

Planning Statement. Fire Safety.

Avalon House, 72 Lower Mortlake Road, Richmond TW9 2JY.

1. Introduction.

This fire safety statement has been prepared by Hoare Lea to accompany the planning application for the Avalon House development in London and address The London Plan (March 2021) Policy D5 (Inclusive Design) and D12 (Fire Safety).

The intention of this fire safety statement is to address the main fire safety principles and provide an overview of the requirements and recommendations that the scheme will meet.

This document has been prepared for Barings Real Estate only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. The consequences of climate change and the effects of future changes in climatic conditions cannot be accurately predicted. This report has been based solely on the specific design assumptions and criteria stated herein.

2. Proposed development.

The site description for the Avalon House development is as follows:

The Site comprises a three-storey commercial office building known as 'Avalon House' constructed in the early 2000's and accommodates 3,076sqm (GIA) of Commercial (Class E) floorspace.

The building comprises of ground and first as brick/stone massing, the existing third and large roof extents are clad in a grey metal. To the rear the roof has a dormer which is where the current plant is located. The 'entrance' bay is expressed with a semicircular extrusion which pops up and creates a useable meeting space at fourth floor.

The building is a multi-tenanted office building, with a shared central reception and core facilities accessed from the primary pedestrian entrance from Lower Mortlake Road.

The Site benefits from access to a shared internal vehicular road, which also provides access to the residential properties to the south, known as Tersha Street accessed from a driveway to Lower Mortlake Road. This road provides access to two car parks with a combined 33 spaces to the rear of the building, with a larger 23 space car park directly adjacent to the south of the building, and a smaller 10 space car park to the west of Tersha Street. A small area with capacity for three visitor car parking spaces is also provided to the west of Tersha Street closer to the vehicular entrance point.

There are currently some external cycle lockers located to the rear of the building which can accommodate ten bicycles. There is one shower within the core space, with no dedicated end of journey facilities. An external substation is located within the eastern boundary of the Site.

The description of the proposed works is as follows:

Remove the existing roof and erection of a roof extension at fourth floor and rear extensions to floors ground – four to accommodate additional commercial floorspace (Class E), provision of rear and rooftop terraced amenity spaces, alterations to the ground floor entrance, recladding and remodelling of the façade, landscaping

improvements to the rear carparking area, provision of end of journey and cycle parking facilities, associated building servicing and sustainability improvements, and other associated works.

The application site plan is shown in Figure 1.



Figure 1: Application site plan

3. The London Plan – Policy D12 (Fire Safety).

The London Plan – Policy D12 states that 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:

1. Identify suitably positioned unobstructed outside space:
 - a. For fire appliances to be positioned on
 - b. Appropriate for use as an evacuation assembly point
2. 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;
3. Are constructed in an appropriate way to minimise the risk of fire spread;
4. Provide suitable and convenient means of escape, and associated evacuation strategy for all building users;
5. Develop a robust strategy for evacuation which can be periodically updated and published, which all building users can have confidence in; and
6. Provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.

All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party suitably qualified assessor. The statement should detail how the development proposal will function in terms of:

1. The building's construction: methods, products and materials used, including manufacturers details;

2. The means of escape for all building users: suitably designed stair cores, escape for building users who are disabled or require level access, and the associated evacuation strategy approach;
3. Features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans;
4. Access for Fire Service personnel and equipment: how this will be achieved in an evacuation situation, water supplies, provision and positioning of equipment, firefighting lifts, stairs and lobbies, any fire suppression and smoke ventilation systems proposed, and the ongoing maintenance and monitoring of these;
5. How provision will be made within the site to enable fire appliances to gain access to the building; and
6. Ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures

These items are detailed in the following sections for the Avalon House development.

4. Competency statement.

All Hoare Lea design projects are headed by highly trained engineers, supported by a team of chartered engineers across the UK, with proven experience on a wide range of fire safety consultancy projects.

Our staff have appropriate expertise and experience of fire safety design on a wide range of complex buildings, not only in the UK, but also world-wide. Whilst most of our work is conducted to satisfy safety regulations within the UK (e.g. Building Regulations and associated legislation), our staff have been responsible for developing fire safety strategies based on the NFPA standards and other international codes.

This statement has been produced, reviewed and approved by the following key individuals. The design and development of the fire safety strategy will be undertaken by the same individuals.

- Miller Hannah BEng (Hons), CEng, MIFireE – Partner
- Johan Askman, BSc MSc AIFireE – Associate Director
- Kit Garbutt, MPhys – Graduate Engineer

5. Fire safety overview.

5.1 Building construction.

- The existing building was constructed using traditional construction materials, as will the proposed extension to the building.
- To limit the spread of fire within the buildings, all wall and ceiling linings will satisfy the appropriate classification stated within Approved Document B (ADB) – Volume 2.
- External fire spread will be assessed following the guidance of BR 187, to ensure sufficient protected areas of the external wall are provided, where required, based on the available boundary distances. An initial high-level assessment has been undertaken and no significant issues have been identified, though a more detailed assessment will be required. Any areas of the external wall to feature a green wall will be considered to be 50% unprotected as per guidance in ADB.
- In an office building less than 18m in height, for elevations less than 1000mm from the relevant boundary the reaction to fire performance of external surface of walls should achieve Class B-s3, d2 or better. When the elevation is more than 1000mm from the relevant boundary, there is no minimum requirement.

5.1.1 Construction, Design and Management regulations.

- Design projects undertaken in the UK are subject to the requirements of the Construction (Design and Management) Regulations 2015, the objective of which is to ensure that health and safety issues are properly considered during a project's design and development so that the risk of harm to those who have to construct, use, and maintain the building is reduced.

- As a designer, in accordance with Regulation 9 of the CDM regulations, Hoare Lea will take into account the general principles of prevention in the preparation of this report and where reasonably practicable, eliminate, minimise and/or control foreseeable hazards associated with the design. Where elimination is not reasonably practicable, Hoare Lea will be required to provide 'pre-construction' information in respect of any significant and/or unusual project-specific hazards that remain.

5.2 Means of escape provisions.

- The building will operate under a simultaneous evacuation strategy. This means that all occupants evacuate upon activation of the fire detection and alarm system.
- The travel distances within the building will align with the maximum limitations in ADB for offices; that is, 18m in a single direction and 45m where an alternate direction is available.
- Two means of escape stairs will be provided to each occupied storey, with a third additional stair serving all but the fourth storey, each with a minimum clear width of 1000mm, discharging via protected passageway or a direct exit at Ground floor level.
- A central bank of lifts will be provided with a dedicated evacuation lift which serves all levels of the building to facilitate the evacuation of mobility impaired occupants and address the recommendations of Policy D5 (Inclusive Design) of The London Plan. The management procedures for the evacuation lifts will be developed during the detailed design stage.

5.3 Features incorporated to reduce the risk to life.

- A Category L1 detection and alarm system will be provided throughout the building, with beacons and sounders on the terrace/roof areas.
- As the building is less than 30m in height, there is no requirement to provide the building with a sprinkler system. Therefore, the building will not have sprinklers.
- The elements of structure will be constructed to achieve 60 minutes fire resistance.
- The stairs will be designed as protected means of escape stairs, achieving 30-minute fire resistance.

5.4 Fire-fighting access within the building.

- As a building under 18m, fire-fighting shafts are not required.
- The central stair will be provided with a dry riser. This stair is accessible from both the main and rear entrances on Lower Mortlake Road and a car park off Tersha Street respectively. The other two stairs are accessible from this car park. All three stairs are of at least the minimum width of 1000mm.
- The dry riser inlet will be within 18m of a suitable parking location for a fire service vehicle. The outlet on each floor will be within 45m of every point on its floor.

5.5 Fire-fighting access to the building.

- Fire-fighter access will be available to the front of the building on Lower Mortlake Road. Additional access can be gained via Tersha Street and the rear car park. Each elevation except the West will have a door of at least 850mm allowing fire service access.
- Existing hydrants are provided within 90m of the dry riser inlet valves.

5.6 Measures to protect the base build fire safety strategy.

- Any future modifications to the scheme or fit-out will be subject to Building Regulations approval and should consider the base build fire strategy, such that fire safety measures are not compromised within the development.
- The Proposed Development will consist of an office building for which a fire management plan will be developed.

6. Conclusion.

This fire safety statement has been prepared to outline the approach and provisions relating to fire safety for the Avalon House development for compliance with The London Plan Policy D5 and D12.

This statement demonstrates that the proposals have considered fire safety at the earliest stage, and the further development of the fire strategy will be based upon these principles. The fire strategy will be further developed for submission to the Approving Authority at the appropriate time and will meet the functional requirements of the Building Regulations 2010, taking recommendations from Approved Document B and the requirements of Policy D5 and D12 of The London Plan.

Regulation 38 of the Building Regulations requires that fire safety information be given to the person responsible for the occupied building. Therefore, copies of the fire safety strategy, once agreed with the Approving Authority, and other relevant fire safety information should be issued to the responsible person. This will ensure publication of the proposed evacuation strategy and assist in evacuation of all building users.

Any future modifications to the scheme will be subject to Building Regulations approval and should consider the base build fire strategy.



Miller Hannah BEng (Hons), CEng, MIFireE