



Flood Risk Assessment for Planning

February 2024

Our reference:

93799-Connis-HavantRd

Prepared for:

Mr Keith Leaves

Location:

205 Havant Road
Hayling Island
PO11 0LG



Document Issue Record

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Location: 205 Havant Road, Hayling Island, PO11 0LG
Our reference: 93799-Connis-HavantRd
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1. Key Facts

1.1 Flood Risk Posed:

- EA Flood Zone 3, 2 and 1 (High, Medium and Low Risk).
- The risk would appear to be predominantly tidal and originate from the Langstone Channel which is approximately 293m to the west of the site at its closest proximity and an unnamed drain approximately 439m to the south of the site.
- Modelled flood levels and flood extent have been requested from the EA as part of a Product 4 data request.
- The flood defences on the Langstone Channel are privately maintained. This asset is under the North Solent Shoreline Management Plan (SMP) as a “Hold the Line” asset, having a 1:200yr standard.
- The EA have no records of flooding at the site previously.
- Risk of pluvial flooding suggests that the site lies within an area of “Very Low” to “Low” risk of flooding from surface water.
- Risk of reservoir, groundwater and sewer surcharge flooding would appear to be low.

1.2 Flood Risk Mitigation:

- The proposed development fits within fit within the EA Standing Advice for domestic extensions.
- No additional or separate residential units will be created as part of the development.
- No sub-division or intensification of usage at the site is proposed.
- The additional footprint created by the development will not exceed 250m².
- There will be no increase in vulnerability.
- No sleeping accommodation is proposed in the outbuilding.
- Floor levels within the extension will be set no lower than existing floor levels.
- Flood proofing of the development will be incorporated as appropriate.
- The applicant will register with the Environment Agency Floodline Alert/Warnings Direct service.
- Due to the scale of the development, a full Surface Water Drainage Strategy is not required at this stage of planning.

Assuming accordance with these flood risk management measures, Unda Consulting Limited consider the proposed application to be suitable in flood risk terms.

2. Introduction

Unda Consulting Limited have been appointed by Mr Keith Leaves (hereinafter referred to as “the applicant”) to undertake a Flood Risk Assessment for the proposed development at 205 Havant Road, Hayling Island, PO11 0LG (hereinafter referred to as “the site”). The purpose of the study is to support a planning application for the proposed development.

This report presents our findings based on the readily available information and data relating to the site and surrounding drainage area.

The site appears to be located within Flood Zones 3, 2, and 1 as defined by the Environment Agency (EA) on their Flood Map for Planning. Under the National Planning Policy Framework (NPPF), a FRA is required if a proposed development:

- includes building or engineering works in Flood Zone 2 or 3;
- includes building or engineering works on land classified by the Environment Agency as having critical drainage problem;
- changes the use of land or buildings in a location at risk of flooding from rivers or the sea, or with critical drainage problems;
- changes the use of land or buildings in a way that increases the flood vulnerability of the development where it may be subject to other sources of flooding;
- is larger than 1 hectare.

The assessment should demonstrate to the Local Planning Authority (LPA) and EA how flood risk will be managed now and over the development’s lifetime, taking climate change into account, and with regard to the vulnerability of its potential users.

- whether the proposed development is likely to be affected by current or future flooding from any source;
- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate.

3. Existing Situation

3.1 Site Usage:

The site is an existing residential property. The site is understood to have lawful planning permission for residential use.

Aerial imagery of the site and surrounding area is presented below in Figure 1, and the site location is shown in Figure 2.

A site location and existing plans are provided in the report Appendix.



Figure 1: Aerial imagery of site and surrounding area (Source: Google Earth)



Figure 2: Site Location Plan (Source: Leyson Building Consultancy)

3.2 Topography:

Environment Agency LiDAR has been used to assess the topography across the site and wider area. Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground surface. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at high spatial resolutions. The EA's LIDAR data archive contains digital elevation data derived from surveys carried out by the EA's specialist remote sensing team. Accurate elevation data is available for over 70% of England. The LiDAR technique records an elevation accurate to +0.3m every 2m. This dataset is derived from a combination of our full dataset which has been merged and re-sampled to give the best possible coverage. The dataset can be supplied as a Digital Surface Model (DSM) produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface) or as a Digital Terrain Model (DTM) produced by removing objects from the Digital Surface Model.

1m horizontal resolution LiDAR remotely sensed digital elevation data suggests that the ground topography on site ranges from approximately 2.94mAOD to 3.85mAOD.

3.3 Geography and Soil:

The British Geological Survey (BGS) Map indicates that the bedrock underlying the site is Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation And Portsdown Chalk Formation (Undifferentiated) - Chalk, with superficial deposits of River Terrace Deposits (Undifferentiated) - Sand, Silt And Clay.

The soil type in the area taken from the UKSO Website is River Loam soil parent material, with a sand to sandy loam soil texture.

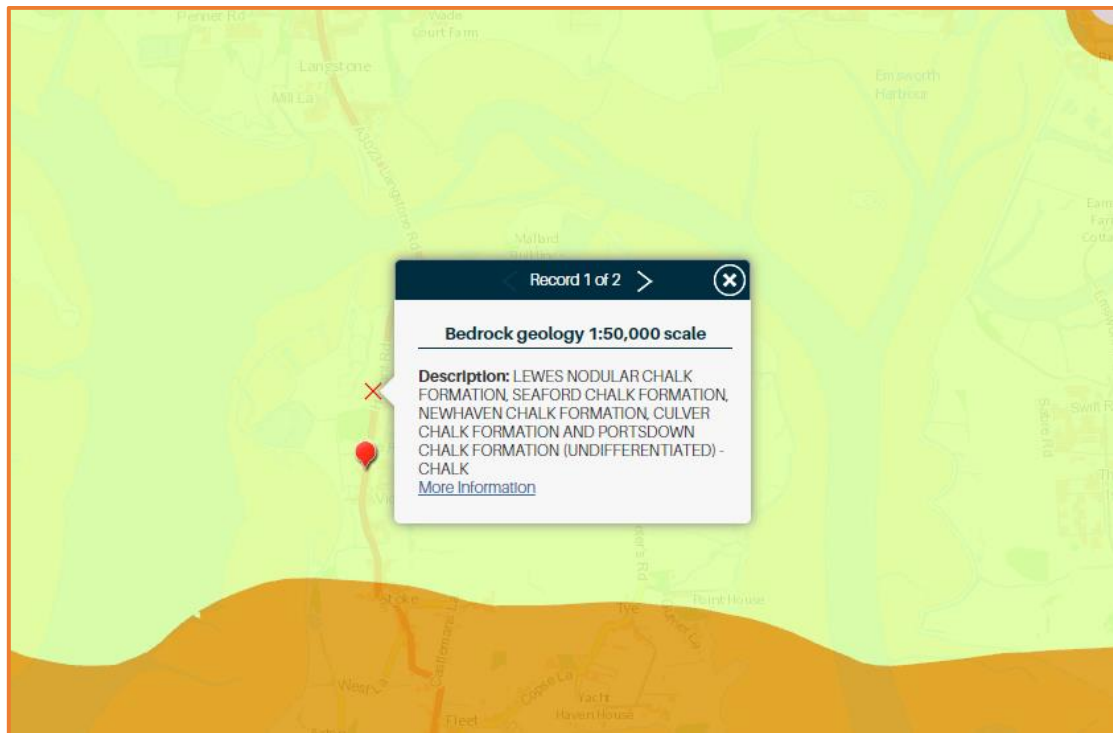


Figure 3: Geology (Source: BGS)

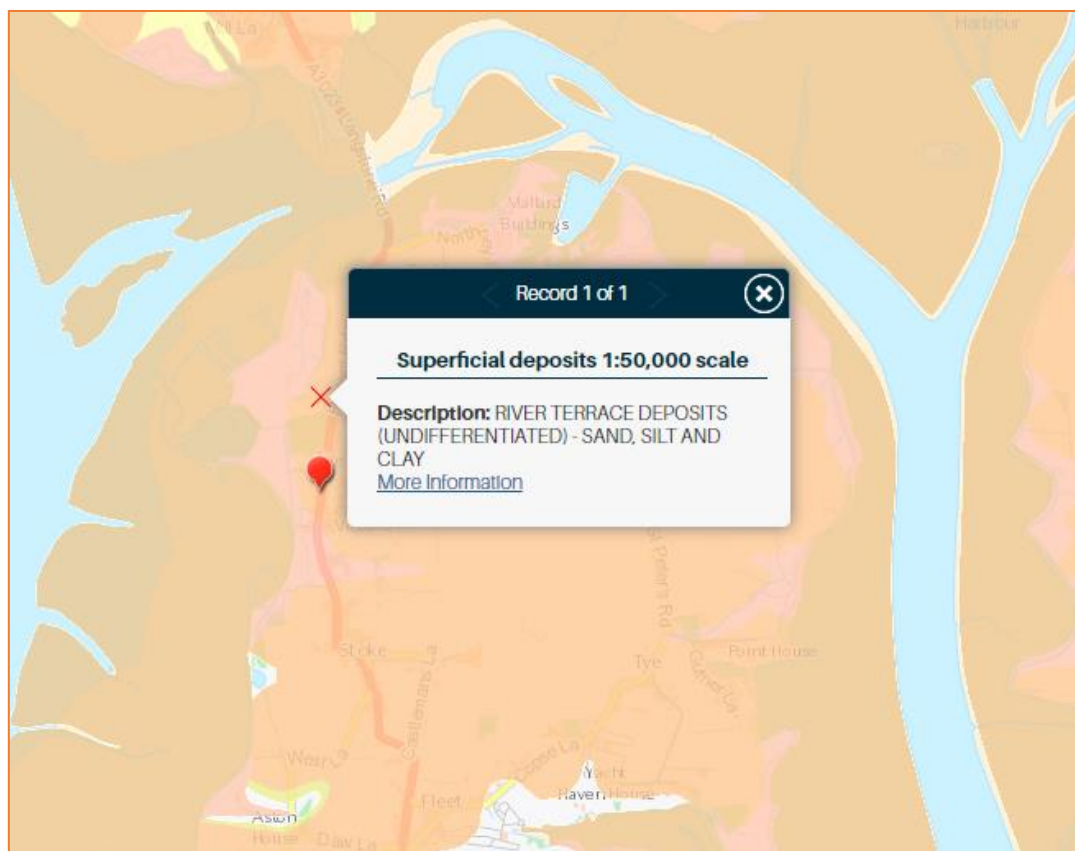


Figure 4: Superficial deposits (Source: BGS)

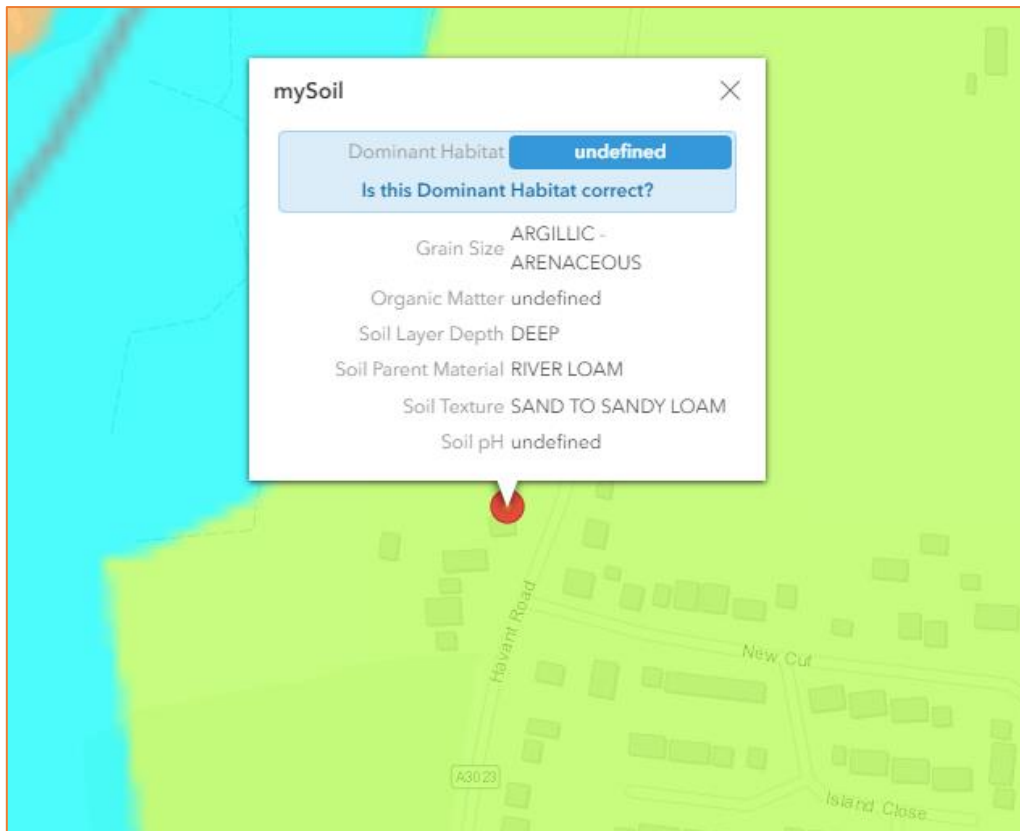


Figure 5: Soil Types (Source: UKSO)

4. Development Proposal

The proposed planning application is for the construction of an outbuilding to be used as a recreational room with a steam room and wet room.

No sleeping accommodation is proposed in the outbuilding. In addition, there will be no introduction of additional or separate units, no sub-division, and no intensification of usage at the site.

The proposed plans are provided in the report Appendix.

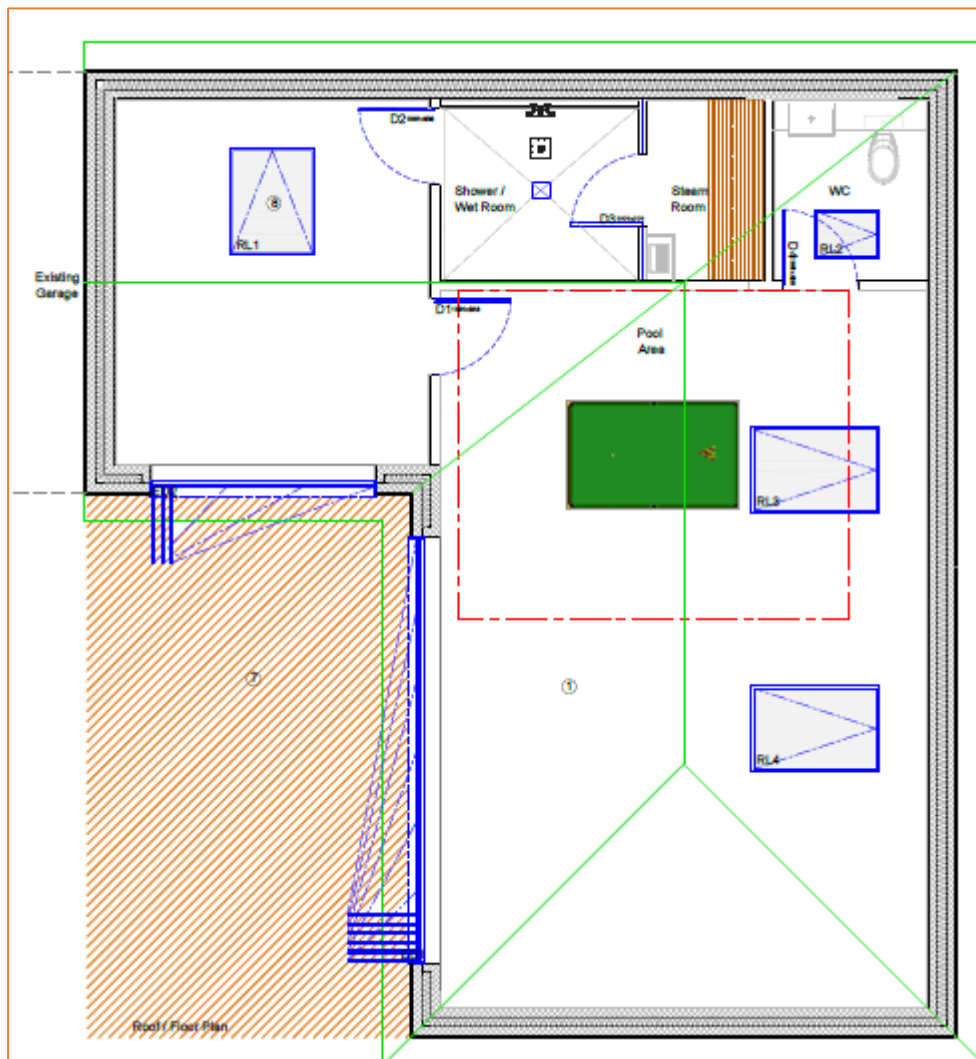


Figure 6: Proposed ground floor layout (Source: Leyson Building Consultancy)

5. Assessment of Flood Risk

5.1 Flood Zones:

Within planning, Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences. They are shown on the Environment Agency's Flood Map for Planning (Rivers and Sea), available on the Environment Agency's website.

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – 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. (Land shown in light blue on the Flood Map)
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. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. 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)

Table 1: Flood Zones

The Flood Zones shown on the Environment Agency's Flood Map for Planning (Rivers and Sea) do not take account of the possible impacts of climate change and consequent changes in the future probability of flooding.

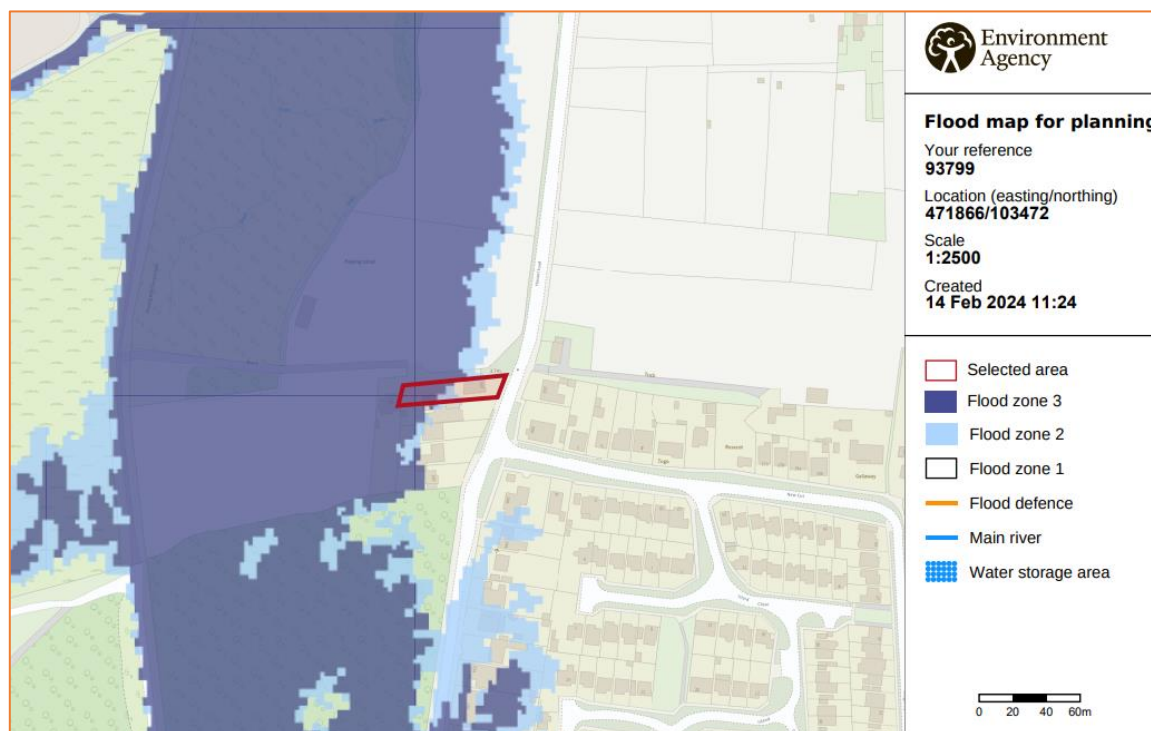


Figure 7: Environment Agency Flood Map for Planning (Rivers and Sea) (Source: EA)

The site is located within Flood Zones 3, 2 and 1 (High, Medium, Low Probability), which means it is defined as land having between a greater than 1 in 200 and less than 1 in 1000 annual probability of river and sea flooding.

The risk would appear to be predominantly tidal and originate from the Langstone Channel which is approximately 293m to the west of the site at its closest proximity and an unnamed drain approximately 439m to the south of the site.

5.2 Tidal (Langstone Channel / English Channel)

5.2.1 Langstone Channel (Langstone Harbour)

The Langstone Channel is tidal fed inlet of the English Channel and is also known as Langstone harbour. Langstone channel is a 2,085.4 hectare Site of Special Scientific Interest (SSSI), Ramsar site and Chichester Harbour Special Protection area. Northbound of the inlet is mainland UK with Havant. The inlet lies between two islands, to the East is Hayling Island where the site is situated and to the West of the inlet is Portlea Island. Only a few small fluvial sources, such as Hermitage Stream and Old Mill Dam, directly discharge into this inlet.

5.2.2 Detailed flood modelling:

Modelled flood levels and flood extent have been requested from the EA as part of a Product 4 data request.

5.2.3 Flood defences:

A flood defence or EA Asset is any man-made or natural feature – such as a raised defence, retaining structure, channel, pumping station or culvert – that performs a flood defence or land drainage function.

The flood defences on the Langstone Channel are privately maintained. The Selsey Bills to Hurst Spit is an embankment to protect against tidal flooding. This asset is 3.24 km long, with a crest height of 4.1mAOD. This asset is under the North Solent Shoreline Management Plan (SMP) as a “Hold the Line” asset, having a 1:200yr standard.

5.2.4 Residual risk (breach or overtopping of flood defences):

Breaching of flood defences can cause rapid inundation of areas behind flood defences as flow in the river channel discharges through the breach. A breach can occur with little or no warning, although they are much more likely to concur with extreme river levels or tides when the stresses on flood defences are highest. Flood water flowing through a breach will normally discharge at a high velocity, rapidly filling up the areas behind the defences, resulting in significant damage to buildings and a high risk of loss of life. Breaches are most likely to occur in soft defences such as earth embankments although poorly maintained hard defences can also be a potential source of breach.

Overtopping of flood defences occurs when water levels exceed the protection level of raised flood defences. The worst case occurs when the fluvial or tidal levels exceed the defence level as this can lead to prolonged flooding. Less severe overtopping can occur when flood levels are below defence levels, but wave action causes cyclic overtopping, with intermittent discharge over the crest level of the defence. Flood defences are commonly designed with a freeboard to provide

protection against overtopping from waves. The risk from overtopping due to exceedance of the flood defence level is much more significant than the risk posed by wave overtopping. Exceedance of the flood defence level can lead to prolonged and rapid flooding with properties immediately behind the defences at highest risk.

There remains a residual risk in the incidence of failure. Wave overtopping is one of the principal mechanisms of flooding for the coastal frontage. Allowing for wave-overtopping increases the extent of flooding.

5.2.5 Historical flood events:

The EA have no records of flooding at the site previously.

5.3 Pluvial (Surface Water):

Pluvial (surface water) flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

In 2013 the EA, working with Lead Local Flood Authorities (LLFAs), produced an updated Flood Map for Surface Water. It is considered to represent a significant improvement on the previous surface water flood maps available, both in terms of method and representation of the risk of flooding. The modelling techniques and data used are considerably improved, and also incorporated locally produced mapping where this is available to represent features best modelled at a local scale.

The Flood Map for Surface Water assesses flooding scenarios as a result of rainfall with the following chance of occurring in any given year (annual probability of flooding is shown in brackets):

- High: Greater than or equal to 3.3% (1 in 30) chance in any given year (3.3%)
- Medium: Less than 3.3% (1 in 30) but greater than or equal to 1% (1 in 100) chance in any given year
- Low: Less than 1% (1 in 100) but greater than or equal to 0.1% (1 in 1,000) chance in any given year
- Very Low: Less than 0.1% (1 in 1,000) chance in any given year

The mapping below shows the Risk of Flooding from Surface Water centred on the site. Please note that the EA do not consider this information suitable to be used to identify the risk to individual properties or sites. It is useful to raise awareness in areas which may be at risk and may require additional investigation.

The EA Risk of Flooding from Surface Water Map suggests that the site lies within an area of "Very Low" risk of flooding from surface water, while Havant Road lies in an area at "Medium" risk flooding from surface water.

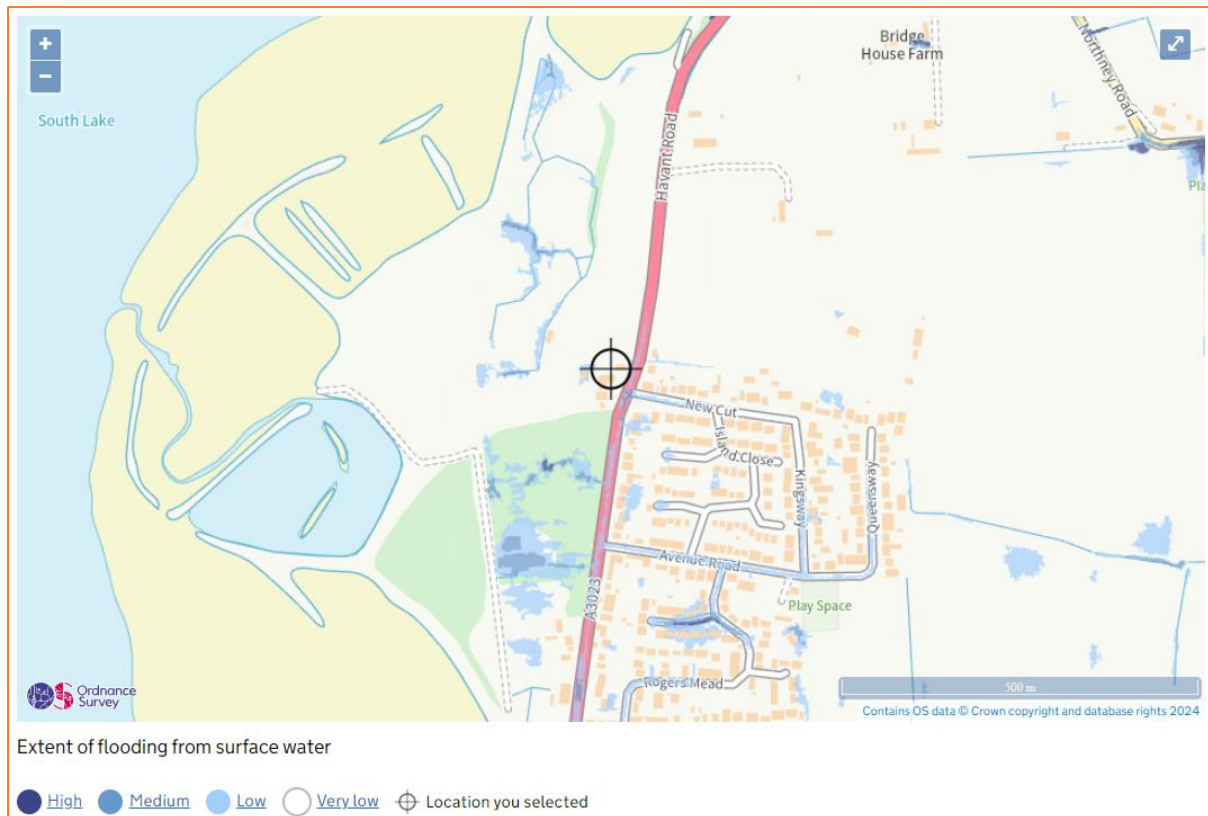


Figure 9: Extract from Environment Agency RoFSW map (Source: EA)

5.4 Groundwater:

Groundwater flooding occurs as a result of water rising up from the underlying rocks or from water flowing from abnormal springs. This tends to occur after much longer periods of sustained high rainfall. Higher rainfall means more water will infiltrate into the ground and cause the water table to rise above normal levels. Groundwater tends to flow from areas where the ground level is high, to areas where the ground level is low. In low-lying areas the water table is usually at shallower depths anyway, but during very wet periods, with all the additional groundwater flowing towards these areas, the water table can rise up to the surface causing groundwater flooding.

Groundwater flooding is most likely to occur in low-lying areas underlain by permeable rocks (aquifers). These may be extensive, regional aquifers, such as chalk or sandstone, or may be localised sands or river gravels in valley bottoms underlain by less permeable rocks. Groundwater flooding takes longer to dissipate because groundwater moves much more slowly than surface water and will take time to flow away underground.

The Partnership of Urban South Hampshire (PUSH) SFRA mapping shows the site to lie within an area with High Bedrock Permeability.

In addition, according to the EA Flooding from groundwater is unlikely in this area.

No further information has been provided to suggest that the site has flooded from groundwater flooding previously.

5.5 Sewer Surcharge:

Sewer flooding occurs when the sewer network cannot cope with the volume of water that is entering it. It is often experienced during times of heavy rainfall when large amounts of surface water overwhelm the sewer network causing flooding. Temporary problems such as blockages, siltation, collapses and equipment or operational failures can also result in sewer flooding.

All Water Companies have a statutory obligation to maintain a register of properties/areas which have reported records of flooding from the public sewerage system, and this is shown on the DG5 Flood Register. This includes records of flooding from foul sewers, combined sewers and surface water sewers which are deemed to be public and therefore maintained by the Water Company. The DG5 register records of flood incidents resulting in both internal property flooding and external flooding incidents. Once a property is identified on the DG5 register, water companies can typically put funding in place to address the issues and hence enable the property to be removed from the register. It should be noted that flooding from land drainage, highway drainage, rivers/watercourses and private sewers is not recorded within the register.

The PUSH SFRA mapping shows no Southern Water observed flooding records in the vicinity of the site. No information has been provided to suggest that the site itself has flooded as a result of sewer surcharge.

5.6 Other Sources:

Reservoirs with an impounded volume in excess of 25,000 cubic metres (measured above natural ground level) are governed by the Reservoirs Act and are listed on a register held by the Environment Agency. The site is located outside the maximum inundation extent on the EA Reservoir Inundation Map. The EA also advise on their website that reservoir flooding is extremely unlikely. There has been no loss of life in the UK from reservoir flooding since 1925. All major reservoirs have to be inspected by specialist dam and reservoir. Engineers. In accordance with the Reservoirs Act 1975 in England, these inspections are monitored and enforced by the EA themselves

Records of flooding from reservoirs and canals are erratic as there is no requirement for the Environment Agency to provide information on historic flooding from canals and raised reservoirs on plans. In particular, the NPPF does not require flood risk from canals and raised reservoirs to be shown on the Environment Agency flood zones.

Overflows from canals can be common as they are often fed by land drainage, and often do not have controlled overflow spillways. Occasionally, major bank breaches also occur, leading to rapid and deep flooding of adjacent land.

The EA Risk of Flooding from Reservoirs Map suggests that the site lies outside of the "Maximum extent of flooding" from reservoir failure. The EA also advise on their website that reservoir flooding is extremely unlikely. All major reservoirs have to be inspected by specialist dam and reservoir Engineers. These inspections are monitored and enforced by the EA themselves. The risk to the site from reservoir flooding is therefore minimal and is far lower than that relating to the potential for fluvial flooding to occur.

No further information has been provided to suggest the site is susceptible to from the failure of reservoirs, canals or other artificial infrastructure from the risk of flooding.

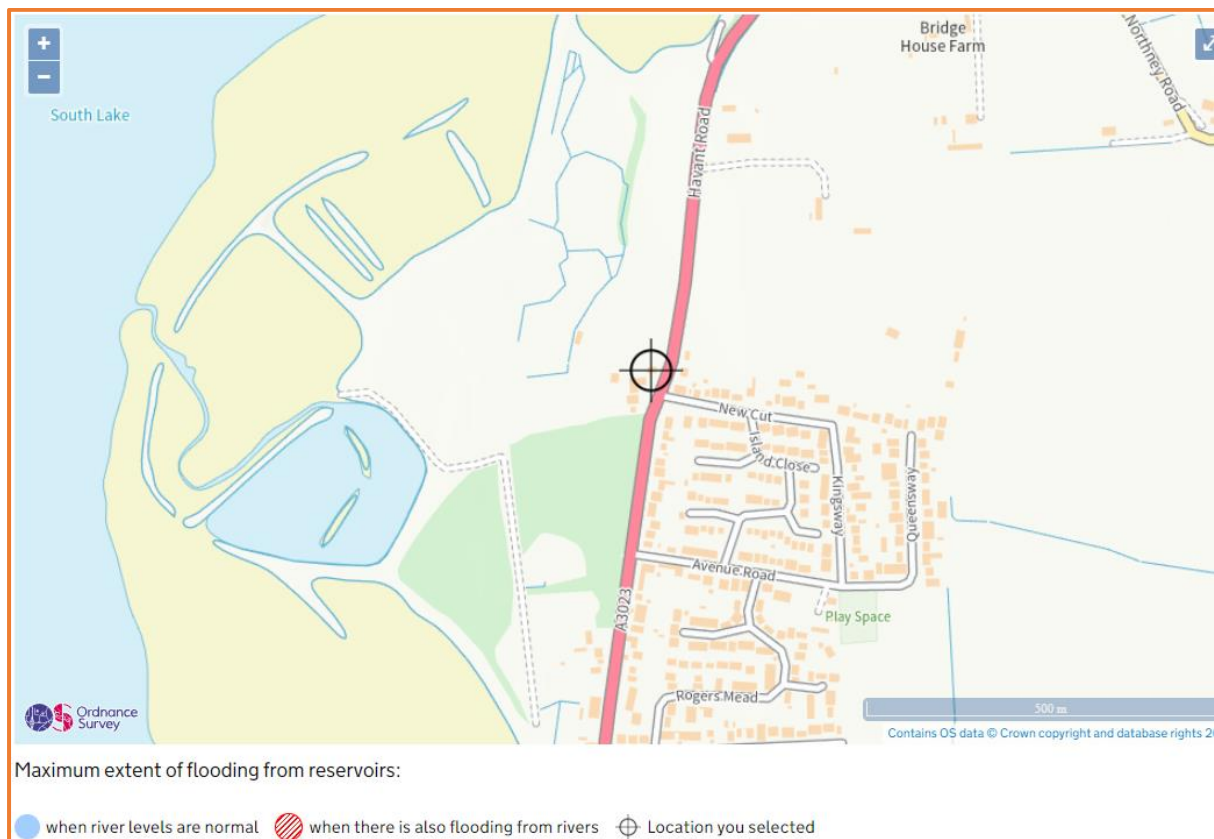


Figure 10: Extract from Environment Agency Risk of Flooding from Reservoirs Map (Source: EA)

6. Flood Risk Management

6.1 Vulnerability to flooding:

The NPPF classifies property usage by vulnerability to flooding.

The existing site usage is classified as "more vulnerable" throughout, as it is a residential property.

Post development, the site will remain "more vulnerable", as the application is for the construction of an outbuilding to be used as a recreational room with a steam room and wet room.

Accordingly, it is considered that the vulnerability of the site as a whole has not increased post development.

6.2 EA Standing Advice:

The EA Standing Advice guidance is for domestic extensions and non-domestic extensions where the additional footprint created by the development does not exceed 250m². It should not be applied if an additional dwelling is being created, e.g. a self-contained annexe or additional commercial unit.

The proposed planning application for the extension does not exceed 250m².

As per the EA Standing Advice, floor levels in the extension will be set no lower than existing floor levels and there will be no introduction of additional or separate units, no sub-division, and no intensification of usage. The proposed development is considered to fit within the EA's standing advice for domestic extensions.

6.3 Physical Design Measures:

The applicant has confirmed that the finished floor level of the extension will be set no lower than the existing floor levels. No sleeping accommodation is proposed in the outbuilding.

To help protect against flooding during extreme events, the applicant has agreed to implement flood resistant design measures into the proposed ground floor extension. These measures could include the following where possible:

- Solid concrete ground floor, with waterproof membrane;
- Waterproof screed used on floors;
- Closed-cell foam used in wall cavities;
- Exterior ventilation outlets, utility points and air bricks fitted with removable waterproof covers;
- Plumbing insulation of closed-cell design;
- Non-return valves fitted to all drain and sewer outlets;

- Manhole covers secured;
- Anti-syphon fitted to all toilets;
- Use of MDF carpentry (i.e. skirting, architrave, built-in storage) avoided at ground floor level;

The applicant should also consider the use of demountable flood defence barriers to defend new doorways and low windows

6.4 Safe Escape and Flood Action Plan:

The NPPF requires a route of safe escape for all residents and users to be provided from new residential properties in Flood Zone 3. Safe escape is usually defined as being through slow moving flood water no deeper than 25cm during the 1:100 year fluvial plus allowance for climate change flood event.

However, it should be noted that the proposed application is for the construction of a residential extension. No additional or new units or dwellings will be created as part of the development.

Safe escape is not a requirement under the EA Standing Advice guidance is for domestic extensions.

Residents and users should follow the warning and evacuation procedure detailed in the following section.

6.5 Flood Warning:

The EA is responsible for issuing flood warnings. Flood warnings are issued to the emergency services and local authorities. Both private individuals and organisations can sign-up to receive warnings via phone, text or email. This system of receiving warnings is currently voluntary.

Advice regarding severe flood warnings will generally be given during weather forecasts on local radio and TV. In the case of extreme events, warnings can also be disseminated via door to door visits by the police or locally appointed flood wardens.

The EA issue flood warnings/alerts to specific areas when flooding is expected. It is recommended that the applicant registers online with the free Environment Agency Floodline Warnings/Alert Direct service at www.gov.uk/sign-up-for-flood-warnings to receive flood warnings by phone, text or email. The flood warning service has three types of warnings that will help you prepare for flooding and take action:

Flood Warning	Flood Alert	Flood Warning	Severe Flood Warning
			
What it means?	Flooding is possible. Be prepared.	Flooding is expected. Immediate action required.	Severe flooding. Danger to life.
When it's used?	Two hours to two days in advance of flooding.	Half an hour to one day in advance of flooding.	When flooding poses a significant threat to life.
What to do?	Be prepared to act on your flood plan. Prepare a flood kit of essential items. Monitor local water levels and the flood forecast on our website.	Move family, pets and valuables to a safe place. Turn off gas, electricity and water supplies if safe to do so. Put flood protection equipment in place.	Stay in a safe place with a means of escape. Be ready should you need to evacuate from your home. Co-operate with the emergency services. Call 999 if you are in immediate danger.

Table 2: EA Flood Warning Service

The applicant has prepared the following flood plan to protect life and property during a flood event:

Before a flood:

- Find out if you are at risk of flooding.
- Find out if you can receive flood warnings.
- Prepare and keep a list of all your important contacts to hand or save them on your mobile phone.
- Think about what items you can move now and what you would want to move to safety during a flood such as pets, cars, furniture, and electrical equipment.
- Know how to turn off gas, electricity and water supplies.
- Prepare a flood kit of essential items and keep it handy. It can include copies of important documents, a torch, a battery-powered or wind-up radio, blankets and warm clothing, waterproofs, rubber gloves and a first aid kit including all essential medication.
- Consider buying flood protection products such as flood boards and airbrick covers to help reduce flood water getting into your property.

During a flood:

- Tune into your local radio station on a battery or wind-up radio.
- Fill jugs and saucepans with water.
- Grab your flood kit - if you have prepared one.
- Collect blankets, torch, first aid kit, medication and food.
- Move important documents, personal items, valuables, and lightweight belongings upstairs or to high shelves.
- Raise large items of furniture, or put them in large bags if you have them.
- Move people, outdoor belongings, cars and pets to higher ground.
- Switch off water, gas and electricity at mains when water is about to enter your home. Do not touch sources of electricity when standing in water.
- Fit flood protection products, if you have them, for example flood boards, airbrick covers, sandbags.
- Put plugs in sinks and baths. Weigh them down with a pillowcase or plastic bag filled with soil.
- If you do not have non-return valves fitted, plug water inlet pipes with towels or cloths.
- Move your family and pets upstairs or to a high place with a means of escape.
- Listen to the advice of the emergency service and evacuate if told to do so.
- Avoid walking or driving through flood water. Six inches of fast-flowing water can knock over an adult and two feet of water can move a car.

After a flood:

- If you have flooded, contact your insurance company as soon as possible.
- Take photographs and videos of your damaged property as a record for your insurance company.
- If you don't have insurance, contact your local authority for information on grants and charities that may help you.
- Flood water can contain sewage, chemicals and animal waste. Always wear waterproof outerwear, including gloves, wellington boots and a face mask.
- Have your electrics, central heating and water checked by qualified engineers before switching them back on.

6.5 Off-Site Impacts:**6.5.1 Fluvial floodplain storage:**

The NPPF requires that where development is proposed in undefended areas of floodplain, which lie outside of the functional floodplain, the implications of ground raising operations for flood risk

elsewhere needs to be considered. Raising existing ground levels may reduce the capacity of the floodplain to accommodate floodwater and increase the risk of flooding by either increasing the depth of flooding to existing properties at risk or by extending the floodplain to cover properties normally outside of the floodplain. Flood storage capacity can be maintained by lowering ground levels either within the curtilage of the development or elsewhere in the floodplain, in order to maintain at least the same volume of flood storage capacity within the floodplain.

In undefended tidal areas, raising ground levels is unlikely to impact on maximum tidal levels so the provision of compensatory storage should not be necessary.

For development in a defended flood risk area, the impact on residual flood risk to other properties needs to be considered. New development behind flood defences can increase the residual risk of flooding if the flood defences are breached or overtopped by changing the conveyance of the flow paths or by displacing flood water elsewhere. If the potential impact on residual risk is unacceptable then mitigation should be provided.

The site is situated in Flood Zones 1, 2 and 3 when using the Environment Agency Flood Map for Planning (Rivers and Sea). The application is for a residential extension of less than 250m² within an area of predominantly tidal flood risk. Accordingly, there will be no unacceptable loss of fluvial floodplain storage.

6.5.2 Surface Water Drainage:

The development will utilise Sustainable Urban Drainage (SuDs) design in accordance with the NPPF for Planning Applications hierarchy as follows:

1. Store rainwater for later use;
2. Infiltration techniques;
3. Attenuate rainwater by storing in tanks for gradual release;
4. Discharge rainwater direct into watercourse;
5. Discharge rainwater into surface water sewer;
6. Discharge rainwater into a combined sewer;
7. Attenuation of rainwater in ponds or open water features with controlled discharge into the local watercourse.

Due to the small scale of the development, a full Surface Water Drainage Strategy is not required at this stage of planning. However, SuDS features will be incorporated into the development where practically possible or will utilise the existing arrangement on site.

As such, any change in surface water runoff from the site will likely be negligible.

7. Sequential and Exception Test

The Sequential Test aims to ensure that development does not take place in areas at high risk of flooding when appropriate areas of lower risk are reasonably available.

The site is situated in Flood Zones 3, 2 and 1 when using the Environment Agency Flood Map for Planning (Rivers and Sea). Post development, the site will remain “more vulnerable”, as the application is for the construction of a residential extension.

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a	Exception Test required	X	Exception Test required	✓	✓
Zone 3b	Exception Test required	X	X	X	✓

Table 3: Flood risk vulnerability and flood zone ‘compatibility’

The Sequential and Exception Tests do not need to be applied to minor developments and changes of use (this application is for ‘minor development’ – a residential extension).

8. Discussion and Conclusions

Unda Consulting Limited have been appointed by Mr Keith Leaves to undertake a Flood Risk Assessment for the proposed development at 205 Havant Road, Hayling Island, PO11 0LG. The purpose of the study is to support a planning application for the proposed development.

The proposed application is for the construction of a residential extension. Post development, the site will be “more vulnerable”, as the application is for the construction of a residential extension. Accordingly, it is considered that the vulnerability of the site as a whole will not increase post development.

Accordingly, it is considered that the vulnerability of the site as a whole has not increased post development. There will be no introduction of additional or separate units, no sub-division, and no intensification of usage. No sleeping accommodation is proposed in the outbuilding.

The site is located within Flood Zones 3, 2 and 1 (High, Medium, Low Probability), which means it is defined as land having between a greater than 1 in 200 and less than 1 in 1000 annual probability of tidal and fluvial flooding.

The risk would appear to be predominantly tidal and originate from the Langstone Channel which is approximately 293m to the west of the site at its closest proximity and an unnamed drain approximately 439m to the south of the site.

Modelled flood levels and flood extent have been requested from the EA as part of a Product 4 data request.

The flood defences on the Langstone Channel are privately maintained. The Selsey Bills to Hurst Spit is an embankment to protect against tidal flooding. This asset is 3.24 km long, with a crest height of 4.1mAOD. This asset is under the North Solent Shoreline Management Plan (SMP) as a “Hold the Line” asset, having a 1:200yr standard.

The EA have no records of flooding at the site previously.

The EA Risk of Flooding from Surface Water Map suggests that the site lies within an area of “Very Low” risk of flooding from surface water, while Havant Road lies in an area at “Medium” risk flooding from surface water.

Additionally, the risk of flooding posed to the site by groundwater and sewer surcharge flooding would appear to be low.

Safe escape is not a requirement under the EA Standing Advice guidance is for domestic extensions.

The development is considered to fit within the EA Standing Advice for domestic extensions.

Due to the small scale of the development, a full Surface Water Drainage Strategy is not required at this stage of planning. However, SuDS features will be incorporated into the development where practically possible or will utilise the existing arrangement on site.

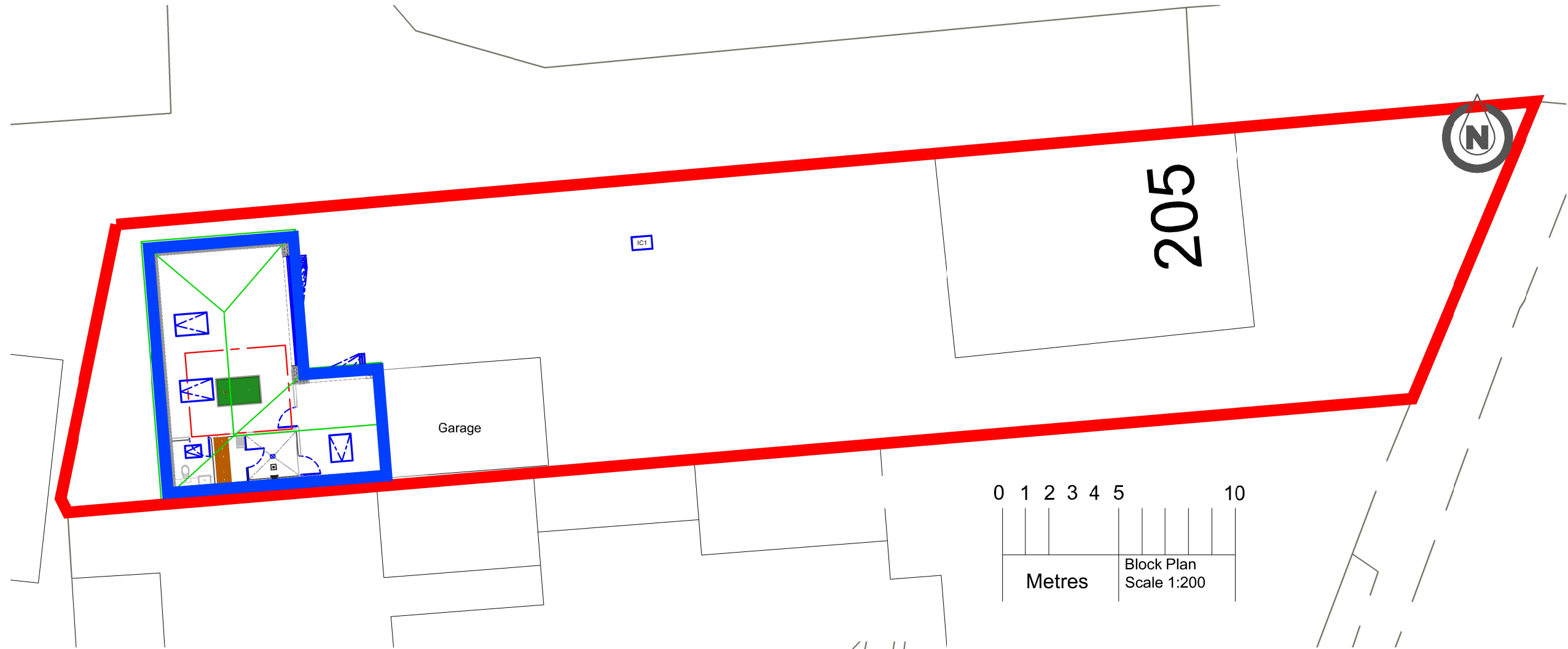
The applicant has confirmed that:

- The proposed development fits within fit within the EA Standing Advice for domestic extensions.
- No additional or separate residential units will be created as part of the development.
- No sub-division or intensification of usage is proposed.
- The additional footprint created by the development will not exceed 250m².
- There will be no increase in vulnerability.
- No sleeping accommodation is proposed in the outbuilding.
- Floor levels within the extension will be set no lower than existing floor levels.
- Flood proofing of the development will be incorporated as appropriate.
- The applicant will register with the Environment Agency Floodline Alert/Warnings Direct service.
- Due to the scale of the development, a full Surface Water Drainage Strategy is not required at this stage of planning.

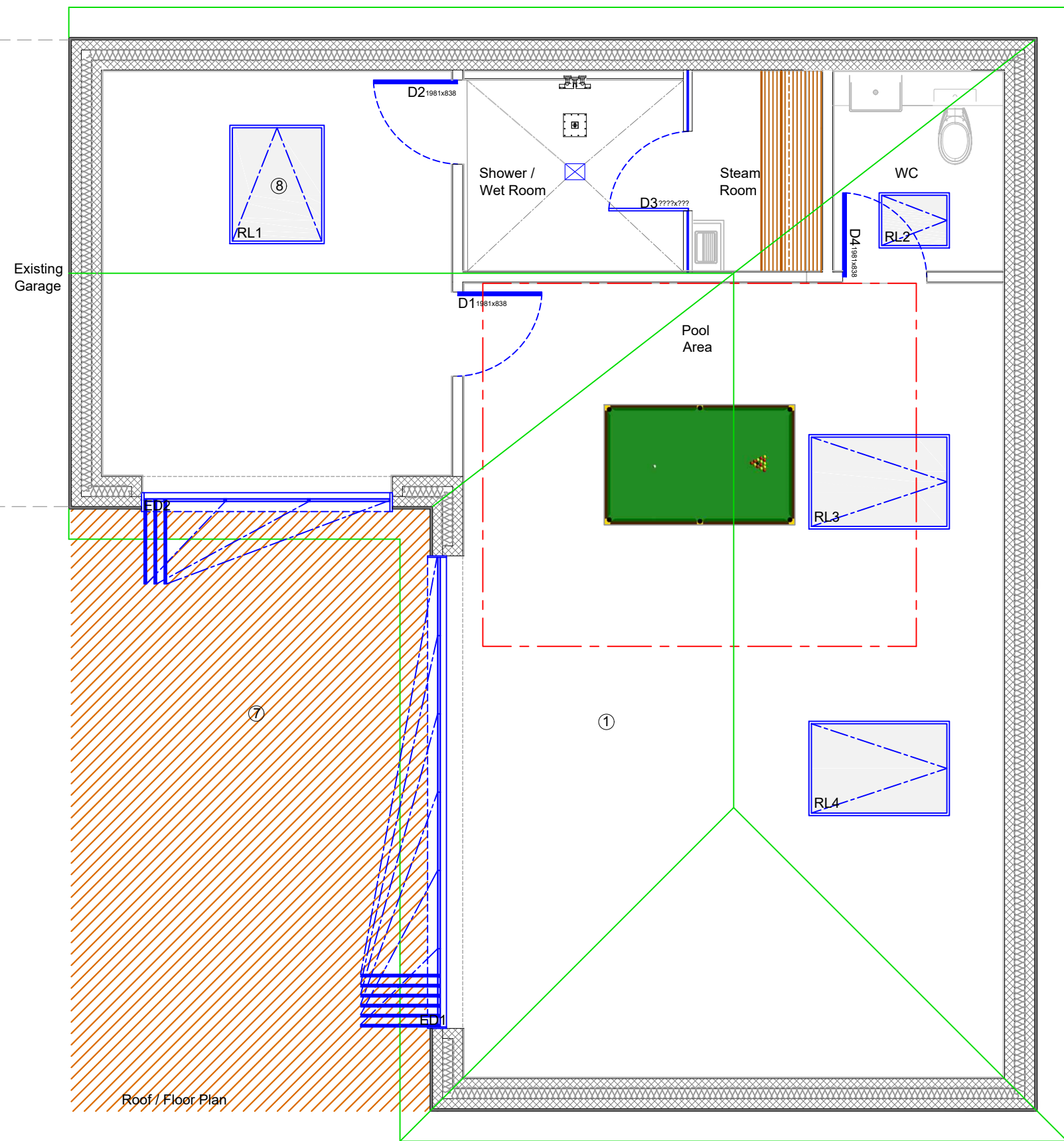
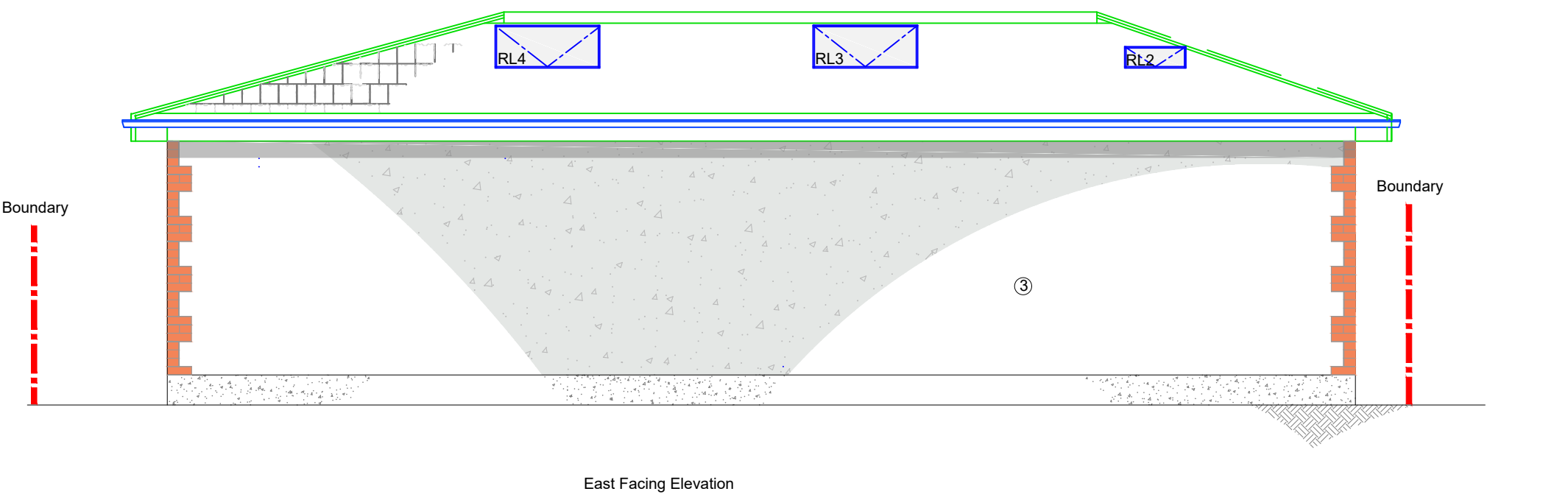
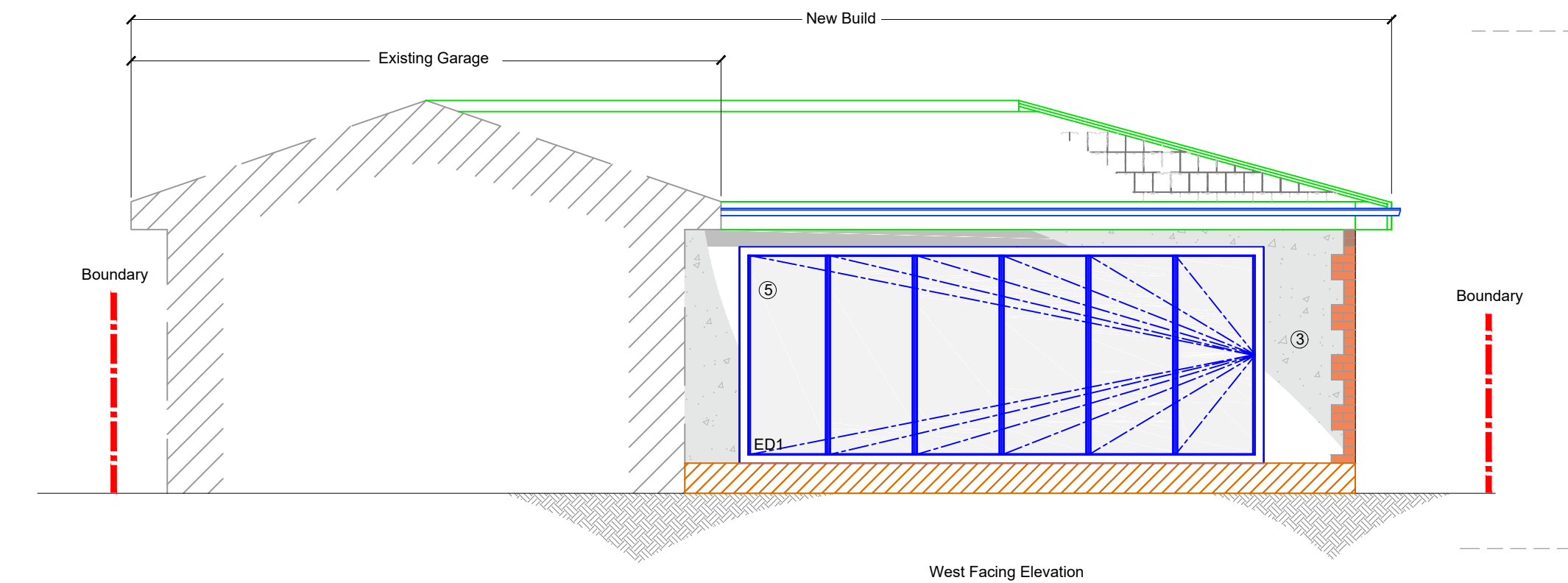
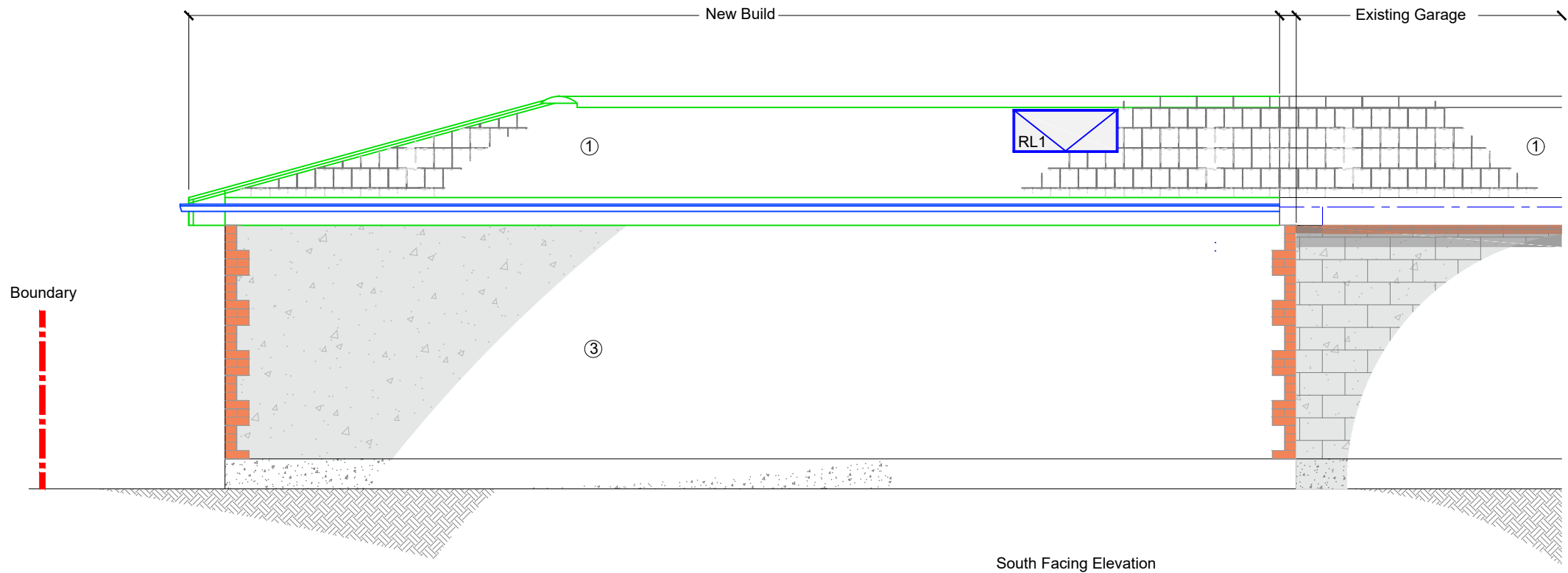
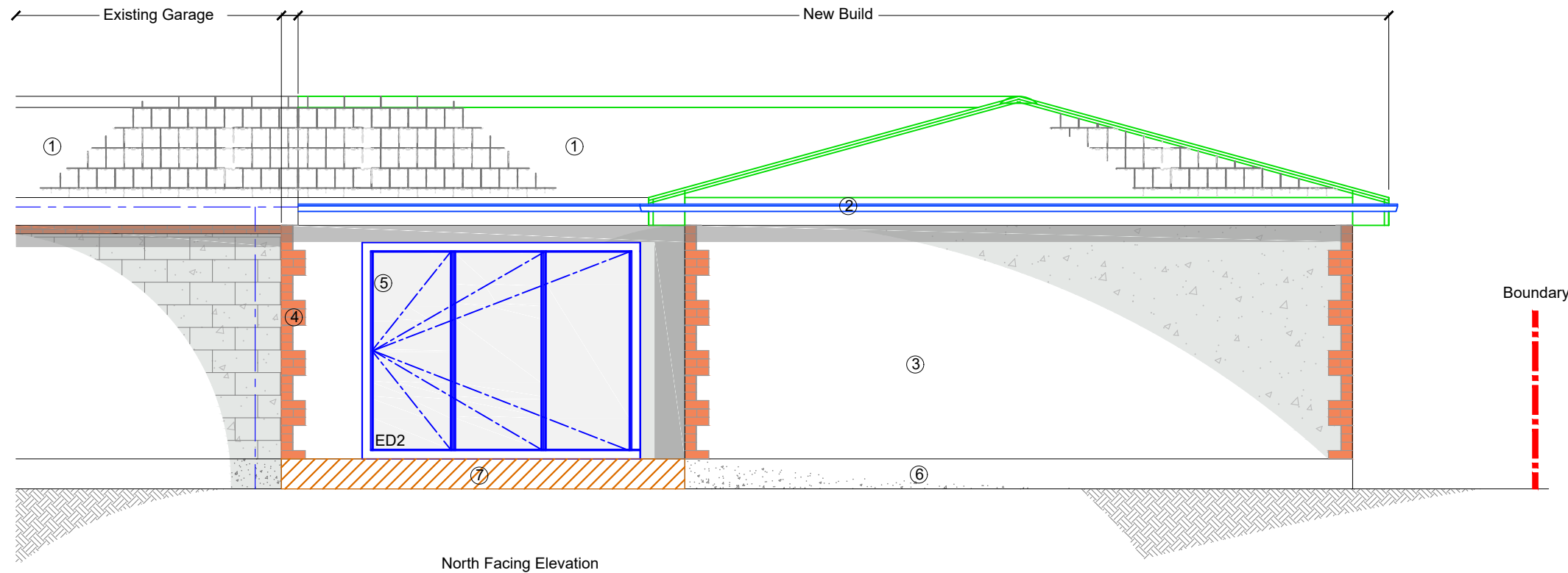
Assuming accordance with these flood risk management measures, Unda Consulting Limited consider the proposed application to be suitable in flood risk terms.

Appendix

- Site Plans.
- Environment Agency flood map for planning.



Rev	Date	Notes	By
			
Client:		Mr Keith Leaves	
Project:		205 Havant Road Hayling Island Portsmouth PO11 0LG New Detached Cuthouse	
Title:		Site and Block Plans	
Drawing No.		1332 - E.01.01	Rev: .
Scale:		As scaled	Date: 09.04.23
Drawn By:		TC	Checked By: LBC
Issue:		For Planning	



- KEY
- ① Tiles with hip bonnet tiles to accommodate 15° pitch minimum - Flanders tile $\frac{20}{20}$; interlocking tile with natural alluvial Humber clay
 - ② PVCu RWGs, soffits and fascia - colour TBC
 - ③ Colour through render (white/light/magnolia) - Garage to be re-rendered to match new build
 - ④ Brick quoins / render effect quoins to match garage
 - ⑤ Powder coated aluminium double glazed bi-folding doors (Anthracite)
 - ⑥ Exposed concrete slab
 - ⑦ Timber / tiled decking - Raised decking (>150mm above EGFL)
 - ⑧ PVCu double glazed roof lights

Rev	Date	Notes	By
LEYSON BUILDING CONSULTANCY®			
Client:		Mr Keith Leaves	
Project:		205 Havant Road Hayling Island Portsmouth PO11 0LG New Detached Outhouse	
Title:		Proposed Plans and Elevations	
Drawing No.		1332 - P.01.02	Rev: .
Scale:		1:50 @ A2	Date: 30.06.23
Drawn By:		TC	Checked By: LBC
Issue:		For Planning	

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
471866/103472

Created
16 Feb 2024 13:12

**Your selected location is in flood zone 3
– an area with a high probability of flooding.**

This means:

- you may need to complete a flood risk assessment for development in this area
- you should ask the Environment Agency about the level of flood protection at your location and request a Flood Defence Breach Hazard Map (You can email the Environment Agency at: enquiries@environment-agency.gov.uk)
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (find out more at www.gov.uk/guidance/flood-risk-assessment-standing-advice)

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.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. <https://flood-map-for-planning.service.gov.uk/os-terms>

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
471866/103472

Scale
1:2500

Created
16 Feb 2024 13:12

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

0 20 40 60m

Page 2 of 2

