G.R. MERCHANT LTD
Architectural & Planning Consultants

4 Wrights Mews • 12A Park Road • Holbeach
Spalding • Lincolnshire • PE12 7EE
Telephone: 01406 490800
e-mail: gr.merchant@btconnect.com
www.grmerchantltd.co.uk

**Our ref: 3723-20**

## PROPOSED INDIVIDUAL INDUSTRIAL UNITS

**ELSOMS WAY**
**PINCHBECK**
**SPALDING**
**LINCS**
**PE11 3JG**

## BROOKS (SPALDING) LTD




## FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY
**Revision A – November 2020**

VAT No. 552 6200 69
Registered in England No: 5667107
Registered Address: Bank House, Broad Street, Spalding, PE11 1TB

The site is located at an area of land off Elsoms Way, Pinchbeck, Spalding, Lincs, PE11 3JG, which is part of a major warehouse industrial development area for Spalding.

Several applications have been submitted, approved, and implemented off Elsoms Way.

This application is sought for individual industrial units for rent, therefore, it is deemed a low impact on flooding.

**FLOOD PROTECTION**

Any impact of damage to the buildings can be foreseen and mitigated against by relatively simple design and construction techniques. There are two forms of flood protection works:-

- Flood resistance or proofing works – these try to reduce the amount of water actually entering a building
- Flood resilient works – these reduce the amount of damage caused by water entering the building

The proposed building will have the following resilient measures incorporated in the construction in accordance with "improving the flood performance of new buildings" CLG (2007).

- It is proposed to raise the ground level of the new warehouse building by 300mm off ground level. The new access road will be generally around 3.00 ODN
- The ground floor to be constructed with solid concrete floor with no voids beneath and no low-level wall vents
- Arrange for all service circuits at ground floor level to be routed at high level and where practical socket outlets, boilers etc. to be a minimum of 0.5m above the raised ground floor level

- As this site is in an area that is capable of receiving flood warnings from the Environment Agency Floodline Warning Direct system. It is recommended that the building owner contact the Environment Agency's Floodline on 0845 988 1188 to register the building to receive advance warning of flooding by telephone, mobile, fax, SMS text, email or pager. The Environment Agency aim to issue a 'severe flood warning' approximately 2 hours before existing defences are overtopped

**CONCLUSION**

- The proposed development site is shown to be within Flood Zone 3 'High Probability' as detailed on the Environment Agency's Flood Zone Maps without defences
- The site does have the protection of tidal flood defences which are well maintained by the Environment Agency
- It is proposed to raise the FFL of the new warehouse 300mm from the existing ground levels at 3.30 ODN
- The Flood Risk Vulnerability Classification in Table 2 of NPPF Technical Guide the proposed commercial development is classified as "Less Vulnerable", with Table 1 of NPPF Technical Guide stating that such uses are appropriate in this zone. However, the results of the updated SHSFRA shows the site is located within a low probability flood zone but the area is reliant on protection by flood defences providing a standard of protection of 1 in 200 years return period
- The drainage strategy for the development has been undertaken (see below)
- Any impact of damage to the buildings can be foreseen and mitigated against by relatively simple design and construction techniques. They will be constructed using materials which are flood resilient construction
- Flooding from other sources is unlikely to affect the site

**SURFACE WATER DRAINAGE STRATEGY**

- The Wardentree Business Park development benefits form a new piped surface water drainage system, designed to accept all surface water directly into the pipework system

- Therefore the proposed system for this development entails connection to existing laterals and manholes that are already connect to the adopted system in the roadway
- Please see drawings 3723-20-01B & 02B for drainage runs
- The adopted pipework system discharges into the Welland and Deeping Internal Drainage Board system to the North of the Business Park. The Internal Drainage Board system has been upgraded to accept the positive discharge from the adopted system

S L Darlow
October 2020