FLOOD RISK ASSESSMENT

To Support the

PROPOSED CONVERSION OF FORMER PACKHOUSE TO DWELLING

AT

SILVERWOOD GARDEN CENTRE BROWNS GATE LONG SUTTON SPALDING, PE12 9AU



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July 2021

1. Introduction

1.1 This Flood Risk Assessment accompanies the Design and Access Statement submitted as part of the application for the conversion of the Packhouse to a dwelling.

1.2 The Flood Risk Assessment contains a brief overview of the flood risk criteria for this site as the proposed change of use actually results in a far reduced user risk to that of its current residential, therefor in terms of flood risk the change of use to an office far reduces any risks.

1.3 The site upon which the Packhouse sits falls within Zone 3 of both the Environment Agency and South Holland District Councils Flood Maps. This is very much a characteristic of Long Sutton therefore sequentially there are limited alternatives for development in this area of the Borough.

2 DEFINITION OF THE FLOOD HAZARD.

Sources of flooding that could affect the site.

2.2 The primary possible source of flooding of the site would be either from rivers or the sea, if there were no flood defences.

This area could be flooded:

- from the sea by a flood that has a 0.5 per cent (1 in 200) or greater chance of happening each year;
- or from a river by a flood that has a 1 per cent (1 in 100) or greater chance of happening each year.

2.3 Extreme rainfall could be another possible cause of flooding.

2.4 Identified flooding sources – how they might affect the site.

Fluvial flow and overtopping of the embankments would not inundate the site rapidly as the site is located further away from the source than much of the more prone areas closer to the sea or river.

2.5 Any flooding scenario would be likely to be signalled well in advance with flood warnings, weather reports and local observations as to water levels within the river. Extreme rainfall on the site should not have a major effect, as the site stands alone, has well drained surfaces. 2c Existing surface water arrangements. The adjacent existing properties are served by soakaways.

2.6 With regards to this particular site, extreme rainfall on the site should not have a major effect, as the site stands alone, has well drained surfaces.

2.5 With regard to existing surface water arrangements, the Packhouse already benefits from an existing drainage system and the building is served by soakaways.

3. PROBABILITY OF FLOODING

3.1 The site is within Flood Zone 3a and Flood Zone 3 3b Existing Surface water rates and volumes of run off generated by the site. The site will not generate any significant additional surface water run off as the site contains extensive buildings and tarmacked areas, not to mention that this is a conversion of an existing and well-established building.

3.2 All works proposed are largely internal which results in no change or increase in flooding elsewhere on the site or with adjoining sites.

4. CLIMATE CHANGE

4.1 The site may be at risk if sea levels and river flows increase with climate change and the site may be at increased risk if rainfall increases with climate change. In mitigation the proposed change of use lessens the risks; an office use is far less of a risk than residential due to decrease use and no habitable living accommodation overnight.

5.0 FLOOD RISK MANAGEMENT MEASURES

5.1 The site sits some distance away from any rivers the nearest being the Nene on which the banks have been strengthened and raised and there are large areas of flood plain adjacent to the river.

5.2 The site sits some distance away from the sea and the existing defensive banks are in good condition. They were not breached in the 2013 tidal surge.

5.3 Occupiers of the dwelling should register with the Environment Agency's Floodline Warnings Direct Service. If a very high tide is predicted (greater than 6.50m OD) then the occupiers are advised that they should make preparations to monitor the situation and evacuate the building for the duration of the very high tide. They should drive or walk to the central area of Long Sutton or be advised of a safer place to go.

5.4 On site surface water drainage should be discharged into soakaways and these should be designed to BRE Digest 365 and approved under Building regulations.

5.5 The proposed new dwelling will have its floor level raised to 300mm above that of the surrounding ground levels. This is an existing building which will only see internal reconfiguration to create a family home.

5. CONCLUSION

The proposed conversion of the Packhouse to a dwelling does not increase the risk of flood risk elsewhere. The purely internal works and mitigation in the form of raising the floor levels slightly and the developed nature of the site on balance makes the conversion acceptable in this location. Respectfully, the majority of Long Sutton falls under the higher flood risk criteria, and there are unlikely to be any alternatives in the vicinity and as this is a conversion proposal, the location of the site is fixed with no sequential options.