

Project:	100 West Cromwell Road, London
Title:	Planning – Fire Strategy Summary
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FIRE STRATEGY SUMMARY

1 DESIGN BASIS

The fire safety design has been considered in great detail from concept stage using fully competent fire safety consultants. Both Building Control and London Fire Brigade have been consulted extensively during the concept design stages, which is typically only undertaken at detailed design.

As a result, the fire protection measures proposed are considered to provide a viable fire strategy for meeting the functional requirements of Schedule 1, Part B of the Building Regulations 2010 (as amended in 2019), following the recommendations of BS9991 and BS9999. Where these are not met prescriptively, they have been addressed by applying fire engineering principles.

2 CONSTRUCTION METHOD

The distance between the buildings is sufficient to restrict fire spread and adequate protection will be provided to façades where this is considered to be necessary.

External walls and specified attachments (such as balconies) will be primarily constructed of materials which achieve a class A2-s3, d2 or better classification in accordance with BS EN 13501-1. This is in line with Regulation 7 of the Building Regulations. The only exceptions will be those listed in Regulation 7, such as door frames & doors, membranes etc.

The proposed façade detail plans are shown in Figures 1 to 4 below.

FACADE DESIGN STRATEGY
Building 2 - Facade Detail Plan

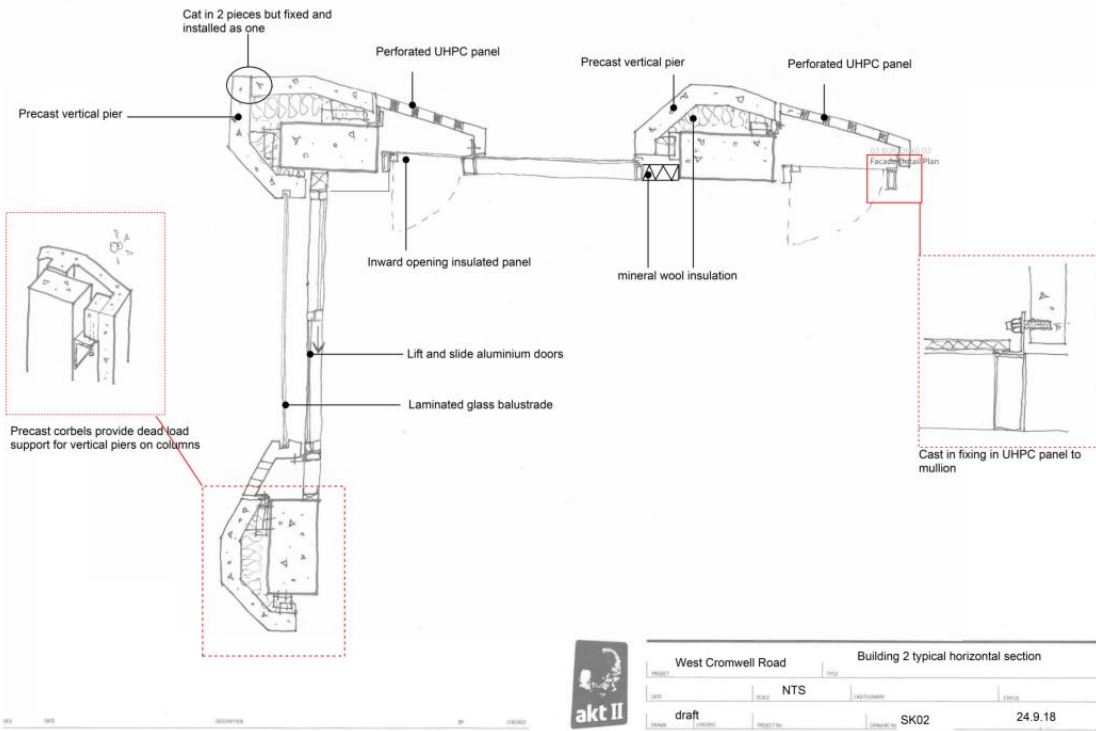


Figure 1: Building 2 Facade Detail Plan

FACADE DESIGN STRATEGY
Building 2 - Detail Through Window Cill and Head

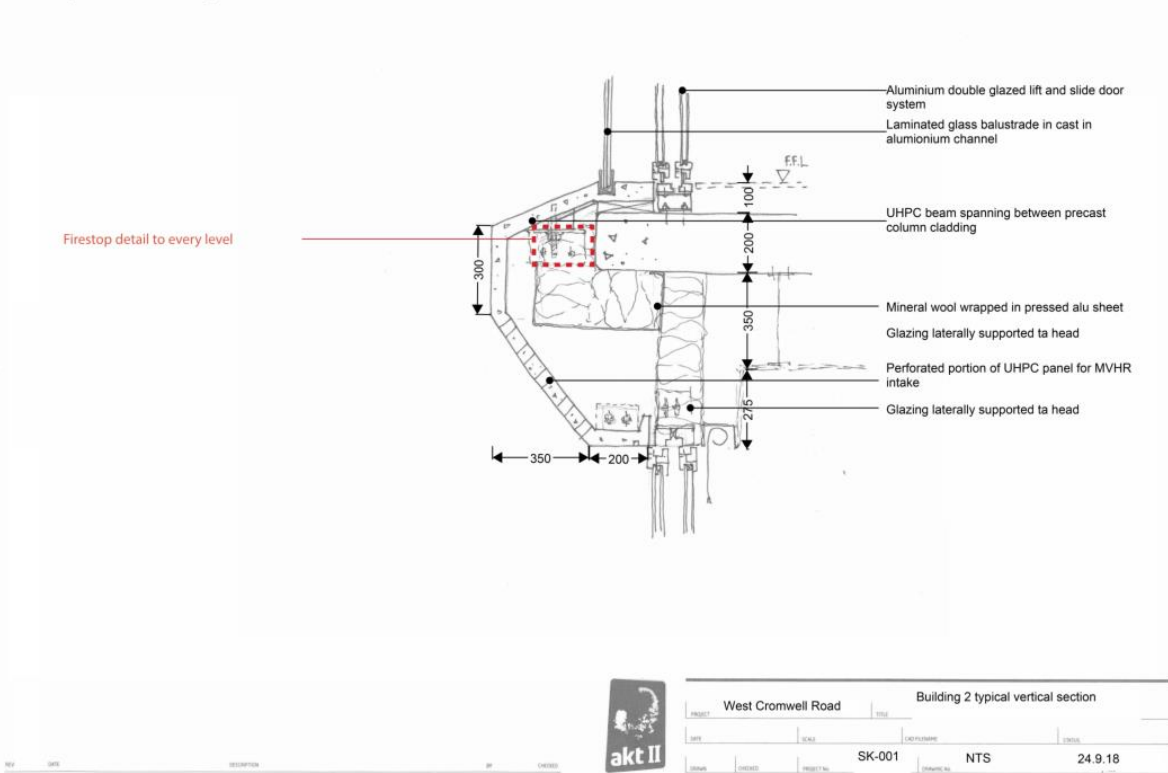


Figure 2: Building 2 - Detail Through Window Cill and Head

FACADE DESIGN STRATEGY
Building 3,4,5 - Wall Detail Railway Facing

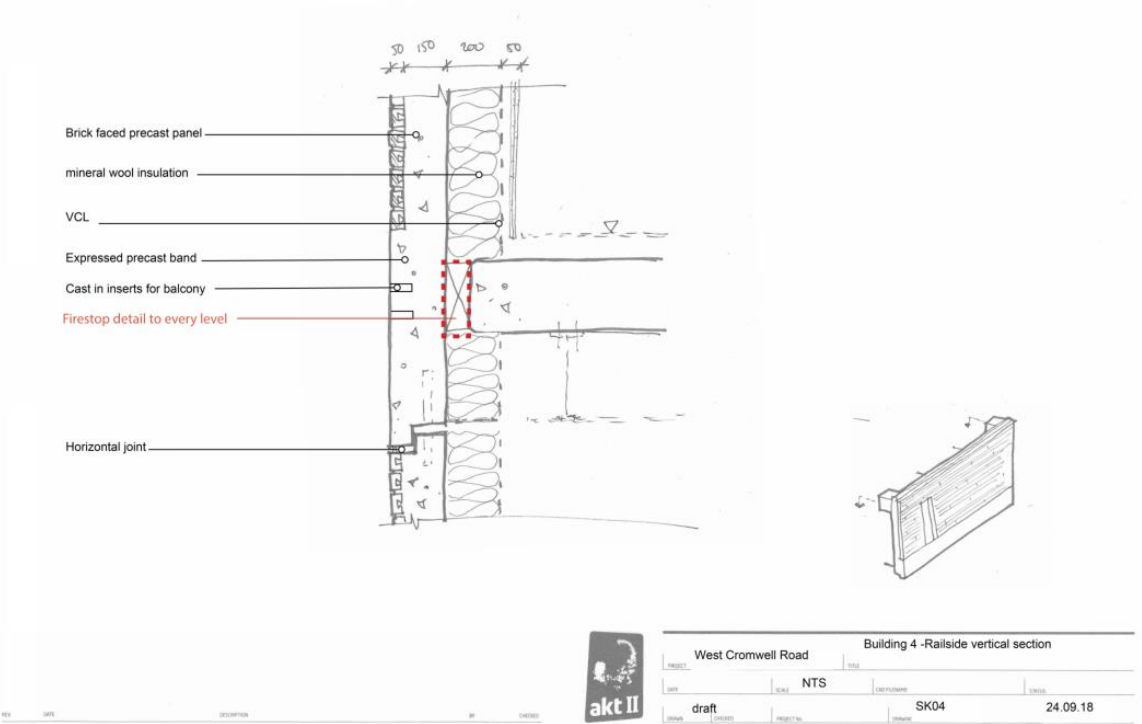


Figure 3: Building 3,4,5 - Wall Detail Railway Facing

FACADE DESIGN STRATEGY
Building 3,4,5 - Wall Detail Courtyard Facing

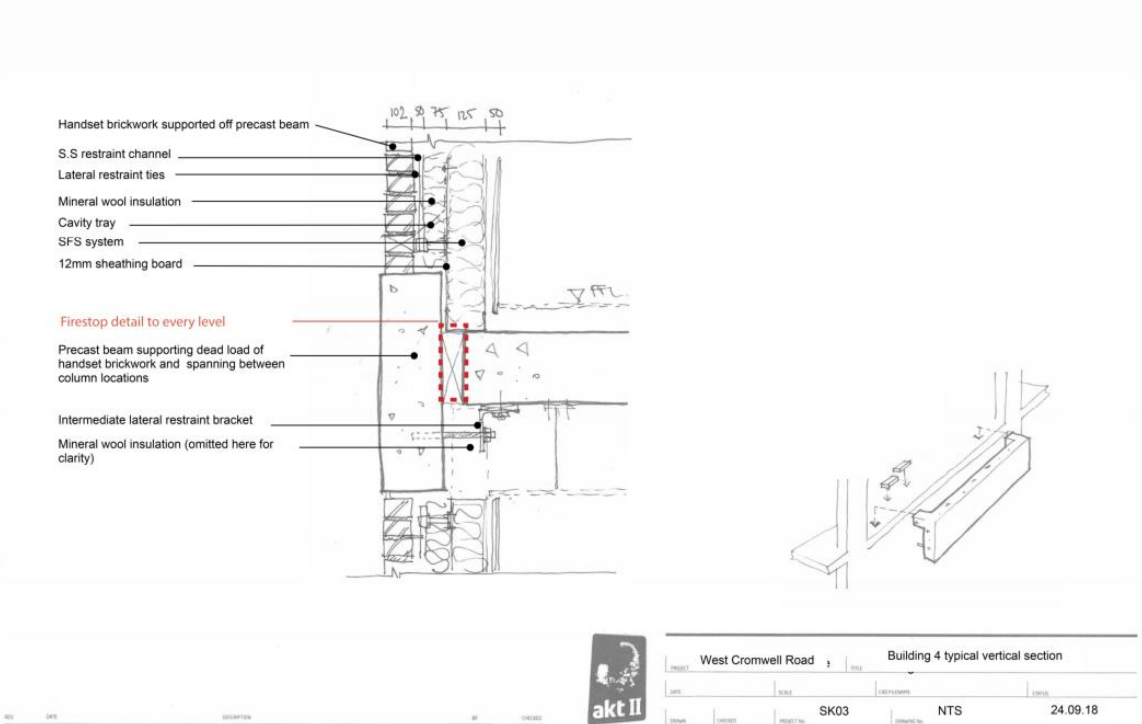


Figure 4: Building 3, 4, 5 - Wall Detail Courtyard Facing

3 MEANS OF ESCAPE FOR ALL BUILDING USERS

3.1 Internal Planning of Flats

All the residential buildings will contain flats with a mixture of open plan layouts and protected entrance hallways. All flats are within the guidance recommended maximum sizes.

The entrance doors to the flats will open onto the shared common corridor, from where the lifts and protected stair will be accessed.

3.2 Escape Provisions from the Residential Buildings

The buildings will be designed with a 'stay put' evacuation policy where occupants should be safe to stay within their apartment while the apartment of fire origin evacuates.

The shared common corridors are the primary escape routes from the flats and will be mechanically ventilated with an enhanced smoke extract system to provide protection to the escape stair. This system will ensure tenable conditions for both means of escape and firefighting and will be designed to prevent smoke from entering the escape stairs.

Each of the residential buildings will be served by a single escape stair, in line with the most recent design guidance (issued by MHCLG in late 2019).

If occupants who are not within the flat of fire origin do decide to evacuate, for example on the instruction of the fire brigade, the building is designed to allow this to happen safely. The fire safety provisions within the residential buildings, supported by compartmentation, protect the escape route to allow others to escape.

The stairs serving Buildings 1 to 5 will discharge onto Podium Level, with final exits via the external staircases to ground floor. The stairs from Buildings 6 and 7 will discharge directly to the ground floor.

For disabled escape the firefighting lift could be used as an evacuation lift, subject to certain arrangements, and the common corridor on residential levels provides a similar level of protection to a disabled refuge. Non-ambulant residents may also take refuge in the stair cores.

3.3 Escape Provisions from the Non- Residential Areas

The commercial buildings will have exits directly to outside or exits discharging via the existing Tesco carpark to outside. The Tesco car park will have exits discharging to outside via external openings/doors and stairs from the upper levels leading to ground floor. A reconfiguration of the existing exits from the Tesco car park is proposed which should result in an overall improvement of the existing means of escape arrangement. Firefighter access to these spaces will be via the escape stairs and exits.

Escape from the basement residential car parking and pool area is via escape stairs which discharge directly to outside at ground floor, or discharge via the existing Tesco car parking at ground to outside. Access to the basement for firefighters will be via these stairs and exits. Smoke ventilation will be provided at basement level as a part of the firefighting provisions.

4 FEATURES WHICH REDUCE THE RISK TO LIFE

Sprinklers will be provided throughout the development. The system will be provided with additional features to enhance the resilience of the system. The additional features include dual pumps and back-up power.

Wet Risers will be provided to all buildings situated on the Podium. This is an enhancement over guidance, as the majority of these buildings have a top floor less than 50m where dry riser provisions would have been recommended.

Automatic fire detection and alarm will also be provided throughout the development.

A high level of compartmentation will be provided throughout the building.

The maintenance of all the associated fire safety features within the building will be in line with manufacturer's recommendations and the Building Regulations requirement.

5 ACCESS FOR FIRE SERVICE PERSONNEL AND EQUIPMENT

5.1 Access

The main vehicle access routes to the 100 West Cromwell Road site will be via West Cromwell Road, Beckford Close and via the Podium Deck located above the existing carpark.

5.2 Provisions to enable fire appliance to gain access

Buildings 2 will have a dedicated entrance with access from West Cromwell Road. Buildings 6 and 7 will have entrances with access from Beckford Close. Access to Buildings 1, 3, 4 and 5 will be from the Podium and the podium parking position.

These access routes will also form the main fire brigade vehicle access to the site, as the fire brigade will be able to park on West Cromwell Road, Beckford Close or access the site via the Podium utilising the existing car park ramp to this level. This car ramp is already an existing access route for the fire brigade to the site. Indicative parking positions are shown in **Error! Reference source not found.** (red trucks indicate street level parking position; the green truck indicates podium level parking position).

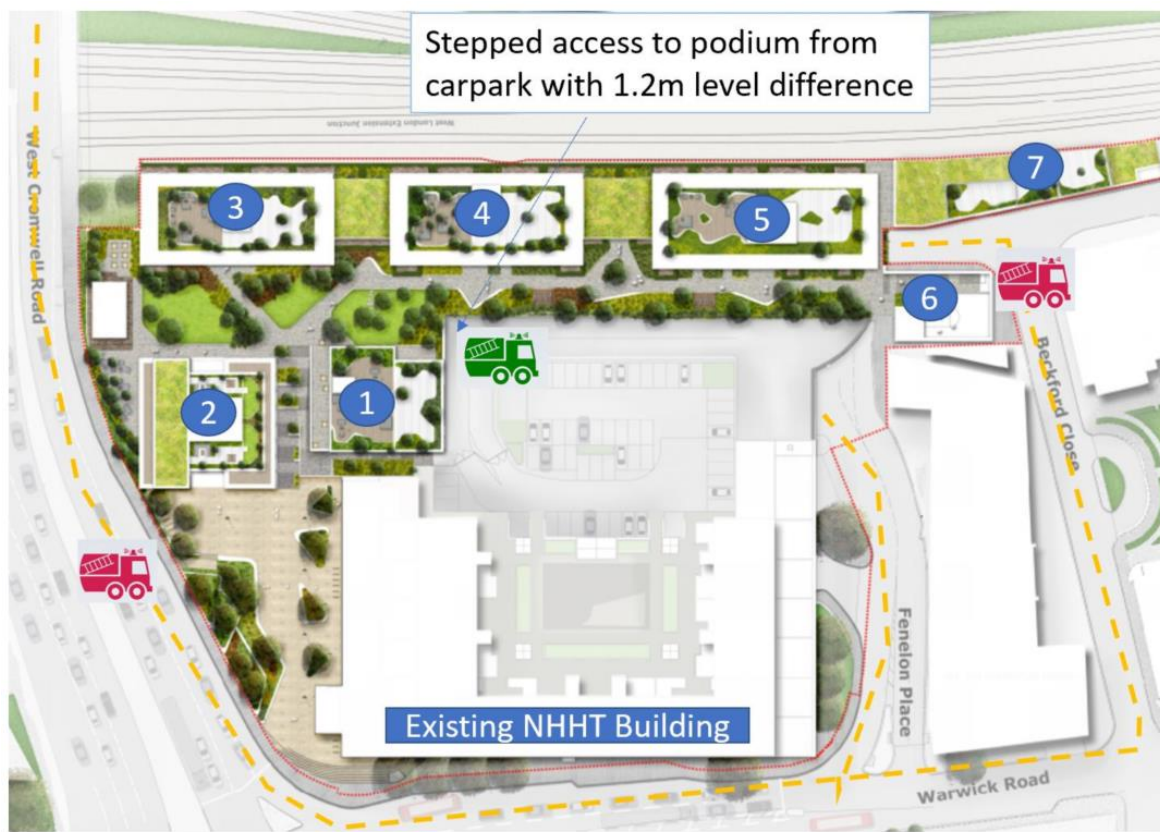


Figure 5: Indicative Fire Vehicle Parking Positions, red trucks are at street level, green truck indicating parking position at Podium level

5.3 Equipment

All buildings, except for Building 6 (2 storey commercial building), will be provided with firefighting shafts with firefighting lifts. The firefighting lifts will also serve as passenger lifts during normal day to day operations.

The podium accessed buildings will have wet rising fire mains. Building 7 which will be provided with a dry fire main. Building 6 will be provided with sufficient perimeter access to a fire vehicle from Beckford Close.

5.4 Water Supplies

It will be ensured that fire hydrants are present within 90m from all three of the fire service parking positions. It has been established that a hydrant is present on the podium deck already, and the team will check with the London Fire Brigade about the locations of other hydrants. If hydrants are not present, the Fire and Rescue Services Act 2004 states that it is the duty of the fire authority to source firefighting water supplies. To do this they can either enter into an agreement with a water supplier under Section 39 of that Act or with another individual to put in another source of water (tank, private main etc) under Section 41.

The sprinkler and wet rising main systems for the development are both provided with water storage tanks, sized to provide the requisite duration of supply stated in the guidance. These water tanks are supplied with infill supplies from the town main water supply, so there is a degree of

reliance on the water supply from the utility provider, and the availability of this supply will be confirmed during the design and construction period.