# Flood Risk Assessment




## Proposed Workshop Extension

### Acorn Engineering (Holbeach) Limited

Applicant:

**Acorn Engineering (Holbeach) Ltd**
Abingdon Works, Sluice Farm
Holbeach St Marks
Lincolnshire
PE12 8HF

Mr Adam Cranfield

Agent:

**Paul Roberts Design**
12 Park Avenue
Chapeltown
Sheffield
S35 1WE
07966 030 566

Mr Paul Roberts

PRD Paul Roberts.design

## 1.0 Introduction

This document contains information to support a Full Planning Application submitted to South Holland District Council on behalf of the applicant, Acorn Engineering (Holbeach) Limited.

This application seeks permission by way of a Full Planning Application to develop the site further with the construction of a single storey, lean-to extension along the Eastern elevation of the current building, to provide additional internal floor space to house engineering and fabrication equipment as well as dedicated assembly areas with associated storage facilities.

This document is to be read in conjunction with all other information submitted as part of the Full Planning Application, including all relevant drawing information and accompanying Design and Access Statement.

## 2.0 Location

The application site occupies an area of 3680 sq metres (0.90 acres) and is located approximately 2 miles to the west of the small village of Holbeach St Marks in the South Holland District of southern Lincolnshire. The site and adjacent properties are surrounded by predominantly agricultural farm land and sits approximately 4 miles north of Holbeach and 3 miles from The Wash.

The site is served by Sluice Road, which connects with Leadenhall Road to the east and Roman Bank to the south, the main road through Holbeach Bank and Holbeach Clough. From here the road network links to the main A17 Washway Road providing access to King's Lynn to the south east or Sleaford and Boston to the north.

Please refer to the **Google Maps** aerial imagery below, showing the location of the application site in context of the surrounding areas.

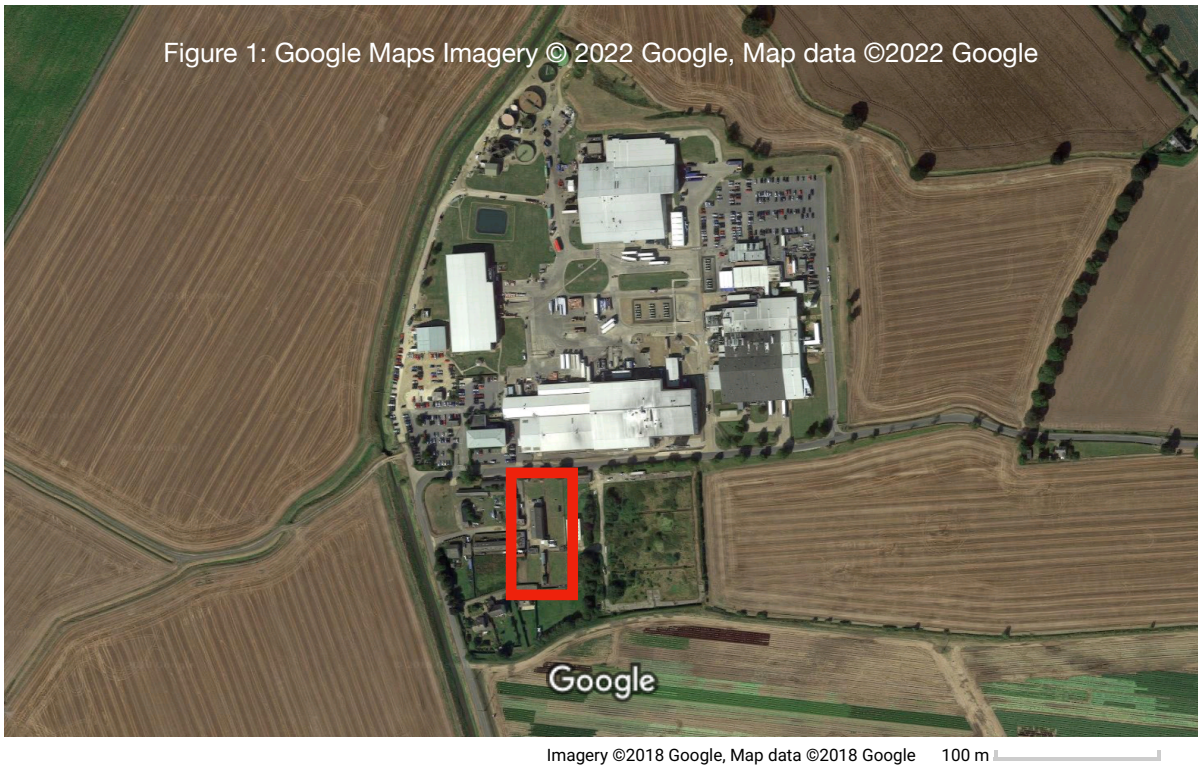



Figure 1: Google Maps Imagery © 2022 Google, Map data ©2022 Google

## 3.0 Scope of Proposals

The scope of works proposed as part of this Full Planning application can be summarised as follows;

- The construction of a single storey, lean-to extension along the entire East facing elevation of the existing workshop building to provide additional floor space for the business.
- The external roof structure will be formed with a high performance metal faced, insulated roof panel with a trapezoidal external profile complete with roof lights, exposed rainwater goods and matching roof line flashings. External Colour - Goosewing Grey (RAL 080 70 05).
- The external wall structures will be formed with high performance metal faced, insulated panels with matching colour cover flashings and flush fitting doors at either end. The front elevation will see an overhanging soffit and high level fascia detail with exposed structural columns. External colour - Goosewing Grey (RAL 080 70 05).
- All existing hardstandings and soft landscaped areas around the proposed extension will be made good following the completion of the construction works.

## 4.0 Foul Water Discharge

It is not anticipated that there will be any additional Foul Water generated by the proposed development.

## 5.0 Surface Water Discharge

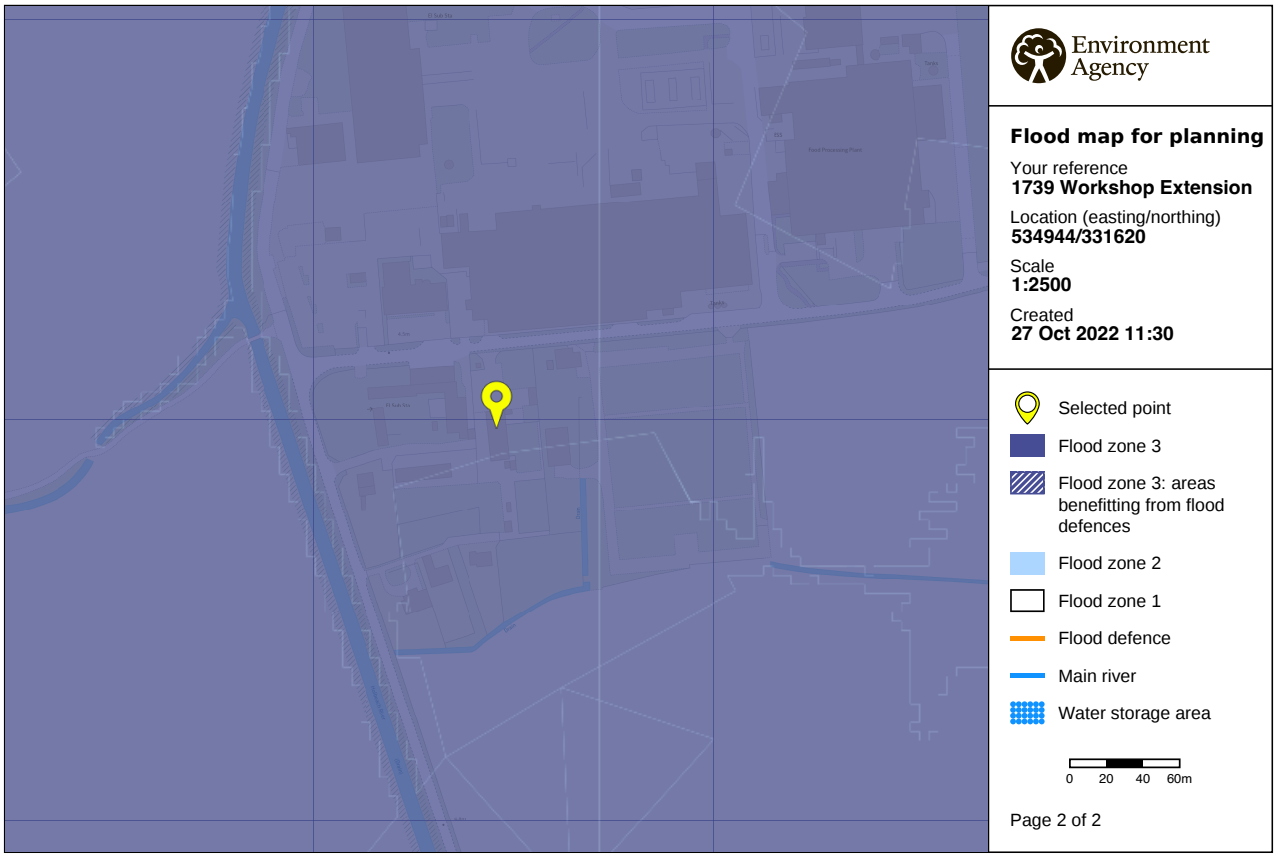
All new Surface Water discharge from the roof of the proposed development will be collected by a linear gutter at the edge of the roof, directed to the various downpipes and new below ground drainage infrastructure before connecting into the existing below ground drainage system and into the main sewer serving the site.

It is not anticipated that the increase to the existing Surface Water discharge, generated by the proposed development, will increase the risk of flooding from Surface Water.

## 6.0 Existing Flood Risk Assessment

The development site is currently located within a known flood risk area, *please refer to Figure 2 below, an extract from the Environment Agency Flood Map for Planning*, which indicates that the site is in **Floor Zone 3**, an area with a high probability of flooding.

The development site is located in an area where the risk of flooding from **Rivers or the Sea** is regarded as **HIGH** *(information courtesy of the Environment Agency - Long Term Flood Risk Information)*.




© Environment Agency copyright and / or database rights 2021. All rights reserved. © Crown Copyright and database right 2021. Ordnance Survey licence number 100024198.

Figure 2: Flood Zone Map © Environment Agency Flood Map for Planning

The development site is located in an area where the risk of flooding from **Surface Water** is regarded as **VERY LOW** *(information courtesy of the Environment Agency - Long Term Flood Risk Information). Please refer to Figure 3 overleaf, an extract from the Environment Agency - Long Term Flood Risk website.*

The proposed development is not within 20m or an existing watercourse and will not increase the current flood risk elsewhere.

The location and design of the proposed development presents no threat to life nor does it present an increased risk to the surrounding properties based on the current flood risk within the area.

## 6.0 Existing Flood Risk Assessment (continued)

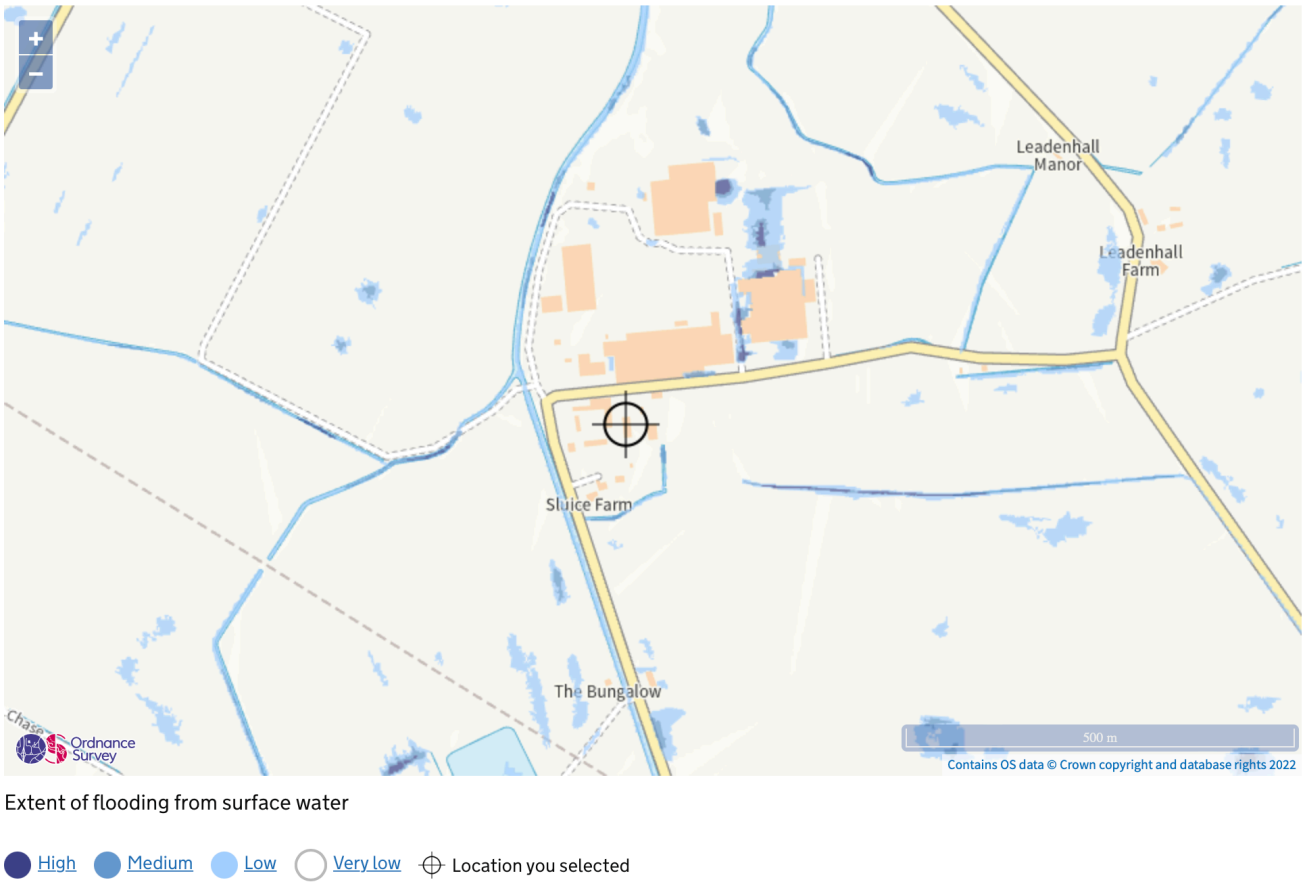



Figure 3: Extent of Flooding from Surface Water © Environment Agency Long Term Flood Risk

## 7.0 Flood Resilient Measures

### Design and Layout

The internal floor level of the proposed extension will be raised above the external ground level as much as possible complete with external ramps or steps as access from the hardstanding area around the building. A gravel margin will be provided along the Eastern elevation of the extension at the junction between the edge of the new floor slab and the existing grassed area.

### Materials and Finishes

The workshop areas will be constructed using materials that are inherently tough with surface finishes to match. All electrical and mechanical services will be raised at least 1.2m above the internal floor level due to the nature of the work carried out on the site. The floor will be finished with a hardwearing paint finish that will remain unaffected by flood water.

The external walls of the proposed extension will be constructed using vertical spanning composite wall panels consisting of a non-absorbing rigid closed cell insulation core, sandwiched between corrosion resistant steel sheets finished with a high performance paint finish.

## 7.0 Flood Resilient Measures (continued)

### Materials and Finishes

Any exposed parts of the structural steel frame supporting the new workshop, will be provided with a corrosion resistant paint finish at low level.

Where possible, all furniture and fixtures within the workshop areas should be movable to allow them to be relocated in the event of a flood.

### Building Services

All new electrical and data services throughout the workshop areas should be installed above the anticipated flood level and will be installed within a sleeved conduit to allow them to be replaced easily if damaged by a serious flood.

All primary mechanical and electrical infrastructure serving the workshop should be distributed throughout the proposed extension at high level and supplies dropped down to Individual points in lieu feeding up from the floor level.

All primary service components such as boilers, hot water tanks, fuse boards and meters, etc should be installed above the anticipated flood level.

All incoming services that pass through the ground floor slab should be adequately sealed to prevent the ingress of water in the event of a serious flood.

### Drainage

Any future foul water installations should consider the use of non-return / anti-flood devices, fitted onto the below ground drainage system, to reduce the risk of grey / black waste water entering the building in the event of a serious flood.