bespoke
FIRE SAFETY DESIGN

3 The Square, Stockley Park

Planning Fire Safety Strategy

Client Details:

F&C Commercial Property Holdings
c/o Columbia Threadneedle Real Estate Partners
Cannon Place
78 Cannon Street
London
EC4N 6AG

06 February 2024

Revision 01

Contents

1 Introduction

This Planning Fire Safety Strategy (PFSS) has been prepared in support of a planning application being submitted by Columbia Threadneedle Real Estate Partners ('the Applicant') via Iceni planning consultants, to the London Borough of Hillingdon ('the Council') for development at 3 The Square, Stockley Park, Hayes in Uxbridge, UB11 1ET ('the Site').

Note that the existing basement is not subject to material change and is therefore largely excluded from the planning application. However, where plant and storage alter the existing arrangement, this will be considered in accordance with contemporary guidance where required.

This PFSS is intended to demonstrate compliance with Section D12(A) of the London Plan (1). The proposals do not represent a 'major development' and therefore Section D12(B) of the London Plan does not apply. In addition, the building does not have a top floor height in excess of 18m and has less than 7-storeys; therefore the Building Safety Act, 2022 (Gateway 1 fire statement requirement) does not apply.

The building contains existing lifts that are to be retained. However, due to change of use to healthcare, at least one evacuation lift is to be provided. Therefore, this PFSS also includes relevant information regarding design of the lift as an evacuation lift, in accordance with Section D5(B) of the London Plan. Note that additional information regarding the specific design and capacity of the evacuation lift may be found in documents produced by a specialist lift engineer.

The PFSS, located in Section 2, follows the 'Form 2' template provided in Appendix 3, Section A3.2 of the 'London Plan Guidance: Fire Safety, February 2022,' published by the Greater London Authority.

Reference should also be made to indicative fire strategy drawings and associated comments for design development and supporting the PFSS, provided in Appendix A.

1.1 Legislative Requirements

The fire safety design for the building must achieve the minimum standard required by Part B of Schedule 1 to the Building Regulations 2010 (hereafter referred to as Part B) (2)

Although the measures outlined in this document may exceed contemporary fire safety guidance to Part B, this document is not intended to be considered as, or relied upon as, the fire strategy necessary to demonstrate compliance with Part B of the Building Regulations or as a specification document for design.

Where relevant, reference is made to measures necessary to assist in discharge of duties under the Regulatory Reform (Fire Safety) Order (FSO) (3) and the Fire Safety Act (4) information, which is expected to form part of the information pack handed over to the defined responsible person(s) under Regulation 38 of the Building Regulations, prior to completion of the building works.

1.2 Basis of Design

The design brief represents a change of use from office to healthcare, with in-patient sleeping accommodation and minor treatment. Consequently, Health Technical Memorandum: HTM 05-02 (5) (with associated additional guidance and British Standards) has been used as the minimum basis of assessment for compliance with Part B.

Due to the existing nature of the building, the constrained building envelope and the expectations of the design brief, substantial internal, structural and MEP servicing solutions will require development and coordination. This PFSS outlines only the key measures necessary for consideration in the planning application and provides only reference to such further development.

As stated in the scope of HTM 05-02, the guidance is applicable to all premises regulated by the Care Quality Commission (CQC), irrespective of ownership.

2 Form 2 – Planning Fire Safety Strategy (Policy D12A)

Site Address	3 The Square, Stockley Park, Hayes, Uxbridge, Hillingdon UB11 1ET
Description of Development	The proposal will be for a change of use from office (Use Class E) to a post-operative care facility (Use Class C2) (c.10,000sqm) – retaining the existing building with some minor external alterations and landscaping. It is not intended to make any alterations to the existing façade. The full detailed proposal is described in the GLA Planning Pre-application produced by Hale Architects (*21087 Stockley Park - Hale - December GLA PreApp - REV03*). However, key works are outlined below: • New medical wings comprising of multiple one-bed units. • New internal layout within the existing building, comprising post-operative care facilities. • Refurbishing the reception spaces of building to give an aesthetic medical hub aesthetic. • Retaining external fabric with minor light touch interventions for to address any ongoing issues with the facade. • Significant intervention within the skin of the building, to provide air leakage and thermal performance requirements to current market standards. • Utilising existing winter gardens as per the original design with vertical circulation, focusing receptions and amenity space within. • Refurbishing lower floors to facilitate cluster of collaborative complimentary medical uses. • External landscaping works to address the listed landscape within the site.
Name	Craig Howard
Qualifications	BEng (2003), CEng (2011). Registration numbers located at end of this document. Certificates available on request.
Professional Memberships	MIFireE MSFPE Registration numbers located at end of this document. Certificates available on request.
Experience	20 years experience in producing fire safety design consultancy throughout the RIBA plan of work stages and production of fire strategy information relevant to all sectors of varying scale for design team input, Building Regulations compliance, construction stage monitoring and building handover. I confirm that the expertise and competency of the author is commensurate with size, scope and complexity of the scheme and the basis of design above.
Gateway One Submitted	No – not a 'High Risk Residential Building'.

Policy Considerations		
1a	**identify suitably positioned unobstructed outside space for fire appliances to be positioned on**	
The building is located on its own plot with perimeter access via the existing two-way public road (The Square). An existing route is also provided to the rear of the building via the car park access and circulation. It is not intended to alter the existing access roads to the building. Fire Service appliances can park on the road directly outside the front door of the building or to any point on other elevations (via the car park road), all are within 18m of the building access points. Reference should be made to the site plan included in the DAS document.		HTM 05-02
1b	**identify suitably positioned unobstructed outside space for use as an evacuation assembly point**	
The primary escape route from the building is via the 4x stairs leading to 'The Square' and to the car park. Egress is provided on the Ground Floor via the main reception and from direct exits from each of the 'winter gardens'. The evacuation strategy for the buildings in-patient users is via progressive horizontal evacuation (compartment to compartment) rather than full building evacuation. Notwithstanding, significant areas are available in the car park or to the green area opposite 'The Square', for assembly point use Reference should be made to the site plan included in the DAS document.		-
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**	
A new addressable Class L1 detection and alarm system will be installed throughout the building. Smoke detectors located throughout all spaces. Relevant smoke detection to be provided at high-level in the atria. Sounders are provided throughout. Beacons provided throughout circulation areas and in toilets. A fire alarm panel will be sited at the main reception. The system cause & effect will be developed to support progressive horizontal evacuation in the building. Detection in any compartment that incorporates a fire & smoke curtain (i.e. main reception) will activate the curtain regardless of detection location. It is intended that the basement remains entirely separated. Therefore, provision of an alert signal is to be provided to the fire alarm panel only in the first instance.		BS 5839-1 (6)
The basement is constructed of concrete columns and concrete encased steel columns, with insitu concrete suspended slab. Upper floors are traditional steel frame (with either painted or boarded protection) and floors that are composite ribbed deck and poured concrete. Existing elements of structure (beams, columns, floors, walls) will be made good or upgraded where necessary to provide a 60minute period of fire resistance throughout. External wall to the inner-building is to be upgraded (or re-built) to provide 60minute period of fire resistance (including glazing and openings) as a compartment wall to separate accommodation from the atria (30mins when sprinklers provided).		HTM 05-02 BS EN 1363-1 (7)

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 (continued)**	
Internal 60minute compartment walls will be provided to support compartment and sub-compartment requirements and progressive horizontal evacuation (refer to indicative drawings in Appendix A). All floors to be upgraded (or re-built) to provide 60minute compartment floors. Walls enclosing the existing stairs are to be surveyed and confirmed as achieving a 60minute period of fire resistance. Walls enclosing protected lobbies will be constructed as 30 minute fire resisting walls. Two new stairs are to be constructed (to the Northern wings), which will be enclosed full height and lead directly to external, with construction achieving 60minnute period of fire resistance. The Ground Floor to basement circulation stair will be separated by 60 minute fire resisting walls and will not open in to the building. All existing doors will be replaced with appropriately tested and installed fire door sets. FD30S fire doors will be provided as part of walls that form escape routes. Connections to the atria will be via compartment walls with 60minute period of fire resistance and protected lobbies with 30minute period of fire resistance. Note that automatic sprinklers are not currently proposed; however, will be considered in due course in conjunction with benefit of reducing compartment wall performance (particularly wall and glazing performance).		HTM 05-02 BS EN 1363-1 (7)
Fire stopping (and dampers) will be provided where penetrations exist in fire resisting walls. Fire stopping will be via proprietary products with fire resisting performance equal to that of the fire resisting wall. Cavity barriers will be provided in all new voids with dimension >20m and at junction of fire resisting walls, floors and around openings in new external walls.		HTM 05-02 BS EN 13501-2 (8)
3	**Are constructed in an appropriate way to minimise the risk of (external) fire spread**	
Existing external walls to the internal building are of lightweight steel substructure with plywood faced external panel and SFS type internal partition. The insulation is unknown. The existing walls are not considered to provide any substantial fire resisting properties. Therefore, the envelope of the internal building is to be upgraded (or rebuilt) as a compartment wall to provide a 60minutes period of fire resistance with 60minute fire resistant glazing. This is necessary to separate internal accommodation from the atria but also resists fire spread externally. The external envelope of the whole building (the outer 'cube') is curtain wall glazing with aluminium frame and steel supporting structure. The construction is not combustible and will not support spread of flame up the façade. The outer glazing offers little to no fire resistance to external fire spread. However, the building is located in excess of 100m to any other adjacent sites or plots. As the site is listed, further developments are not expected. Therefore, the risk of fire spread to adjacent plots is appreciably low.		HTM 05-02
All areas of the roof (new or existing) within m of the boundary will be constructed or replaced to achieve C_{ROOF}(t4) or as per EC Decision (i.e. stone surface).		BSEN 13501-5 (9)

4	**Provide suitable and convenient means of escape, and associated evacuation strategy for all building users**	
In general, the building is to be refurbished and internally re-designed to support progressive horizontal evacuation to be adopted between defined compartments and sub-compartments. Detection in one compartment will result in occupants being assisted to evacuate to the adjoining compartment or sub-compartment. The adjacent compartment or sub-compartment have substantial circulation area to accommodate all evacuees (less than 30 persons). The progressive horizontal evacuation approach is also supported by adoption of evacuation lifts in the central core, which descend to a protected lobby allowing for onward evacuation to alternative compartments. Escape stairs are each provided with protected lobbies and refuge spaces and lead directly to external on Ground Floor. The existing stairs are not sized for mattress evacuation. This is mitigated by provision of evacuation lifts. The Ground Floor of the building is primarily amenity, reception/waiting and minor consultation rooms. Each of these areas are more aligned to self-evacuation of occupants, which is possible via doors leading to external. Notwithstanding, the Ground Floor is aligned to provide progressive horizontal evacuation if required. Means of escape is arranged as shown in fire strategy drawings in Appendix A.		HTM 05-02
Step-free escape is available to the stair from all floors. Travel distance to a storey exit or to an adjacent compartment/sub-compartment is less than 18m (single direction) and 45m (two directions). Step free access is provided external and for onward escape externally, via both building entrances. Each stair is provided with a protected refuge of 1400mm x 900mm, in conjunction with adjacent two-way communications point to the alarm panel in support of assisted evacuation. Building management is to enable assisted means of escape for mobility impaired persons via the protected refuges, should it be required.		HTM 05-02
5	**Develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in**	
The use of the building for provision of healthcare and specialist treatment is such that fire safety policies and management of the evacuation of patients (and other occupants) will be well documented. Personal Emergency Escape Plans (PEEPs) can be agreed with individuals upon entrance, with suitable management assistance per customer. I It is intended that the maintenance of the evacuation strategy is reviewed annually and as part of the training for each staff member. All staff members to be appropriately trained to accommodate respectful carry down procedures, using evacuation lifts, evacuation chairs, mattresses and similar devices. Responsibility for the general management of fire safety to be divided over several different individuals (likely one per floor or per compartment). Staffing level will be specific to the building and is to include sufficient trained personnel. Contingency for sickness or holiday is to be required. It is likely that a record of mobility impaired persons is kept, with any specific requirements clearly identified. It is recommended that information regarding fire safety actions and PEEPs is specific to those persons and agreed on entry to the building, if required, and communicated to healthcare staff.		HTM 05-02 BS9999

6	**Provide suitable access and equipment for firefighting which is appropriate for the size and use of the development**	
External access for the Fire Service is provided to the perimeter of the building via existing access roads ('The Square') and the car park. Multiple entry points are provided to each elevation, with additional entry points to the protected stairs via front and rear elevations.		BS 9999 HTM 05-02
The building is less than 18m in height. The basement is accessed separately and therefore not included in the measurement. Therefore, formal internal firefighting measures (firefighting shafts) are not required.		
Access to each floor is provided via the internal protected stair, or via the circulation stair if available. Due to the top floor height in excess of 11m and in support of the new use of the building, a new dry rising main will be provided. Inlet will be located at the entrance to each stair. Outlets provided at full landing level on each floor of the protected lobby to each stair.		BS 9990 (12)
The existing basement is beyond the scope of this building. Therefore, dedicated smoke ventilation is not considered as part of this report. It is noted that the development of the building will further separate the basement, ensuring that occupants are not compromised by a fire in the basement, whilst also not compromising the basement strategy.		
Existing external hydrants are located along 'The Square. The closest hydrants are located to the South East and South West of the building and within a maximum distance of 90m. Therefore, it is not proposed to provide additional private hydrants.		BS 9999
7	**Where a lift core is provided, at least one lift is an evacuation lift.**	
At least one new lift installed in the building will be designed as an evacuation lift. Refer to Section 3 (Form 3).		BS 9999

3 Form 3 – Provision of Evacuation Lift (Policy D5(B5))

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Experience	20 Years experience in producing fire safety design consultancy throughout the RIBA plan of work stages and production of fire strategy information relevant to all sectors of varying scale for design team input, Building Regulations compliance, construction stage monitoring and building handover. The author is competent only to consider the implementation of the evacuation lift in respect of compliance with BS 9999 and the intended use of the building. Specific lift design details and capacity assessment is beyond the competency of the author and reference should be made to documentation and design information provided by a specialist lift engineer.

Details of the evacuation lift and shaft	
The evacuation lift will be designed in accordance with contemporary guidance and will be accessed via the protected lobby to the central core. The lift discharges to a protected lobby on Ground Floor, with onward escape possible via alternative compartments, supporting the progressive horizontal evacuation approach. It is proposed that new lift will be provided within an existing lift shaft and will be surveyed to ensure 60 minutes fire resisting construction to the adjacent spaces.	BS EN 81-20 (13) BS EN 81-70 (14) HTM 05-02 HTM 08-02
Capacity Assessment	
The progressive horizontal evacuation approach is such that only a single compartment or sub-compartment will evacuate at any one time. This represents up to approximately 60 persons on upper floors. Occupants will be predominately patients, supported by permanent members of staff and thus aware of the evacuation strategy and personal escape plans. Mobility impaired persons are likely to be partially mobile (injury/pregnancy etc.) or require wheelchair access only or bed-access to the lift. Specific lift capacity is beyond the competency of the author and is to be conducted by others. However, it is proposed that the lift car provide capacity for at least 1 bed per floor at any one time.	BS 9999 HTM 05-02
Evacuation Strategy	
The evacuation strategy is identified in Section 2 (Form 2). Upon activation of the alarm, all mobility impaired persons in the compartment of fire origin are to evacuate to an adjacent compartment or sub-compartment, with assistance from the healthcare staff. Use of the evacuation lift in the first instance will be limited to those in immediate need, identified by a PEEP. It is proposed that maintenance of the lift is undertaken outside of peak hours. If under maintenance or upon power failure, the protected refuges and use of PEEPs will form the primary means of evacuation, supported by building management.	BS 9999 HTM 05-02 HTM 05-03: Part E
Management Plan	
The evacuation lift will be a standard passenger lift at all normal operating times. It is proposed that upon alarm, the lift remains usable and controllable within the lift car for mobility impaired persons, prioritising higher floors first. Communication and induction into the use of the lift will be undertaken by building management to fire wardens responsible in each compartment, as defined in operational policy in accordance with HTM. Testing of the lift will be in accordance with prescriptive guidance and undertaken by the building management and defined specialist contractors. Maintenance and testing is to be recorded with O&M manuals held at reception. Upon failure, this will be communicated to all fire wardens of each compartment immediately and instruction provided to use protected refuges or other means for vertical escape.	BS 9999 HTM 05-02 HTM 05-03: Part E