

FLOOD RISK ASSESSMENT

2 Mill House, Stanley Moss Lane. Stockton Brook. ST9 9LH



(photo curtesy of google images)

September 2021

INTRODUCTION

This flood risk assessment is to identify any current and potential flooding issues at 2 Mill House, Stanley Moss Lane.

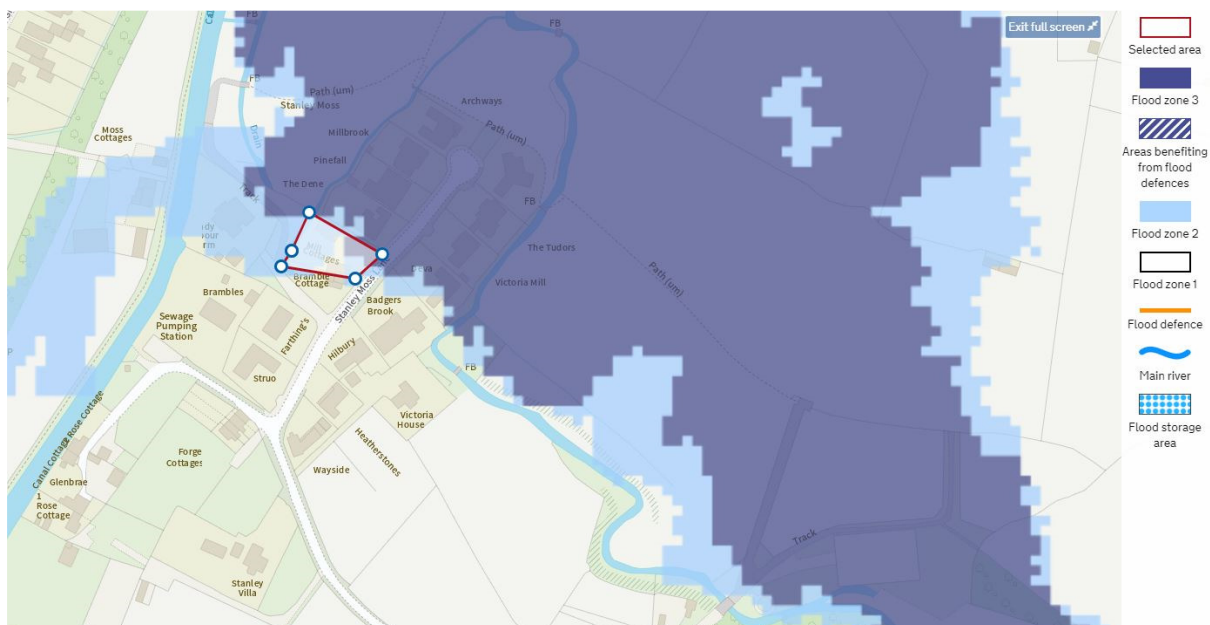
The assessment is prepared to accompany the planning application for an orangery type extension on the footprint of an existing patio. This document is written in accordance with the requirements of technical guidance to the national planning policy framework that states a flood risk assessment is required as support for the above application.



Within this document the aims are to establish the following:

- will the proposal be affected by current or future flooding
- will the proposal increase flooding elsewhere
- are the measures taken to manage flooding appropriate

The site lies within flood zone 2, although part of the garden is within flood zone 3, this relates to the drive access, it might be argued that part of the dwelling lies within flood zone 1.



DEVELOPMENT SITE AND LOCATION

The site is located at 2 Mill House, Stanley Moss Lane. Stockton Brook. ST9 9LH

The property is a stone built cottage, which appears to have been a double fronted detached dwelling originally but has been extended in the past and split into two separate dwellings. The adjoining property has retained the original road facing front entrance door, whilst the subject property has the main entrance on the side facing the driveway.



The existing site is finished with mainly permeable landscape throughout. The driveway is of a gravel finish, the remainder of the site is laid to lawn with planting beds, and having some stone sett type pathways around the house and garage and a linking pathway between.

The nearest watercourse to the property is Caldon Canal, to the rear of the property approximately 67m away from the proposed extension. This is not the cause of flooding in the locality.



DEVELOPMENT PROPOSALS

The full planning application is for an extension having a flat roof with lantern style rooflight to the rear of the dwelling.

The scale of the proposal shall be approximately 24m², on the base of an existing patio therefore we believe due to the small scale of the extension it would not cause issues with flooding especially as the amount of hard surface shall remain relatively unchanged.



There shall be no change of use to the site.

The site has a natural fall from the roadside down to the rear of the garden, equating to approximately 1.2m difference in height from the pavement to the rear boundary.

The threshold level is approximately 340mm below the pavement level, which is around 860mm from the rear boundary level. There is approximately 158mm difference in level between the garage slab level and the house (being higher).

The proposed development of an extension to an existing dwelling is considered to be a minor development in relation to flood risk, but classified more vulnerable to the effects of flooding because the property is a dwelling house.

The expected/estimated lifetime of the proposed development is likely to be within the excess of 10 years.

There is no record of the property having been affected by flooding. We believe due to the minor scale of the extension it would not cause issues with flooding and falls within the description of minor development in relation to flood risk by the Environment Agency. It should be noted that only the front boundary of the site falls within the flood zone. No parts of the building are within the flood zone as it is set back from the roadside.

What is meant by “minor development” in relation to flood risk

Minor development means:

- minor non-residential extensions: industrial/commercial/leisure etc extensions with a footprint less than 250 square metres.
- alterations: development that does not increase the size of buildings eg 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 eg subdivision of houses into flats.

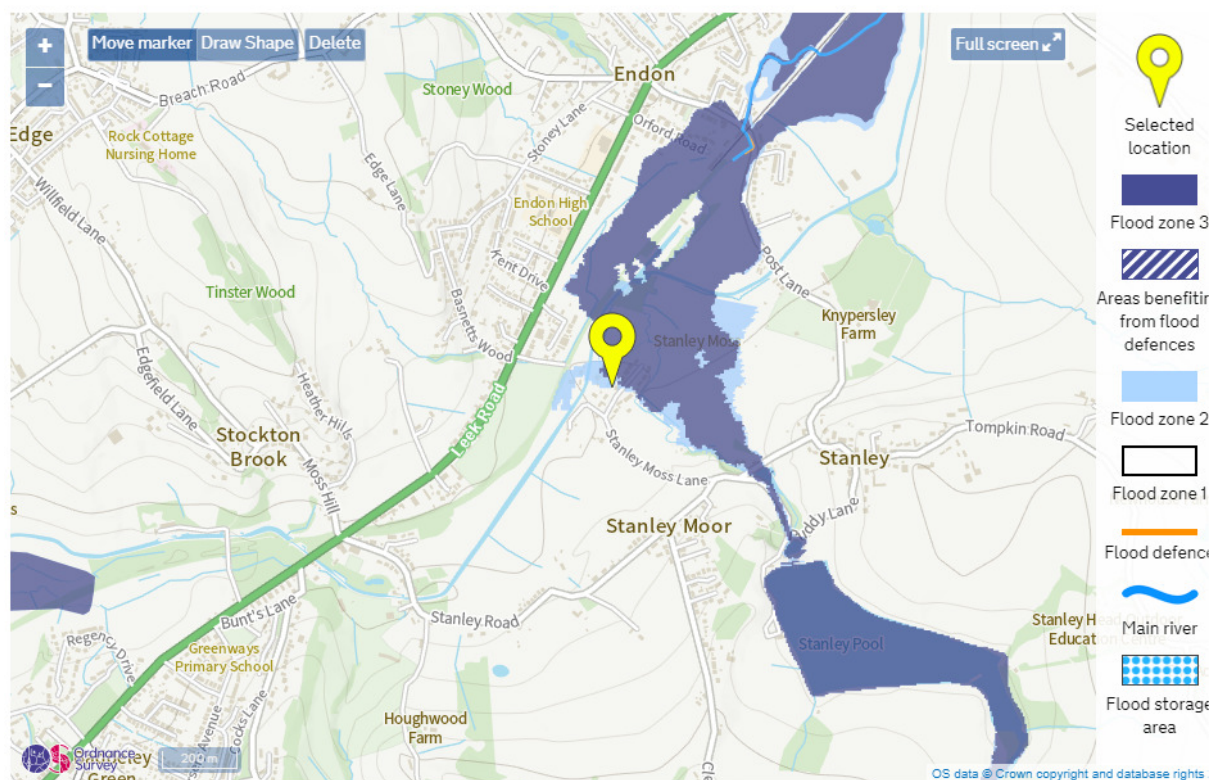
Site location plan of the site (not to scale)



SEQUENTIAL TESTING

Other locations have not been considered due to the nature of the proposal which is for an extension to an existing dwelling. The proposal will infill an existing concrete slabbed area therefore a different location cannot be used as the proposal is connecting onto an existing building. The alterations to the site are minimal to allow a greater utilisation of the existing site. This class is deemed suitable without the requirement to carry out an Exception test for the site.

The proposal would fall within the floodplain of the nearby stream which at approximately 900metres to the north east runs through the eastern boundary of Endon Village, and discharges into Caldon Canal approximately 150m north of the site. However, the proposed development would not reduce the area available for the floodwaters; nor would it increase the chance of flooding; nor would it reduce flood water storage space.



SURFACE WATER MANAGEMENT

The existing surface water drainage arrangements shall remain the same, the rainwater from the proposed roof shall discharge in the existing storm drain system.

EXCEPTION TEST

Not required as the proposal is considered by the Environment Agency in terms of flood risk as an appropriate development.

ENVIRONMENT AGENCY INFORMATION

Extent of flooding from river.



Extent of flooding from rivers or the sea

Extent of flooding from storm water.



Extent of flooding from surface water

FLOOD ZONE	FLUVIAL FLOOD ZONE DEFINITION	PROBABILITY OF FLOODING
Flood Zone 1	Land having a less than a 0.1% Annual Exceedance Probability (AEP) (1 in 1,000 chance of flooding in any one year). Shown as clear on the Flood Map – all land outside Flood Zones 2 and 3.	Low
Flood Zone 2	Land having between a 1% AEP (1 in 100 chance of flooding in any one year) and 0.1% AEP (1 in 1,000 chance of flooding in any one year).	Medium
Flood Zone 3a	Land having a 1% AEP 1 in 100 chance of flooding in any one year) or greater.	High
Flood Zone 3b (Functional Floodplain)	Land where water has to flow or be stored in times of flood based on flood modelling of a 5% AEP event (1 in 20 chance of flooding in any one year) or greater, or land purposely designed to be flooded in an extreme flood event (0.1% AEP). Where detailed modelling is not available, it is assumed that the extent of Flood Zone 3b is equal to Flood Zone 3a. The identification of the functional floodplain takes into account local circumstances, but for the purposes of this SFRA, land modelled to flood during a 5% AEP (1 in 20 chance of flooding in any one year) or greater has been mapped.	Very High

The Environmental agency states that the proposal for a dwelling house falls under 'More Vulnerable'

More vulnerable

- Hospitals
- Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels.
- Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels.
- Non-residential uses for health services, nurseries and educational establishments.
- Landfill* and sites used for waste management facilities for hazardous waste.
- Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.

The table below shows the Flood risk vulnerability and flood zone compatibility table. The table suggests that due to our proposal falling within the more vulnerable category, the proposed development is appropriate as It is located within flood zone 2 and 3.

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 †	✗	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	✗	✗	✗	✓*

Key:

✓ Development is appropriate

✗ Development should not be permitted.

CONCLUSION

A surface water drainage system is already in place upon the proposed site which the proposed extension will connect into as part of the proposal. The existing patio/hard standing currently drains into the same system. The proposed development shall have a flat roof, therefore the rainwater collected shall have a similar surface area. Therefore the development will not increase the risk of flooding either within the site or elsewhere.

In terms of flood risk, the Environment Agency classify this proposal as a minor development and appropriate development.