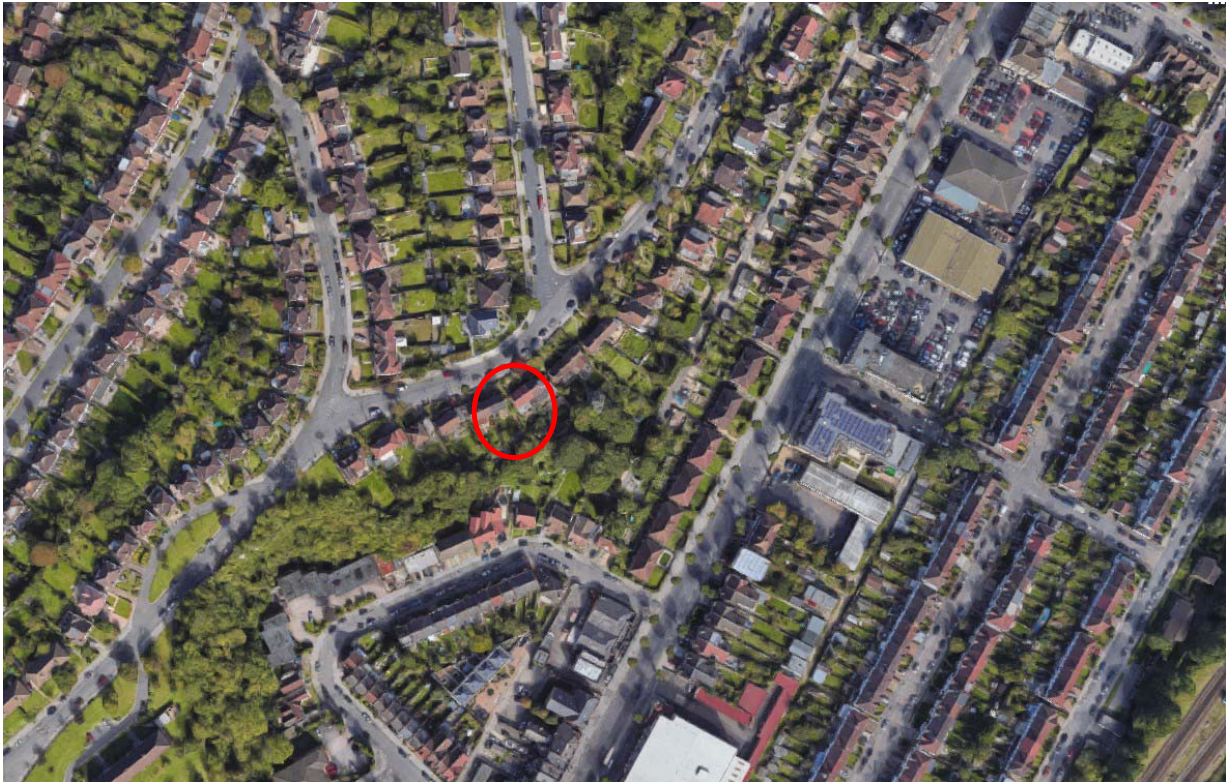


Fire Statement
For a single storey rear extension at 53 Kingsdown Avenue, London, CR2 6QJ.

Introduction

This Fire Statement has been prepared by JND2 in support of the Planning Application for; Erection of single rear extension at 53 Kingsdown Avenue, South Croydon, Surrey, CR2 6QJ and should be read in conjunction with the accompanying plans.

The site is located at the number 53 of Kingsdown Avenue, a residential street in South Croydon. Its surroundings are characterised by a variety of properties, with detached and semi-detached dwellings dominating the immediate and wider proximity. This property is a 3 bedroom semi-detached house, in a dense residential area located near Brighton Road (A235). There are also a number of buses serving Brighton Road (A235) providing access to other town centres



Development Classification

In reviewing the scheme against the requirements of the London Plan it is first necessary to determine which section of Policy D12 applies to the development. The London Plan Guidance - Fire Safety Document 2022, outlines the three development types: Major Development, Non-major Development and Householder (and some Non-major development).

The London Plan 2021 details two requirements for fire safety – Policy D12(A) and D12(B). Policy D12(A) applies to non-major development and householders, whilst D12(B) is applicable to ‘major developments’.

The London Plan (Annex Six: Glossary) defines major development as:

- For dwellings: where 10 or more are to be constructed (or if the number is not given, the area is more than 0.5 hectares).
- For all other uses: where the floor space will be 1000 sq. metres or more (or the site area is 1 hectare or more). The site area is directly involved in some aspects of the development. Floor space is defined as the sum of floor

area within the building measured externally to the external wall faces at each level. Basement car parks, rooftop plant rooms, caretakers' flats etc.

Based on the above, the terraced dwellinghouse will not be treated as a major development. London Plan Guidance 2022 Table 3.1 states that for households and some Non-major developments, a Reasonable Exception Statement with relevance to Policy D12 Part A is sufficient (Form 4 of London Plan Guidance- Fire Safety).

London Plan Policy

The London Plan 2021 states that fire safety should be considered from the outset of all developments. Specific requirements for fire safety are provided in Policy D12 and sections 3.12.1 to section 3.12.11, with reference to Part B of the Building Regulations 2010 made in section 3.12.2.

The fire safety design for the refurbished areas (ground floor- see figure 2) of the dwellinghouse will be based on Approved Document B, Volume 1 (2019 version including 2020 and 2022 amendments) – ADB. It is noted that this report does not constitute a full-fire strategy for the scheme and is based on a review of the information provided in undertaking the assessment only.

The following sub-sections provide a detailed assessment as to whether each of the London Plan Policy D12(A) requirements are met by the scheme.

Policy D12 (A) (1)

Policy D12 (A)(1) states:

“In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they identify suitably positioned unobstructed outside space a) for fire appliances to be positioned on, and b) appropriate for use as an evacuation assembly point”.

Fire Service vehicle access to the terraced dwellinghouse is provided via Kingsdown Avenue. Kingsdown Avenue is a public highway. Based on Google Maps, it is understood that the fire service can reach the most remote point in the house within 45m. The site is existing with no works being proposed to the access routes (public road). Therefore, the extension to the rear of the building will not be significantly affected.

Policy D12 (A) (2)

Policy D12 (A)(2) states:

“In the interests of fire safety and to ensure the safety of all buildings users, all development proposals must achieve the highest standards of fire safety and ensure that they are designed to incorporate appropriate features which reduce the risk to life and the risk of serious injury in the event of a fire; including appropriate fire alarm systems and passive and active fire safety measures.”

The extension and refurbished areas of the scheme will be developed in accordance with Approved Document B - Volume 1.

As per Table 1 of BS 5839-6:2019+A1:2020, owner-occupied two-storey houses should be provided with grade D2 category LD2 for materially-altered premises. Heat detectors should be installed in the kitchen. A smoke detector should be installed in the principal habitable rooms. Where more than one room might be used as the principal habitable room, a smoke detector should be installed in each of these rooms.

For two-storey houses, the means of escape may be through the main entrance via the hall or alternatively through the window. Consequently, unless a protected escape route is provided, the bedroom should have an escape window.

The kitchen door will be replaced by an FD30 door. This will provide 30 minutes of fire protection to the existing door opening.

As this is a terraced house, Table B3 and Table B4 of ADB-2 state that the wall that separates the houses on each side, should achieve 60 minutes of fire resistance- REI (loadbearing, integrity and insulation). 60 minutes of fire resistance should be continued up to storey height, including up to the underside of the roof, as no work is being carried out between the two buildings, it is expected that 60 minutes of fire resistance be provided by the masonry construction.

Policy D12 (A) (3)

Policy D12 (A)(3) states:

“In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they are constructed in an appropriate way to minimise the risk of fire spread.”

The first floor (upper storey) of the two-storey dwelling-house should achieve R 30 and EI 15 from the underside. Therefore, 30 minutes loadbearing capacity and 15 minutes integrity and insulation, when tested to the relevant part of BS 476. It is understood that no works are being carried out on the floors of the upper floor. It is assumed that this would already be achieved with typical construction methods for this building type, providing there is no significant damage to the structure or building materials.

For purpose groups 1 (1c- dwellinghouses), as per table 10.1 of Approved Document B volume 1, for building heights 11m or less, if the distance from the elevation to the relevant boundary is greater than 1000 mm, then are no provisions in relation to the reaction of fire performance of external surfaces of walls. However, if the elevation is less than 1000 mm from the relevant boundary, the fire performance of external surfaces of walls should achieve Class B-s3, d2 or better.

With regards to external fire spread, an outline assessment has been carried out at this stage, based on the guidance of BR187. The calculation has been made on the following assumptions:

- The analysis is based on the proposed elevations
- The existing floor between the ground and upper storey is a compartment floor, with 30 minutes of fire resistance.
- The approximate height for the compartmentation is 3m.
- Walls/Elevations adjacent to the other dwellinghouses will be treated as an external wall, rather than a compartment wall separating the two buildings.
- The assessment is based on the front and rear elevation since it is a terraced house. As it is unclear whether the dwellinghouse is provided with a protected stairway, the entire width will be used, as this is the worst-case scenario.
-

The assessment shows that the provisions for space separation are met by the proposed scheme and no additional fire rating is required to mitigate external fire spread.

Note, as all the external walls are constructed of brick on the outer leaf, it is reasonable to assume that these will achieve a minimum of 30 minutes of fire resistance.

Policy D12 (A) (4)

Policy D12 (A)(4) states:

“In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they provide suitable and convenient means of escape, and associated evacuation strategy for all building users”.

As per diagram 2.1b of Approved Document B Volume 1, escape via stairs and escape windows should be provided from all habitable rooms or alternatively provide a protected stairway. As no work is being carried out on the upper level, the risk to B1 has not been altered. Since FD30 doors have been provided into the stairs from the kitchen (highest risk), higher compartmentation is afforded, thus improving the means of escape and providing safer conditions to the building, particularly to the upper level.

As per paragraph 2.10 of Approved Document B Volume 1 2019, windows or external doors providing emergency escape should comply with the following:

1. Emergency escape windows/doors should have an unobstructed openable area that complies with the following.
 - a) A minimum area of 0.33m².
 - b) A minimum height of 450mm and a minimum width of 450mm (the route through the window may be at an angle rather than straight through).
 - c) The bottom of the openable area is a maximum of 1100mm above the floor.

2. Locks (with or without removable keys) and opening stays (with child-resistant release catches) may be fitted to escape windows.
3. Windows should be capable of remaining open without being held.
4. People escaping should be able to reach a place free from danger from fire. The escape from the bedroom is to an enclosed space (back garden), as such the length of the space (back garden) should exceed the height of the dwellinghouse above ground level.

As per paragraph 2.10 of Approved Document B Volume 1 2019, occupants escaping should be able to reach a place free from danger from fire. The proposed extension and the refurbished areas egress directly into the rear garden. Based on Google Maps, it is understood that there is access from the rear garden to an alley/narrow path on to Biddulp Road. Therefore, in the event of a fire, occupants escape can reach a place free from danger from fire.

Policy D12 (A) (5)

Policy D12 (A)(5) states:

“In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in.”

As discussed in section 3.5, the residents of the dwellinghouse are provided with multiple means of escape to the ground floor. Note, as no works are being carried out on the upper level of the house, it is outside the scope of this report.

Policy D12 (A) (6)

Policy D12 (A)(6) states:

“In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.”

Paragraph 13.1 of Approved Document B volume 1 states that every elevation to which vehicle access is provided should have a suitable door, not less than 750 mm wide, giving access to the interior of the building. The primary access will be the main entrance, Based on Google Maps, a hydrant is 70m away from the development. The working condition of the hydrant is unknown, as this is a privately owned residence, it is not expected that the resident of the building will know the condition of the existing hydrants.

Conclusion

This report identifies how the requirements of Policy D12(A) of the London Plan 2021 have been addressed, or if there are any deviations, how mitigation measures are provided.

In summary, the extension will be provided with either emergency escape windows or doors. It is understood that the kitchen door will be replaced by an FD30 door. It is not clear whether the development is designed with escape via stairs and escape windows from all habitable rooms or alternatively provides a protected stairway. However, since no works have been undertaken on the upper level, and since an FD30 door has been provided between the kitchen and the stairs, this provides a greater level of fire safety.