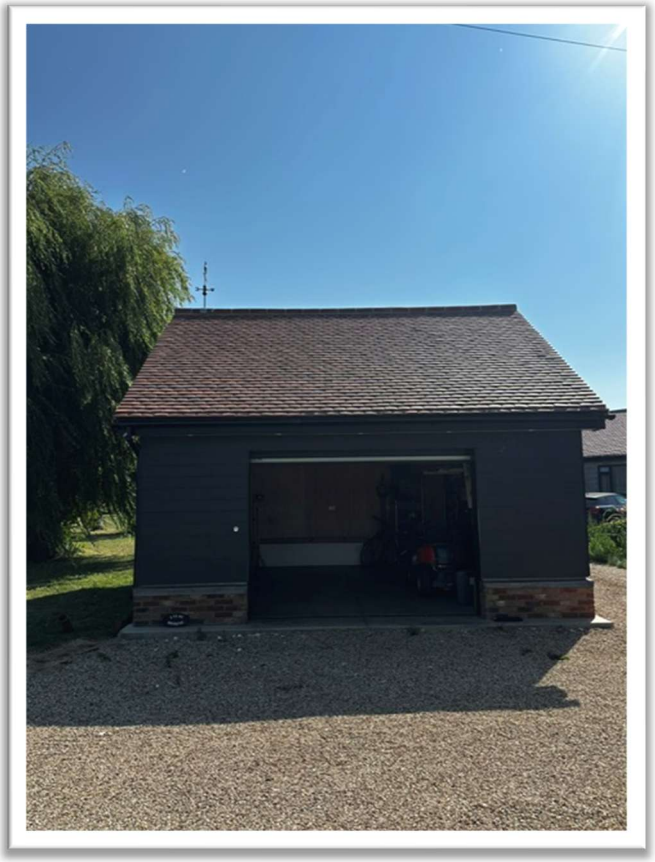
AUSTIN JOHN LTD



Flood Risk Assessment for Proposed Detached Garage (Retrospective)

Prepared for: Mr and Mrs Offord, Lilac House, Herring Lane, Pinchbeck
Prepared by: Austin John Ltd, Rualen, Mill Green Road, Pinchbeck, Spalding PE11 3PU
On Behalf of: South Holland District Council
By Lauren Austin, August 2026

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1.0 Introduction

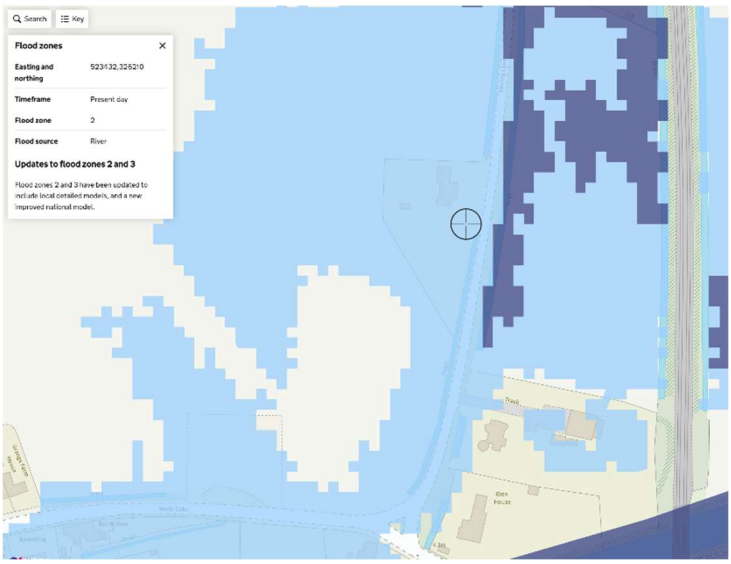
A planning application is due to be submitted to South Holland District Council for a retrospective application for **the construction of a detached garage (previously approved under H14-0704-24) at Lilac House, Herring Lane, Pinchbeck, Spalding, PE11 3ST**

The site is within Flood Zone 2 as shown on the Enivironment Agency's Flood Zone map. The flood zone maps do not take into account existing flood defences.

The Planning Application requires a flood risk assessment to be carried out as specified in the Practice Guidance to the National Planning Policy Framework Development and Flood Risk. The site is within a defended area as specified on the South Holland District Council's Strategic Flood Risk Assessment (SHDC SFRA) map and is located in the Black Sluice Internal Drainage Board District.

2.0 Environment Agency (EA) Flood Zones

The map below is taken from the Environment Agency website and shows the flood zones in this area.



It can be seen that all of the site is in flood zone 2.

The site is located directly north of the River Glen, and the National Grid Reference of the site is 523415 326200. The position and extent of the site is shown on the plan at the end of this document.

Referring to the flood risk vulnerability classification in Table 2 of the Guidance, a residential development is categorised as “more vulnerable”.

Table 3 of the Guidance is shown below:

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓*

It can be seen that for “More Vulnerable” development is considered satisfactory in flood zone 2.

3.0 Strategic Flood Risk Assessment

The Strategic Flood Risk Assessment (SFRA) written for the South Holland District Council (SHDC) in 2010 provides details of the actual flood risk in the Council’s area. This information has not been updated and reference to the maps in this document give the following information for the actual flood risk and hazard at the site for the 1% fluvial event and 0.5% tidal event.

For present day	Depth of flooding … zero
	Extent of flooding .. zero
	Hazard ……... Nil
	Velocity ……... Nil
For year 2115	Depth of flooding … 0 – 500mm
	Extent of flooding …high
	Hazard …….. Low hazard
	Velocity ……. 0 – 0.1 m/sec

The maps showing the residual flood hazard were revised in the 2016 update of the South Holland District Council Strategic Flood Risk Assessment which can be found on the website of the South East Lincolnshire Joint Planning Committee. The hazards are as follows for the 1% fluvial or 0.5% tidal event probability:

For present day	Depth of flooding ... 0 – 500mm
	Extent of flooding … High probability
	Hazard ……. 0.75 – 1.25 (danger for some)
	Velocity ……. 0 – 0.3 m/sec
For year 2115	Depth of flooding..... 250mm – 500mm
	Extent of flooding .. High probability
	Hazard …… 1.25 – 2.0 (danger for most)
	Velocity …….. 0 – 0.3 m/sec

The hazards are as follows for the 0.1% fluvial or tidal event probability:

For year 2115 Depth of flooding.... 250mm – 500mm

Extent of flooding … High probability

Hazard …… 1.25 – 2.0 (danger for most)

Velocity …… 0 – 0.3m/sec

Tables in the SFRA show the following details of the defence bank on the west side of the tidal section of the River Welland north of Fulney Lock at chainage 22.0km.

	2007	2055	2115
Peak 1 in 200 year extreme tide level	5.98m OD	6.31m OD	7.12m OD
Peak 1 in 1,000 year extreme tide level	6.32m OD	6.65m OD	7.46m OD

The crest levels of the defences, which are earth banks along this length, vary between 6.97 and 7.30m OD. With a minimum crest level of 7.00m OD the freeboards are as follows:

	2007	2055	2115
Peak 1 in 200 year freeboard	1020mm	690mm	-120mm
Peak 1 in 1,000 year freeboard	680mm	350mm	-460mm

Tables in the SFRA show the following details for the predicted flood levels in the River Glen at chainage 6.6km.

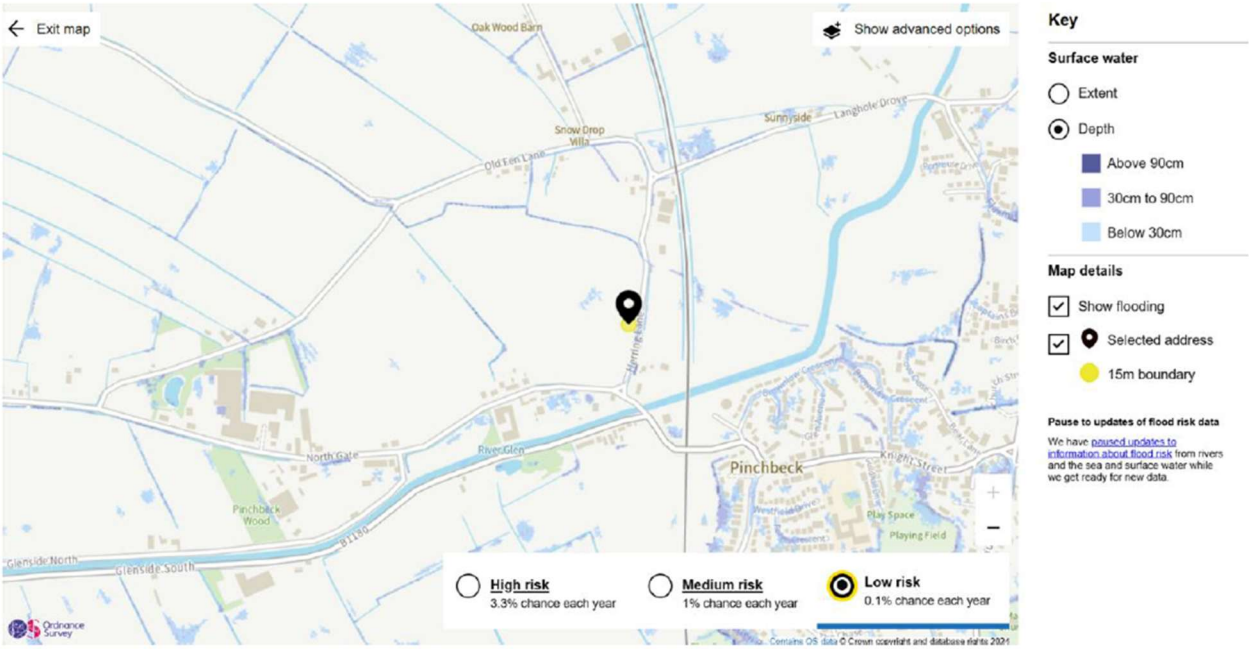
	2007	2115
Peak 1 in 100 year flood level	4.40m OD	4.72m OD
Peak 1 in 1,000 year flood level	4.59m OD	4.80m OD

The table in the SFRA states that the crest level of the earth bank on this section of the northern side of the River Glen is 5.28m OD.

4.0 Information on Surface Water Flooding on Environment Agency Website

This map shows areas around the site where there is a low risk of surface water flooding. The light blue areas indicate the low risk of up to 300mm of surface water flooding, and the darker blue areas indicate that between 300mm and 900mm of surface water flooding could occur.

The map does not predict any surface water flooding in the low risk scenario (0.1% chance each year) on this site.



5.0 Conclusion

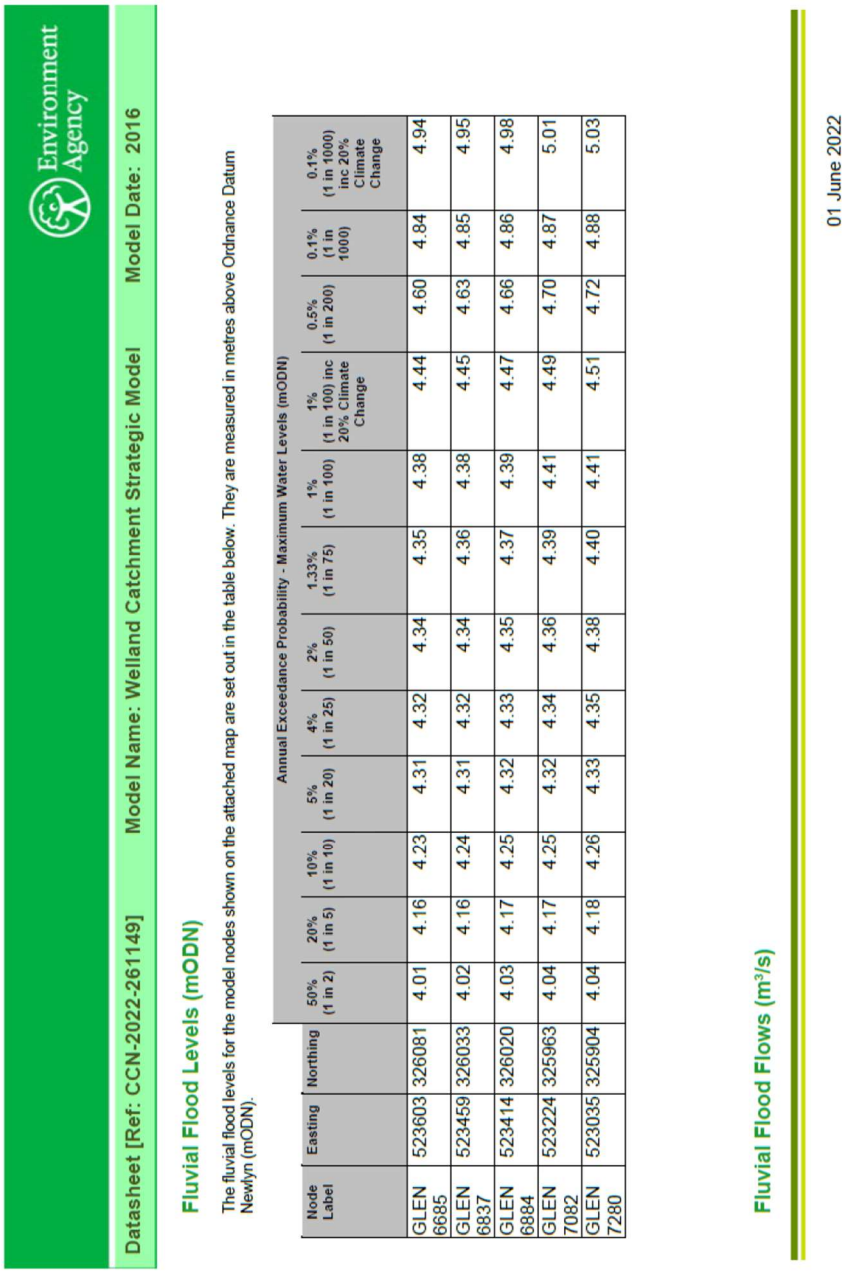
It can be concluded from the proposed works that no additional people will be in danger if a flood event were to occur.

It is recommended that the garage should be designed and constructed with flood resilient measures incorporated. These measures will include:

- All electrical sockets should be a minimum of 600mm above the floor level.

The owner of the property should register with the Environment Agency's Floodline Warnings Direct Services.

ENVIRONMENT AGENCY TABLE SHOWING PREDICTED FLOOD LEVELS



Environment Agency

Datasheet [Ref: CCN-2022-261149] Model Name: Welland Catchment Strategic Model Model Date: 2016

Fluvial Flood Levels (mODN)

The fluvial flood levels for the model nodes shown on the attached map are set out in the table below. They are measured in metres above Ordnance Datum Newlyn (mODN).

Node Label	Easting	Northing	Annual Exceedance Probability - Maximum Water Levels (mODN)											
			50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	4% (1 in 25)	2% (1 in 50)	1.33% (1 in 75)	1% (1 in 100)	1% (1 in 100) inc 20% Climate Change	0.5% (1 in 200)	0.1% (1 in 1000)	0.1% (1 in 1000) inc 20% Climate Change
GLEN 6685	523603	326081	4.01	4.16	4.23	4.31	4.32	4.34	4.35	4.38	4.44	4.60	4.84	4.94
GLEN 6837	523459	326033	4.02	4.16	4.24	4.31	4.32	4.34	4.36	4.38	4.45	4.63	4.85	4.95
GLEN 6884	523414	326020	4.03	4.17	4.25	4.32	4.33	4.35	4.37	4.39	4.47	4.66	4.86	4.98
GLEN 7082	523224	325963	4.04	4.17	4.25	4.32	4.34	4.36	4.39	4.41	4.49	4.70	4.87	5.01
GLEN 7280	523035	325904	4.04	4.18	4.26	4.33	4.35	4.38	4.40	4.41	4.51	4.72	4.88	5.03

Fluvial Flood Flows (m^3/s)

01 June 2022