ARCHITECTURAL

DOCUMENT 0036.5: FLOOD RISK STATEMENT TO SUPPORT FLOOD MATRIX

Proposal: 2022/23893/FUL – Construction of three new bays to existing agricultural building.

Location: Newton Grange Farm, Bank Newton, Skipton, North Yorkshire, BD23 3NT

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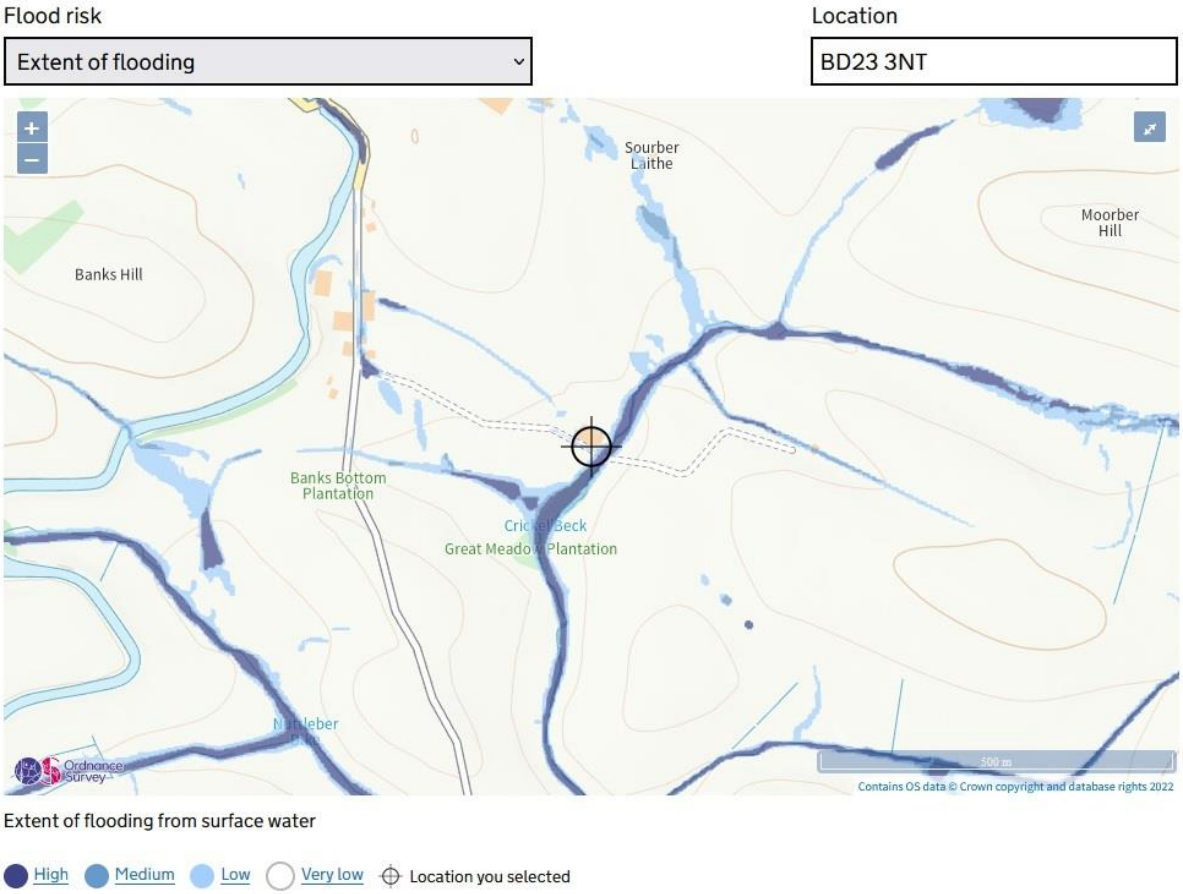
Purpose of document

The purpose of this document is to comply with the National Planning Policy Framework, Department for Communities and Local Government (2012) and to support the submitted Flood Matrix for a residential extension.

Flood Risk From Rivers and Surface Water:

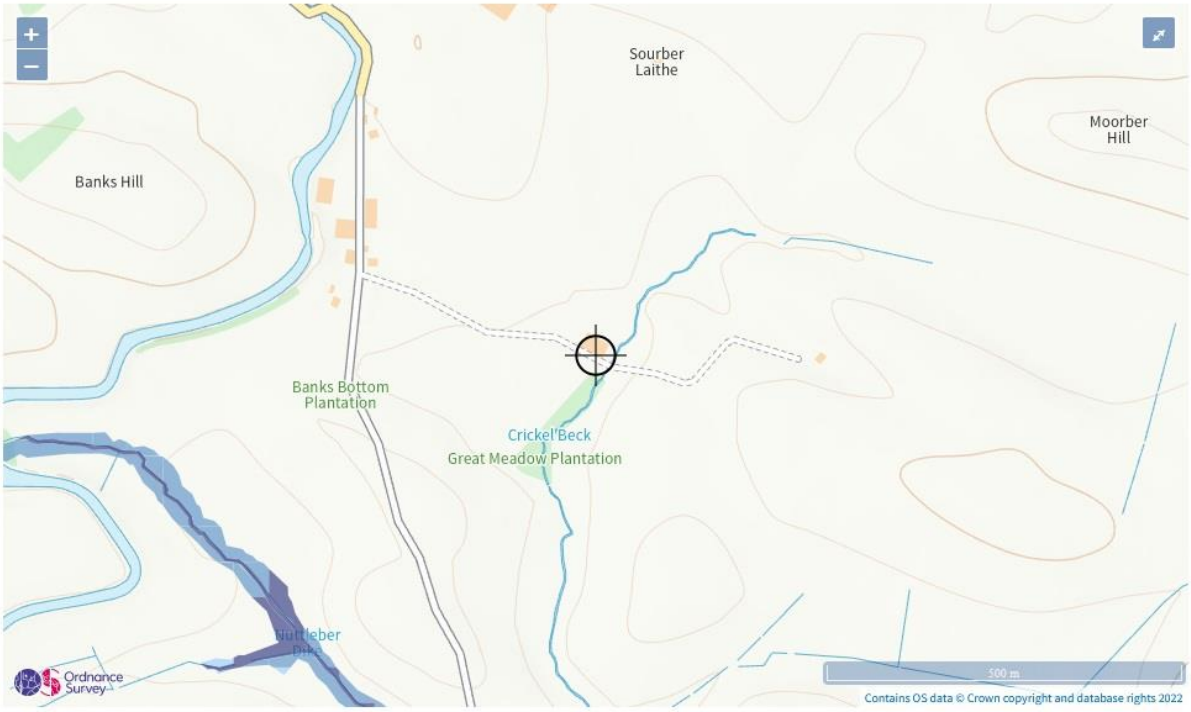


Flood risk

Extent of flooding

Location

BD23 3NT



Extent of flooding from rivers or the sea

High Medium Low Very low Location you selected

In deriving the risk of an event, consideration of the probability of the event and its consequence must be made. The probability must consider a flood happening at all and the probability of the level if it does. The consequence depends on the level reached when the event occurs and the time taken for water to subside. This document will therefore consider these aspects and then put forward measures to mitigate damage to the property yet keep these measures commensurate with probability and costs associate This risk assessment is written in line with the guidance and check sheet given in local government document, Planning Policy Statement 25, Development and Flood Risk Practice, Guidance Document. Headings are taken from that document.

Location
The proposed development at Newton Grange Farm, Bank Newton, is located approximately 50 meters North west of Crickel Beck. The existing building at the South East gable is only 15 meters away from Crickel beck. The general level of the agricultural building is at slightly higher level than that of the surrounding area. It is proposed that the new extension will be at the same level as the existing building.

Vulnerability Classification (Ref: Appendix D PPS25 Tables D1 to D3) As this is an extension to an existing agricultural building. The extension vulnerability classifications may be chosen as Less Vulnerable. Table D.3: Flood Risk Vulnerability and Flood Zone 'Compatibility' shows that for a Flood Zone 3A for a Less Vulnerable category, development would be compatible.

Sequential and Exception Testing Annex B of PPS25, D15, Minor development, states that applications for minor development and changes of use should not be subject to the Sequential or Exception Tests but will still have to meet the requirements for FRAs and flood risk reduction. Minor developments are unlikely to raise significant flood risk issues unless they would: a) have an adverse effect on a watercourse, floodplain or its flood defences; b) would impede access to flood defence and management facilities; or c) where the cumulative impact of such developments would have a significant effect on local flood storage capacity or flood flows. It is believed that none of the above will be affected by this development.

Effects of additional area to the building.
The proposed extension to the building will not contain any facilities that require drainage. Any additional water collected by the extra roof area will be discharged into soakaways.

The location has several potential sources for flooding as follows. a) Beck or other artificial source flooding b) Heavy rainfall or pluvial flooding c) Flooding from land d) Flooding from ground water e) Flooding from sewers.

Surface water flooding: The EA map shows only water courses which in the main have a low risk of flood. This in effect shows their natural state in carrying surface/ground water to outlets and thus preventing build up i.e. performing their duty as drainage channels.

Flood risk from reservoirs: As no substantial reservoirs are in the vicinity this shows no risk.

Flood risk from the sea and rivers: The site is not within risk of flooding from the sea or a major river. Risk from Pluvial flooding is shown below and again the proposed level of the property keeps it safe.

Surface Water Drainage Currently the route of the surface water drainage system from the existing roof is into the field and soaks away. The existing yard and track drive comprises a tarmac topping/ concrete hardstanding and rainwater falling on it runs off to ground.

Flood Risk Management Proposals:

Given that there is a possibility of flooding at the agricultural building, albeit small, the following measures will be taken:

1 The proposed footprint will be approximately 23m x 18m of additional nonpermeable roof area that will be discharged into soakaways in the field.

2 Any electric sockets will be placed at a minimum height of 400mm above floor level. There will be no wiring any lower than this level.

3 The floor of the building will be concrete.

Summery It is believed this minor development will not increase flood risk elsewhere and will have negligible effect on the drainage system. Run off from the additional roof area will have little effect on current ground water flow.

The residual risks that cannot be designed out will be the human factors inherent in providing equipment to be erected/fitted prior to a flood warning when it may be ignored and become too late to action them. However, the residual risk must be considered against that of neglecting to address the safety measures. The overall risk is considered very low.

This FRA for the minor development at Newton Grange, has considered the sources of possible flooding and has looked at the history of flooding in the area.

With a low lying land mass compared to the levels of canal there is a risk of flooding. However, the general floor level is slightly higher than the surrounding area which helps in its protection. The proposed extension is further away from the beck than the existing building. The building has never been flooded. By the intended modifications to the property, it would be prudent to consider and action the proposed precautions listed above.