

London Borough of Richmond upon Thames,
Civic Centre,
44 York St,
Twickenham TW1 3BZ



June 2024

Dear Sir/ Madam

Stanza Design Ltd
Marvan Court
1 Waldegrave Road
Teddington
TW11 8LZ
Tel: 020 8994 0070

e-mail:
john@stanzadesign.co.uk

73 St Margarets Grove, Twickenham, TW1 1JF

Flood Risk Assessment

The site is within a Flood Zone 2 (see attached map) within an area that is at risk of flooding from the River Thames, but which benefits from significant flood defences. This area covers a large swathe of London with flood protection provided by the Thames Barrier and other flood defences along the riverbanks. The River Thames is not expected to overtop these flood defence mechanisms, even in an extreme 1 in 1000 year event.

There is therefore a very low probability of a flooding event occurring to the property from the River Thames.

The Environment Agency reservoir flooding maps show that the site is also potentially at risk of flooding from three reservoirs within the River Thames catchment. However, the site is a considerable distance from any of the reservoirs. The reservoirs are national critical infrastructure and are actively managed to meet a high level of safety standards. This includes an ISO 9000 accredited reservoir surveillance management process and regular inspections to the requirements of the Reservoirs Act 1975. For these reasons, the risk of failure of these reservoirs with consequent impact on the application property is minimal.

Flooding can also potentially arise from heavy rainfall when surface water cannot be absorbed into the ground or enter drainage systems, and when ordinary smaller watercourses and drains cannot hold the volume of water flowing through them. Heavy rain may not be able to drain away causing "flash flooding" and groundwater may rise above surface levels and overflow onto surrounding land. The Environment Agency's Flood Risk Map confirms that the property is a Surface water flooding is very low risk. Very low risk means that this area has a chance of flooding of less than 0.1% each year. See attached.

Flood Mitigation Measures:-

1. Components that capture rainwater and facilitate its use within the building or local environment. Components that facilitate the infiltration of water into the ground. These often include temporary storage zones to accommodate runoff volumes before slow release to the soil.

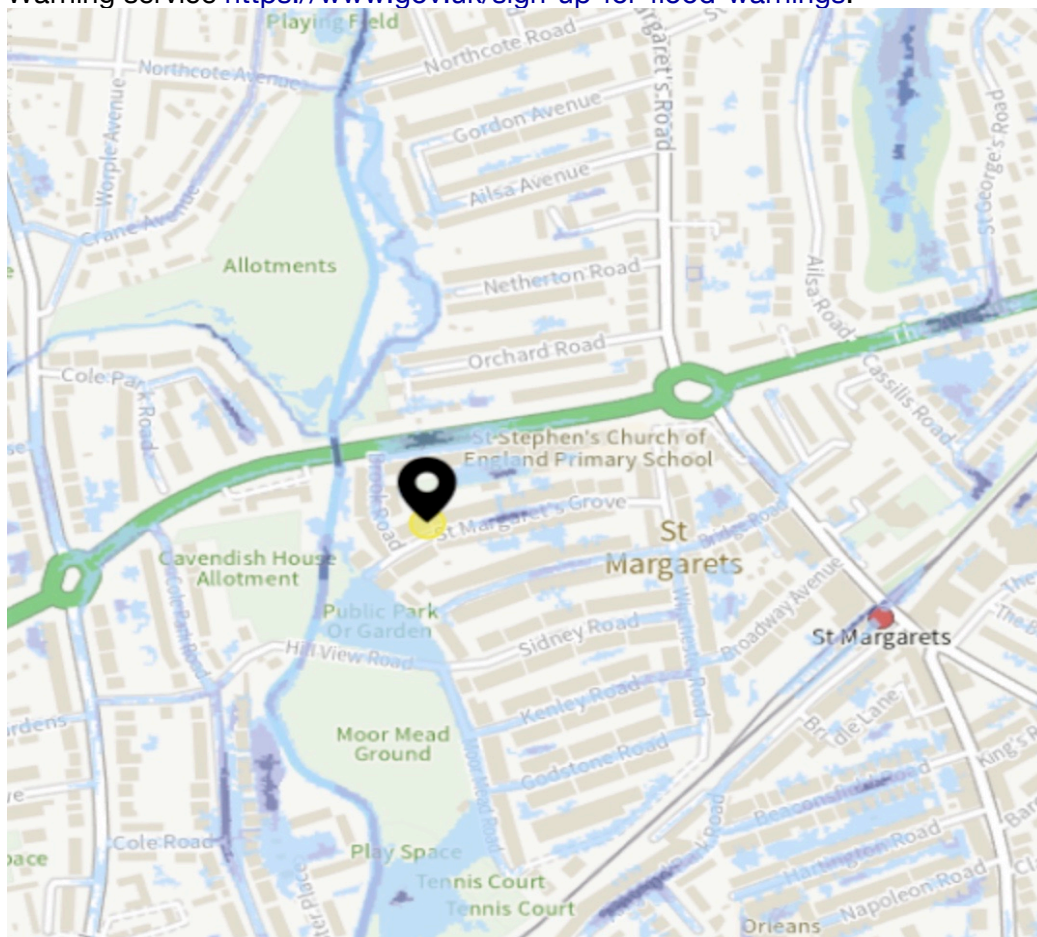
The garden is of sufficient size to facilitate a soak away for the rainwater from the rear of the house.

Other considerations not thought feasible in this instance

- Components that convey flows to downstream storage systems (e.g. swales, watercourses).
- Storage Systems Components that control the flows and, where possible, volumes of runoff being discharged from the site, by storing water and releasing it slowly (attenuation). These systems may also provide further treatment of the runoff (e.g. ponds, wetlands, and detention basins).

2. The ground floor level will be set no lower than the existing level.
3. The floor construction is solid in-situ concrete with hydrophilic infill strips (Dualite or similar) at the interfaces with the existing slab and flanking walls. These provide an effective barrier to flood water penetration. Beneath the slab is a compacted hardcore with a damp proof membrane to the underside of the slab to break capillary action and seepage from the ground below.
4. The external wall build-up from outside to inside is made up of:
 - London stock brickwork, providing a durable and weather-resistant shield against rain.
 - a 30mm cavity with water-resistant timber sections to promote the flow of air to prevent damp and to allow water to drain away from the internal face of the wall build-up.
 - a breather membrane to allow the wall to breathe and to avoid trapping the moisture within the wall, thus reducing the need for repair after the event of a flood.
 - a vapour barrier
 - horizontally-laid plasterboard
 - water-resistant paint finish.
5. There are no services laid in the floor itself.
6. All fixings, such as wall ties and screws, are to be stainless steel, to resist corrosion.
7. Electrical sockets are set out at 450mm above the finished floor level in compliance with Part M.
8. The gas boiler will be set at high level and would not be affected in the event of a flood.
9. Where possible in the scope of works, non-return valves will be installed into the system to prevent the back-flow into the property.

The occupants will also be encouraged to subscribe to the Environment Agency's Flood Warning service <https://www.gov.uk/sign-up-for-flood-warnings>.



Environmental Agency surface water flooding risk map

73, ST. MARGARETS GROVE, TWICKENHAM, TW1 1JF**Rivers and sea risk****Low risk**

Low risk means that this area has a chance of flooding of between 0.1% and 1% each year.

Surface water risk**Very low risk**

Very low risk means that this area has a chance of flooding of less than 0.1% each year.

Lead local flood authorities (LLFA) manage the risk from surface water flooding and may hold more detailed information. Your LLFA is **Richmond upon Thames**.

Reservoir risk

There is a risk of flooding from reservoirs in this area, reservoirs that can affect this area are:

- Brent (aka Welsh Harp Reservoir)
 - King George VI
 - Queen Elizabeth II
 - Queen Mary
 - Queen Mother
 - Staines North
 - Staines South
 - Walton - Bessborough
 - Walton - Knight
 - Wraysbury
-

Groundwater risk

Flooding from groundwater is unlikely in this area

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
516414/174359

Created
27 Jun 2024 11:29

Your selected location is in flood zone 2, an area with a medium probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. <https://flood-map-for-planning.service.gov.uk/os-terms>


Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
516414/174359

Scale
1:2500

Created
27 Jun 2024 11:29

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area

