Three Counties Flood Risk Assessment

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FLOOD RISK ASSESSMENT

Proposed Development Location:

ON LAND AT RAVENS BANK, WHAPLODE ST CATHERINE, SPALDING, SOUTH HOLLAND, LINCOLNSHIRE, PE12 6SH

Dated : 1 July 2016



GEOGRAPHICAL LOCATION

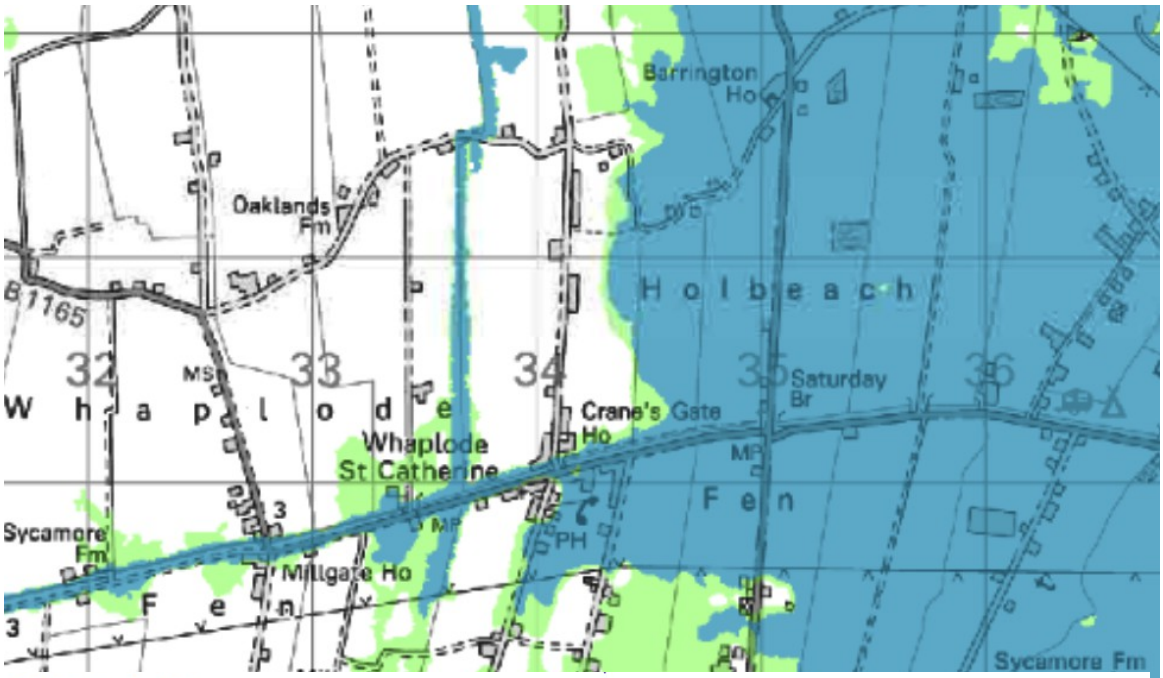
ENVIRONMENT AGENCY FLOOD MAPPING FOR PLANNING



SITE SHOWN IN FLOOD ZONE 3 UNDEFENDED

CLOSE TO FLOOD ZONE 2 AND FLOOD ZONE 1

ENVIRONMENT AGENCY FLOOD MAPPING TAKEN FROM THE STRATEGIC FLOOD RISK ASSESSMENT FOR SOUTH HOLLAND



NOTES

1. The Flood Zones are as designated by the Environment Agency. They ignore the presence of flood defences.



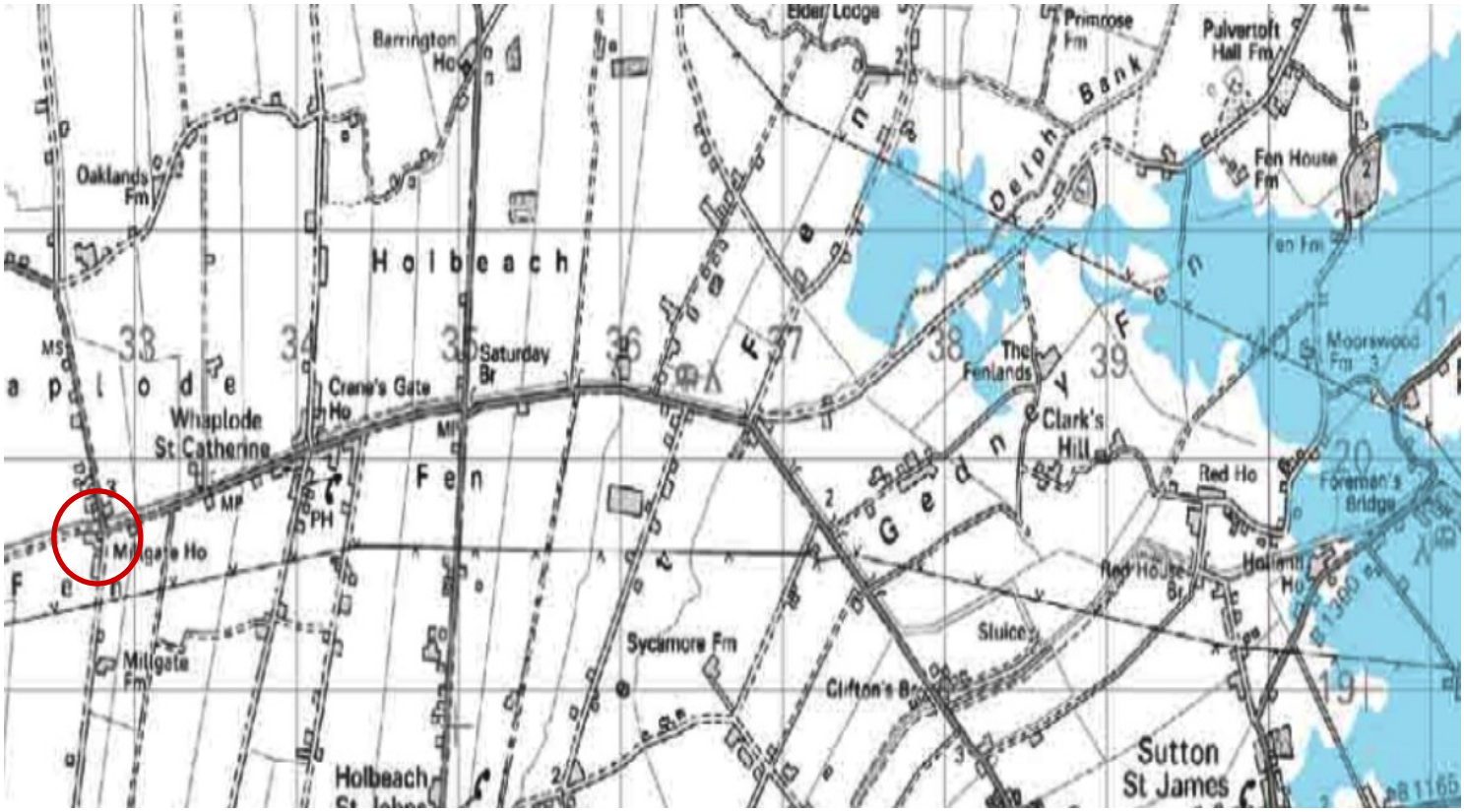
SOUTH HOLLAND DISTRICT COUNCIL

SOUTH HOLLAND DISTRICT COUNCIL
COUNCIL OFFICES
PRIORY ROAD
SPALDING
LINCOLNSHIRE
PE11 2XE

UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Actual Risk Extent
District - Present day
1% Fluvial / 0.5% Tidal Event Probability

DATE OF ISSUE: Jan 2010 **REV NO:**



SOUTH HOLLAND DISTRICT COUNCIL
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PE11 2XE

UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Actual Risk Extent
District - Year 2115
1% Fluvial / 0.5% Tidal Event Probability

PROPOSED ERECTION OF RESIDENTIAL DWELLING INCLUDING PARKING ON LAND AT RAVENS BANK, WHAPLODE ST CATHERINE, SPALDING, SOUTH HOLLAND, LINCOLNSHIRE, PE12 6SH

DESK TOP STUDY ON FLOOD RISK ASSESSMENT

The proposal the subject of this assessment is to erect a dwelling with car parking on land at Ravens Bank, with access available from the principal road (B1165).This report is compiled to accompany a planning application which contains detailed plans.

This desk top study is compiled according to The Guidance Notes to the National Planning Policy Framework March 2012 **(NPPF)** and the Environment Agency(EA) advisory notes to loval authorities.

Definition of Flood Hazard

According to the EA the site of the proposed development just lies within a swathe of Flood Zone 3/1 – **high/low probability –** land assessed as having a 1 in 100 year or greater annual probability of river flooding, (from any adjacent watercourse)

These maps also indicate the site is in very close proximity to Flood Zone 1 to the east, and west, which has all uses, according to the NP.

The appropriate uses for Flood Zone 3 are the water compatible and less vulnerable uses of land as set out in Table 2 of the NP. The classification for the proposed development is “more vulnerable”.

However this flood zoning is not supported by the mapping in the Strategic Flood Risk Assessment for South Holland within which this site falls.

The |EA flood map referred to above has been created by what is called “sonar fly-over”, which is a computerised aerial assessment devised only as a general guide to flood conditions in a particular area. The EA accepts that its mapping is for guidance only , not to be relied upon and inappropriate for site specxific assessment.

It is because of this scenario that consideration is also given to historical evidence of flooding, based on previous worst flood conditions, together with an allowance as mentioned later in this assessment.

Under NPPF it states that all forms of authenticated mapping should be used in a flood risk assessment(FRA) particularly mapping from the SFRA which provides a picture of all sources of flooding from consultants using more up-dated methodology.

Also the SFRA mapping is based on breach of flood defences rather than the EA which shows flooding without any defences being present . Therefore the SFRA mapping is considered a more meaningful representation of the flood threat.

South Holland District Council Update of SFRA Final Report January 2010

These statutory documents indicate the application site lies within an area where the flood risk is very low and where the actual risk extent to 2055 is also very low. The same pertains to the risk extent up to 2115. This date is also relevant as being outside the rapid inundation zones till 2115.

This scenario is closely related to the condition of the tidal defences which are not indicated as being inadequate. This is confirmed by local anecdotal evidence.

FLOOD THREAT AS SEEN BY THE IDB

Any perceived flood threat would be from the Little South Holland drain which runs on the other side of the main road to the proposed development . As can be seen from the levels survey for this area (shown in the addendum to this report) it lies in a cut which is two metres below the main road .

The waterway is considered a "high priority" drain which receives regular attention and maintenance from the Soputh Holland IDB . The IDB states that it is maintained to design levels to properly convey flows to the network of pumps across the area and other water level control structures. All parts of the drainage network are monitored , particularly high priority drains, to avoid oversilling affecting properties in the area .

The IDB is part of the South Holland Water Management Alliance. Coastal erosion and flooding is the responsibility of the EA . The IDB states :

3.5 The areas which are more vulnerable to flooding due to the particular local circumstances are adjacent to main rivers and sea defences, which are controlled by the Environment Agency.

3.6 The Board is satisfied that there are minimal risks to human life arising from any failure of its own assets or from over-spilling from its own watercourses.

Anecdotal Evidence

The applicant has advised that the site has not been subject to flooding in the past. There is also no record of such held by the local authority,

Flood Compensation

This is not considered necessary as the SFRA mapping shows the site is NOT within the coastal flood plain and the IDB states that they consider there is minmal risk to life from any possible flooding in their area of responsibility

Environment Agency Maps

The Site;

- Is not the subject of surface water flooding.
- Is not flagged up as having groundwater problems.
- Is not within an area likely to be subject to reservoir flooding.
- Is within an area where flood alerts are currently issued
- Is not denoted as being within a water abstraction area,
- Not indicated as being in a ground water source protection zone.

Residual Risk

In order to take account of the extent of any modelled/actual flood risk it would be proposed, in view of the circumstances as regards such risk, that this proposal, the subject of this assessment, should be considered by the local authority as to whether it needs to be a subscriber to the EA Floodline initiative. Currently the EA flood map indicates that the application site locality is within an area where flood alerts are issued.

An evacuation plan is not considered necessary.

Safe ingress/egress

The question of "dry access" to this site has always been maintained, as outlined earlier, with the matter of safe access onto the main road being established in the past and, as shown on the SFRA mapping , into the future.

Sequential and Exception Test

The SFRA shows the site outside the tidal flood zone until at least 2115 and the IDB states that the risk to "life" is minmal . In this case it is considered the proposed site qualifies under the sequential test and the exception test is covered within this FRA report.

Off-site Implications

The case for considering balancing the surface water run off from the proposed development, by SUDS principles, given the permeable nature of the sub soil,, and on account of its size, will be to the determination of the local authority, and as to whether they deem this a requirement.

Site Geology

According to the British Geological Survey the site is underlain by Kellaways, mudstone, siltstone, sandstone and overlain with Alluvium, clay, silt and sand.. This would provide favourable conditions for attenuating run-off drainage, should it be considered necessary, as the site is currently predominately pervious. Soak-aways would be recommended.

General

I am of the opinion that this proposal for the site, which is situated within a residential area can be considered to be of little effect in terms of it being affected by any potential flooding, and coupled with the measures as outlined earlier can be safely accommodated within the advices contained in the **NP.**

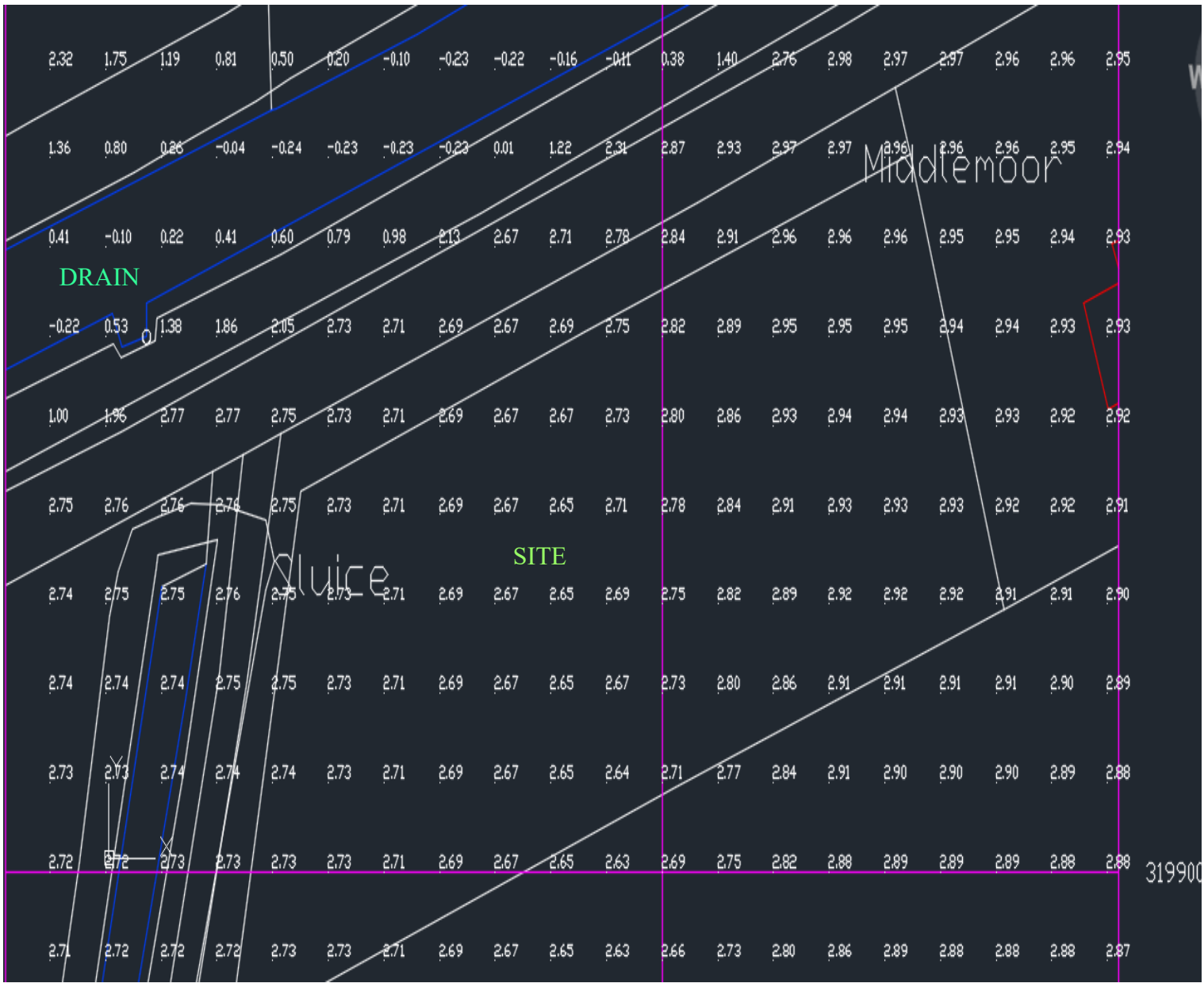
CONCLUSION

The site can be afforded protection to a level as indicated in the relevant legislation, and it is unlikely that any meaningful inundation will occur which would prejudice the change of use.

In view of all the factors considered in this appraisal I consider they are wholly reasonable and are in line with those contained in the relevant guidance notes.

P P FEARNSIDE FICE 1ST JULY 2016

Levels survey below/


Middlemoor
DRAIN
SITE
Sluice
319900