

Job No. 4594  
6 May 2021

## **PROPOSED DEVELOPMENT AT REAR OF 127 KINGSWAY, LONDON SW14**

### **PLANNING FIRE SAFETY STATEMENT**

#### **Introduction**

This statement addresses the requirements of London Plan Policy D12.

The proposal involves demolition of the existing 38 lock up garages and vehicle repair garage on the site. These will be replaced by six houses complete with roof terraces, together with two commercial units housed in the existing arches below the adjacent bridge. Appropriate amenity space, bin storage, parking and bicycle storage are also proposed.

The scheme is relatively simple in terms of fire safety. It will comprise 6 two storey houses with roof terraces at second floor level and two single level offices. However, access will be restricted and it is likely that a fire fighting appliance will not be able to get onto the site. An advice note has been prepared by Trigon Fire Safety Ltd addressing this issue and is included at appendix A of this document. All other aspects of the scheme have been designed in accordance with Building Regulations Approved Document B Volume 1: Dwellings and Volume 2: Buildings Other than dwellings 2019 edition. This will continue through the technical design process.

Policy D12 of the London Plan States:

A 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, and which all building users can have confidence in
6. provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.

#### **Competency Statement**

As detailed above, the scheme is and will continue to be generally compliant with Approved Documents B Volumes 1 and 2. Brookes Architects have addressed the parts of Policy D12 where this is the case.

Brookes Architects has been operating since 1984. It has a number of long serving senior Architects who are well versed in the requirements of Part B of the Building Regulations and who have in excess of 20 years' experience in working on buildings of this type. This report is authored by one of these Architects.

Where the scheme falls outside of the guidance within the Approved Documents, in particular site access for fire fighting, these aspects have been addressed by Trigon Fire Safety Ltd.

Trigon is an independent fire safety engineering consultancy founded in 2019 by three Chartered Engineers, registered with the Institution of Fire Engineers, with over 50 years of combined experience. They specialise in solving unique fire safety challenges for all building types and uses.

### **London Plan Policy D12A**

Each of the 6 points set out by Policy D12A are set out below and addressed.

1. *identify suitably positioned unobstructed outside space:*
  - a. *for fire appliances to be positioned on*
  - b. *appropriate for use as an evacuation assembly point*

1.a. See Trigon Fire Safety's advice note at appendix A.

1.b. Figure 1 below shows the location of the proposed evacuation assembly point. This will be in the eastern corner of the site away from the access route likely to be used by the Fire Service. From this point, residents and office staff will be able to walk along the front of the parking spaces and exit the site.



Figure 1 - Site plan showing 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.*

Both the houses and offices will be fitted with sprinklers. See Trigon Fire Safety's advice note at appendix A.

### Construction

The houses will be constructed as follows:

- External walls - two leaves of masonry with a cavity fully filled with non combustible rockwool insulation. Cavity closers will be fitted around all openings in the external wall and fire stopping will be installed at party wall junctions.
- Party walls - two leaves of masonry with a cavity fully filled with non combustible rockwool insulation.
- Internal partitions - British Gypsum fire tested metal framed partition systems fitted with plasterboard
- Floors - Timber joists protected by a British Gypsum fire tested plasterboard ceiling system
- Roofs - Timber joists protected by a British Gypsum fire tested plasterboard ceiling system and insulated with non combustible rockwool
- Windows and doors - non combustible aluminium
- The structure of the buildings will be fire rated to 30 minutes as required by Approved Document B Volume 1 Table B4.
- Services passing through or serving protected escape routes will be fitted with the appropriate dampers and/or fire stopping

The above materials may change as the design develops through RIBA Stage 4. Any changes will continue to meet the guidance set out in Approved Document B.

The offices will be located within the existing brick road arches. The new elements will be constructed as follows:

- External walls - two leaves of masonry with a cavity fully filled with non combustible rockwool insulation. Cavity closers will be fitted around all openings in the external wall.
- Internal partitions - British Gypsum fire tested metal framed partition systems fitted with plasterboard
- Windows and doors - non combustible aluminium

### Means of Escape

Each house will include a 30 minutes fire rated protected staircase and entrance hall serving all levels. In addition, all ground and first floor rooms will be fitted with escape windows/doors.

Each office will have a single escape route to the front entrance and be a single level. The offices will meet the requirements of "small premises" as set out in Approved Document B Volume 2, Section 4. As a result, the maximum permissible travel distance is 27m. The actual travel distance in the offices will be approximately 13m.

### Means of Warning

The houses will be fitted with a system of linked mains powered smoke and heat detectors with battery back up as set out in Approved Document, B Volume 1, Section 1.

Similarly, the offices will be fitted with linked smoke detectors with battery back up and with the addition of a break glass point adjacent to each entrance/exit door.

3. *are constructed in an appropriate way to minimise the risk of fire spread*

See the section on construction above.

4. *provide suitable and convenient means of escape, and associated evacuation strategy for all building users*

See the section on means of escape above.

Because both the houses and offices are simple buildings the full of evacuation of each will take place in the event of a fire and when fire alarms are activated. In accordance with the guidance in the Approved Documents adjacent buildings will not be evacuated unless a fire spreads to them (extremely unlikely as sprinklers will be fitted) or the fire service requires evacuation.

5. *develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in*

See above. The occupiers of all buildings will be provided with an evacuation strategy on completion of the buildings. These will be updated on a regular basis as required by the relevant legislation.

6. *provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.*

See Trigon Fire Safety's advice note at appendix A.

### Conclusion

This Fire Safety Statement has been prepared to demonstrate the commitment to ensure the highest level of fire safety for this development in accordance with the requirements of London Plan Policy D12.

It demonstrates that the fire safety for the proposal was considered at the planning stage and that, subject to approval, the fire strategy will be developed to ensure that the final building will be both safe and compliant. The fire strategy will be part of the submission to the relevant authorities at the appropriate time and will meet the functional requirements of the Building Regulations 2010, together with other appropriate guidance and regulations.

Regulation 38 of the Building Regulations requires that fire safety information be given to the person responsible for the occupied building. The final fire safety strategy will be issued to the responsible person and will allow them to:

- a. Understand and implement the fire safety strategy of the building
- b. Maintain any fire safety system provided in the building
- c. Carry out an effective fire risk assessment of the building

## **APPENDIX A**

Trigon Fire Safety Ltd Advice Note

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<b>Client:</b>	<b>Space Solutions (UK) Ltd</b>
<b>Project:</b>	<b>Kingsway Mews (127/143 Kingsway, London SW14 7HN)</b>
<b>Reference:</b>	<b>Fire Safety Advice Note for Planning Application</b>

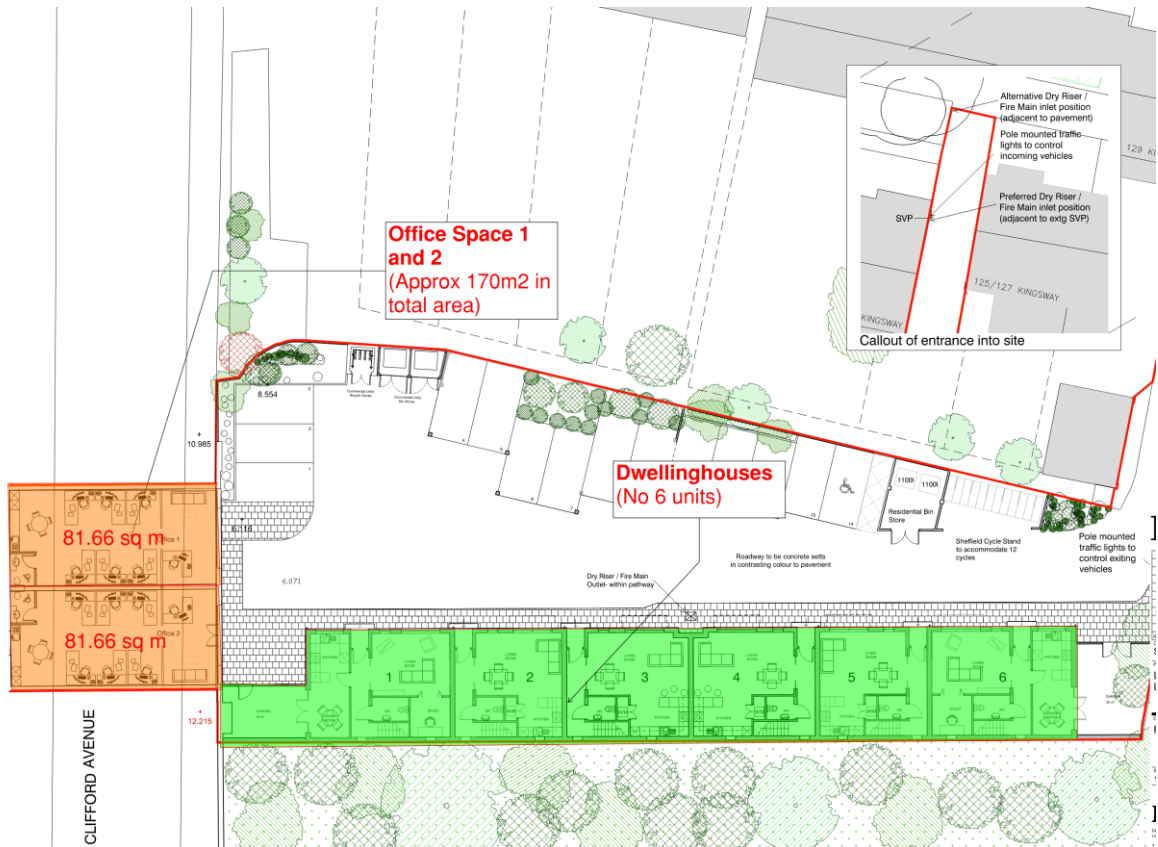
<b>Issue:</b>	<b>Date:</b>	<b>Author:</b>	<b>Reviewer:</b>	<b>Comment:</b>
Issue 01	13/02/20	K. Wallasch	D. Bostelmann	First issue for design team to comment
Issue 02	15/02/20	K. Wallasch	D. Bostelmann	Final Issue

## 1. Introduction

### General

- 1.1 This Advice Note relates to the proposed Kingsway Mews development for planning application (No 19/0691/FUL), in particular addressing comments raised in the appeal decision (ref: *APP/L5810/W/18/3213904 Land rear of 127 - 147 Kingsway, Mortlake, London*, from 11 November 2019) with respect to the proposed fire brigade access.
- 1.2 This Advice Note summarises the proposed principles to address the fire brigade access and facilities for the development. This note has been prepared to support the planning application only.
- 1.3 Specific comments made during the planning appeal and application about fire brigade access have been addressed in this Note (see Section 3).
- 1.4 The proposed new Kingsway Mews development is a mixed-use development including the refurbishment single storey office space into two office units (each approx. 82m<sup>2</sup> in area) and six (6) new dwellinghouses. Each dwellinghouse will be a two-storey unit i.e. ground and first floor level. Associated covered but external car parking spaces will be provided on the same site.
- 1.5 The new development is highlighted in Figure 1 below.

Figure 1: Kingsway Mews – Overview



- 1.6 We understand that the previous planning application was repealed and specific comments have been raised with respect to fire brigade access and facilities (see Section 3).
- 1.7 It is understood that the proposed development will be designed to comply with Approved Document B (Fire Safety) (ADB) Volume 1: Dwellings (2019); and Volume 2: Buildings other than dwellings (2019).

## 2. Fire Brigade Access and Facilities

### General

- 2.1 The functional requirements from Part B of Schedule 1 to the Building Regulations 2010 specify the follow with respect to fire brigade access and facilities requirements:

**“Access and facilities for the fire service B5.**

- (1) The building shall be designed and constructed so as to provide reasonable facilities to assist fire fighters in the protection of life.
- (2) Reasonable provision shall be made within the site of the building to enable fire appliances to gain access to the building.”

- 2.2 In accordance with ADB Volume 1, any area within a dwellinghouse should be covered by a 45m fire hose distance measured from a fire vehicle access point to furthest point in the dwellinghouse. This distance can be increased up to 60m when sprinklers are provided.
- 2.3 In accordance with ADB Volume 2, an office with up to 2,000m<sup>2</sup> and up to 11m height require either 15% perimeter access by a fire vehicle pump appliance or all areas should be covered by a 45m fire hose distance (as detailed above).
- 2.4 The proposal includes a private road providing access to the new development from the public road (Kingsway).
- 2.5 Due to the width of the private road of approx. 3.0m, it is unlikely that a fire vehicle will be able to access this road. Therefore, the fire brigade would have to park their fire vehicle on the public road (Kingsway) and will be faced with travel distance of 108.50m between fire vehicle and furthest point in the office (See also Figure 2 below).

Figure 2: Kingsway Mews – Distance from Public Road to Furthest Point



- 2.6 The following measures have been discussed with the client and the design team to compensate for the extended travel distance for fire fighters:
  - Provision of residential sprinklers (designed, installed and tested in accordance with BS 9251:2014) to each dwellinghouse; and
  - Provision of residential sprinklers to the office unit; and
  - Provision of an external dry riser system.



2.7 Benefits of each of these proposed measurements are outlined below.

### **Sprinkler Protection to Dwellinghouses**

2.8 The proposal is to provide residential sprinklers to each dwellinghouse (designed, installed and tested in accordance with BS 9251). Research about residential sprinklers and sprinkler fires (e.g. BRE Project Report 204505; NHBC report NF19) has shown that residential – although may not extinguish – will significantly reduce the fire spread and smoke production. It is therefore assumed that if a fire occurs, the fire brigade is likely to be fighting a smaller, controlled fire. Therefore, if travel distance between fire vehicle are extended, and although there may be a short delay to reach the fire, it is likely that the fire will be controlled.

### **Sprinkler Protection to Office**

2.9 Similar to the residential dwellinghouses, it is proposed to provide residential sprinkler protection (BS 9251) to the office space. It is our opinion that the actual office space area and potential fire load is similar to a residential environment. In addition, no sleeping risk is present in the office as occupants will be awake and familiar. The actual design of the sprinkler system should be undertaken during the next stage to confirm location and number of heads, Category etc. It is proposed to provide a detection system to raise alarm and awareness of a fire at an early stage. This will furthermore allow for early means of escape, and result in early call and intervention by the fire brigade. Should the fire develop, the residential sprinklers should be able to control the fire, therefore the fire brigade is likely to fight a smaller and controlled fire. Therefore, even with extended travel between the fire vehicle and furthest point of the office, it is likely that the fire would still be controlled.

### **External Dry Riser**

2.10 Another fire safety measure discussed with the team is the implementation of an external dry riser pipe system. The dry riser inlet should be located within 18m and visible from the fire vehicle arriving at Kingsway. The fire brigade can then use this dry riser system with an external outlet which should be located such that all areas within the dwellinghouses and the office area are covered by a 45m hose distance (. Both dry riser inlet and outlet should be located vertically.

2.11 Details of the dry riser system, exact inlet/outlet location, management and maintenance regime should be outlined in detail during the next stage and presented to the Local Fire Brigade as part of the Building Regulations application process.

2.12 Figure 3 below outlines the walking distance between dry riser inlet and outlet and fire hose distance from dry riser outlet to furthest point in this development.



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### 3. Response to Appeal Decision

3.1 The following outlines our response to item 3-8 of the Appeal Decision (ref: APP/L5810/W/18/3213904, hearing held on 10 September 2019) addressing access for emergency services.

#### 3.2 Item 3

The appeal site is located to the rear of a number of residential properties and is accessed by a track which at its widest point, measures slightly in excess of 3 metres. It is not disputed between the parties that it would not be possible for a fire engine to access the appeal site via this track as a minimum clearance of 3.7 metres is required for fire tenders.

3.3 TRIGON: The assumption is correct which is that the fire vehicle has to stop at Kingsway and fire fighters will have extended walking distance. However, it is our considered opinion that the proposal which includes sprinkler protection to all dwellinghouses and the office area as well as a new dry riser system will significantly assist the fire fighters and therefore allow for extended walking distances.

#### 3.4 Item 4

During the hearing the concept where a number of dry risers would be located along the accessway into the site to provide for a fire engine to park on the highway, and still serve the proposed units in the event of an emergency was discussed at length. No technical details were submitted to illustrate how this would work for this scheme, however it was explored as a concept that has been used elsewhere in London, specifically for mews developments.

3.5 TRIGON: Details of the actual dry riser system design, inlet/outlet locations, management and maintenance regime should be provided during the detailed design stage and prior to applying for Building Regulations approval.

#### 3.6 Item 5

I have carefully considered the relative distances, the furthest units from the highway would be the commercial units which are in excess of 90 metres from

the site entrance. The residential units would then be located in a row facing into the site along the rear boundary. All units would be accessed via the single point of entry along the access track which is approximately 28 metres. Whilst I accept that an approach incorporating dry risers could be implemented in principle, I am not satisfied that it has been demonstrated such a concept would be appropriate for this site. I acknowledge that this approach has been used elsewhere, however I do not have specific details of those schemes that would allow me to make any meaningful comparisons. Furthermore, each site must be considered individually, and taking into account the seriousness of the issues a blanket approach to this concept would not be appropriate.

- 3.7 TRIGON: By providing sprinkler protection throughout and a dry riser system, it is our considered opinion that the functional requirements of the Building Regulations 2010 can be met. This will be subject to providing details during the next design stage and discussion with Statutory Authorities as part of the Building Regulations approval process.

**3.8 Item 6**

It is fundamental that development is provided in a manner that is safe for future occupants. The fire Brigade should be consulted at an early stage within the planning process to work alongside and confirm functionality of any proposals that would be used for this due to the site being inaccessible for fire tenders. There is no evidence to suggest that the appellant entered into consultation with the fire brigade either throughout the application or appeal process and therefore there is no confirmation from the fire brigade that this approach would be suitable for this particular development. Failure to provide adequate access for fire tenders, or to provide confirmation from the fire services that an alternative approach would be suitable, means that the development cannot demonstrate it would be safe for future occupiers.

- 3.9 TRIGON: We understand your comment and understand that early consultation with the Local Fire Brigade has taken. This Advice Note can be presented to the Local Fire Brigade.

**3.10 Item 7**

As part of the hearing the use of a pre-commencement condition to secure the agreement of a Fire Safety Strategy to include the provision of dry risers was discussed. Conditions should be used to enable development to proceed by mitigating adverse effects of that development where it would otherwise have been necessary to refuse planning permission. With regards to the scheme before me, I am not satisfied that without prior consultation with the fire services in relation to the very particular circumstances of this site such mitigation can be achieved. Therefore, it is not possible for me to impose a condition that would meet the relevant tests, particularly those relating to enforceability and the need for precision.

- 3.11 TRIGON: We have carefully considered the options and a workable solution as outlined in this Advice Note has been presented. We therefore recommend forwarding this Advice Note to the Local Fire Brigade.

**3.12 Item 8**

As such, I cannot conclude that the proposal would provide a suitable access with particular regard to the ability of the emergency services to tend to the site. Accordingly, I find that the proposal would conflict with Policy LP44 of the London Borough of Richmond Upon Thames Local Plan 2018 (the Local Plan) with specific regard to the council's aim to promote safe, sustainable and accessible transport solutions.

- 3.13 TRIGON: Our proposal to include sprinkler protection throughout and provide an external dry riser pipe system should be developed into a detailed fire safety strategy during the next

detailed design stage. However, the concept presented in this Advice Note outlines at strategic level how the proposal would comply with the functional requirements of the Building Regulations 2010 with respect to B5 requirements: Fire Brigade Access and Facilities.

## **4. Conclusions**

- 4.1 This Advice Note has been prepared following our initial review of the proposed Kingsway Mews scheme during planning application. This note does not replace a detailed fire safety strategy report and should not be used for Building Regulations application.
- 4.2 Following our review, it is our considered opinion that the proposal presents a route to comply with B5 of the functional requirements of the Building Regulations 2010, subject to detailed development during the next detailed design stage.
- 4.3 It is our considered opinion that the proposal which includes sprinkler protection to all dwellinghouses and the office area as well as a new dry riser system will significantly assist the fire fighters and therefore allow for extended walking distances.

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