



Flood Risk Assessment

Studio Perfectus



Wednesday, 28 February 2024

PROJECT:

11 Primrose Road

1.0 Project Name and Location

| | | |
|----------------|---|--------------------------|
| Project Name | 11 Primrose Road, Clitheroe, BB7 1EA | |
| | 373936 / 440654 (shown as easting and northing coordinates) | |
| Project Number | SP-141 | |
| Company name | Designer | Studio Perfectus |
| | Arboriculturist | Bowland Tree Consultancy |

What is the site now.

The application site is a to the rear of 11 Primrose Road and is domestic gardens made up of a mixture of lawn and small patio with trees to the south of the site. The typography of the site overall is level, until you reach the rear of the garden then there is a steep drop in elevation down to Pendleton Brook, flowing from east to west.

What Flood zone is the site in.

The proposed site sites between Flood Zone 03 and 01 See point 4.0

2.0 Planning Considerations

| | |
|--------------------------|-------------------------------|
| Local Planning Authority | Ribble Valley Borough Council |
| Conservation Area | No |
| Listed Status | No |

Planning Status

A planning application was submitted in June 2023. (3/2023/0489 11 Primrose Road Clitheroe). This application was invalidated, and a request was made for a Flood Risk Assessment, plans showing the land levels across the site and the annotation of elevations to show the various levels.

These are included in this Flood Risk Assessment.

3.0 Development Proposals

This development is a Householder Planning Application for a new high performance, low impact garden room with associated landscaping to the rear of 11 Primrose Road, Clitheroe.

The proposal has been designed to minimise the impact of the garden room on the surrounding and immediate environment, through a regenerative approach, rather than a sustainable one. The proposals have been discussed with Arboriculturist, Structural and ground screw consultant, that specialise in low impact construction in close proximity to trees. A discussion was also had with the Local Authority's Tree Officer.

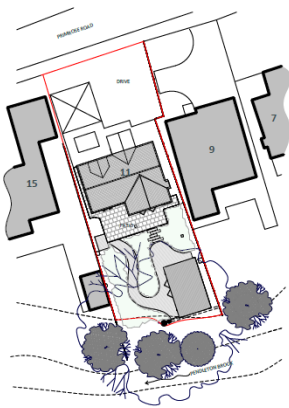
To summarise the proposal; a new low impact, high performance timber constructed garden room, to be constructed upon low impact ground screws. Materials will be sourced locally and constructed utilising local trades people where possible. Planting will be used to increase the local biodiversity through ecologically connected planting design, this will help to mitigate lost ecological landscape elements within proximity to the site.

As the proposed development is for a domestic extension where the additional footprint created by the development does not exceed 250 sq. m the Environment Agency Guidance for Householder and other minor extensions in Flood Zone 2 and 3 is being used.

This recommends that the Applicant or the Agents for the Applicant complete a prepopulated table outlining how the Applicant will deal with flood mitigation measures.

For this development the Applicant has chosen that

- a) the floor levels within the proposed development will be set no lower than the existing levels and flood proofing of the proposed development has been incorporated where appropriate.



Site Plan (not to scale) showing the proposed Garden Room and its relationship to the house.



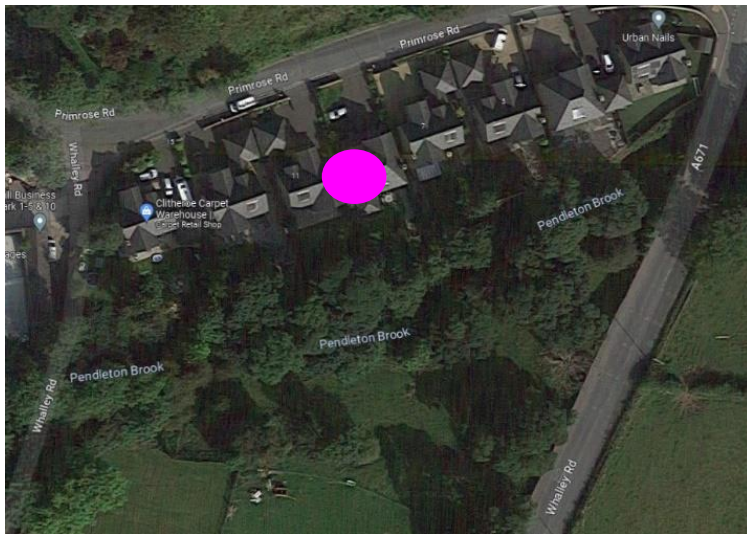
South East Facing Elevation (not to scale) showing the proposed finished floor levels



South West Facing Elevation (not to scale) showing the proposed finished floor levels

4.0 Site Specific Flood Risk.

The site is to the south of Clitheroe off Whalley Road along Primrose Road. The site is level, until you reach the rear of the garden and then it drops to Pendleton Brook. This brook flows in a westerly direction. The site was formerly a mill pond.



11 Primrose Road. Clitheroe. Image taken from Mario Maps August 2023

The site according to the Environment Agency Flood Risk Map is in flood zone 01, 02 and 03.

Map from the Environment Agency with site out line showing the site in Flood Zone 01.



Map from the Environment Agency with site out line showing the site in Flood Zone 03.



Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

0.5% or greater probability of occurring in any year for flooding from the sea.

1% or greater probability of occurring in any year for fluvial (river) flooding.

Extract taken from the Flood Risk Assessment Data from the Environmental Agency Dated the 4th of August 2023.

The Gov.uk site states that A Flood Risk Assessment is required for all development.

<https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>

- *within flood zones 2, 3 or 3b*
- *within flood zone 1 with a site area of 1 hectare or more*
- *within areas with critical drainage problems*
- *within flood zone 1 where your LPA's SFRA shows it will be at risk of flooding from rivers or the sea in future*
- *that increases the vulnerability classification and is in flood zone 1 where your LPA's SFRA shows it is at risk from other sources of flooding.*

The existing site area is less than 250m², so a sequential test is not required. Flood proofing of the proposed development has been considered by the applicant and will be incorporated where appropriate.

The most likely source of flooding in this area would be from Pendleton Brook, however there is no historic record of the site ever flooding.

The site was developed in 2009 for Beck Developments and an initial Appraisal of Flood Risk was submitted at this time. It stated that the British Hydrological Society (BHS) Chronology did not list any historical records of flooding and the Environment Agency at the time confirmed that they also did not hold any historical records of flooding at the site.

4.0 Development

The development is minor in terms of its scale and its impact.

External Factors

To minimise the impact of the proposal of flooding on the site or the surrounding area the floor level within the proposed development will be set no lower than the existing level of the house and the surrounding garden area.

The intention is also to sit the garden room on ground screws – i.e., lifting the garden room off the existing ground and allowing possible flood water to flow under the building. This method also avoids any unnecessary surface sealing of the soil, they can be removed leaving minimal marks and they avoid the need for heavy machinery.

Flood proofing of the proposed development has been incorporated where appropriate.

Resistance measures, discussed below, will assist the safety of occupiers during a potential flood.

The proposal will not increase the risk of flooding elsewhere.

The proposal avoids the loss of floodplain storage.

- Any switches and socket-outlets, provided for lighting and other accessories in the garden room will be fitted at appropriate heights between 450mm and 1200mm from finished floor level.
- Plug sockets to be positioned at least 600mm above floor level, and radiators 300mm above floor level.
- waterproof plaster or other impervious material to be used internally to limit any damage which could be caused once possible water has entered. For example use tiled flooring with rugs, rather than fitted carpets.
- Avoid keeping valuable or irreplaceable items in the Garden Room.
- Additional resistance measures will be considered to the proposal, such as flood doors to the external doors, to limit any potential water from entering.

There is no plumbing to that garden room – if there were then additional manual measures will be considered when fitting water closets to the en-suites at ground floor level, such as u-bend toilet bungs.

SAFE ACCESS AND EGRESS

The applicant needs to understand the risk of flooding to the Garden Room and to propose suitable measures that will reduce the impact of flooding whilst ensuring that the development does not increase the risk to adjacent properties.

The applicant is aware of the following advice and guidance regarding what to do in the case of flooding.

Would you know what to do in a flood?

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1027409/Flood_Warnings_know_what_to_do.pdf

Personal flood Plan

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/444659/LIT_4112.pdf

Check for Flooding

<https://www.gov.uk/check-flooding>

5.0 Conclusions and Recommendations

In conclusions this householder planning application seeks the support of the local planning authority for a new, small, modest, low impact high performance garden room with associated landscaping.

The proposal follows intensive research and investigation to ensure that the proposal put forward will enhance the immediate and local surroundings, not just ecologically, but also be setting a precedent of how not only garden buildings, but other larger buildings can be constructed with minimum impact to trees and the environment.

To conclude we feel that Ribble Valley Borough Council would benefit from a building of this standard in this location as a presence that new regenerative buildings can be constructed using modest methods.

6.0 Sources used.

<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>

<https://www.ribblevalley.gov.uk/downloads/file/2029/strategic-flood-risk-assessment-level-1-revised-2017->