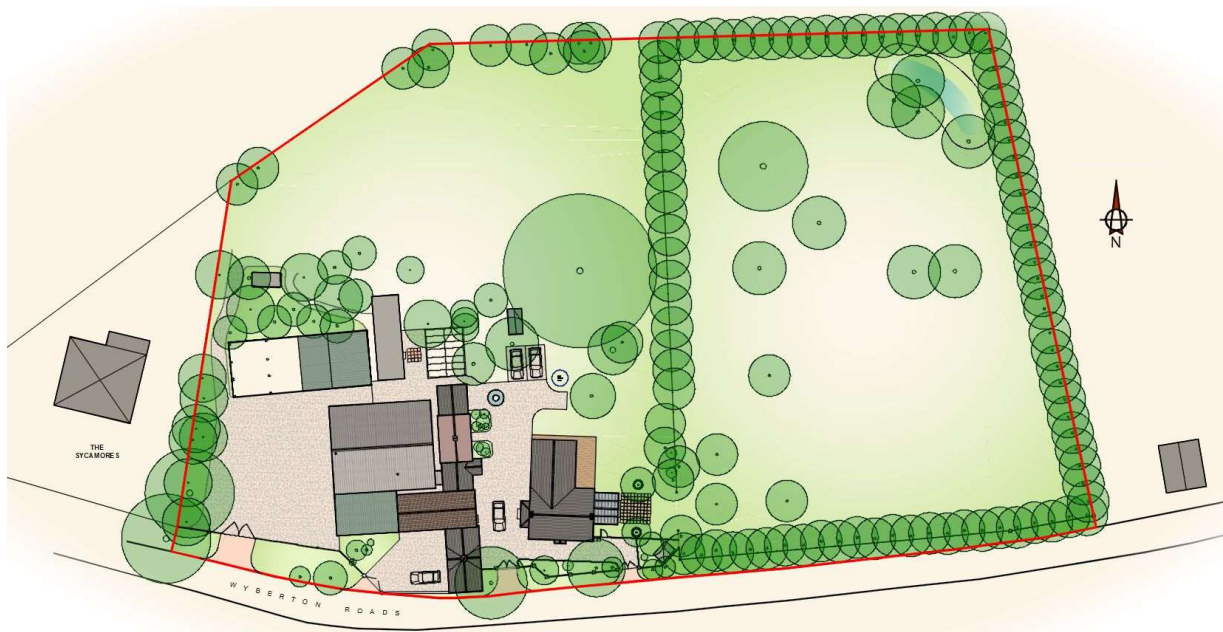


GENERAL NOTES AND FLOOD RISK ASSESSMENT FOR:

# PROPOSED TWO STOREY EXTENSION TO HOUSE

AT:

LIME TREE FARM, STREETWAY, WYBERTON, BOSTON, Lincs, PE201BE



## Outline of Proposal:

This proposal is to demolish the rear single storey elements of the house and replace them with a new two storey extension to provide a master bedroom with en-suite shower and toilet and a ground floor family room, utility and shower. The existing two storey house would otherwise remain unchanged. In addition further off street car parking provision would be created to the rear of the property.

The existing single storey part is currently used as a utility room, an office, a WC and a small store/lobby. There are no listed buildings in the vicinity and no neighbours within 50m of the existing house. The proposal would have little impact on public views of the property as it would be screened by the house and outbuildings and by the existing landscaping. The house has not been subjected to any previous planning applications. The total site area is 0.92 Ha = 2 acres.



**Existing Building:**

The house is classified as having four bedrooms (with the local council) however internal modifications have been carried out to extend bedrooms one and two and it is currently a three bedroom property. The proposal would add a new master bedroom and en-suite to the upper floor to create a total of 4 bedrooms. The existing single storey elements to the rear of the property are in a poor state of repair, are thermally very inefficient and of little architectural merit and it is therefore considered rational to demolish and rebuild. In addition the plumbing and drainage are outdated and require a complete new system installing.

**Design Considerations:**

The proposal would extend the existing rear wall of the building a further 1.8m and would remain the same width as the current single storey element. The ridge of the roof would be approximately 400mm below the existing ridge line to the main part of the house and would thus be subservient to it. The roof finish would be in concrete roof tiles and the wall finish would be a painted render with tile topped brick plinth – both to match the existing house finishes. The proposed windows and doors are to a similar design as the existing and would use the same hardwood construction and brick heads to give continuity to the whole building.

The new extension would allow the residence to address the garden area with patio doors onto the rear lawn from a new family room, this is currently lacking within the existing layout. There is presently a linked walkway between the house and the outbuildings to access a laundry room and other facilities however it is anticipated that this would no longer be needed as the house would become more self-contained with the inclusion of a more generous utility room and storage. In addition by removing this link a vehicular access can be created to the rear of the property to facilitate additional parking and the possibility of turning a car on site to avoid any reversing onto the public highway.



**Construction:**

Construction would be in accordance with current building regulations and essentially concrete strip footing foundations with trench blocks to ground level and an insulated cast concrete floor. The main walls will be cavity block work throughout with an additional perimeter plinth of brickwork topped with an angled quarry tile. The roof will be constructed using standard timber trussed rafters with concrete roof tiles. There will also be a log burning stove extracting to a brick chimney stack at roof level again to match the existing house.

**Services:**

The property foul water drainage is to an outdated concrete chamber septic tank and the state of the drains is generally poor and in need of refurbishment. It is proposed to provide a new suitably located and approved septic tank system and to renew all the house foul drainage as part of this proposal. The surface water will continue to drain to the existing system which appears to be more than adequate and has no history of having caused any issues.

**General Considerations:**

The house dates back to around 1800 and was originally built as accommodation attached to a working farm. The house and site has been used solely for non-commercial residential purposes for the last 20 years. The property is in need of some general refurbishment and in particular to the rear single storey element.

## Flood Risk Assessment:

The site is in a rural area at Lime Tree Farm to the North side of Wyberton Roads. Location: PE20 1BE (52° 56' 31" N, 00° 00' 00" W) 52.942, 00.000

The site lies within flood zone 3 of the Environment Agency flood map and is therefore considered to have a high probability of flooding. The site is at approximately 3.0m AOD in a relatively flat landscape. The GOV.UK on-line check for long term flood risk shows the site to be at 'low risk' with a chance of flooding between 0.1% (1:1000) and 1% (1:100) each year from rivers and the sea with a 'very low risk' of surface water flooding.

The site is approximately 1.2km west of the River Haven. There is network of ditches surrounding the site which drain the local farm land through man-made channels out-falling to main rivers. This drainage is maintained by Black Sluice Internal Drainage Board and is pumped into the sea at Hobhole to the southeast of the site.

There is no history of the site flooding and it was not affected by the 1978 and 2013 events.



Tidal Level Location Map  
Lincolnshire & Northamptonshire Area

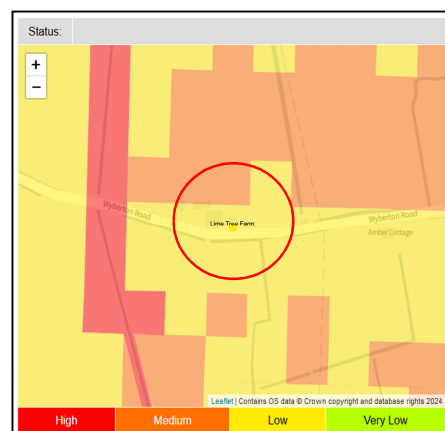


### Tidal Water Levels for The Wash

The table below shows still water levels for locations, from the above location map, around the South Humber Estuary, East Coast and The Wash. It is important to note the following:

- The base date for the data is 2014 for the South Humber and 2006 for the East Coast and The Wash.
- The data are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- The water level quoted is the 'Best Estimate' water level. Depending on the use of the data it may be necessary to carry out sensitivity testing. Upper and Lower 95% confidence bandings are available upon request.
- Levels for other annual chance scenarios are available if required.

Ref	Location	Easting	Northing	Annual Chance ( 1 in x ) of Tide Level					
				metres ODN					
				1	10	50	100	200	1000
Wash									
~	Hobhole	536610	339940	4.82	5.30	5.64	5.78	5.93	6.27
~	Lawyers Sluice	540750	334550	4.84	5.32	5.66	5.80	5.95	6.29
~	West Lighthouse	549150	325750	4.88	5.37	5.71	5.86	6.01	6.35
~	Grand Sluice	532400	344500	4.88	5.33	5.65	5.78	5.93	~
~	Fosdyke Bridge	531700	332200	4.91	5.38	5.71	5.85	5.99	~
~	Marsh Road	526000	324000	5.04	5.44	5.73	5.85	5.98	~
~	Wisbech	546100	310000	4.83	5.25	5.53	5.66	5.78	~
~	Dog In Doublet	527300	299300	3.67	4.00	4.22	4.32	4.42	~





The nearest OS datum shows the site to be at 3.0m AOD. The existing ground level of the house is approximately 300mm above this, measured from the road. The closest threat to the site is the river Haven (with tidal influence) at approximately 1.2km to the North-east. The site is also approximately 2km from the wash to the South-east. There are no immediate site specific risks that would adversely affect the flood risk categorisation of the site. EA modelling shows a 1:200 tidal level of 5.93m (Hobhole) ODN but the existing flood defences in the area are in good condition, are well maintained and have been designed to reduce the risk of flooding to a 0.67% (1in150) chance of occurring in any year.

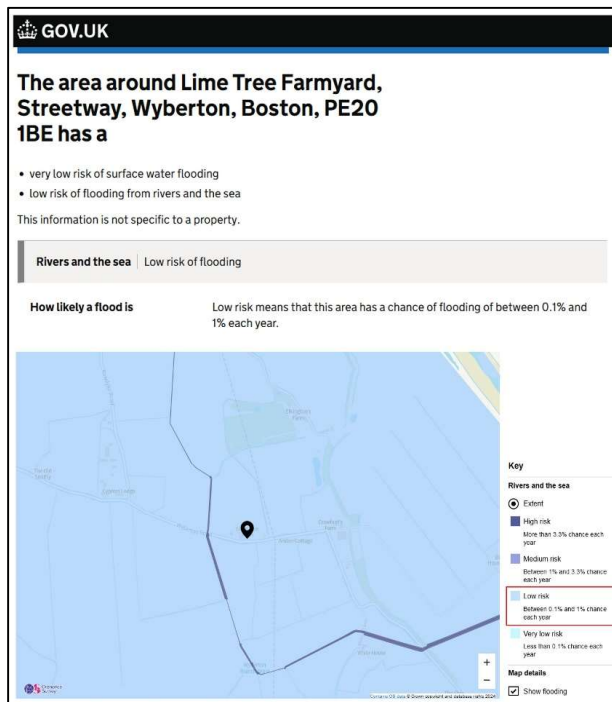
It is anticipated that the EA will continue to maintain and upgrade as necessary the existing flood defence system within this area as the land is considered strategically important for the production of crops. The local drainage board (Black Sluice) maintain and operate the system of land drains and pumping facilities in the vicinity of the site and their modelled predictions from incidental flooding to this area are below the 3.0m AOD mark.

For flood risk the proposal is considered as a minor extension as it has a total floor space of under 250m<sup>2</sup>. The proposal is not within 20m of any main river or flood defence. There is no change of use. The proposed footprint is 14m<sup>2</sup> greater than the existing footprint and thus has minimal impact on surface water drainage.

In accordance with the environment agency recommendations the new ground floor level will be no lower than that of the existing house floor levels. All sleeping accommodation is on the upper floor which provides a safe haven in the event of a severe flood. In addition it is proposed to include flood damage mitigation measures as follows:

- ◆ All new electrical installations to be a minimum height of 1.0m above floor level.
- ◆ Internal plasterboard at ground level to be laid horizontally and not vertically.
- ◆ Below ground block work to be cavity filled with lean mix concrete to DPC level.
- ◆ Waterproof screed to be implemented on new ground floor.
- ◆ Closed cell foam insulation to be used in external wall cavities and floor base.
- ◆ All new foul drainage to be fitted with non-return valves – including GF WC.
- ◆ Occupiers to register property with the government 'Floodline' alert scheme.





Tidal influence on the River Haven, as evidenced by historic flood events in the town, makes it the significant risk of flooding for the site. Tides reaching levels in the range of 6.000m AOD to 6.200m AOD will naturally move up the Haven until the lower level defences are reached and over topped. Current improvements made along the Haven embankments and the construction of the Boston Barrier are suitable to protect against 0.5% (1 in 200) annual probability events and it is considered extremely unlikely that site flooding will occur within the lifetime of the development.

The Boston Combine strategy will provides a level of protection against 0.33% (1:300) annual probability events. There is no significant increase to the onsite footprint and no increase to areas of non-porous hard standing. The upper floor accommodation provides a safe haven above maximum predicted flood levels. The site has the well maintained protection of both tidal and fluvial flood defences, including the Boston Barrier project. There are no site-specific risks that would adversely affect the flood risk categorisation of the site nor to offsite flooding as a result of the development. Any impact of damage to the property can be foreseen and mitigated against by relatively simple construction methods.



We believe that this proposal provides an opportunity to create a more practical, efficient and modern family dwelling without significantly altering its general character or impacting adversely upon the local area. It would effectively give a new lease of life to an otherwise outdated property and it is thus hoped that the council will move to grant full planning permission in favour of this application.