

Flood Risk Assessment

Address Staddlethorpe Grange
Broad lane
Gilberdyke
Brough
HU15 2TB

Client Rob Thompson, Hygeno Ltd

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Revision

A

Preliminary

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1. Introduction

This Flood Risk Assessment (FRA) has been requested for a proposed change of use from agricultural buildings to business and storage use associated with the storage and assembly of glass view panels. There is a requirement to prepare an FRA because the development sits within flood zone 3 according to the Environment Agency Mapping Service.

These documents will form part of a Prior Notification - Change of Use of Agricultural Building to a permitted flexible use application, the conditions of a planning consent may refer to these documents in which case the applicant and his designer must comply with specific requirements set out in this FRA and give proper consideration to its recommendations in order to discharge the conditions of the consent.

2. Methodology and Site Information

2.1. Scope of Works

This FRA will:

assess technical flood risk and drainage matters,
set out specific requirements which the designer must adhere to, set
out recommendations that the designer must properly consider.

This FRA will not:

set out detailed design or
give detailed hydraulic calculations

2.2. Sources of Data

The following publications and data sources were referred to in the production of this report:

East Riding of Yorkshire Strategic Flood Risk Assessment (SFRA)

Black Drain Drainage Board / Planning & Consents

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2.3. Study Area

The study area considered shall be to the south of Gilberdyke.

2.4. Location

The proposed change of use is located to the south of Gilberdyke off Broad Lane. **NGR SE839271**

2.5. Site Description

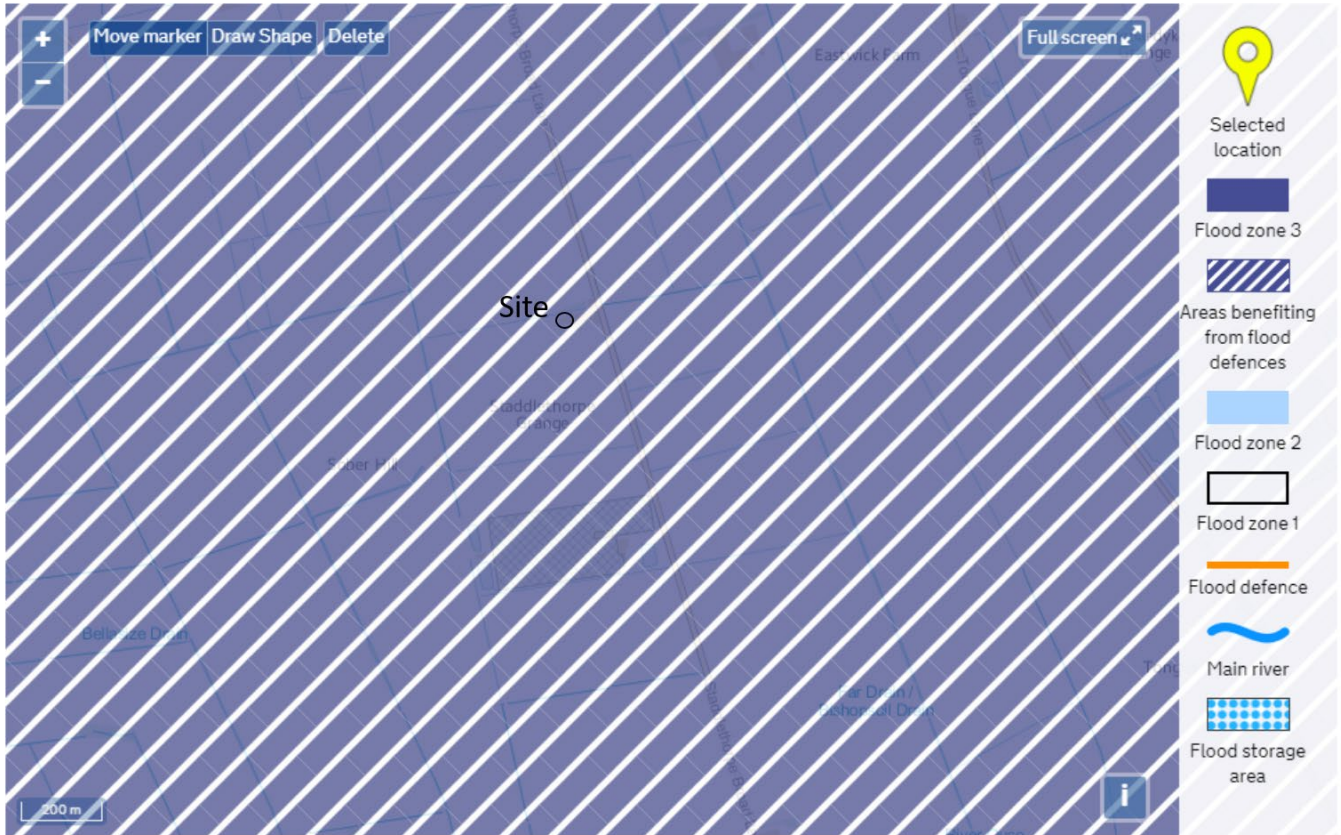
This is a concrete and steel purpose built grain store originally used for drying grain. The client now wishes to change the use to business and storage use associated with the storage and assembly of glass viewing panels.

2.6. Topography

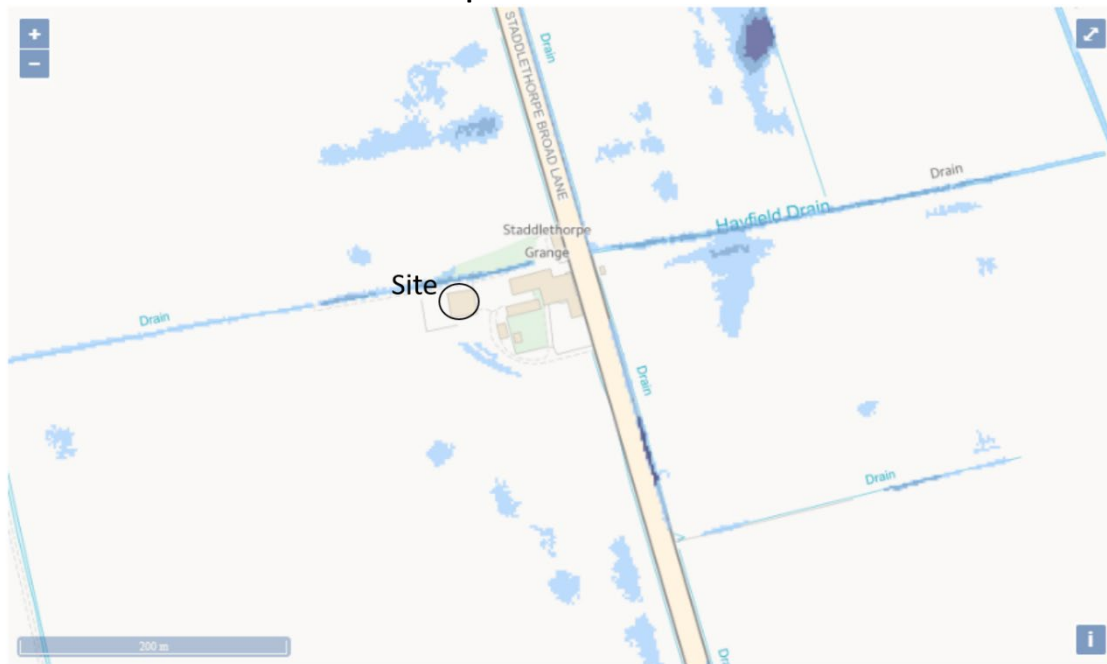
The average site level is around **2.00mAOD**. The adjacent road is around **3.00mAOD**.

3. Flood Risk

3.1. Flood Risk Maps



Extract from the National Flood Risk Map for Rivers and Sea



Extract from the National for Surface Water Flood Risk

3.2. Flood Risk Commentary

The National flood risk map for rivers and sea indicates that the site is in flood risk zone 3 and is denoted as an area benefiting from flood defenses. The national map for surface water suggests the site is at very low risk.

Examination of geological maps suggests superficial geology at the site is undifferentiated Triassic sedimentary rocks consisting of mudstone, sandstone and siltstone. The sandstone/mudstone bedrock means that groundwater emergence is less likely at this location.

3.3. The Sequential and Exceptions Test

This development is exempt from the sequential and exceptions test as it is an alteration (in use) that does not increase the footprint of the building.

4. Detailed Analysis of Drainage and Flood Risk

4.1. Matters for Consideration

4.1.1. Flooding from rivers and watercourses

The area is served by a network of drainage board maintained watercourses. Inspection of the Ouse and Humber Drainage Board Maintenance Programme indicate that Hayfield Drain which serves this site is maintained on an annual basis. There are no known issues of flooding from watercourses in this area.

4.1.2. Flooding due to overland surface water flow

The national map for surface water indicates there to be no risk from overland surface flow.

4.1.3. Flooding from the site itself

As the development is for the change of use for an existing building there is no net increase in the risk to the site.

5. Conclusion

This site is developable from a drainage and flood risk point of view. The application is to bring buildings back into use for business and storage use associated with the storage and assembly of glass viewing panels rather than for agricultural production.

As the building is being used for storage and assembly the following is recommended:

5.1. Finished Floor Level (FFL)

As the property is not for residential use it is less vulnerable and not to be used for habitable space there should not be a requirement to raise existing floor levels so long as the following measures are undertaken at the site level:

5.2. Flood Proofing Measures

*Incoming utility supply pipes and cables should only be re-terminated **600mm** above existing **FFL**. Internal electrical distribution systems and sockets should be re-sited at **600mm above FFL**.*

*Any gantries and Up-stands for mechanical and electrical installations and plant should be sited at least **600mm** above FFL. Electrical switching and master control circuits should be sited at least **600mm** above finished floor level. Fixed shelving for materials should be sited at least **600mm** above FFL*

Avoid the introduction of composite materials such as MDF and chipboard in construction, use solid treated constructional timbers instead.

Report Ends