Householders' Guide to flood protection

RBKC Householder
Greening Guides

THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

Contents

1 Introduction

Introduction

This guide will provide an overview of the different options you have to increase your property's resilience to flood risk, and the permissions you may require. The guide is intended to help you make informed decisions, whether you are a leaseholder or freeholder, live in a conservation area or your building is listed.

Although the focus of this guide is on flood risk, it is important to keep in mind that the measures can be considered alongside other greening interventions.

You can find more advice and information in our **Householder guide to the Greening SPD.**

This guide predominantly focuses on planning permission and listed building consent. If you are a leaseholder of your property, you may need to ask permission from your freeholder too. Always check your lease agreement before starting work on your home.

Why should I do it?

Flood water entering your property can have a devastating impact. It can take just minutes to come in with very little warning, but take months to clean up and repair. Fixtures, fittings and possessions can quickly become damaged or destroyed.

In the Borough, the most significant flood risk to properties is as a result of heavy rainfall causing flash flooding as the sewers and drains become overwhelmed.

It is estimated that 20,000 properties in the Borough are at risk of flash flooding.

Current predictions are for flash flooding in London to be more frequent and more extreme because of climate change.

There is also a risk of tidal flooding to some properties in the south of the Borough from the River Thames in the event of a breach of the flood walls. Some properties with lower ground floors or basements may also be at risk of groundwater flooding.

Flood water could enter your property through:

- Your connection to the sewer such as toilets, sinks, showers or internal drains.
- Openings in your external walls such as doors, windows, air bricks or unfilled holes.
- Through walls at or below the ground surface or up through floors.

Many buildings in the Borough include lower ground floors or basements that are either subdivided into self-contained properties or are integral to the overall property. For more information on the risk of flooding in the Borough, see our **interactive StoryMap.**

There can be heritage impacts of serious or frequent flooding, where the fabric of the building can become damaged by flood water or persistent damp.

Flood resistance verses Flood resilience

There are two main categories of flood protection, Flood Resistance and Flood Resilience.

- **Flood Resistance** deals with preventing flood water from entering a property.
- **Flood Resilience** is related to measures that reduces the impact of flooding should flood water enter, as well as steps to increase resident's awareness and knowledge of flood risks.

Figure 1: Photographs of flood impact from August 1960 (top: courtesy of the RBKC Local Studies Centre) and July 2021 (centre and bottom: courtesy of local residents)

2

What permissions do I need?

Check if you need planning permission

You do not need planning permission for:

- 'Like for like' door replacement
- Internal drainage works
- Repairs and maintenance
- Installation of moveable water butts or rainwater planters
- Removal of impermeable surface

Replacing with similar doors

The external door opening through which flood water may enter in the Borough is generally in the lower ground floor and not the principal entrance door. It is therefore generally less likely for there to be as significant visual impact should replacement doors be required.

'Like for Like' door replacements

Replacing doors 'like for like', i.e. **with doors of the same material, style and pattern,** does not need planning permission regardless of if you live in a flat, house or your home is in a conservation area.

Examples may include the replacement of a plain timber door with a plain timber flood door or an existing uPVC door with a uPVC flood door.

'Similar' door replacements

The availability of flood doors can be more limited in style and material than traditional doors. Similar doors are those that are of the same material, style, pattern and design with minimal differences in panel configuration, glazing and door furniture.

For the avoidance of doubt, the Council considers that there is a stark difference in materials such as replacing timber doors with uPVC and this is not considered to be of similar appearance.

Planning permission is not required if the property is a house, including in a conservation area. However, flats require planning permission. More details are set out below.

Replacing with similar doors

Whether or not you need planning permission to replace doors where they will be similar but not 'like for like' depends on:

1. Type of property

If you live in a flat –You will require planning permission to change your door (including if you live in a converted flat.)

If you live in a house – Most houses if they are not listed, do not need planning permission to replace existing doors with similar doors. This is because planning legislation has granted permitted development rights for houses.

If you are making more significant changes, you will need planning permission.

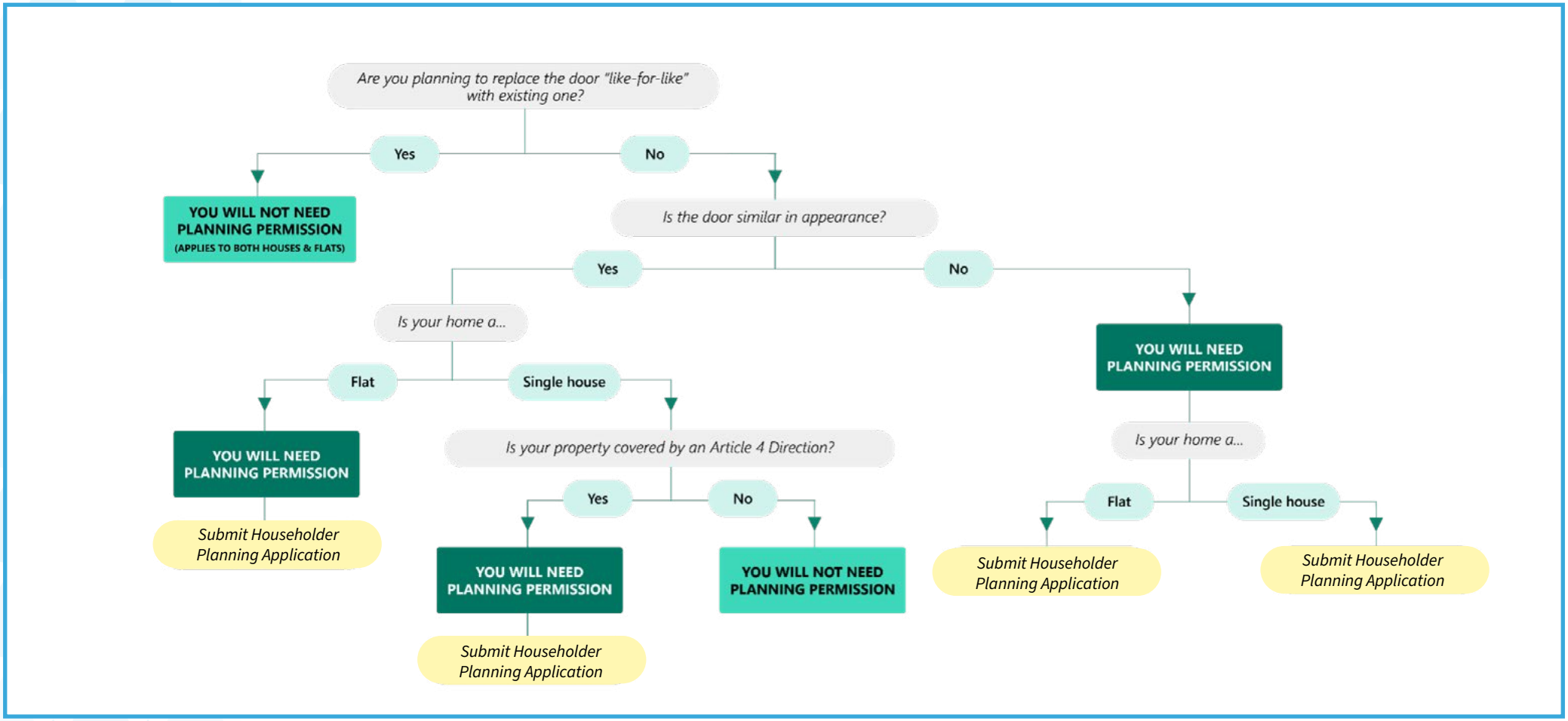
2. Conservation areas and listed buildings

Some properties in Conservation Areas need planning permission as they are covered by a special direction introduced locally (called an Article 4 Direction) removing permitted development rights. Please use our **interactive map** to see if this applies to your property. When you open the map, on the left-hand menu expand to see (all) "Planning Layers" and tick the box next to "Article 4 Directions".

If your property is listed, please see the next section as different rules apply. You may need to get Listed Building Consent as well as planning permission.

Do I need planning permission?

Figure 2: Decision tree illustrating when planning permission will be required for replacing domestic doors.



Installing flood barriers, walls or gates

Flood barriers generally include brackets that are permanently installed to the fabric of the building at the openings. Planks or barriers are then inserted into the brackets and left permanently or temporarily.

Threshold walls around lightwells or at property boundaries can provide significant protection to prevent shallow external flood water from reaching building openings.

Flood gates can be inserted into a suitably structurally sound and watertight wall to prevent flood water getting to the building itself.

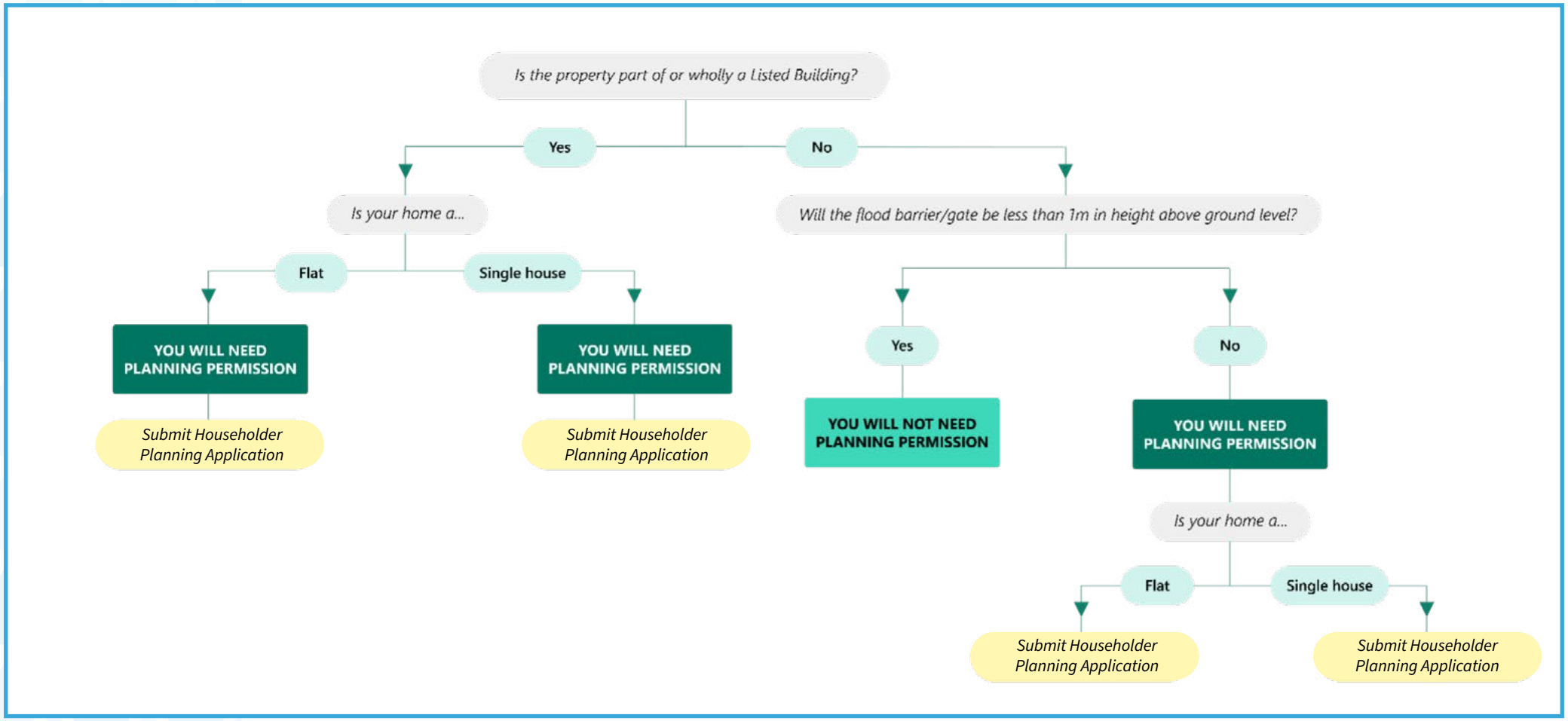
The Council takes the view that **flood barriers, walls or gates are classed as a means of enclosure which do not require planning permission as long as:**

- the building is not listed, and,
- the height of the barrier/gate is less than 1m above ground level.

An application for a **Lawful Development Certificate** could be made to confirm that planning permission is not required for a flood barrier or gate.

Planning permission would be required for flood barriers on listed buildings, alongside an application for Listed building Consent.

Figure 3: Decision tree illustrating when planning permission will be required for flood barriers and gates.



Replacing or creating external paving

The Council supports the removal of existing hardstanding wherever possible to reduce the speed at which rainfall enters the sewer network. There are restrictions on the size and materials that you can use to replace or install hardstanding within external areas around your property.

You can add or replace hard surfacing within the curtilage of a house (not a flat) without the need for planning permission, but there are restrictions.[1]

Some properties have **Article 4** directions in place that specifically limit the ability of those properties to create hardstanding, particularly at the front of the property adjacent to the highway.

Paving your front garden

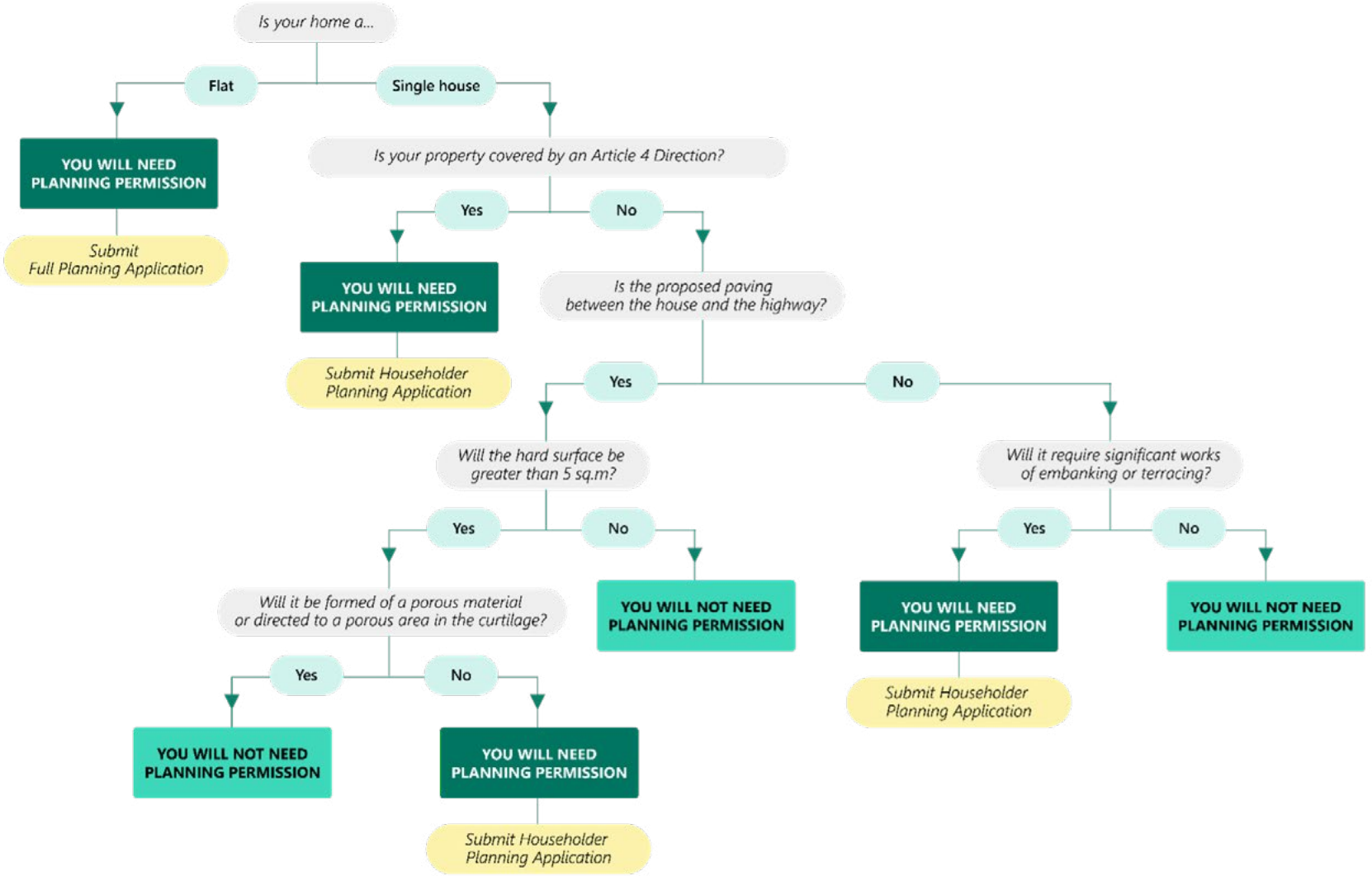
It is better to have natural planting in your front garden as it reduces the flow of water, is good for biodiversity and adds charm to a property. If you do wish to pave your front garden you do not need planning permission to:

- Hard pave it as long as the material you are using is porous, **or** provision is made to **direct run-off water** from the hard surface **to a permeable or porous area** or surface within the boundary of your property.

You cannot pave your front garden with impermeable hard paving if the area being paved is more than 5 square metres.

1 Planning permission - Paving your front garden - Planning Portal

Figure 4: Decision tree illustrating when planning permission will be required for external paving.



Check if you need listed building consent

Any works that may affect the architectural or historic interest of a listed building needs Listed Building Consent. The Council will balance the historic interest of the Listed Building against the potential impact that flooding can have on the fabric of the building and its historic contents. Historic England has **produced guidance on how flood protection should be taken into account for Listed Buildings.**

Where listed buildings are concerned, it is always best to check with the Council as it is a criminal offence to carry out works in a listed building where listed building consent is required and serious penalties may apply.

Check if your building is listed and what level of importance it has (Grade I, Grade II* or Grade II) by using our **interactive map.**[2]

All Grades - You do not need Listed Building Consent for

- sewer flooding protection within existing drains outside main body of the building
- repairs to the roof or guttering with the same materials
- moveable planters and water butts (where modifications to downpipes are not required)
- removal of artificial grass or non-original hardstanding in front or rear garden

Grade I and II* - You need Listed Building Consent for

- Replacement doors
- Installation of flood barriers
- Replacement or additional downpipes

2 Search for your address on the map, then click on "Expand to see (all) Planning Layers" and tick the box next to the "Listed Buildings" layer.

I wish to get confirmation that I do not need planning permission or other consent

You can apply for a **Certificate of Lawful Proposed Development** to show that the changes to your doors do not require planning permission. This might be useful for example when you decide to sell your property and the purchasers ask for proof that the changes you have made did not need a planning permission.

For a listed building you can apply for a **Certificate of Lawful Proposed works to a Listed Building,** but in this case the certificate has to be applied for, and granted, before the works take place.

Do I need building regulations approval?

If you are considering flood protection works after experiencing flooding, please **see this guide** from LABC regarding the works that do or not required Building Regulations approval. In addition, there is additional **guidance for property owners following flooding.**

Replacing External Doors

Replacement front doors for houses/flats that open onto the street will not be considered a material alteration unless they directly open onto a means of escape (escape route for others).

For more details, **please read this very useful guide** that has been jointly produced by the Government and the Competent Person Register. It provides building control information for anyone looking to start building works or major repairs to their home including replacing doors.

You do not need building regulations approval if:

The installation of a new door is carried out by an installer registered with a 'Competent Person' Scheme'. These installers can self-certify that the installation meets building regulations and issue a "certificate of compliance".

You will need building regulations approval if:

- The installer is not on the competent person register. This includes if you install the door yourself; or,
- If the door opening is new or enlarged.

Self-certification

For more details, please read **this very useful guide** that has been jointly produced by the Government and the Competent Person Register.[3] It provides information on work that can be self-certified under the Competent Person Scheme.

Replacing or Creating Hard Standing

Replacing or creating new hardstanding in isolation is unlikely to need separate Building Control approval, however, drainage of paved surfaces should be implemented in line with **Building Regulations Part H** if part of wider notifiable works.

Underground Drainage

Changes to underground drainage in a property may require Building Regulation approval and works should be undertaken in line with **Building Regulations Part H.** Particularly, there is support for the installation of sewer flooding protection in properties where there is a high risk of sewer flooding and properties have toilets or drainage below ground level.

What must I do if I am a leaseholder?

Get permission from your freeholder

If you live in a flat you are probably a leaseholder and may have a share of the freehold. You may get planning permission or listed building consent from us, but in this case you will also need to get permission from your freeholder before you can undertake any works. This is completely separate and additional to any of the planning processes described above and is a private matter between you and the freeholder.

3 The Government's 'competent person scheme' enables installers who have joined the scheme to self-certify certain types of building work including doors. This is instead of getting building regulations approval.

3 Possible interventions?

Common Building Types In The Borough

Townhouse with basement/lower ground

- Potential for flooding in areas of the property below ground level through connection to sewer network.
- Lightwells can create a route for flood water to enter the property.
- Can include self-contained flats in the lower ground or basement.

Mews property

- Mews streets are often lower than adjacent streets.
- Doors are often flush with the adjacent road with no external permeable or green space.
- There is often limited external space for mitigation measures.
- Many mews properties have an existing garage door that may no longer be functional but may create an entry for floodwater.
- Few mews properties have lower ground floors or basements.

Mansion block

- There are more likely to be self-contained flats in the lower ground of mansion blocks than other building types.
- Mansion blocks may have fewer connections into the sewer network.
- Vehicular access to car parking below ground level may cause a route of ingress into the building.

What intervention will be best for me?

It is important to note that individual interventions in isolation may not be sufficient to improve the resilience of a property to flooding. A holistic approach needs to be taken to ensure that the right interventions are taken together.

Not every property will need flood protection so it's advisable to get professional advice through a flood survey. This will identify the possible routes of entry for water into the property and review these against the hazards posed by a range of flood sources. Flooding can originate not just from the highway or sewer network but could also flow overland through communal gardens or open space.

There is further information about the whole process available in **The Homeowners Guide to Property Flood Resilience (thefloodhub.co.uk)**

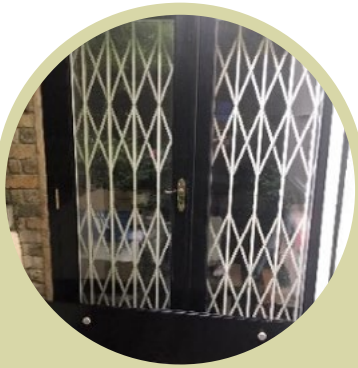
Flood preparedness

Before considering physical interventions to properties, there are steps that can be taken by residents to improve their resilience to future flooding. These can be free or cost very little money but may increase the overall preparedness to flooding.

- Check the risk of flooding to the property - **Check the long term flood risk for an area in England (www.gov.uk)**
- Register for weather and flood alerts - **UK weather warnings - Met Office**
- Prepare an emergency grab bag - **What you can do to prepare for an emergency | Royal Borough of Kensington and Chelsea (rbkc.gov.uk)**
- Check household insurance covers flooding – **Flood Insurance Directory- BIBA.**
- Register for Priority Services from utility providers - **Disruption to services | Royal Borough of Kensington and Chelsea (rbkc.gov.uk)**.
- Develop a property flood plan – **Household Flood Plan Template-BeFloodReady.**
- Store important documents and valuables off the floor in lower ground floor or basement areas.

It is important to consider the risk of flooding from multiple sources, including sewers, surface water, groundwater, and the River Thames. If you have been affected by flooding in the past, please report previous flooding to the Council or Thames Water if you have not already done so as it is important for authorities to understand the true impact of past flooding.

Possible interventions at a glance

	 Flood doors	 Flood barriers, walls and gates	 Sewer flooding protection	 Rainfall management	 Maintenance and repairs
Advantages	Passive protection provided whenever door is shut and locked.	Provide good protection for an affordable price. Does not require replacement to door.	Cheap to implement some protection. Can reduce impact of flooding in some circumstances.	Can be used to store water and increase biodiversity. Some measures can help store water originating elsewhere (i.e. permeable paving).	Routine maintenance can cost very little to implement. Functioning drains may reduce the duration of flooding.
Disadvantages	Can be costly to install. Cannot be opened during flood without letting water in unless stable door or emergency hatch installed.	Need to be manually activated if they cannot be permanently left in place. Sufficient warning may not be available for those that require manual activation.	Cheaper devices may be prone to failure (blockage or being stuck open). Pumps can be costly.	Sufficient space and accessible downpipes may not be available.	May not result in a reduction in flood risk should flooding originate from the sewer network.
Watch points	Door should be of similar appearance and material to existing door. Can function up to a set depth of flooding (normally 600mm)	Can conflict with outward opening doors.	Could leave the property at risk of self-flooding from water generated on site (e.g. flushing toilets and rainwater pipes) while activated.	Can be implemented incrementally when opportunities arise (i.e. during building work)	Responsibility for roof and gutter maintenance may fall with others (e.g. freeholder). Working at height may be involved.
Effectiveness	Properly installed flood doors that are kitemarked can be highly effective.	Very effective for shallow depths if in place during flooding.	Can provide high effectiveness from sewer flooding.	Will help with potential self-flooding issues.	Keeping drains clear can make a significant difference to local issues but won't prevent flooding from water originating from elsewhere .

Maintenance and Repairs

Keeping up with routine maintenance at a property can be challenging and a financial burden, but the impacts of not doing so can be greater when extreme weather occurs.

Blocked gutters, private drains or damaged roofs can lead to water entering a property.

It is recommended that the following actions are taken annually, preferably in the spring before heavy summer rainfall which is the most significant flood risk in Kensington and Chelsea. Inspections and repairs can be carried out by a contractor or by the homeowner where it is safe to do so..

- Visual check of the condition of all roof areas where possible. Where not accessible, look for signs of water ingress internally such as wall staining, mould or damp. Should any issues be identified, arrange for repairs to be carried out as soon as possible.
- Where access allows, check and clear any gutters of debris, silt and moss.
- Check that any external drains or grills are clear of vegetation and debris. Test the flow by pouring water down and making sure it drains away effectively.
- Where there may be persistent damp or water ingress below ground, there may be issues with tanking or waterproofing. This should be looked at by a specialist.

Issues to consider:

» Roof areas that are adjacent to large trees may be more susceptible to the build up of debris in gutters and should be checked more regularly.

» Safety should be considered before working at height.

» When any electrical work or refurbishment is carried out, consider flood resilient materials (concrete/ vinyl flooring) and raising electrical sockets above 500mm where there is a risk of flooding.

» Larger gutters and additional downpipes may be required to cope with increased rainfall intensity. Cast iron or metal should be used for new/replacement guttering or downpipes on heritage buildings.

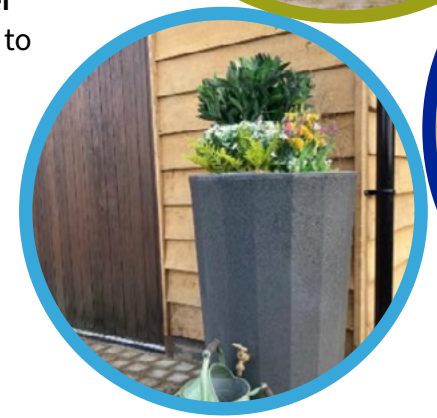
Managing Rainfall

There are steps that residents can take to manage rainfall on their property in a more sustainable way.

Not only can this reduce the potential impact of flooding from some sources to the property but will also help to reduce the overall risk of flooding in the Borough.

Types of measures include:

- **Install a water butt** to any accessible downpipe to store water for later use. This will not only reduce the amount of water entering the sewer but will also provide an ongoing source of water for irrigation during the summer.
- **Install a rainwater planter** connected to a downpipe to intercept water for use by the plants. This can have an overflow back into the drainage network to avoid waterlogging, and some also include rainwater harvesting.
- **Replace any existing paved areas** with grass, planting bed or permeable paving where possible, particularly if other building works or landscaping are being carried out.
- **Install a green roof** onto any flat or gently sloping roofs, including external bin stores, outbuildings or extension.



Issues to consider:

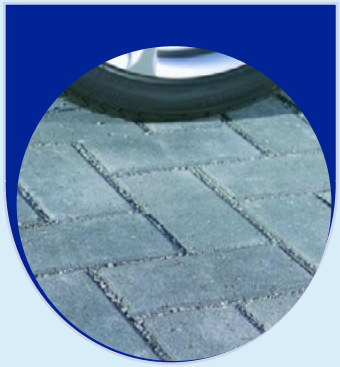
» You will need to install Sustainable Drainage Systems (SuDS) as part of many building work projects that include extensions, basements or outbuildings. Preference is given to greener interventions and more guidance is available at **Sustainable Drainage Systems | Royal Borough of Kensington and Chelsea (rbkc.gov.uk).**

» As a preference, water should be directed to the ground rather than the sewer network where the geology is favourable and there is sufficient space from other buildings or structures.

» While standalone pots and planters will increase greening, think of ways that they can be linked to rainwater downpipes using cheap diverter kits. This will not only reduce the amount of water entering the sewer, but will provide water for the plants whenever it rains.

Surface Cover Hierarchy

Worse for flooding → **Better for flooding**

Grouted paving slabs/ tarmac	Permeable block paving or paving slabs with permeable joints	Resin bound gravel/ Permeable tarmac	Unbound Gravel	Natural Grass	Vegetated planting beds
					

Sewer Flooding Protection

Sewer flooding is particularly an issue in Kensington and Chelsea where there are many properties that have areas below ground level.

The capacity of the combined sewer network is insufficient in some places for extreme rainfall and properties are therefore vulnerable to surcharging sewers causing flooding.

Thames Water has already installed over 1,000 interventions to properties to reduce the impact of sewer flooding and residents may be benefitting from these measures. For more information about sewer flooding, visit the **Thames Water website.**

There is a range of measures that can be used to protect properties from sewer flooding or reduce the impact to properties should sewer flooding occur.

- A simple measure such as a **toilet bung** can be stored in a property and used in the event of potential sewer flooding.
- A private **Non-Return Valve (NRV)** can be installed on the private drainage network, either where the drainage network enters the property or alternatively on an individual drainage run. An NRV allows water to only drain in one direction and can prevent water in the main sewer from entering the property.
- An NRV can also be installed within the sewer network by Thames Water. These are more significant than domestic devices and can either be installed where the property connects to the sewer network, or within the sewer itself (sometimes referred to as a flap valve).
- A **FLIP pump** (named after the Flood Improvement Programme) can be installed either privately or by Thames Water. FLIPs (or equivalent) combine an NRV with a pump to ensure that the property is protected from self-flooding. A property that has a FLIP installed will normally have a cabinet in the front lightwell with a red light on top.

Issues to consider

» **Self flooding –** where a non-return valve is fitted, there is the potential for the valve to be closed but for more water being generated within the property through toilet flushing, showers or rain falling on the property. The property can therefore flood where this water cannot leave.

» **Approvals –** any works to public sewers requires prior permission from Thames Water – for more information see the Thames Water website on **Home improvements.**

Flood Barriers, Walls and Gates

Flood barriers can be installed to door or window openings and often involve a bracket attached to the wall into which the whole barrier or panels can be fitted.

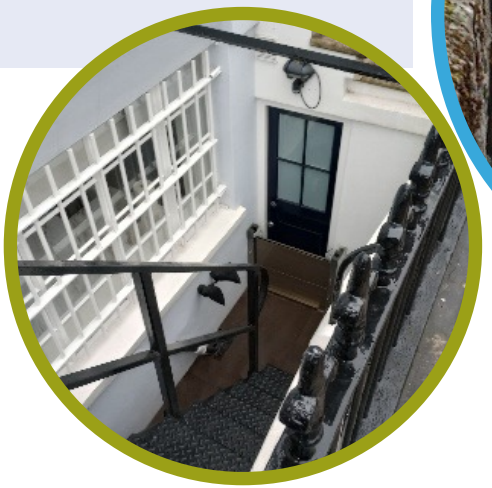
Flood barriers can be left in place for doors that are infrequently accessed, or alternatively put in place in advance of anticipated flooding.

Walls can be added or increased in height at the threshold of the property or at the threshold of lightwells to reduce the likelihood of water reaching openings to the building. In some cases, a small increase in lightwell threshold could prevent the lower ground floor or basement becoming flooded.

Flood gates can also be installed in property boundary walls where there is the risk of flood water externally from surrounding ground. It is important to ensure that the walls into which flood gates are installed have sufficient structural stability to withstand the predicted depth of water.

Issues to consider

- **Access/egress -** The direction that the door opens is an important consideration to ensure that safe access is retained should the barriers be in place.
- **Heritage –** Flood barriers and gates will require the installation of brackets onto the fabric of the building and may therefore require Listed Building consent. In addition, the visual impact of the barrier/gate should be considered in Conservation Areas. Barriers that are a similar colour to existing doors, set in the door recess and made of complimentary materials should be prioritised.



Flood Doors

Doors are one of the primary routes for flood water on the outside of a property to get inside.

Just a couple of centimetres of water on the outside could get into a property through door openings. For properties with a high risk of surface water flooding, replacement flood doors could result in water remaining outside.

In Kensington and Chelsea, door openings that are a potential route for flood water could include doors in lightwells for lower ground and basement flats, front doors at pavement level for mews properties or those with no lower ground or basement, or rear patio doors for those with access to external areas.

Flood doors come in a range of materials, colours and styles and there is generally a great deal of flexibility. The cheapest doors are generally uPVC, but composite and timber flood doors are available on the market. Flood doors have a special locking mechanism that provides a more effective seal along the bottom and lower half of the side of the doors.

Issues to consider

- **Certification -** Ensure that selected products are certified to British Standard 851188.
- **Heritage –** the choice of door material and style may need to reflect the specific circumstances of the property and context. The location of the door in the property may also influence any restrictions there may be. **Timber flood doors** are available from several suppliers and would be preferred in almost all circumstances.
- **Emergency access –** flood doors that are locked and actively retaining water cannot be opened without allowing flood water to enter. The safety of occupants to be able to evacuate where required through other routes should be considered. Some flood doors can be fitted with emergency access through a window or opening, or could be fitted as stable doors that can retain water at the base but allow access through the top half.
- **Accessibility –** the needs of the occupant to enter the property through a wheelchair may affect the choices in flood door. **Special low threshold flood doors** are available for those with physical disabilities.

4

How to make an application?

Identify the relevant planning application type

You are advised to submit planning applications electronically, using **the Council's Planning Portal**. The planning application form you will need to submit might vary. The type of planning permission you need is explained in Section 2 and in particular Figures 4 and 5.

Planning application timescales

Normal application route

Planning applications and Listed Building Consent normally take 8 weeks to determine from the point the application is validated (when we officially register an application on receipt of all necessary documents) to issuing of the decision.

Fast Track Service

The **Fast Track Application Service** is an optional service that speeds up the administration and review of certain types of applications. This includes householder planning applications. These are:

- Usually determined within 28 days following receipt of the application and fast-track fee.
- Lawful Development Certificate applications within 10 working days following receipt of the application and fast-track fee.
- Fees for both is currently £800 (incl. VAT)

Planning Advice Service

If you want to get formal advice on your proposals before submitting a planning application or Listed Building Consent, we also offer a paid for **planning advice service**. Using this service will provide help and guidance for the more complex cases resulting in a positive outcome when you do make an application.

Your planning application checklist

Completed application form

See Section 2 for the type of planning application form you need and if your building is listed and you need Listed Building Consent.

All forms can be accessed on our **"How to make a planning application"** page.

Site location plan

Map at a scale of 1:1250 or 1:2500.

Application site must be edged with a red line & include all land required for the proposed development. You can read this **national guide on how to prepare a site location plan** and you can **buy a plan online**.

Site plan

At a scale of either 1:200 or 1:500. You can read this national guide on how to prepare a site plan and you can buy a plan online.

Existing and proposed elevations drawings

Drawings at a scale of 1:50 or 1:100 (1:50 preferable), illustrating all relevant external parts. Show existing and proposed elevations beside each other.

All plans should include the paper size, scale bar, key dimensions and must show the direction of north.

Design and Access Statement – Only for Listed Building Consent applications Required for:

- Listed building consent applications.

Further information regarding what Design and Access Statement is expected to cover, can be found in **Note 6 of the Local Validation List** (page 23).

Your planning application checklist (continued)

Heritage Statement – Only for applications located within a Conservation Area or in a Listed Building

Required for:

- Listed building consent applications.
- Applications for substantial or total loss of a building in a conservation area.
- Applications for works affecting the setting of a listed building or conservation area.

Further information regarding what Heritage statement is expected to cover, can be found in **Note 22 of the Local Validation List** (page 36).

Appropriate Fee

When submitting an application via the Planning Portal you will be able to make an online payment through their system.

A Guide to the Fees for Planning Applications in England

5

Where can I find out more information?

Grant funding available

Many residents have installed flood protection measures themselves.

- You may be eligible for the government's **Build Back Better** scheme through your insurer if you have been flooded in the past **(see https://www.floodre.co.uk/buildbackbetter)**.
- The Council may also have grant funding from the **Environment Agency** available (contact **planningpolicy@rbkc.gov.uk** for more information).
- **For Housing Association residents**, it is recommended that residents contact their registered provider for any details on flood protection measures, particularly for those properties that have been affected by flooding in the past.

Other useful resources

RBKC— information about flood risk management in Kensington and Chelsea **(https://www.rbkc.gov.uk/flooding)**

National Flood Forum—Charity providing advice to those at risk of or affected by flooding **(https://www.nationalfloodforum.org.uk)**

Flood Re—Information about the government's flood reinsurance scheme **(https://www.floodre.co.uk)**

Historic England—Guidance regarding flooding in historic buildings **(https://www.historicengland.org.uk/advice/technical-advice/flooding-and-historic-buildings/)**

Greater London Authority—information about flash flooding across London **(https://www.london.gov.uk/programmes-strategies/environment-and-climate-change/climate-change/climate-adaptation/flooding/flash-flooding)**

Blue Pages—Directory of flood products and specialist providers **(https://www.bluepages.org.uk)**