

STONEHOUSE & CO

ARCHITECTURAL DESIGN

Flood Risk Assessment

Wood Mill Yard, Todmorden,

Stonehouse & Co. Ltd

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A. Purpose of report

This report has been prepared to assess the flood risk at the site of Wood Mill Yard, Todmorden.

B. Site Location and Address

The plan belows shows the location of the site which is located directly adjacent to the A646 Halifax Road at Eastwood.



C. Proposal and Background

The proposal is to apply for planning for an industrial unit building.

Previously planning was granted for a building to be used as storage under application 12/00178 which was never built.

At the time of the planning (2012) the FRA submitted was deemed as acceptable for the previous application.

The River Calder is 30m away in an easterly direction.

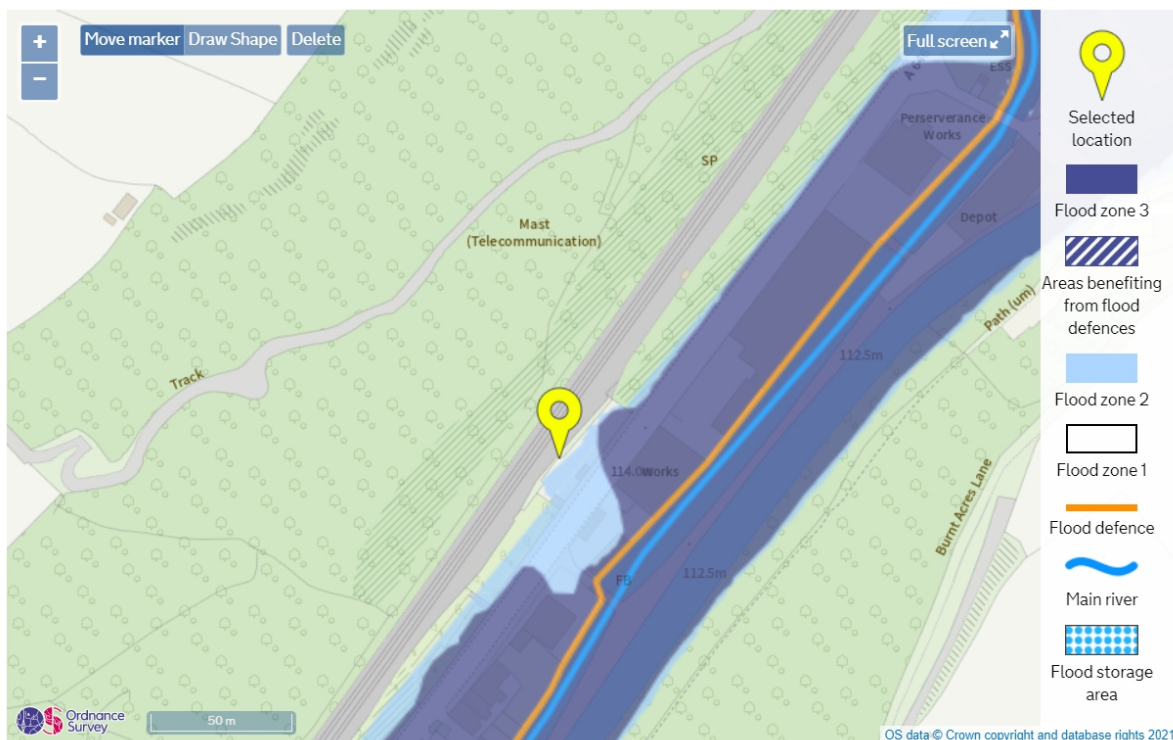
D. Flood Risk

D1. *Flooding Sources*

The majority of the site lies in an area classified as Flood Zone 2, with a small portion being in Flood zone 3 as shown below, this means it has a ;

Flood Zone 2 - land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year

Flood Zone 3 - 1 in 100 or greater annual probability of river flooding (>1%) in any year''



Source 1 - watercourses

The site is currently in use as a demolition yard and storage. The proposal would be to construct the new building on the section of the site that is within flood zone 2.

The area of site that is in flood zone 3 would remain a parking / turning area.

As such the area of site in flood zone 3 remains no higher risk of use.

The building which would be in flood zone 2. The River Calder has a flood alert warning system that gives properties time to prepare.

It is recommended that;

- the building has blockwork construction up to 1200mm in height from FFL
- all doors have flood barrier systems
- internally floors are solid concrete with all walls left as exposed blockwork
- all electrics run above 1500mm

For escape from the building, due to the early flood warning system escape would be via Burnley Road.

In either case the mezzanine floor at 2.4m above FFL and 6.4m above the River Calder would provide safe refuge.

Source 2. Flooding from rainfall

The topography of the site in relation to adjacent land means this is a low risk.

Source 3. Flooding from overland flows

The flood risk maps below show in all scenarios risk from these is low.



LOCATION

Low risk: depth

LOCATION

Enter a place or postcode



Surface water flood risk: water depth in a low risk scenario

Flood depth (millimetres)

High risk: velocity

Enter a place or postcode



Surface water flood risk: water velocity in a high risk scenario

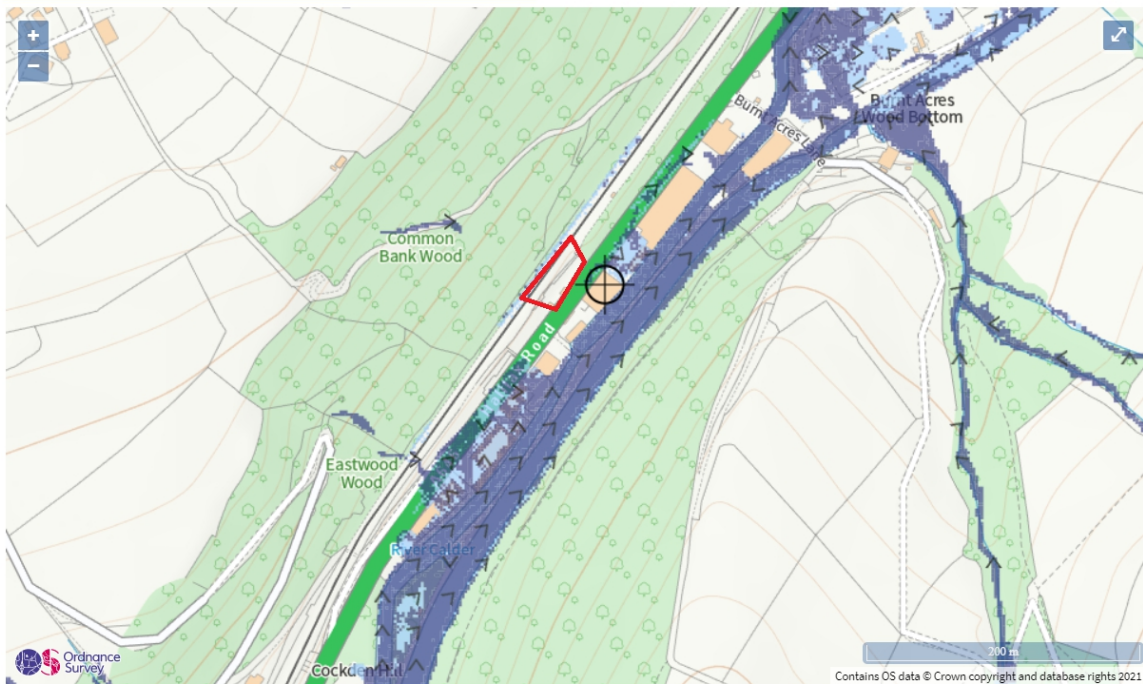
Flood velocity (metres/second)

Flood risk

Low risk: velocity

Location

Enter a place or postcode



Surface water flood risk: water velocity in a low risk scenario

Flood velocity (metres/second)

Flood risk

Extent of flooding

Location

Enter a place or postcode



Extent of flooding from surface water

D3. Emergency Evacuation in flood event

As part of the floor risk an Emergency Evacuation Plan is required, below outlines the risk and proposed strategy.

The building has been designed so that it provides a safe refuge on its upper floors.

To consider all flooding the environment agency flood maps show a number of scenarios for surface water velocity and flood water depth for different risks in addition to the standard flood maps.

In all categories the velocity and water height would not reach the proposed exit from the door at the front of the building.

Therefore based on these risks and the previously mentioned flood risk maps and datum level information:

However it must also be noted that the property is within an area that has the benefit of the flood warning system.