



Planning Fire Safety Strategy

Client: Mr James Bradley Ross

Project: 101A, High Street, Hampton, London. TW12 2SX.

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1 Author Details

The author is registered with the UK Engineering Council as a Chartered Engineer (CEng), through the Institution of Fire Engineers (IFE), and holds full Member status (MIFireE) with the IFE.

The author has achieved a bachelor's degree with Honours in Fire Engineering [BEng(Hons)] and a Master of Science Degree in Fire Safety Engineering (MSc).

A précis of experience in the field of fire engineering is presented below:

- 26 years as an operational fire officer with a local authority fire and rescue service
- 12 years as a fire safety regulator with a local authority fire and rescue service
- 9 years of commercial fire engineering experience on a variety of projects including:
 - Relevant buildings as defined by the Building Safety Act
 - Low rise residential buildings
 - Extra care residential buildings
 - Housing developments
 - Large commercial warehousing and high-density storage
 - Educational establishments

2 Project Description

The proposal regards the construction of a new two-storey house with a basement on the site of an existing house which will be demolished. The house is intended to be used as a family residence.

The uppermost occupied floor of the proposed dwelling will have a finished floor level that is less than 4.5m above ground level.

The house will have a single, protected, internal staircase that serves all floors. There will be direct egress to the outside from the Basement and Ground Floor. The 1st Floor will be provided with two roof terraces, each of which are less than 4.5m above ground level, and from which external escape would be possible.

The proposed house will have the accommodation laid out as follows:

| | |
|----------------|---|
| Basement Floor | Gym; office; plant room; studio; access to sunken courtyards |
| Ground Floor | Entrance hallway; open-plan living area, with dining and kitchen spaces; 4 bedrooms |
| First Floor | Master bedroom with en-suite and changing room; access to two roof terraces |

Approved Document B [AD(B)] Volume 1, will be used as the design guide for the fire safety elements of the proposals.

3 Suitably Positioned Unobstructed Outside Space

3.1 Fire Appliances

The proposed development will be constructed on the site of an existing dwelling. Fire appliance access to the proposed house will be via an access driveway that is approached via High Street in Hampton.

The gateway to the drive will be in excess of 3.1m; the driveway will be in excess of 3.7m throughout its length; and turning facilities for a fire engine will be provided.

A fire appliance would be able to locate at the front of the house, with direct line of sight to the front door. Figure 1 provides pictorial details.



Figure 1 - Fire Service Access to the Proposed House Location

3.2 Evacuation Assembly Point

In the event of a fire alarm activation, the household occupants will evacuate to the front of the house. The area at the front of the proposed property will be sufficiently large to accommodate the maximum occupancy of the house, without compromising the access arrangements for the Fire Service.

4 Active and Passive Systems

4.1 Fire Detection and Alarm System

The house will be provided with a domestic fire detection and alarm system in accordance with the guidance within BS5839: Part 6. As the Ground Floor will have an area of more than 200m², the Grade of system will be A, and the Category will be a minimum of an LD2.

4.2 Compartmentation

The staircase will be enclosed throughout its height within fire resisting construction to a minimum of a 30 minute standard. All doors to rooms that have direct access to the staircase will be a minimum of FD20 fire doors.

The floors between the Basement and Ground Floors, and the Ground and First Floors will be constructed as compartment floors with a minimum of 30 minutes of fire resistance.

5 Internal Fire Spread

The details regarding construction materials and methods have not been finalised at this stage and are subject to the procurement strategy and availability of materials. A materials information register will be provided as part of the design information for the building and this will be passed to the eventual owner as part of the building's fire safety information.

6 External Fire Spread

The detached house will be more than 3m from the site boundary and no boundary related issues have been identified at this stage.

Once the design is progressed, a full external fire spread assessment will be carried out, utilising BR187: 'External Fire Spread – Building Separation and Boundary Distances' as the guidance document.

7 Means of Escape Arrangements

7.1 Reference Guide

Approved Document B: Volume 1 will be used as the base fire safety guidance document for the proposed residential areas.

7.2 Evacuation Strategy

The strategy that will be employed for the house will be simultaneous.

There will be a single staircase that will be protected throughout its height, with fire resisting construction to enable safe escape in the event of a fire. This design will be subject to approval from a Building Control Body as part of the Building Regulations process.

7.3 Consideration of all Building Users

The house will be designed as a standard family home and there is no intention to incorporate a lift within the design.

7.4 Evacuation Strategy Review

The evacuation strategy will follow best practice for domestic dwellings. It is not envisaged that a review will be necessary unless there is a change of use of the building.

Direct egress from the building to a place of ultimate safety is possible from each floor, in addition to the protected internal staircase.

Ground Floor – every room will have a door leading directly to the outside.

Basement – egress is possible via the sunken courtyards, each of which will have steps leading to ground level externally.

First Floor – the Master Bedroom will have access to both external terraces, which are less than 4.5m above ground level, and from which escape would be possible.

8 Access and Facilities for Firefighting

8.1 Fire Appliance Access

Fire appliances will be able to access the house via a driveway which is directly accessible from High Street. The gateway and driveway will exceed the minimum widths as proscribed within AD(B).

8.2 Water Supplies

The nearest hydrant is outside of number 116 High Street and is within 100m of where an appliance would be able to locate at the front of the house. This is an existing arrangement and the proposals do not alter the hydrant accessibility or worsen the existing arrangements.

The hydrant location is depicted within [Figure 1](#).

8.3 Access to the Building

Access to the building will be via the front door, which would be within 10m of where an appliance could locate, and all parts of the residential parts of the building will be within 45m of where an appliance could be positioned.

These distances have been measured on a route that would be suitable for laying fire hose.

8.4 Impact on Surrounding Buildings

The development will not alter anything outside of the boundary of the site itself. There will not be any adverse impact on surrounding buildings, or the access to them for the purposes of fighting fires.

The potential for exterior fire spread from the building will be addressed as described within Section 6 of this report, as part of the Building Regulations process.

9 Management

All relevant fire safety information will be passed to the eventual occupier as part of the Building Regulations, Regulation 38 process.

10 Fire Safety Design Guide

Approved Document B: Volume 1 will be used as the base fire safety guidance document for the development.

11 Conclusion

This report has presented the necessary information to support the Planning Application for the proposed development, in accordance with London Planning Guidance.

The guidance document 'Fire Safety Policy D12(A)' was referred to, in order to ensure that all required information has been provided.

12 Limitations

Our advice is strictly limited to the scope of the project as detailed within Section 2 of this report.

The advice should not be used for any other building, as each Planning Fire Safety Strategy should be bespoke to the relevant development.

Pentrevion Fire Limited has not reviewed any other issues within the project other than those identified in our report. We offer no comment on any other aspects of the development and any absence of comment on such issues should not be regarded as any form of approval.



13 References

Approved Document B, Volume 1: *Dwellings: HM Government London*. 2019 edition incorporating 2020 and 2022 amendments

BS 7974: 2001 *Application of fire safety engineering principles to the design of buildings*. UK: BSI

London Plan Guidance. Fire Safety Policy D12(A). Greater London Authority. February 2022