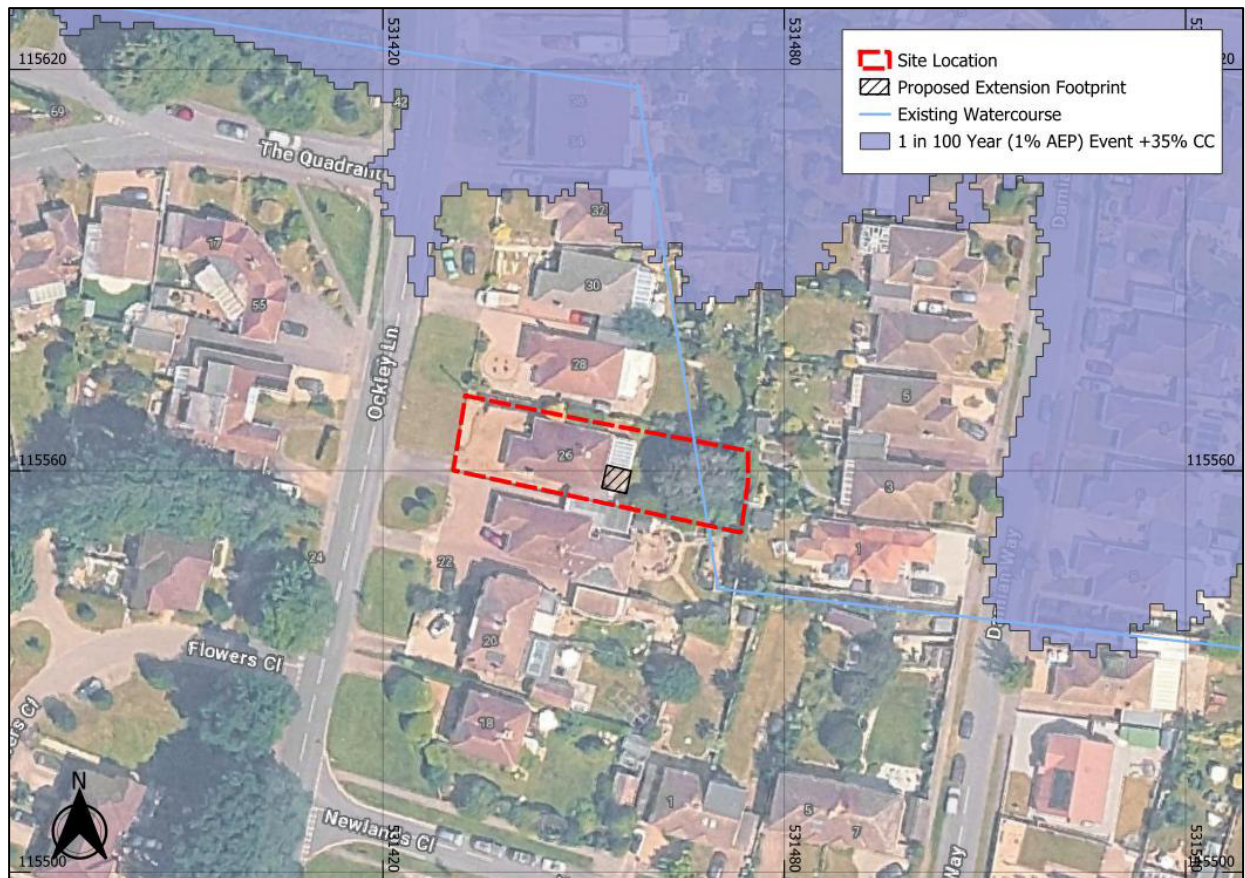


Figure 6: Modelled climate change flood extents for present day scenarios. (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

- 4.15. A review of the Flood Map for Planning climate change mapping suggests that the ordinary watercourse is not explicitly represented within the climate change model outputs. However, the present-day modelled results demonstrate that flood flows are contained within the channel for all assessed events, including the 1 in 1000 year (0.1% AEP) worst-case scenario. On this basis, it is considered that the channel would continue to contain flows under climate change conditions.

Fluvial Summary

- 4.16. According to the EA Flood Map for Planning, the proposed development is located within Flood Zone 1, with a small area in the east of the site within Flood Zone 2 and 3. The mapped Flood Zone extents are confined to the channel of the ordinary watercourse and do not extend into the proposed development area.
- 4.17. Modelling from the Hassocks Study (2013) confirms that the site lies outside the extent of the 1 in 30 year event (Flood Zone 3b/functional floodplain), all other present day flood scenarios, and the 1 in 100 year plus 35% climate change flood extent.
- 4.18. Based on the information reviewed, the proposed development is considered to be at low risk of fluvial flooding.

Tidal

- 4.19. Tidal flooding occurs when a high tide and high winds combine to elevate sea levels. An area behind coastal flood defences can still flood if waves overtop the defences or break through them. Tidal flooding can also occur a long way from the coast by raising river levels. Water may overtop the river bank or river defences when tide levels are high. The site is a significant distance from any tidal source and above the anticipated extreme tidal levels, even when considering the impacts of climate change. There is also no record of historical tidal or sea flooding on-site.
- 4.20. Therefore, the risk of flooding from tidal sources is considered to be low.

Canals

- 4.21. The Canal and River Trust (CRT) generally maintains canal levels using reservoirs, feeders, and boreholes and manages water levels by transferring it within the canal system.
- 4.22. According to CRT¹⁰ mapping, there are no CRT maintained canals within 1km of the site.
- 4.23. The risk of flooding to this site from canals is considered to be low.

Pluvial

- 4.24. The National Flood Risk Assessment (NaFRA2) has updated the Risk of Flooding from Surface Water (RoFSW) products, which shows the likelihood of flooding from surface water to areas of land. The RoFSW products are an assessment of where surface water flooding may occur when rainwater does not drain away through normal drainage systems or soak into the ground but lies in or flows over the ground instead. It includes information about flooding extents and depths, including the potential impact of climate change on flood risk based on the latest UK climate projections (UKCP18).
- 4.25. Risk is displayed as one of three likelihood categories:
- High - greater than or equal to 1 in 30 (3.3%) likelihood of flooding in any year.
 - Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) likelihood of flooding in any given year.
 - Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) likelihood of flooding in any given year.
- 4.26. The RoFSW depth mapping shows the annual likelihood of flooding (based on the three risk categories listed above) beyond a specific depth, for depths at the following intervals from 20cm

¹⁰ <https://canalrivertrust.org.uk/canals-and-rivers>

to 120cm. The maps provide information on flood depths to show the likelihood that different depths of flooding could be reached or exceeded¹¹ :

- 0.2m, 0.3m, 0.6m, 0.9m, 1.2m

- 4.27. Review of present day and climate change extents are similar; thus the 'worst-case' scenario climate change extents and modelling have been assessed below.
- 4.28. Examination of the EA's climate change RoFSW mapping indicates that the proposed development is located outside areas with a high, medium, and low likelihood of surface water (Figure 7).

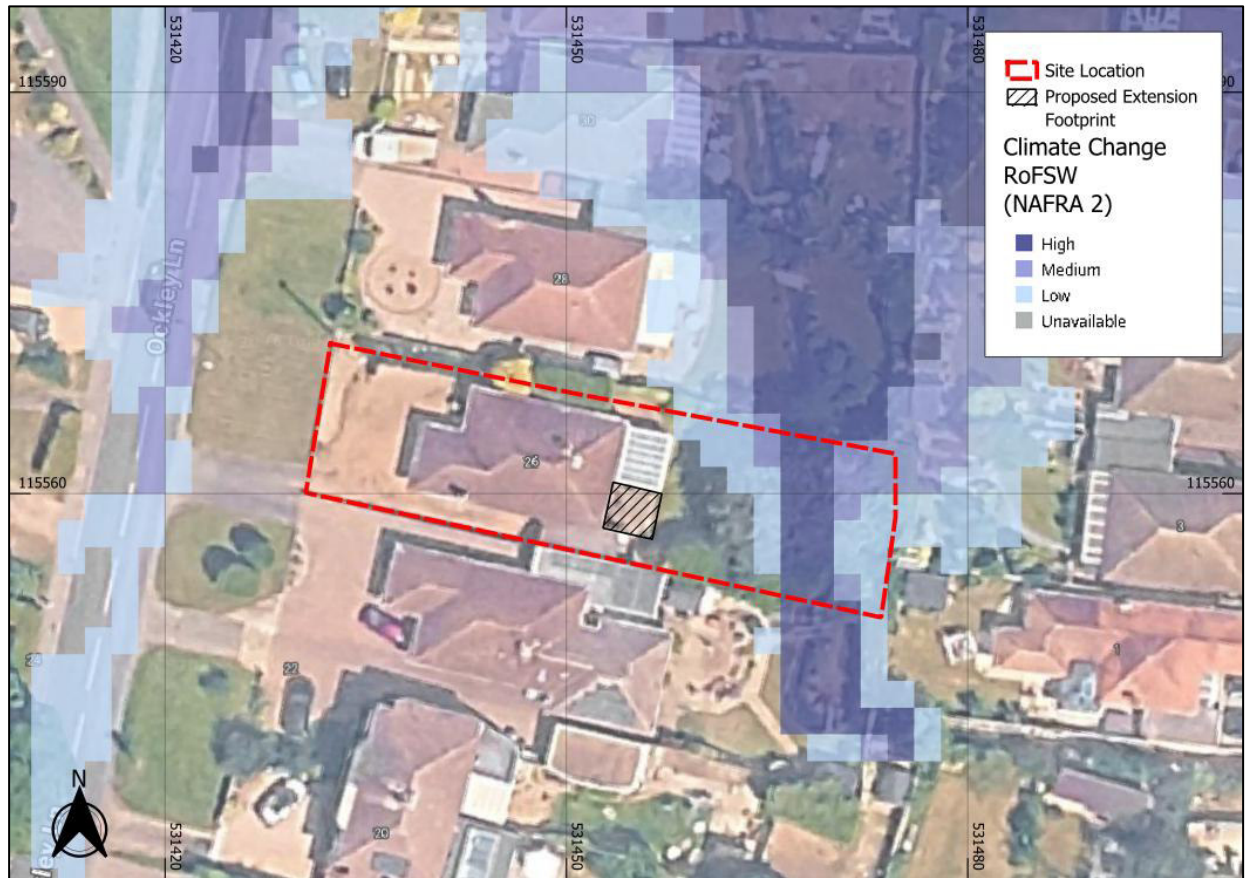


Figure 7: EA Surface Water Flood Risk Mapping (Climate Change) (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

- 4.29. Based on the information reviewed, the proposed development has a low risk of pluvial flooding.

¹¹ <https://www.gov.uk/government/publications/flood-risk-maps-for-surface-water-how-to-use-the-map/risk-of-flooding-from-surface-water-understanding-and-using-the-map>

Reservoirs

- 4.30. Large waterbodies or reservoirs that have walls built above the surrounding ground level pose a risk of flooding. Walls could fail due to old age, accident, or because excess flood water has been added to the reservoir. Although a breach is unlikely the consequences would be significant, leading to rapid inundation of the downstream floodplain.
- 4.31. According to the EA's Flood Risk from Reservoirs mapping the site is outside modelled flood extents in the event of reservoir flooding (Figure 8).

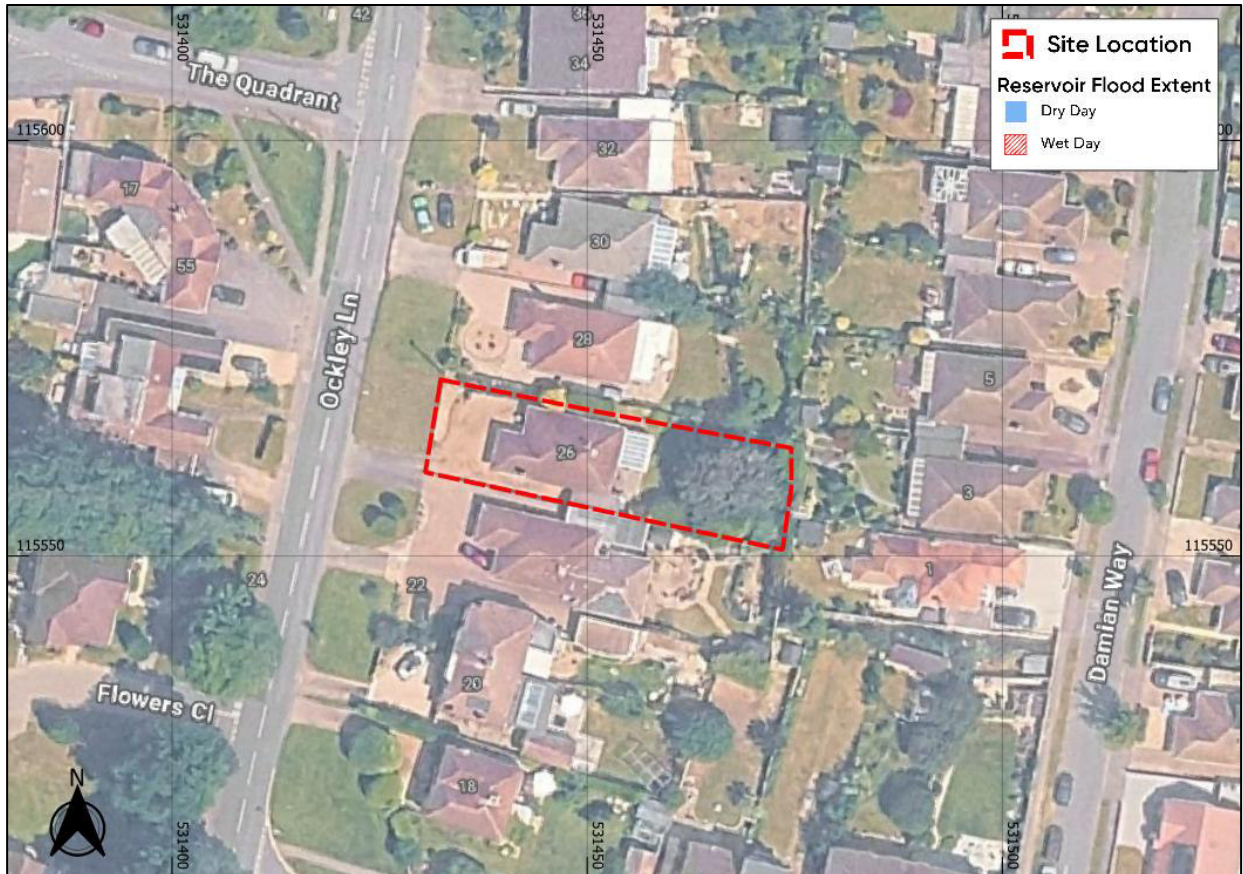


Figure 8: EA Reservoir Flood Risk Mapping (Base map and data from Google © <https://www.google.com> and contributors. Contains public sector information licensed under the Open Government Licence v3.0).

- 4.32. The site has not been flagged as being at risk of flooding following a reservoir failure, therefore the site is considered to be at low risk of flooding from reservoirs.

Groundwater

- 4.33. Groundwater flooding occurs in areas where underlying geology is permeable and water can rise within the strata sufficiently to breach the surface.
- 4.34. The British Geological Survey's (BGS) mapping shows no superficial deposits underlying the site. The bedrock deposits underlying the site are defined as Lower Greensand Group,

comprising silty sandstone. There are no historical BGS boreholes within 100m of the site, in similar geology.

- 4.35. According to the 2024 SFRA, groundwater flooding in Hassocks is associated with the underlying permeable geology of the South Downs, where prolonged periods of rainfall can lead to elevated groundwater levels and localised emergence at the surface. While more localised and less predictable than other sources, groundwater flooding is recognised as a contributing factor to flood risk within the area.
- 4.36. Furthermore, the development proposals do not include any proposed basements, which are more vulnerable to groundwater ingress.
- 4.37. Based on the information reviewed, the risk from groundwater to the development is considered to be low.

Sewers

- 4.38. Foul or surface water sewers can be a cause of flooding if the drainage network becomes overwhelmed, either by blockage or due to local development beyond the designed capabilities of the drainage system.
- 4.39. The 2024 SFRA identifies sewer flooding as a potential source of flood risk based on records provided by sewerage undertakers; however, no specific historic sewer flooding events are described within Hassocks.
- 4.40. The SFRA presents Southern Water historic sewer flooding records (DG5 data) as external and internal incidents, and the site is not located within an area identified as having been impacted by either external or internal sewer flooding (Figure 9).

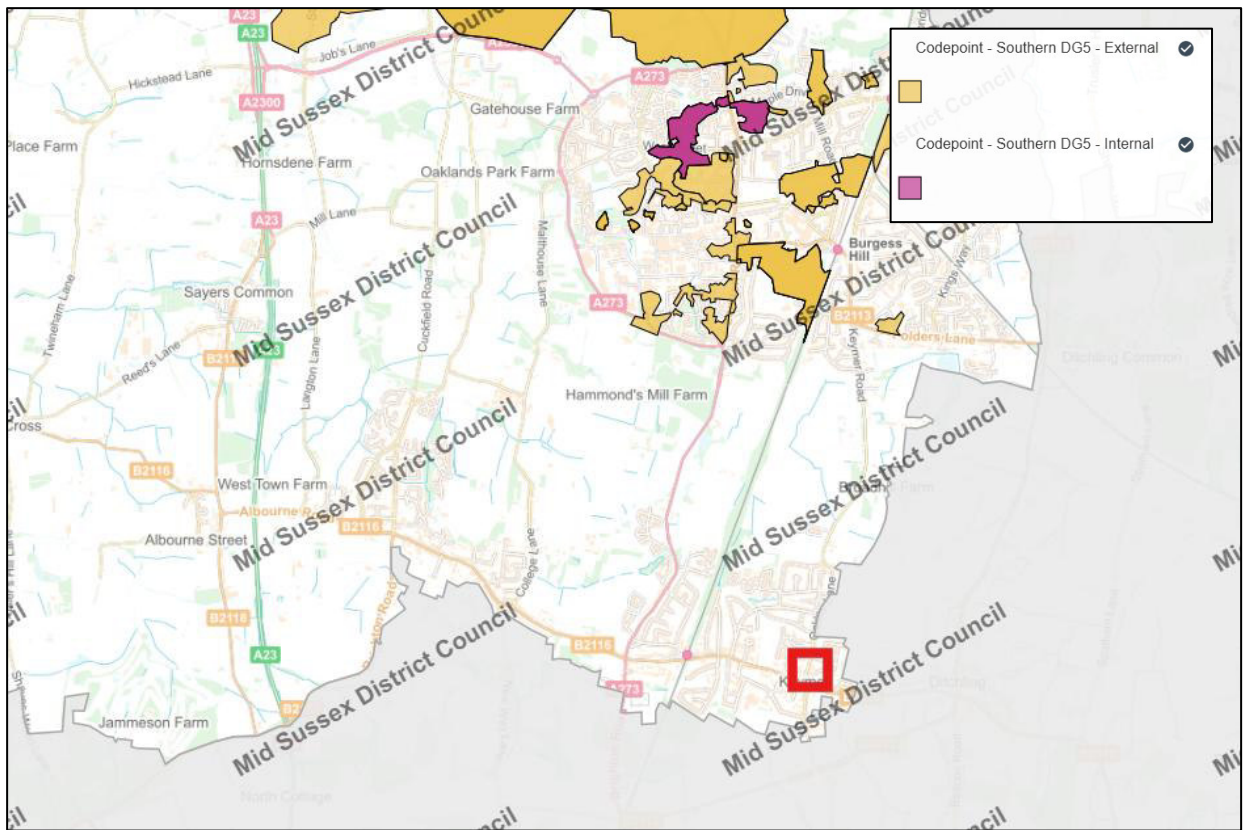


Figure 9: Mid Sussex SFRA (2024) – Southern Water DG5 records

5. Flood Risk Mitigation

Fluvial, Tidal, Canals, Pluvial, Reservoirs, Groundwater and Sewers

- 5.1. Flood risk from all analysed sources is considered to be low, therefore mitigation is not required.

Increase to Flood Risk Elsewhere

- 5.2. The proposed development is for the construction of an extension to the existing dwelling on site. The client is seeking planning permission for the construction of a rear extension to the existing dwelling. As such, the proposal constitutes a Minor Development under the NPPF.
- 5.3. Paragraph 051 of the Flood Risk and Coastal Change Planning Practice Guidance (PPG) states:

Minor developments are unlikely to raise significant flood issues unless:

- *they would have an adverse effect on a watercourse, floodplain or its flood defences;*
- *they would impede access to flood defence and management facilities, or;*
- *where the cumulative impact of such developments would have a significant effect on local flood storage capacity or flood flows.*

- 5.4. As such, the proposed development in isolation should have a negligible impact on flood risk elsewhere.

Flood Warnings

- 5.5. The site is not in an area where the EA provide specific flood alerts and warnings. As a precaution, the occupant of the dwelling should monitor Met Office Weather Warnings to be prepared for extreme weather events.
- 5.6. The Met Office issues weather warnings up to 5 days in advance, through the national Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. It is also possible to stay up to date with weather warnings through the Met Office app (available on both Apple or Android devices), social media e.g. X and Facebook or email alerts.

6. Conclusions

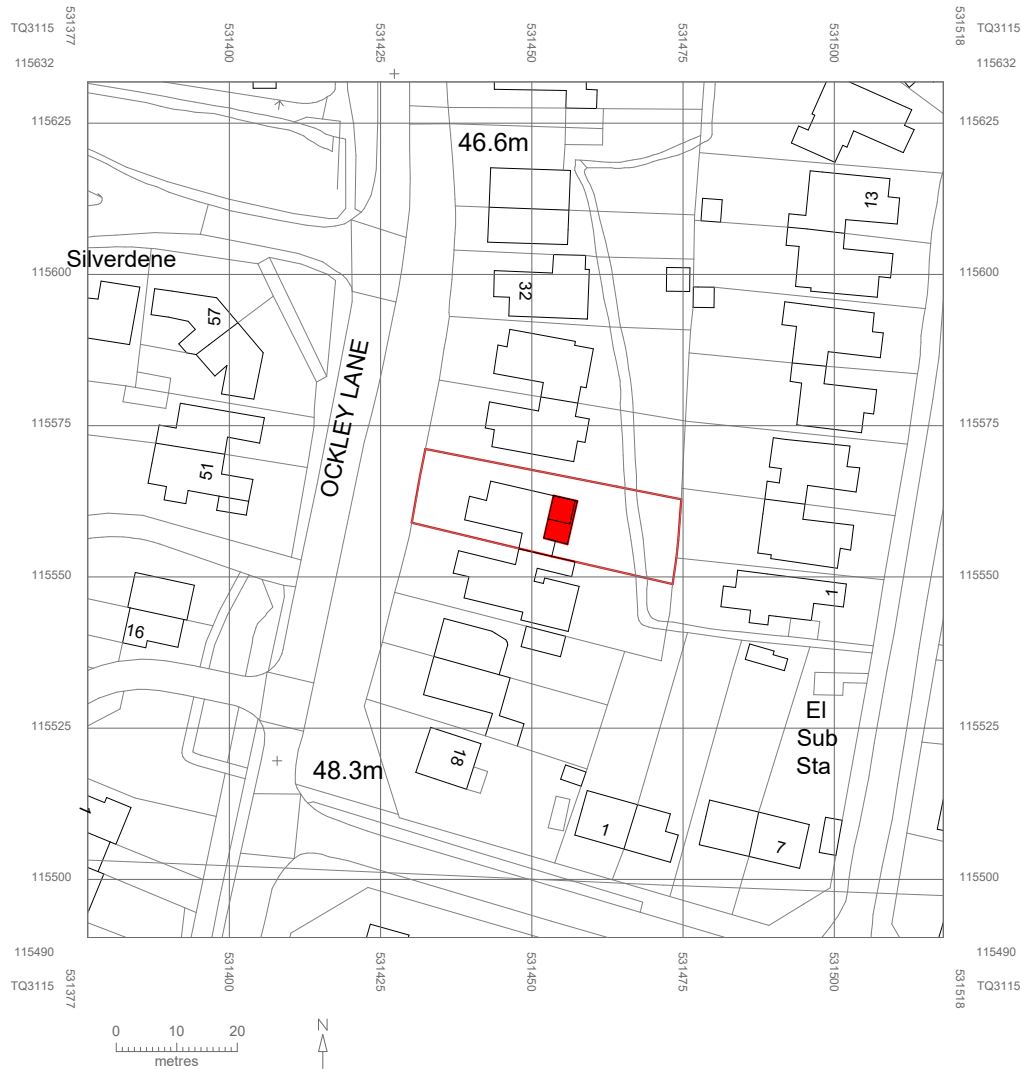
- 6.1. This FRA has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at 26 Ockley Lane, Hassock, Mid Sussex, West Sussex, BN6 8BB. It has been written to support a planning application and prepared with due consideration to the nature of the proposed development to provide the appropriate level of detail.
- 6.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

Source of Flooding	Flood Risk Summary
Fluvial Pluvial Tidal Canals Reservoirs Groundwater Sewers	The site is considered to be at low risk from all analysed sources.

- 6.3. The FRA supports the planning application and demonstrates that there is an acceptable level of flood risk to the site. The development does not increase flood risk off site or to the wider area.
- 6.4. This Flood Risk Assessment should be submitted as part of the planning application to satisfy the requirements under NPPF.

Appendix A - Development Proposals

Location Plan - 1-1250 - Extension

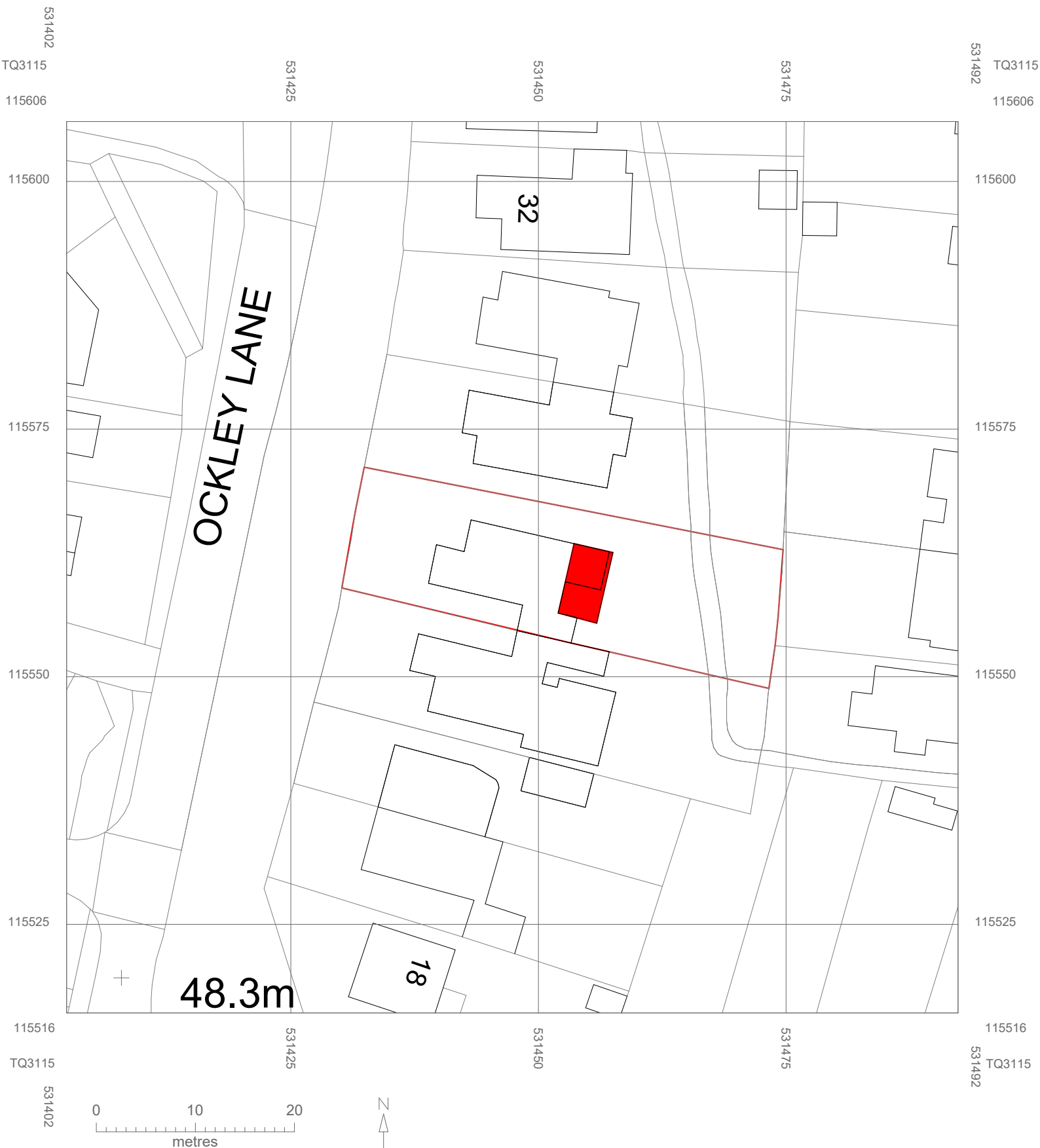


Client - Stephen and Sara
D'Allenger-Bradshaw

Address - 26 Ockley Lane,
Hassocks, BN6 8BB



Site Plan - 1-500 - Extension



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D'Allenger-Bradshaw

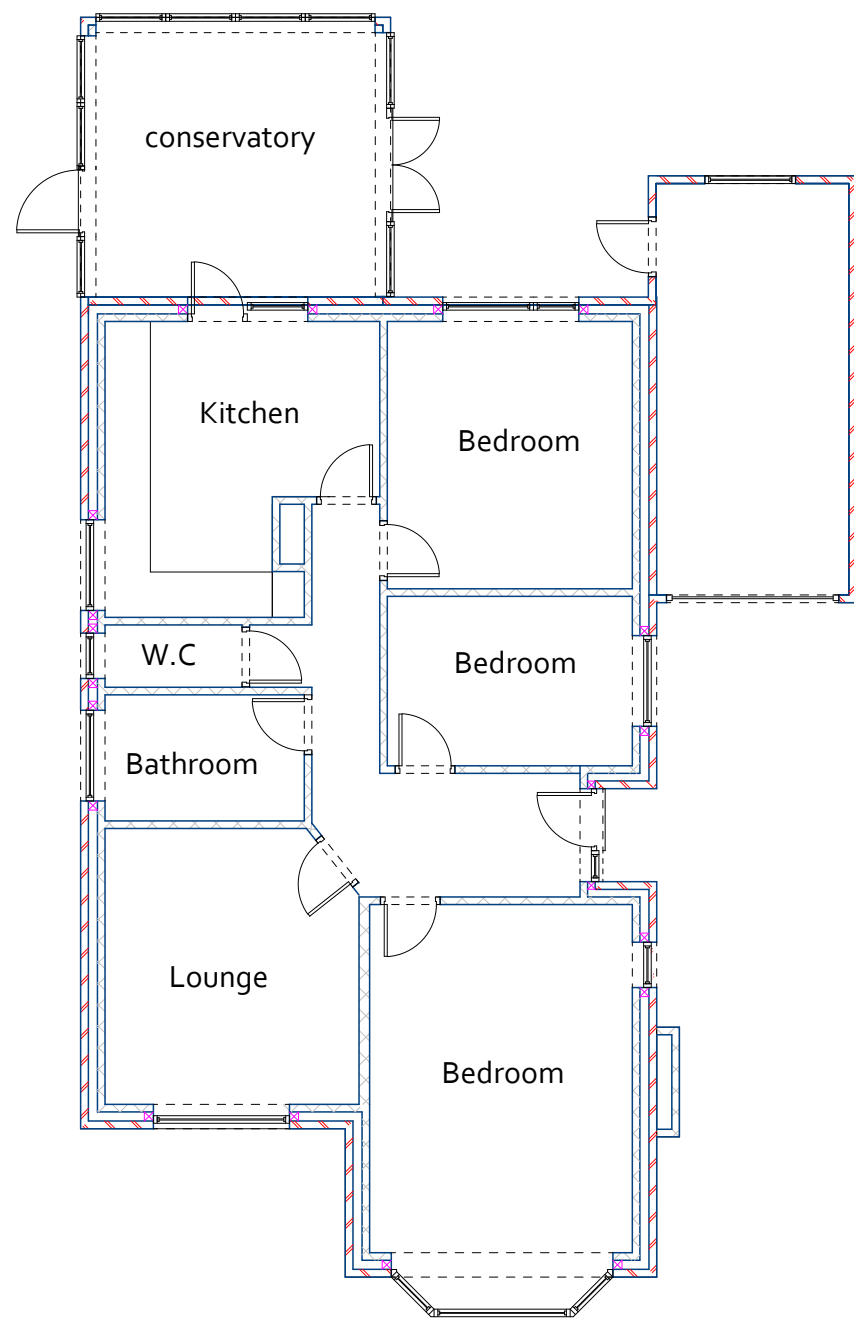
Address - 26 Ockley Lane,
Hassocks, BN6 8BB



Planning Drawings

Existing Layout

Scale 1 : 100 2000mm



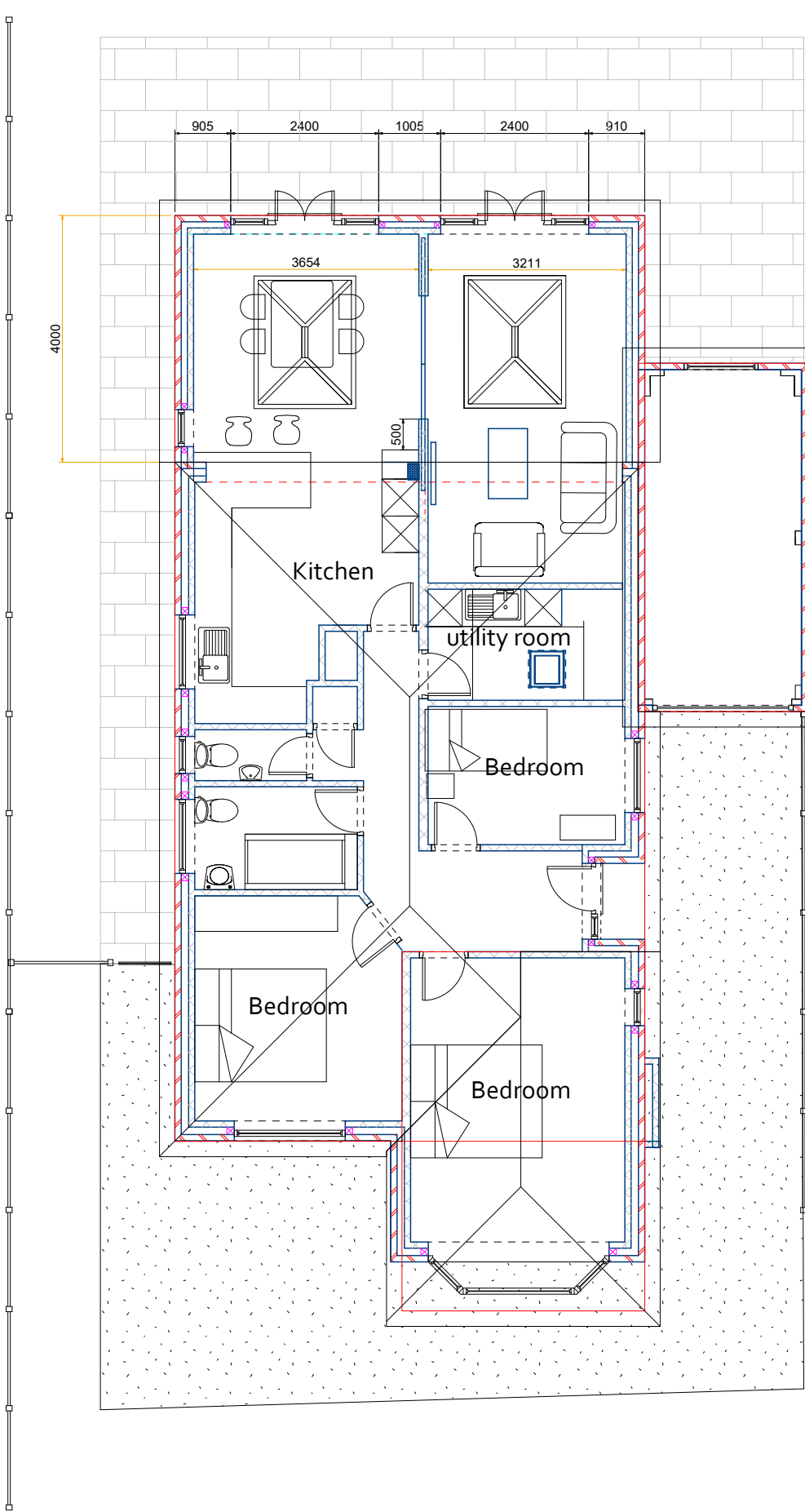
Elevations Existing

Scale 1 : 100 2000mm



Proposed Layout

Scale 1 : 100 2000mm

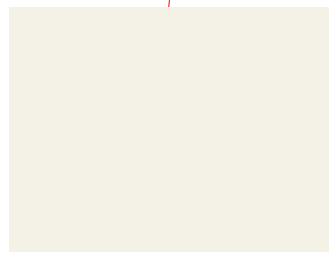


Elevations Proposed

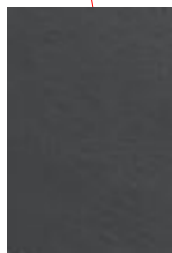
Scale 1 : 100 2000mm



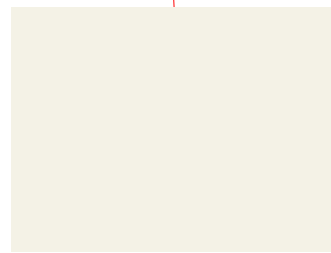
Materials Schedule



Cream render
(Rear Extension)



Anthracite grey
(Rear Doors / windows)



White windows and doors
(On each elevation apart from the rear)

Photographic Survey



THIS IS NOT A WORKING DRAWING.

The information provided is either for client information, planning consideration or shows compliance under the building regulations. It does not purport to provide all the information necessary to carry out construction works and could be subject to variation in detail.

ALL MEASUREMENTS TO BE CHECKED ON SITE NOTE. FITMENT SUPPLIERS SHOULD TAKE SITE MEASUREMENTS

Prior to commencement of work on site, dimensions and particulars should be checked and any discrepancies reported immediately to Jones projects Architectural DO NOT SCALE.

Client - Stephen and Sara
D'Allenger-Bradshaw

Address - 26 Ockley Lane,
Hassocks, BN6 8BB

Page Size - A1 2000mm



1. All Dimensions In Millimetres Unless Otherwise Stated
2. New Roof Tiles to match existing in type ,colour & face
3. New facing brickwork to match existing
4. The requirements of the party wall act should be observed
- 5.No part of the existing extension ,including Foundations and gutters, should encroach the property boundary

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