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Flood Risk Assessment – December 2024

In relation to: Rear ground floor side return extension and small rear first floor infill.

10 Windsor Rd, Kew, Richmond, TW9 2EL

Site and Surroundings:

10 Windsor Road is an end-of-terrace, two-storey, three-bedroom property that has always served as a C3 Dwellinghouse, with no changes to its use since its construction. The property forms part of a short terrace of four houses that contributes to the cohesive character of Windsor Road. While not located within a conservation area, the nearest one, the Kew Gardens Conservation Area, begins at the parade of shops on Sandycombe Road where Windsor Road intersects it.

The house is built from London yellow stock brick, a material commonly used along Windsor Road and the surrounding streets, reinforcing the area's visual consistency. Key architectural features of the property include a rectangular bay window at the ground floor, fitted with white-painted, timber-framed sash windows typical of the building's period. The roof is pitched, in line with the design of neighboring properties.

Despite being part of a short terrace, the street as a whole maintains a uniform appearance, with houses of a similar size, scale, and design contributing to its visual harmony. Each property, including No. 10, has a small front garden. The boundaries of these gardens vary, with low walls, fences, and hedges introducing subtle individuality while retaining the overall consistency of the streetscape.

Due to the modest size of the properties, there has been considerable rear development along Windsor Road to accommodate additional living space. The most common forms of extension include ground-floor side-return extensions, similar to the proposal for 10 Windsor Road, as well as rear loft extensions. These developments are generally high quality, thoughtfully designed to integrate with the original architecture, and do not detract from the uniformity or character of the street.

Windsor Road remains a predominantly residential area with a charming and cohesive character. The balance of preserving original architectural appeal while accommodating modern living needs is evident, and 10 Windsor Road fits seamlessly into this established context.

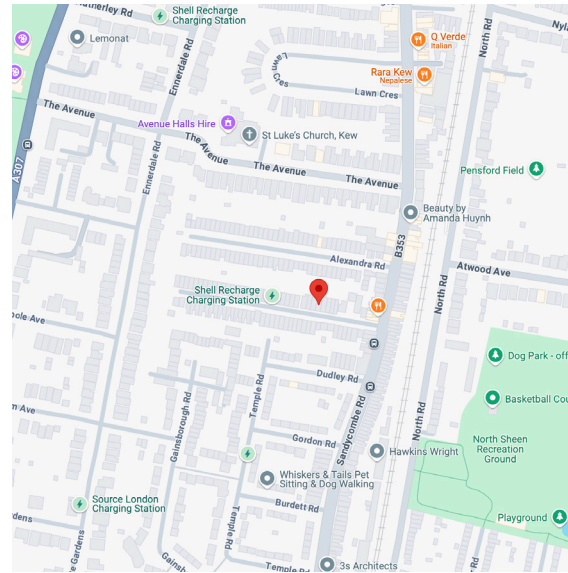


Fig. 1. Map view of local area.

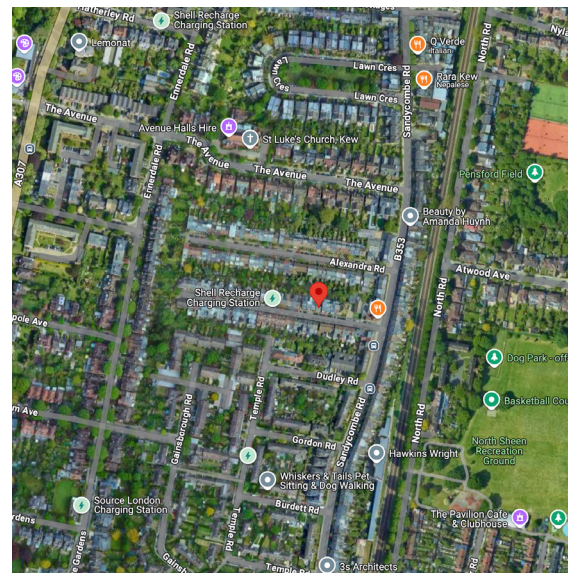


Fig. 2. Satellite view of local area.

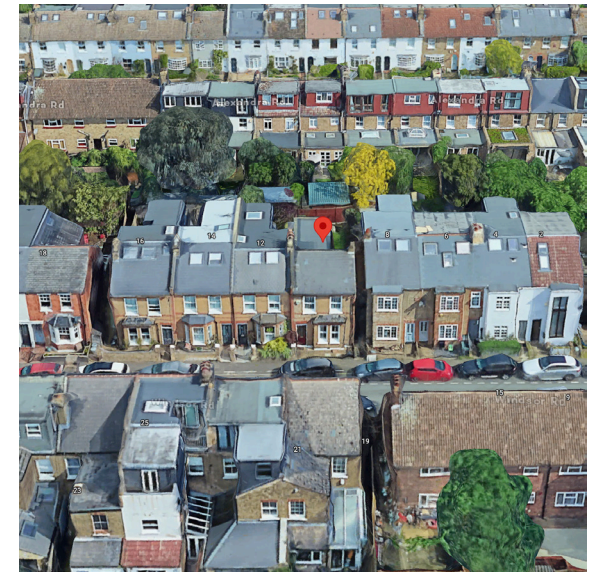


Fig. 3. Google Maps 3D view of front elevation.

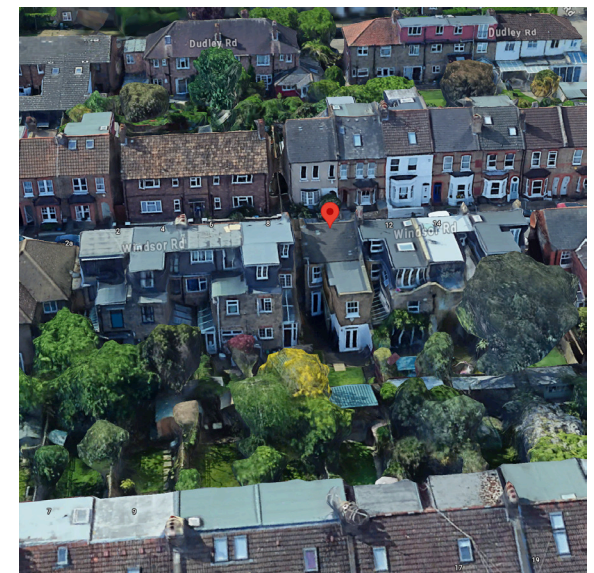


Fig. 4. Google Maps 3D view of rear elevation.

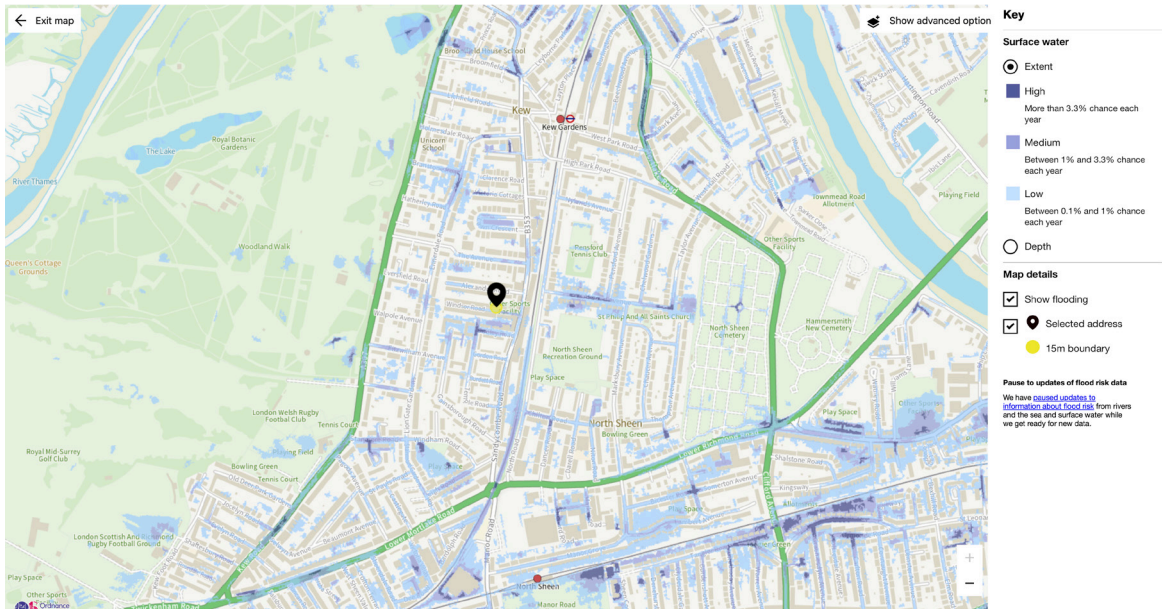


Fig. 5. Surface water flood risk map.

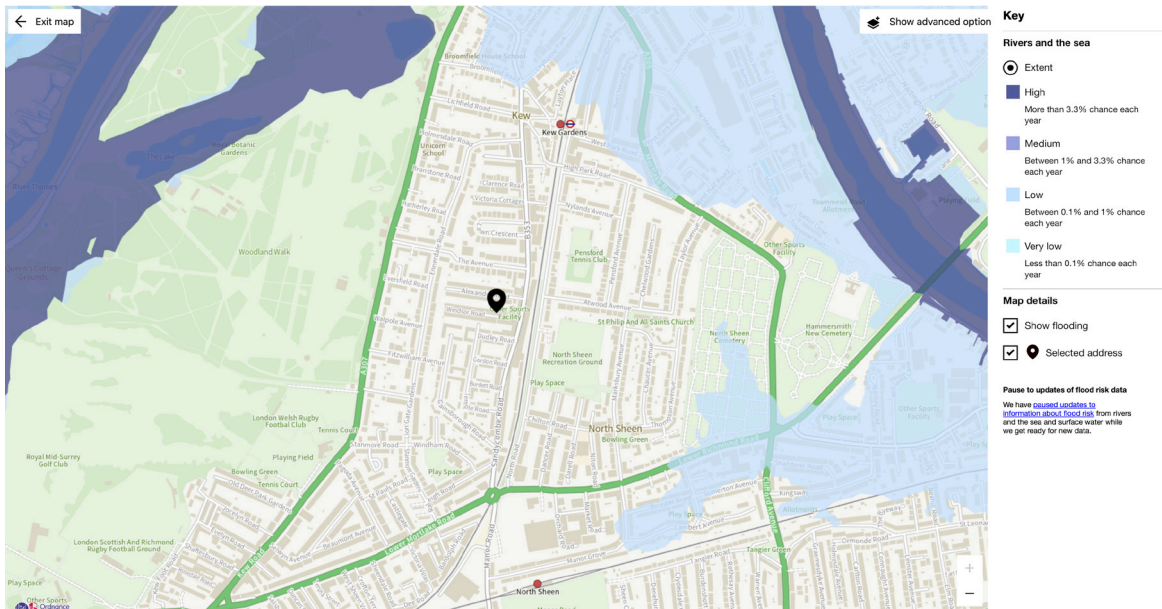


Fig. 6. Rivers and the sea flood risk map.

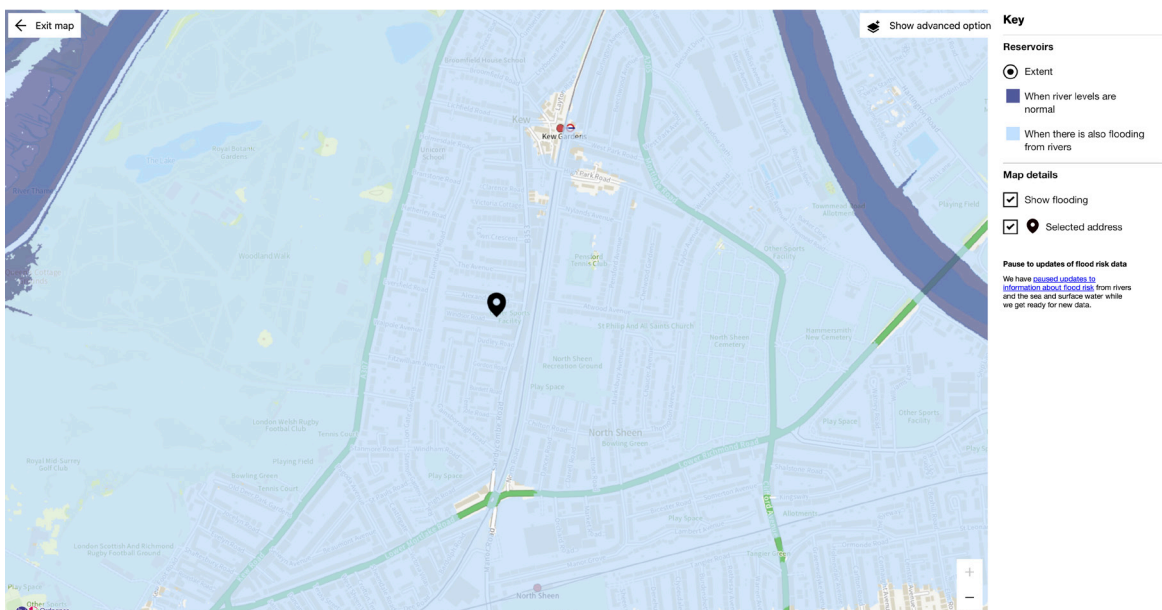


Fig. 7. Reservoirs flood risk map.

Flood Risk Assessment:

The site at 10 Windsor Road has been reviewed against flood risk data provided by the UK Government's flood risk mapping service. The property is located in an area classified as having a medium risk of surface water flooding. This designation indicates that during rare, extreme rainfall events, there is a possibility of water temporarily pooling or flowing over the surface in the area. However, this level of risk is minimal and does not present a significant concern for the proposed development.

Other sources of flood risk to the property are negligible. The risk of flooding from rivers or the sea is classified as very low, and the potential for flooding from reservoirs is described as extremely unlikely. These classifications indicate that no significant or practical threat exists from these sources, and they require no additional mitigation measures.

The proposed works involve a modest increase of 11.5m² in roof area, resulting from the addition of a ground-floor rear extension and a small first-floor infill. This relatively small increase has been carefully considered to ensure that it will not exacerbate the already minor risks associated with surface water flooding. The property is located in an established residential area with reliable existing drainage infrastructure, and the scale of the works means that the overall impact on runoff will be negligible.

To further ensure that flood risks remain insignificant, the proposed design includes thoughtful measures to manage rainwater effectively. This proactive approach not only mitigates any potential impact from the small increase in impermeable surfaces but also ensures the property and its surroundings remain resilient to surface water issues both during and after the completion of the works. Given the modest scope of the development and the incorporation of these measures, there will be no negative impact on flood risk to the property or neighboring areas.

Sustainable Drainage Systems (SuDS):

As part of the proposal, Sustainable Drainage Systems (SuDS) will be implemented to manage surface water runoff responsibly. These measures are designed to address the increase in roof area and ensure the property contributes positively to sustainable water management.

One of the main features of the SuDS strategy is the installation of a rainwater butt, which will collect rainwater from the new roof. This feature offers a simple yet effective way to reduce the amount of water entering local drainage systems during periods of heavy rainfall. By capturing this water at the source, the development alleviates pressure on local infrastructure, particularly during intense rainfall events. Additionally, the collected water can be reused for tasks such as garden irrigation, providing both practical and environmental benefits.

Changes to the outdoor landscaping will also prioritize sustainable materials. Where possible, permeable surfaces will be introduced to ensure that rainwater can naturally infiltrate the ground. This prevents excess runoff and contributes to improved water management on-site. In addition, rainwater from the roof will be directed into an appropriate drainage system, such as a soakaway, designed to slow the release of water into the ground. These measures ensure that surface water is managed responsibly and in line with sustainable principles.

The inclusion of these SuDS measures demonstrates a proactive and environmentally responsible approach to addressing the additional 11.5m² of roof area. By incorporating these features, the proposal not only mitigates any minor risks associated with the development but also enhances the long-term sustainability and resilience of the property and its surrounding area. This thoughtful integration of water management solutions ensures that the development works harmoniously with the existing drainage infrastructure and supports the broader goals of sustainable development.

Conclusion:

The proposed development at 10 Windsor Road has been carefully designed to address both the modest increase in roof area and the site's classification within a medium-risk surface water flood zone. By incorporating Sustainable Drainage Systems (SuDS), including a rainwater butt and permeable landscaping materials, the scheme ensures that any additional runoff is effectively managed on-site.

Flood risk from other sources, such as rivers, the sea, and reservoirs, is minimal or extremely unlikely, and the small scale of the works ensures no significant impact on the surrounding area. Through thoughtful planning and the integration of sustainable water management practices, the proposal supports both the functionality of the property and the environmental resilience of the site.