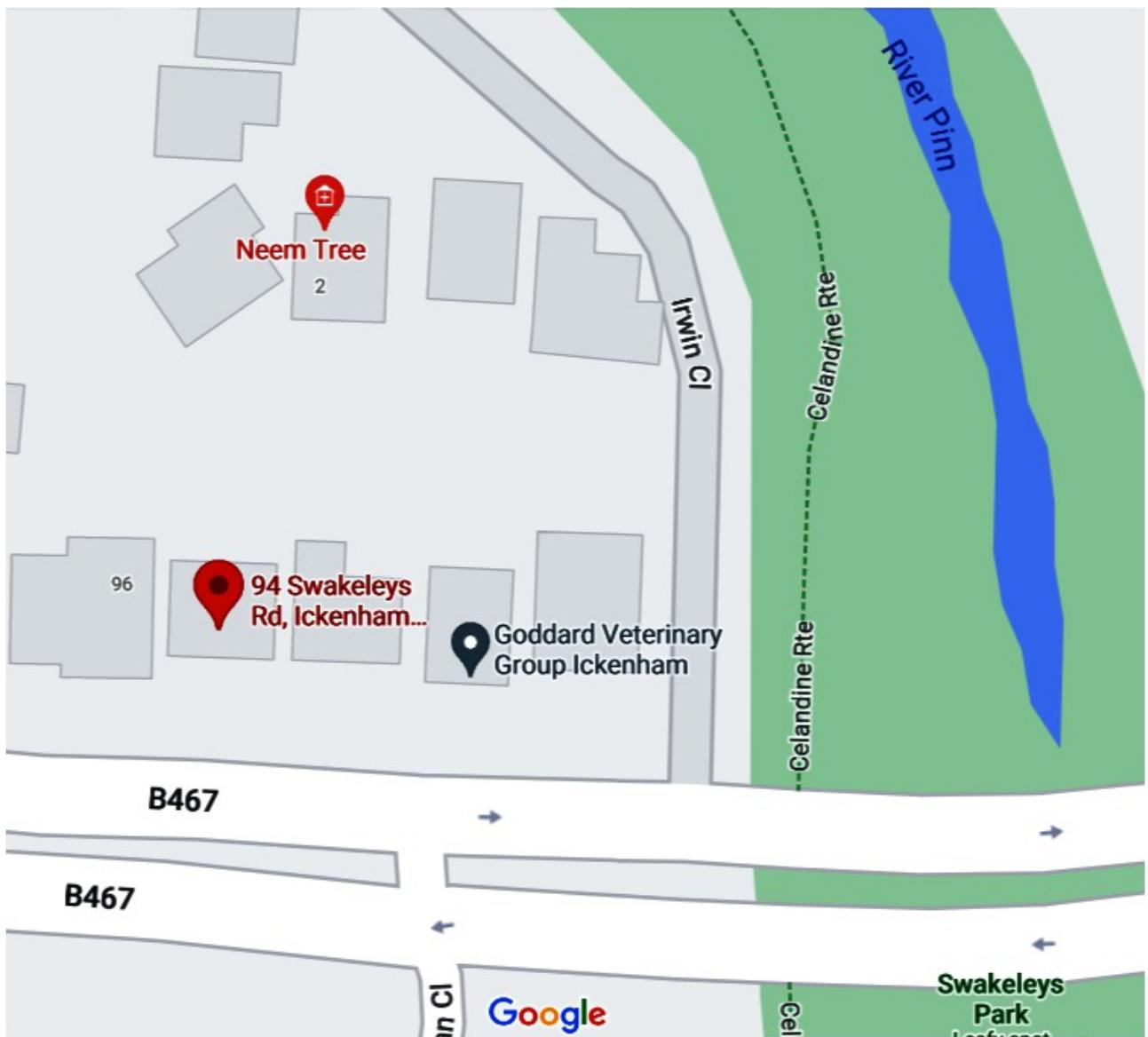


MARGARET'S COTTAGE SANDHURST GLOUCESTER GL2 9NP TEL/ 01452 730818 email: david@three-counties-flood-risk-assessment.co.uk

MINOR FLOOD RISK ASSESSMENT

94 Swakeleys Road Ickenham UB10 8BB

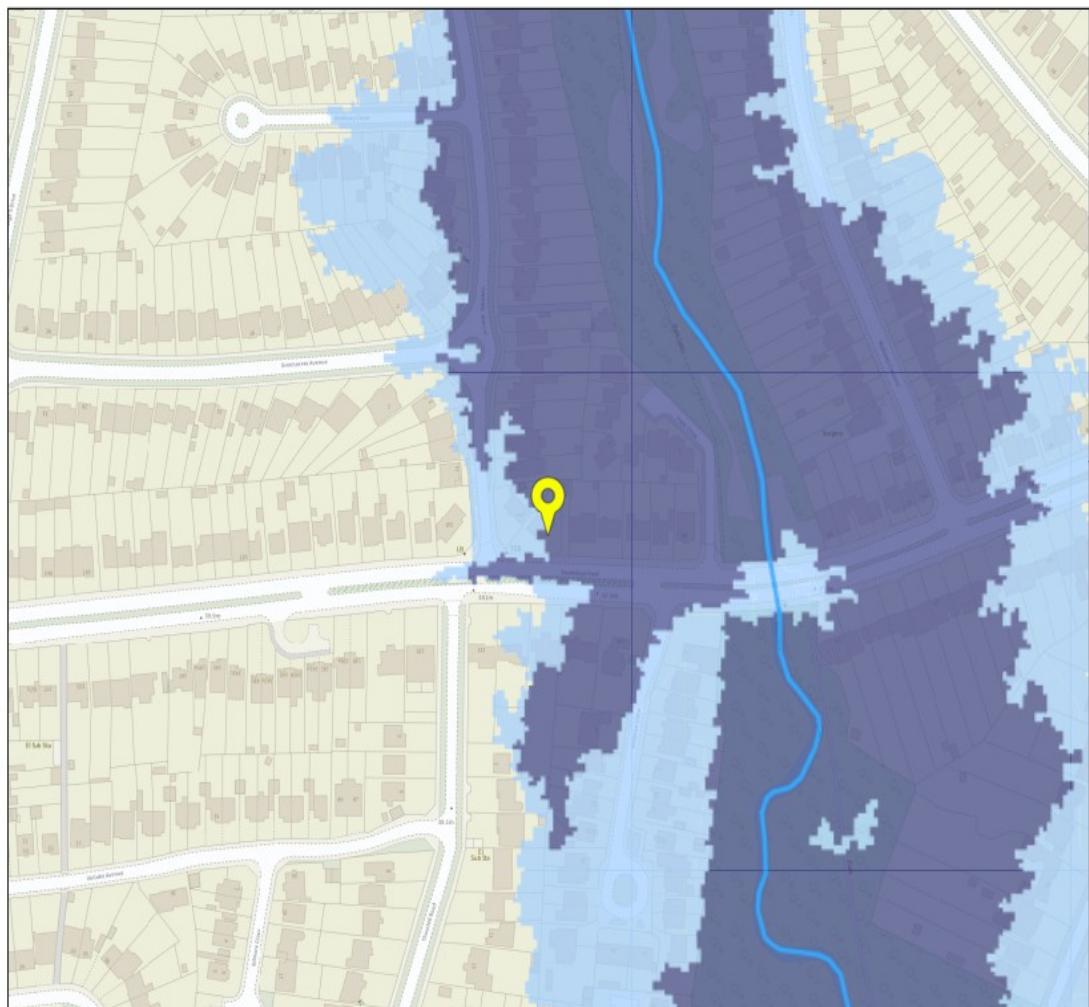
DATED 8 JUNE 2022



GEOGRAPHICAL LOCATION



SITE PLAN



Flood map for planning

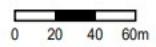
Your reference
<Unspecified>

Location (easting/northing)
507240/186303

Scale
1:2500

Created
11 Jun 2022 10:15

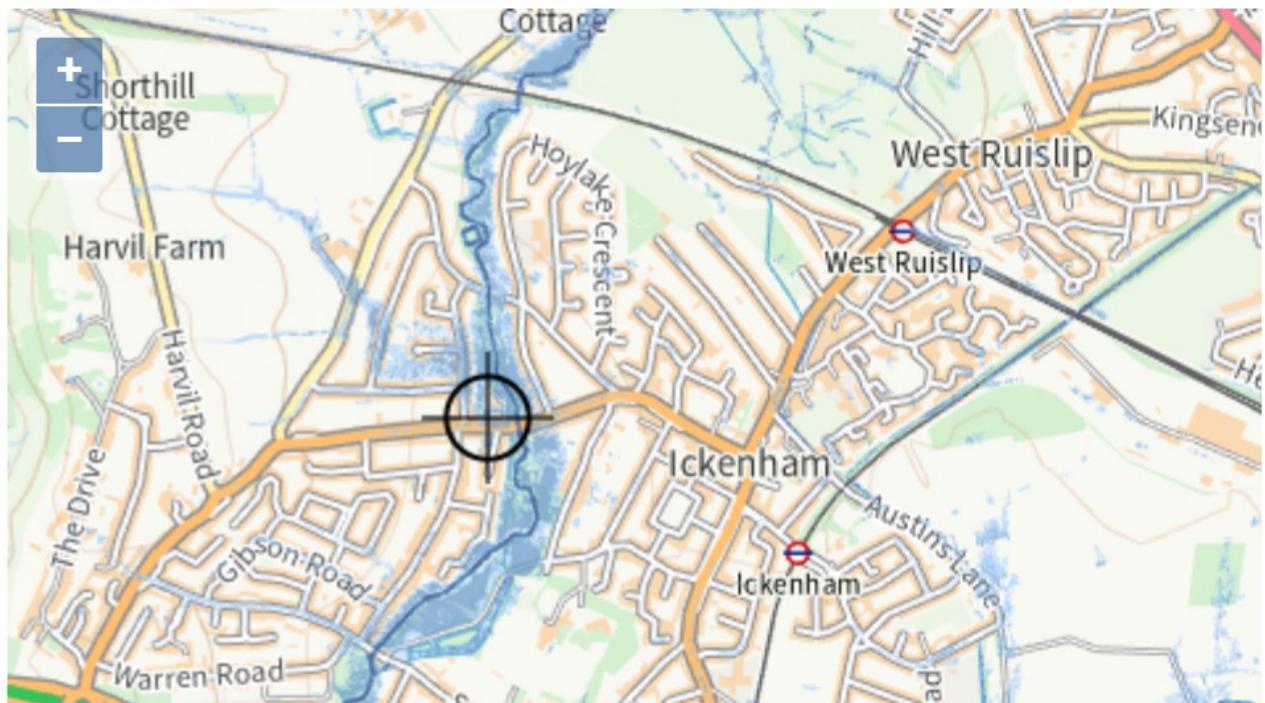
- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area



ENVIRONMENT AGENCY FLOOD MAPPING FOR SURFACE WATER

Flood risk

Medium risk: depth



Surface water flood risk: water depth in a medium risk scenario

Flood depth (millimetres)

● Over 900mm ● 300 to 900mm ● Below 300mm ● Location you selected

MEDIUM FLOOD RISK IS THE EQUIVALENT OF THE 1 IN 100 FLOOD RETURN.

FLOOD THREAT AT 300MM OR BELOW.

PROPOSED ERECTION OF A SINGLE STOREY REAR EXTENSION, FRONT PORCH AND CONVERSION OF SIDE GARAGE TO HABITABLE USE WITH A ROOF EXTENSION ABOVE TO FORM A MEZZANINE FLOOR.

FOOD RISK ASSESSMENT REPORT / DESK TOP STUDY.

This report is compiled to accompany a planning application. Detailed plans are provided to the planning department by the applicant.

It adheres to the criteria within the National Planning Policy Framework (NPPF) and its guidance notes as well as the Environment Agency (EA) Advice notes to local authorities.

The flood threat is from the River Pinn which runs to the East of the site. The site is also in an area subject to surface water flooding but this is considered to emanate from the River Pinn possibly overtopping rather than ground conditions.

Historically mapping shows that this area has flooded in the past from the Pinn but this information is not dated nor does it show the frequency of flooding. Information from the area SFRA states that the River Pinn has flooded 16 times in the past 70 years but this is of a general nature and not site specific to the site under assessment.

The River Pinn is prone to fast, flash flooding and numerous surface water outfalls drain directly into it, causing it to burst its banks in times of high rainfall.

There are now far reaching plans to improve flood defences to protect people and properties along the River Pinn as part of TS100 a massive project to monitor the Thames and its subsidiaries and where possible improve on the defences on a rolling programme into the next century.

Criteria

The NPPG definition of minor development is as follows :

Minor non residential extensions:: industrial/commercial/leisure etc. extensions with a footprint less than 250 m2.

Alterations:: development that does not increase the size of buildings e.g. alterations to the external appearance. householder development: For example; sheds, garages, games rooms etc. within the curtilage of the existing dwelling, in addition to physical extensions in the existing dwelling itself.

NPPF criteria states that minor development of this nature does not qualify for either the sequential or exception tests but that a flood risk assessment must be compiled.

According to the EA's advice the minimum requirements for an FRA that is submitted to the Local Planning Authority for Residential/Industrial/Commercial extensions less than

250m² within FloodZone 2 and 3 should confirm that:

Floor levels within the proposed development will be set no lower than existing levels.

AND

Flood proofing of the proposed development has been considered by the applicant and will be incorporated where appropriate.

OR

Floor levels within the extension will be set 300mm above the known or modelled 1%(1 in 100 chance each year) river flood level or 0.5% (1 in 200 chance each year) tidal and coastal flood level. This must be demonstrated by a plan to OS Datum/GPS showing finished floor levels relative to the known or modelled flood level. It is considered that the first option is applicable in this case.

These are minor works less than 250sq.metres and should be set at the same level as existing with a concrete base..

SURFACE WATER THREAT

As already stated in this report surface water does effect flows in the River Pinn and at times causes overtopping of the river in exceptional events. Storms during the sustainable life-time of the property under assessment could have the same effect unless measures are taken to prevent this.

GROUNDWATER

West of London flood mapping shows that this is below 25% the lowest category of threat.

SEWER INCIDENTS

West of London mapping shows there have been 1 and 20 such incidents in the general area , presumably over a ten years term. This is not considered significant in this case.

Reservoirs

There is a threat from reservoir flooding being borne on the River Pinn.

However the EA states this is hardly likely to happen due to the history of husbandry and inspections of reservoirs all over the country.

SUSTAINABLE DRAINAGE

West of London mapping shows there is permeability in the superficial surface and this should be sufficient for taking run off from the porch and the extension. The proposed conversion of the garage uses the existing ground floor slab so drainage from this is as existing. Any new pathways and access ways should be composed of permeable material to

affect on site attenuation.

The applicant will need to supply detailed drainage plans to the local authority. This is not within the remit of a FRA.

The local authority may also require ground tests to be carried out to check for permeability and groundwater levels under the site.

Flood Resilience Measures

It is recommended that the external doors of the extension should be made floodproof and that further flood resilience measures be taken.

- ◆ Both the inside and outside of the extension works and the garage conversion should be coated with flood resilient material to a height 400mm above the ground level.
- ◆ The electrical wiring should drop from the ceiling to sockets 400mm above ground floor level.
- ◆ All drainage and waste pipes would be fitted with 'non-return valves' to prevent the ingress of contaminated water back into the building.
- ◆ No metal piping should be used under the extensions to abort future corrosion.
- ◆ The mortar mix should include flood protective material including the foundations.
- ◆ The ground floors should be of concrete rather than wood.
- ◆ The electrics should be connected to the mains box so that this controls all electrics to the whole property.

Flood Evacuation

It is recommended the proposed development should be a subscriber to the EA Floodline initiative which gives a three phase warning system. 1. Be aware of a possible flood threat. 2. Prepare to evacuate. 3. Get out.

However in the FRAs we compile all over the country we make it clear that there is only one method of safe evacuation. That is to get out when the escape route is still dry.

The Floodline initiative may give occupants of the site a misconception as to how long they should stay on site before going. We consider that the sight of advancing floodwater can create panic particularly to the old, infirm and the disabled and children as well.

Better to go at the first warning when everything can be done in a controlled and orderly manner and in the dry. If the flood waters do not actually reach the site then nothing is lost.

But there is a big gain in terms of safety. It will also show the evacuation plan works and will give everybody concerned the confidence of knowing the site owners value their safety.

As part of the evacuation procedure a predetermined sanctuary in the dry should be decided upon and agreed with the local authority.

We have used this methodology on many occasions for FRAs throughout the country . We have had no objections from the local authorities involved in all the FRAs recommending this form of early evacuation.

OFFSITE IMPLICATIONS.

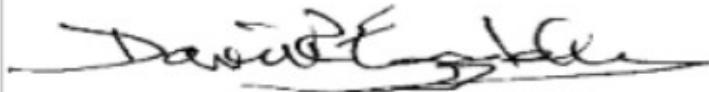
There will be none with the recommendations as made.

CONCLUSION

Recommendations made in this report ensure there will be no offsite implications and that the safety of people and property will be protected from any flood threat both now and in the future.

The report considers and uses criteria from the NPPF guidance notes and the EA Advisory Notes to local authorities. There are plans to improve flood protection and defences along the River Pinn so the long term would be improved by these works.

Signed



David Eggleton
Managing Director.