Planning Fire Safety Statement for Royal Brunswick Park (Phase 1)

Introduction

Context

The proposed development comprises Phase 1 of the comprehensive re-development of the North London Business Park to deliver a residential-led mixed use development, as summarised in Figure 1. The subject detailed element comprises 461 no. residential units within 5 no. blocks (1B to 1F) and associated ancillary accommodation including enclosed basement car parking. The sizes of each block are summarised in Figure 2 and the relevant heights are summarised in fire safety terms, i.e. measured from lowermost external ground level to the topmost floor level, as outlined in Table 1.

Block	Core	Storeys	Height	Parameter
1B	-	3 no.	6.3 metres	< 7.5 metres
1C	*1*	8 no.	22.6 metres	> 18 metres
	2	7 no.	19.8 metres	> 18 metres
	3	10 no.	29.0 metres	> 18 metres
	4	6 no.	17.0 metres	< 18 metres
	5	3 no.	6.7 metres	< 18 metres
	6	6 no.	17.0 metres	< 18 metres
1D	*1*	10 no.	29.0 metres	> 18 metres
	2	10 no.	29.0 metres	> 18 metres
	3	4 no.	9.6 metres	< 18 metres
	4	6 no.	16.1 metres	< 18 metres
	5	10 no.	29.0 metres	> 18 metres
1E	*1*	8 no.	22.6 metres	> 18 metres
	2	7 no.	19.4 metres	> 18 metres
1F	*1*	3 no.	6.5 metres	< 18 metres
	2	8 no.	22.6 metres	> 18 metres
	3	6 no.	16.1 metres	< 18 metres
	4	5 no.	12.9 metres	< 18 metres

Table 1. Building Heights

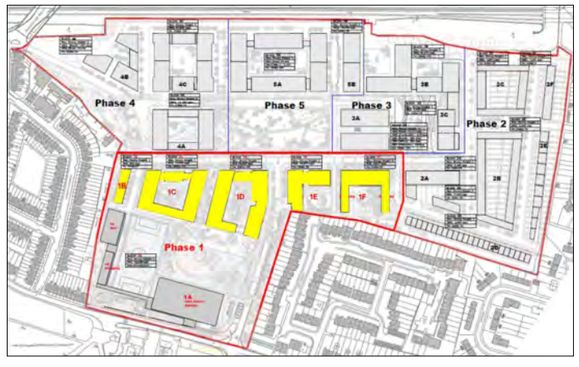

Figure 1. Overview of Site

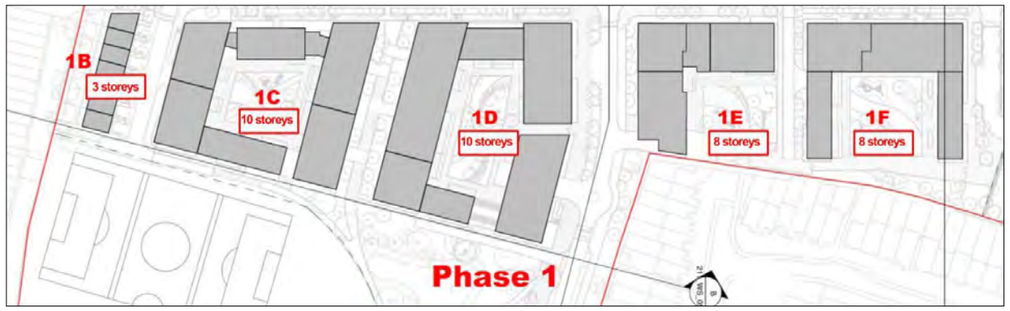

Figure 2. Overview of Phase 1A (Blocks 1B to 1E)

The development comprises in excess of 10 no. residential units and therefore is a ***Major Development***, under Annex 6 of the London Plan 2021. Accordingly, this Planning Fire Safety Strategy Statement (PFSS) is structured to address policies in that order prescribed in Policy D12B, i.e. D12B(1) to D12B(6).

Design Objectives

The primary fire safety objectives are those contained outlined in the Greater London Authority's London Plan 2021 including:-

- *Policy D12B – Fire Safety (Major Developments)*
- *Policy D5(B5) – Evacuation Lifts*

The proposed development has been evaluated in terms of its capacity to deliver these stated policy objectives, specifically:-

1) Fire safety performance in respect of the building's inherent construction and the fitness for purpose of the materials used therein to limit fire spread.

2) Adequate, dignified and universal means of escape in case of fire for all potential building users.

3) Measures to ameliorate fire safety risks.

4) Appropriate facilities (active and passive) for London Fire Brigade to assist them in their protection of life.

5) Access to the building for London Fire Brigade vehicles.

6) Robustness of fire precautions in respect of future modifications.

Competence

This Fire Statement has been prepared by Dr. Raymond Connolly of Fire & Risk Solutions Ltd. who is a suitably qualified and experienced Chartered Engineer and Member of the Institution of Fire Engineers and affirms that he meets the competency standards contained in Clause 3.12.9 of Policy D12.

Design Development

Building Regulations

During detailed design, these London Plan 2021 policy objectives will be further supplemented by the minimum requirements of Part B of the Second Schedule to the Building Regulations 2010 (as amended in 2018) including the following additional statutory requirements:-

- To ensure the life safety in case of fire of all building, i.e. to permit all building occupants to safely
- To inhibit the spread of fire via the internal wall/ceiling linings.
- To design and construct the building such that it will retain its stability for a reasonable period during a fire.
- To appropriately sub-divide the building to restrict the internal spread of fire.
- To inhibit the unseen spread of smoke and fire within concealed spaces.
- To prevent the spread of fire from the building beyond the site boundaries to adjacent buildings.
- To enable access to the building to assist fire-fighting.

These statutory objectives shall be met to the extent determined by the Building Control Body (identity to be confirmed) in consultation with London Fire Brigade as being sufficient to achieve compliance with the specific requirements of Part B to the Building Regulations 2010. In fire safety terms, the proposed development is a mixed-use building with Building Regulations Purpose Groups as outlined in Table 2.

Blocks	Use	Purpose Group *
All	*Flats*	1(a) – Residential (flats)

**Table 0.1 of HM Government Approved Document B Vol. 1*

Table 2. Purpose Group

Planning Fire Safety Statement for Royal Brunswick Park (Phase 1)

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Overview

The relevant maximum building heights (measured from lowest adjacent external ground level to the top floor level and presented in Table 1) exceed the 18 metres threshold making provision of fire-fighting stairs, fire-fighting lifts and dry main systems necessary in all Blocks, except the townhouses (Block 1B).

Again with the exception of the townhouse block 1B, all buildings also exceed the 11 metres height threshold and therefore requires provision of automatic sprinkler protection throughout. All flats shall therefore be protected with a sprinkler system designed and installed to BS 9251:2014 (Category 2). All ancillary spaces at ground and basement levels, including the enclosed car parks, shall be fitted with automatic sprinkler protection to BS EN 12845:2015+A1:2019 (or equivalent approved by the Building Control Body).

The proposed layouts of the residential parts may be summarised in fire safety terms as comprising single stair sprinkler protected residential blocks with escape travel distances limited in accordance with best practice. The common escape routes include ventilated communal lobbies and protected ventilated escape and fire-fighting stairways.

The evacuation strategy for all building shall be individual to flats with protected vented escape stairways provided that discharge to the public pavements, i.e. a suitable location for assembly of evacuated persons and mustering of the Fire Service. Figure 3 refers. All storeys are to be fitted with evacuation lifts complying with the principles contained in to *pr* EN 81-76:2019.

Design Philosophy

The functional requirement to provide safe long-term residential accommodation will be delivered using an appropriately engineered combination of fire precautions including:-

- Good general arrangement of the building including the internal layout of flats to achieve best practice in terms of means of escape infrastructure.
- Provision of fire-resisting construction and fire compartmentation between different storey levels and between individual flats.
- Protection of escape routes against ingress of heat and smoke.
- Provision of automatic fire detection and alarm throughout.
- Provision of automatic fire suppression (sprinklers) throughout.
- Special measures to assist Fire Service access and fire-fighting operations.

Relevant Fire Safety Design Codes

This PFSS outlines a means for delivering future compliance with Part B to the Building (Amendment) Regulations 2018, as will be further developed during the detailed design process within the formal statutory regime under the jurisdiction of the appointed Building Control Body and London Fire Brigade, including as a minimum adoption of the guidance contained in:-

- BS 9991, *Fire safety in the design, management and use of residential buildings - Code of practice* (2015).

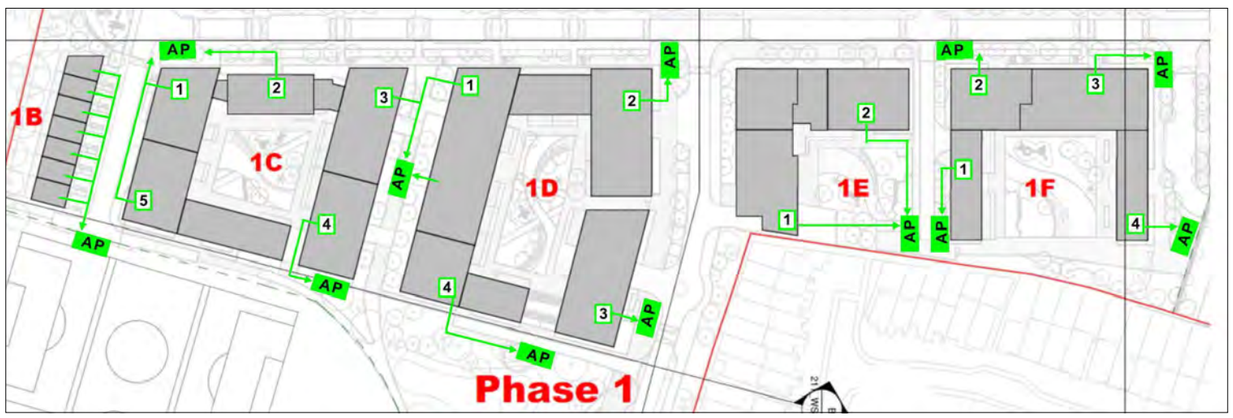

Figure 3. External Assembly Points (labelled AP)

Supporting schedule of relevant plan drawings

This PFSS has been prepared following our appraisal of the drawings (prepared by Plus Architecture) in Table 3.

BLOCK B	
01 Site Plan	
211_1B_01_01	Block 1B_Site Plan
02 Plans	
211_1B_02_00	Block 1B_Ground & First Floor Plan
211_1B_02_01	Block 1B_Second Floor & Roof Plan
04 Elevations	
211_1B_04_01	Block 1B_North & East Elevations
211_1B_04_02	Block 1B_South & West Elevations
05 Sections	
211_1B_05_01	Block 1B_Cross Section AA & BB
BLOCK C	
01 Site Plan	
211_1C_01_01	Block 1C_Site Plan
02 Plans	
211_1C_02_00	Block 1C_Ground Floor Plan
211_1C_02_01	Block 1C_First Floor Plan
211_1C_02_02	Block 1C_Second Floor Plan
211_1C_02_03	Block 1C_Third Floor Plan
211_1C_02_04	Block 1C_Fourth Floor Plan
211_1C_02_05	Block 1C_Fifth Floor Plan
211_1C_02_06	Block 1C_Sixth Floor Plan
211_1C_02_07	Block 1C_Seventh Floor Plan
211_1C_02_08	Block 1C_Eighth Floor Plan
211_1C_02_09	Block 1C_Ninth Floor Plan
211_1C_02_10	Block 1C_Roof Plan
04 Elevations	
211_1C_04_01	Block 1C_North & East Elevations
211_1C_04_02	Block 1C_South & West Elevations
05 Sections	
211_1C_05_01	Block 1C_Cross Section AA & BB
BLOCK D	
01 Site Plan	
211_1D_01_01	Block 1D_Site Plan
02 Plans	
211_1D_02_00	Block 1D_Ground Floor Plan
211_1D_02_01	Block 1D_First Floor Plan
211_1D_02_02	Block 1D_Second Floor Plan
211_1D_02_03	Block 1D_Third Floor Plan
211_1D_02_04	Block 1D_Fourth Floor Plan
211_1D_02_05	Block 1D_Fifth Floor Plan
211_1D_02_06	Block 1D_Sixth Floor Plan
211_1D_02_07	Block 1D_Seventh Floor Plan
211_1D_02_08	Block 1D_Eighth Floor Plan
211_1D_02_09	Block 1D_Ninth Floor Plan
211_1D_02_10	Block 1D_Roof Plan
04 Elevations	
211_1D_04_01	Block 1D_North & East Elevations
211_1D_04_02	Block 1D_South & West Elevations
05 Sections	
211_1D_05_01	Block1D_Cross Section AA & BB

Table 4. Drawing Schedule *(ctd. over)*

Planning Fire Safety Statement for Royal Brunswick Park (Phase 1)

01 Site Plan	
211_1E_01_01	Block 1E_Site Plan
02 Plans	
211_1E_02_001	Block 1E_Basement Floor Plan
211_1E_02_00	Block 1E_Ground Floor Plan
211_1E_02_01	Block 1E_First Floor Plan
211_1E_02_02	Block 1E_Second Floor Plan
211_1E_02_03	Block 1E_Third Floor Plan
211_1E_02_04	Block 1E_Fourth Floor Plan
211_1E_02_05	Block 1E_Fifth Floor Plan
211_1E_02_06	Block 1E_Sixth Floor Plan
211_1E_02_07	Block 1E_Seventh Floor Plan
211_1E_02_08	Block 1E_Roof Plan
04 Elevations	
211_1E_04_01	Block 1E_North & East Elevations
211_1E_04_02	Block 1E_South & West Elevations
05 Sections	
211_1E_05_01	Block 1E_Cross Section AA & BB
BLOCK F	
01 Site Plan	
211_1F_01_01	Block 1F_Site Plan
02 Plans	
211_1F_02_00	Block 1F_Ground Floor Plan
211_1F_02_01	Block 1F_First Floor Plan
211_1F_02_02	Block 1F_Second Floor Plan
211_1F_02_03	Block 1F_Third Floor Plan
211_1F_02_04	Block 1F_Fourth Floor Plan
211_1F_02_05	Block 1F_Fifth Floor Plan
211_1F_02_06	Block 1F_Sixth Floor Plan
211_1F_02_07	Block 1F_Seventh Floor Plan
211_1E_02_08	Block 1F_Roof Plan
04 Elevations	
211_1F_04_01	Block 1F_North & East Elevations
211_1F_04_02	Block1F_South & West Elevations
05 Sections	
211_1F_05_01	Block1 F_Cross Section AA & BB
09 Plan Details	
211_F_09_01	Block F_1 Bedroom Apartment type 01 & 02
211_F_09_02	Block F_2 Bedroom Apartment type 01 & 02
211_F_09_03	Block F_2 Bedroom Apartment type 03 & 04
211_F_09_04	Block F_2 Bedroom Apartment type 05
211_F_09_05	Block F_3 Bedroom Apartment type 01
211_F_09_06	Block F_3 Bedroom Apartment type 02
211_F_09_07	Block F_3 Bedroom Apartment type 03

Table 4 *ctd*. Drawing Schedule

London Plan Policy Objective D12B(1)
Building Regulations B2, B3, B4 & Regulation 7
Building Construction

Materials Information Register (Regulation B2)

Notwithstanding that the buildings are not yet procured, it is proposed to restrict future construction materials by means of performance classification to BS EN 13501-1 as follows:-

- Roofs to minimum Class $B_{ROOF}(t4)$
- Internal walls and ceilings to escape routes to Class $B_{s3,d2}$
- Other internal walls/ceilings generally to minimum Class $C_{s3,d2}$, with the exception of small rooms (having areas <4m²), which may be relaxed to Class $D_{s3,d2}$.
- Floor coverings in common areas (low radius of effects of ignition proven to BS 4790 and BS 5287).
- All electrical wiring shall meet current IET National Wiring Regulations (BS 7671).

The proposed buildings 1C, 1D, 1E and 1F are "**relevant buildings**" as defined in Building Regulation 7(4) and accordingly all of their external wall assemblies (including attachments) shall be constructed entirely of non-combustible materials or materials having not less than limited combustibility, i.e. European Class A1 or Class A2 $_{s1,d0}$, with exception of breather membranes which may be European Class B. This prohibition on the use of combustible materials applies to all of the components within the external wall assembly, including external balconies and attachments. For the avoidance of doubt, combustible insulation materials shall not be used within the external wall assembly.

Materials and Workmanship (Regulation 7)

The proposed building comprises a concrete frame with brickwork external walls. Specific construction products and manufacturer's verification of performance shall be proposed in due course by the Design Team to comply with the statutory obligation of Regulation 7 and specifically Regulation 7(2) with regard to delivery on the principles contained in this Planning Statement, i.e. specification of appropriate materials and standards of workmanship.

Protection against undue fire spread via structure (Regulation B3)

The materials of construction within the proposed buildings generally comprise concrete frame, metal work framing, masonry, gypsum plaster and glazed components. The external facades are predominately of brickwork construction within inset balconies.

The building shall be designed to retain its stability in the event of a fire for a reasonable period. This shall be ensured during detailed design through:-

- Provision of elements of structure (beams, columns and floor slabs) having minimum fire resistance ratings of 60 minutes. Note that the BS 9251 residential sprinkler system shall have an increased water supply adequate for 60 minutes to permit the fire rating to be reduced from 90 minutes.
- Provision of imperforate 60 minutes fire-resisting compartment floors between individual levels.
- Provision of imperforate 60 minutes fire-resisting separating walls between individual flats.
- Enclosure of the fire-fighting stairway and lift with 120 minutes fire-resisting construction and FD60S doors.
- Enclosure of the escape stairway and evacuation lift with 60 minutes fire-resisting construction and FD30S doors.
- Enclosure of the passenger lift and all service risers with 60 minutes fire-resisting construction, accessed via FD30S doors.
- It is noted that external walls may be unrated in respect of fire resistance due to their distance from the relevant boundaries (see below).

Protection against undue fire spread externally (Regulation B4)

The relevant boundaries are identified in Figure 4. The buildings' elevations shall be controlled as necessary to include fire-resisting construction as necessary to ensure that fire does not spread beyond the site's relevant boundaries.

An initial assessment of the building's elevations in the context of their space separation requirements has been undertaken. Using enclosing rectangles as exemplified in Figures 5 and 6, it has been confirmed that the external walls do not require fire-resisting

construction or any restriction in their use of unprotected glazing other than where there elevations form an internal corner (in which case fire-resisting construction is required to form a separating zone of not less than 1,800 mm). External walls (comprising a steel framed system, gypsum and cement boarding, mineral fibre insulation and outer masonry skin) and balcony attachments (no timber decking) shall be constructed of materials that achieve Class A1 or $A2_{s1,d0}$.

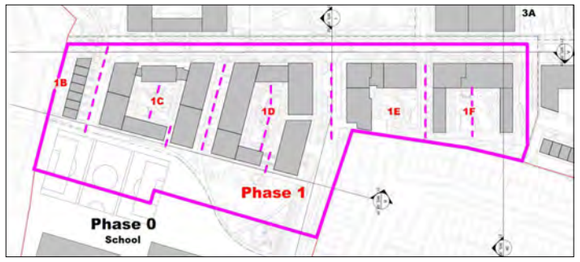

Figure 4. Overview of Relevant Boundaries

Figure 5. Block 1C south elevation (enclosing rectangles)

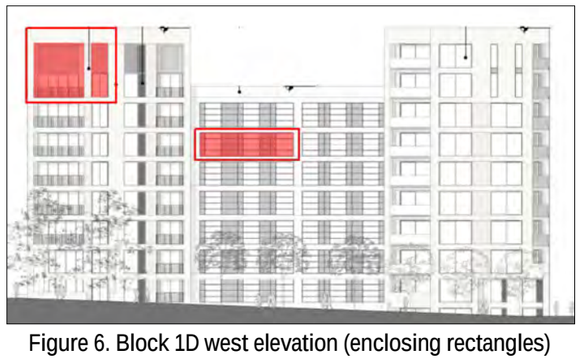

Figure 6. Block 1D west elevation (enclosing rectangles)

London Plan Policy Objectives D12B(2) & D5(B5)
Building Regulation B1
Means of Escape for all building users

The fire safety design of Royal Brunswick Park shall meet London Plan Policy 12B(2) by not less than full adoption of all relevant guidance contained in

BS 9991, *Fire safety in the design, management and use of residential buildings - Code of practice* (2015) through an appropriate combination of fire precautions including:-

- Provision of protected entrance hallways enclosed with 30 minutes fire-resisting construction and limited to a maximum extent of 9 metres travel distance.
  or
  Provision of open plan flats designed in full accordance with Section 9.7 of BS 9991 including provision of sprinkler protection and enclosure of kitchen spaces >32 m^2.

- Installation of **automatic residential sprinklers** within all individual flats to BS 9251:2014 (**Category 2**). No sprinkler coverage is proposed to the common residential corridors, lift shafts or stairwells.

- Provision of protected stairways with 1.0 m^2 automatic smoke ventilation at the stair heads and protection of communal escape corridors with natural smoke ventilation systems comprising 1.0 m^2 automatic wall mounted high level vents into vertical natural smoke shafts (1.5 m^2) discharging at roof level (at least 2,500 mm above the topmost corridor vent).

- Control of maximum travel distances (in single or multiple directions) as outlined in Table 5.

Location	Single	Multiple
Within Flats	20 metres	NA
Common corridors	15 metres	NA
Plant Rooms	9 metres	NA
Bin/Cycle Stores	18 metres	NA
Private Balconies	7.5 metres	NA
Communal roof gardens	18 metres	45 metres
Car Park	25 metres	45 metres

Table 5. Control of travel distances

- Installation of fire-resisting barriers to inhibit undue fire and smoke spread and to protect the common escape routes.

- Provision of automatic fire detection and alarm to BS 5839:Part 6:2019 (**Type LD1**) in all flats comprising a minimum **Grade D1**, i.e. mains powered inter-linked alarm.

- Provision of automatic fire detection and alarm to BS 5839:Part 1:2017 (**Type L5**) to the common stairway and communal lobbies.

- All common escape routes and stairs to be fitted with emergency escape lighting to BS 5266:Part 1:2016.

- Good design practice and construction standards, so as to reduce ignition risks, e.g. electrical wiring, post boxes.

- All common areas, escape routes and escape stairs to be fitted with illuminated exit signage and emergency escape lighting to BS 5266:Part 1:2016.

- Provision of minimum **Type L3** (manual) fire detection and alarm to BS 5839:Part 1:2017 within ground/basement level car parks. Each car park shall be subject of single-phase simultaneous local evacuation.

- The car parks and all ancillary spaces at ground and basement levels shall be fitted with **automatic sprinkler protection** to BS EN 12845:2015+A1:2019 (or equivalent approved by the Building Control Body).

The fire safety design of Royal Brunswick Park shall meet London Plan Policy D5(B5) by enhanced fire precautions including:-

- All residential blocks (except Block 1B townhouses) are to be fitted with evacuation lifts complying with the principles contained in to *pr* EN 81-76:2019 in addition to disabled refuges at each storey level.

- Disabled refuges shall be separated from flats by not less than 2 no. FD30S fire-resisting doorsets.

- Disabled refuges shall sit clear of escape routes within protected stairways or within common corridors fitted with natural smoke ventilation.

- Protected escape stairways serving residential levels shall be a minimum 1,000 mm wide. Fire-fighting stairs shall be a minimum 1,100 mm wide. Storey exit doors shall have a clear width of 850 mm to allow for escape of up to 100 persons. Window escape is not to be relied upon from any area.

Indicative floor layouts and associated fire precautions are shown in Figures 7 to 43. The external Evacuation Assembly Points were identified previously in Figure 1.

Planning Fire Safety Statement for Royal Brunswick Park (Phase 1)

London Plan Policy Objective D12B(2)
Building Regulation B1
Evacuation Strategy

Residential parts shall be designed using the London Fire Brigade preferred "**stay put**" evacuation model, i.e. only the residents of the flat of fire origin to evacuate prior to Fire Service arrival. The common escape routes are fitted with automatic smoke ventilation facilities to assist escape and Fire Service operations. Should a "**total evacuation**" of the building be deemed necessary by the Fire Service, the width of the proposed stairways (each minimum 1,000 mm) have been confirmed as being adequate to discharge the entirety of each building's residential population simultaneously. The car parks shall each be subject of independent escape, comprising **simultaneous total evacuation** of all persons on sounding of the local fire alarm.

Evacuation shall not rely on Fire Service intervention. Building specific Escape Plans should be developed by the responsible person under the *Regulatory Reform (Fire Safety) Order* (2005) that recognise:-

- The critical reliance of the protected escape stairways on fire doors being closed at all material times.
- The need for self-reliance in terms of escape with appropriate assistance provided from within the building where necessary for younger, older or cognitively/mobility impaired occupants.
- Personalised Emergency Evacuation Plans (PEEPs) shall be documented for residents requiring assisted escape.
- The guidance in Annex E of BS 9991:2015 shall be followed in regard of management of the evacuation for mobility impaired persons.
- The management of the evacuation lifts (by trained persons) during the evacuation process shall accord with the principles contained in Greater London Authority London Plan Draft Guidance Sheet Policy D5(B5). The basis for the safe operation of the Evacuation Lifts shall be determined in co-operation with flat owners and regular training provided and documented.

It is highlighted that these responsibilities are likely to evolve over time and the Evacuation Plans shall be subject of periodic review (not less than annually). It is recommended that the Evacuation Plans should also address wider fire safety matters such as regular weekly testing and maintenance of the fire alarm system.

Regulation 38 (Handover) information shall be fit-for-purpose to permit the responsible persons in discharging their obligations arising from the *Regulatory Reform (Fire Safety) Order* (2005).

London Plan Policy Objective D12B(3)
Fire Safety Systems (Active, Passive & Management)

Active Fire Precautions

Active fire safety precautions to include:-

- Installation of automatic fire suppression (sprinklers) throughout all buildings – except Block 1B townhouses.
- Provision of natural automatic smoke ventilation systems to protect the residential escape corridors.
- Provision of 1.0 m^2 automatic opening vents above all stairways.
- Provision of automatic fire detection and alarm to BS 5839:Part 6:2019 (**Type LD1**) in all flats. Provision of **Type LD2** automatic fire detection and alarm in all 1B townhouses.
- Provision of automatic fire detection and alarm to BS 5839:Part 1:2017 (**Type L5**) to the common residential stairways and escape corridors.
- All residential blocks of flats are to be fitted with evacuation lifts complying with the principles contained in to *pr* EN 81-76:2019 in addition to disabled refuges at each storey level.
- All common escape routes and stairs to be fitted with emergency escape lighting to BS 5266:Part 1:2016, including maintained (permanently illuminated) exit signage.
- The car parks shall be fitted with a **Type L3** (automatic) fire detection and alarm system to BS 5839:Part 1:2017.
- The ancillary residential spaces (e.g. refuse stores, plant rooms) shall each be fitted with a minimum **Type M** (manual) fire detection and alarm system to BS 5839:Part 1:2017.

Passive Fire Precautions

Passive fire safety precautions include adoption of best design practice and construction standards shall be observed to reduce ignition risks, e.g. electrical wiring.

Common escape stairways shall be enclosed at all levels in minimum 60 minutes fie-resisting construction, including minimum FD30S fire-resisting doorsets. Fire-resisting construction shall be provided to separate individual flats, storey levels and different purpose groups. Fire-resisting barriers shall be provided to inhibit fire/smoke spread and to protect the common escape routes as identified in Figures 7 to 43.

Fire Safety Management (Regulation 38)

The proposed buildings (except Block 1B townhouses) shall be subject of individual fire safety management and Fire Risk Assessments under the auspices of the *Regulatory Reform (Fire Safety) Order* (2005).

Flat owners overhead shall be appraised of the fire safety systems installed within their dwellings including advice on the routine weekly testing and annual maintenance of the fire detection and alarm system to BS 5839:Part 6 requirements.

As per Regulation 38, all relevant design fire safety information (including operations, maintenance and routine testing of fire safety systems) shall be formally handed over to the responsible person on completion.

London Plan Policy Objective D12B(4)
Building Regulation B5
Fire Service Access in and around the building

Access for Fire Service personnel & equipment

The site is afforded Fire Service access from existing public highways, i.e. Oakley Road South, Brunswick Park Road and Weirdale Avenue. The site's notional hard-standings for Fire Service pumping appliances are shown in Figure 44. These hard-standings are within 18 metres and line-of-sight of all Building Entry Points and are also appropriately within 90 metres of the new site fire hydrant (fed from the existing towns mains and capable of delivering not less than 25 l/s. The potential for standing of the Fire Service pumping appliances on public roads shall be unaffected by the construction process. When temporary obstructions occur, alternative hard-standings shall be provided.

Fire Service facilities within the building

The proposed buildings exceed 18 metres in height and require provision of specialist fire-fighting facilities comprising:-

- Installation of a dry rising main system (meeting the requirements of BS 9990) within all residential stairways with dry main valve outlets located on every floor level.
- Provision of fire-fighting stairs and fire-fighting lifts (complying with BS EN 81-72 and provided with a secondary power supply) to blocks in excess of 18 metres in height. Table 1 refers.

Planning Fire Safety Statement for Royal Brunswick Park (Phase 1)

Fire-fighting and residential stairways shall each be provided with 1.0 m^2 automatic smoke ventilation at their heads and shall be protected at every storey level by corridors fitted with automatic natural smoke ventilation system. Fireman's controls shall be provided at ground and top floor level for all smoke ventilation systems in accordance with best practice.

All residential stairways shall be fitted with way-finding signage for Fire Service use including identification of all storey levels and flat locations as per Section 15 of HM Government's *Approved Document B Fire Safety Volume 1 (Dwellings)*, 2019.

Fire Service vehicles shall not be required to reverse more than 20 metres to reach their hard-standings as shown in Figure 44. The pumping appliance access as outlined in Figure 18 and shall meet the requirements of Table 6 and London Fire Brigade's Guidance Note No. GN29 *Access for fire appliances.*

The proposed extent of clear fire-fighting access shall be maintained during the construction process. This extent of access is sufficient for a building of this size and access is to within 18 metres and line-of-sight of the Building Entry Points.

Measures	Parameters *
Minimum width between kerbs	3.7 metres
Minimum width of gateway	3.1 metres
Minimum carrying capacity	12.5 tonnes

**Table 13.1 of HM Government Approved Document B Vol. 1*

Table 6. Access route specification

London Policy Objective D12B(5)
Building Regulation B5
Fire Service Access to the site

The building is afforded Fire Service access from Oakley Road South and Brunswick Park Road and Weirdale Avenue. The site is suitably sized to permit all fire-fighting access to be internal and no constraints arise in respect of the public roads.

London Plan Policy Objective D12B(6)
Future Modifications (The Golden Thread)

The fire safety strategy underpinning the building design shall be maintained into the design and construction stages (RIBA Stages 3-6), allowing for future modifications as might arise. It is highlighted that the Building Regulations (Amendment) Regulations 2018 will apply to this building.

Specific construction products and manufacturer's verification of performance shall be proposed in due course by the Design Team to comply with the statutory obligation of Regulation 7 and specifically Regulation 7(2) with regard to delivery on the principles contained in this Planning Statement, i.e. specification of appropriate materials and standards of workmanship.

As per Regulation 38, all relevant design fire safety information (including operations, maintenance and routine testing of fire safety systems) shall be formally handed over to the responsible person on completion. Such information shall be fit-for-purpose to permit the responsible person in discharging obligations arising from the *Regulatory Reform (Fire Safety) Order* (2005).

The *Materials Information Register* contained within this PFSS shall be passed to any third party engaged in the future construction phase to maintain the "golden thread" of fire safety design. It is noted that this PFSS is a document of public record and will be available to the Building Control Body overseeing the design and construction stages.

Any future modification to the following constituent elements of the building should be assumed to adversely affect this declaration, unless demonstrated to the contrary by a competent person:-

(i) Omission of automatic sprinkler protection to any parts other than residential corridors and stairs.

(ii) Omission of evacuation lifts.

(iii) Modifications to extent of natural smoke ventilation systems protecting common escape routes.

(iv) Reduction in any fire resistance ratings contained in this PFSS.

(v) Modification of the internal layout of open plan flats in a manner outside of the guidance contained in Section 9.7 of BS9991.

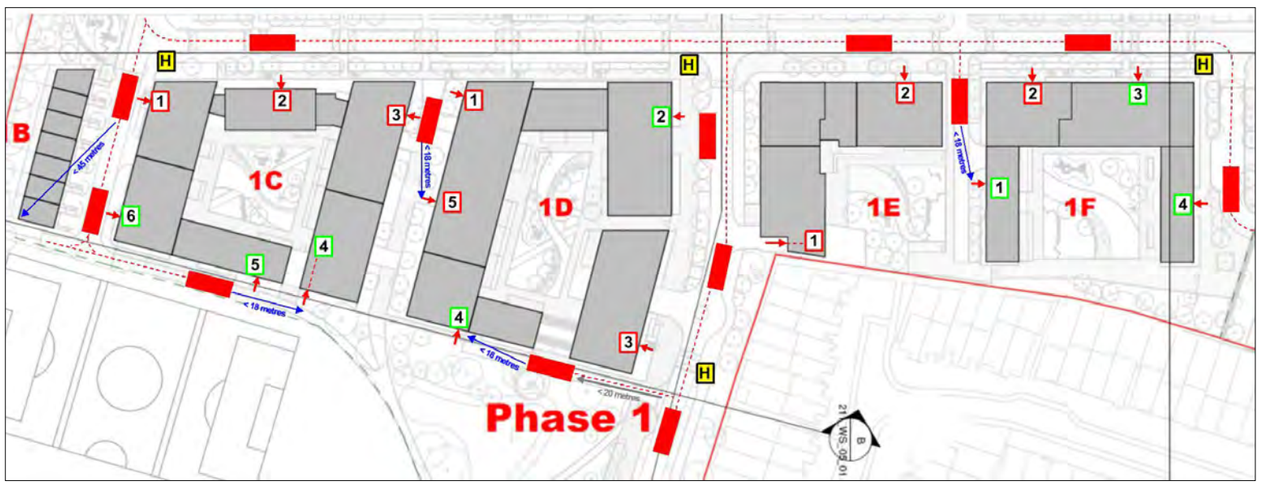

Figure 44. Fire Service hard-standings and muster areas

London Plan Policies 12(B) and D5(B5)
Declaration by Expert Assessor

This Planning Fire Safety Statement has been prepared in good faith using our specific fire safety expertise to meet our best understanding of the requirements of Policies D12B and D5(B5) of *The London Plan 2021* using the recommended checklist. The subject building is amenable to achieving full compliance with Part B (Fire Safety) to the Building Regulations, 2010 and Building (Amendment) Regulations 2018.

Dr Raymond J. Connolly
BE, PhD, CEng, MIEI, MIFireE, MSFPE
(Member of the Institution of Fire Engineers)
Chartered Engineer & Fire Safety Specialist
For Fire & Risk Solutions Limited

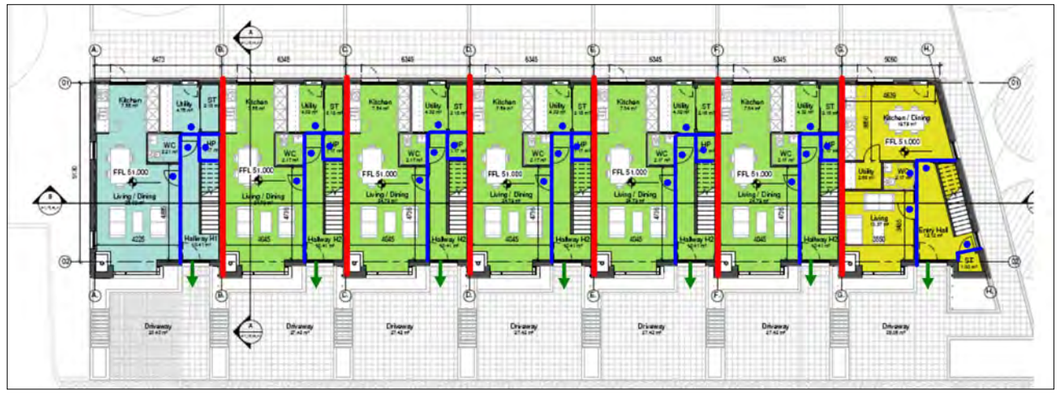

Figure 7. Block 1B Ground Floor Plan

Figure 8. Block 1B First Floor Plan

Figure 9. Block 1B Second (top) Floor Plan

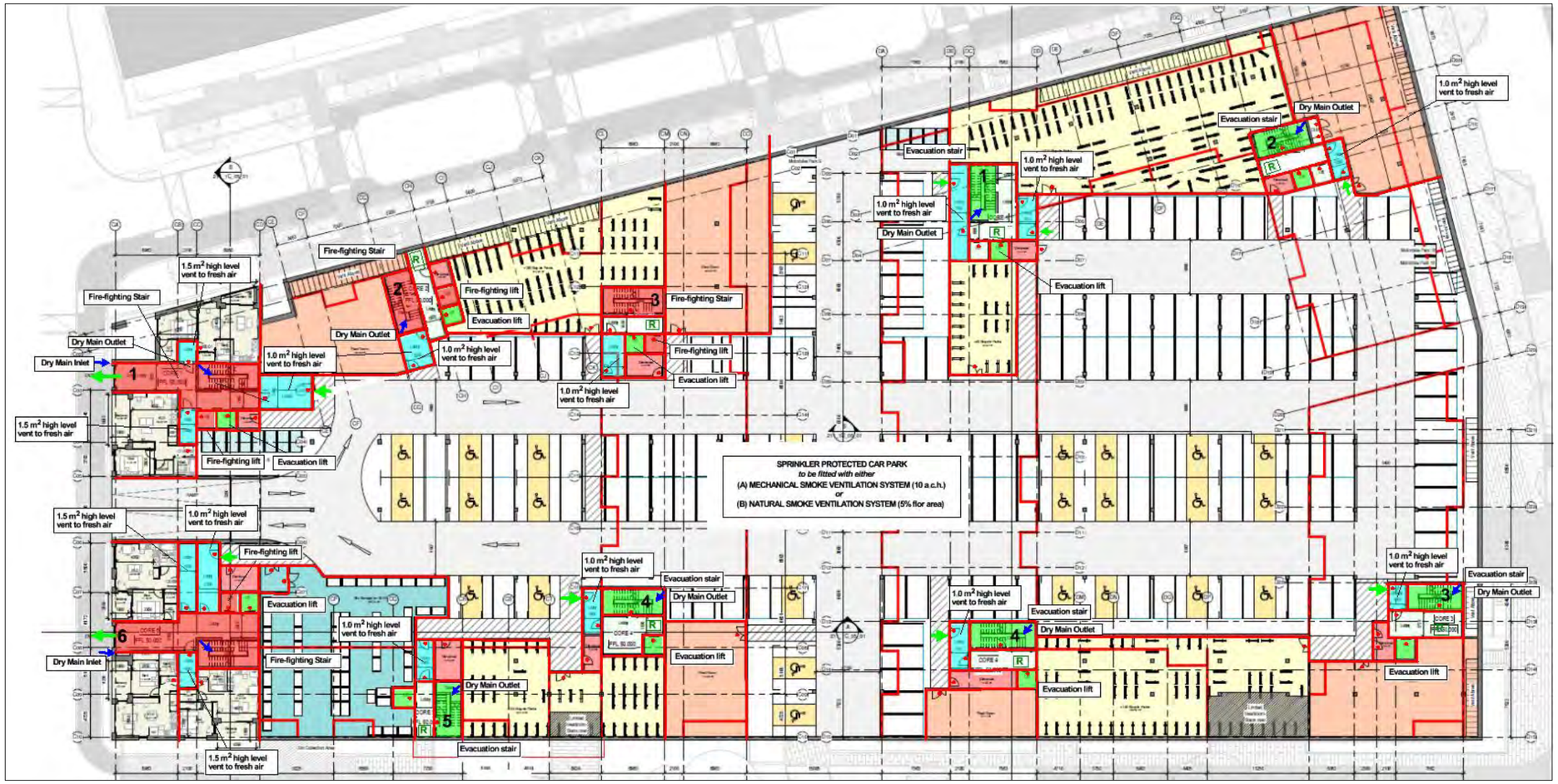

Figure 10. Block 1C & 1D Basement Plan

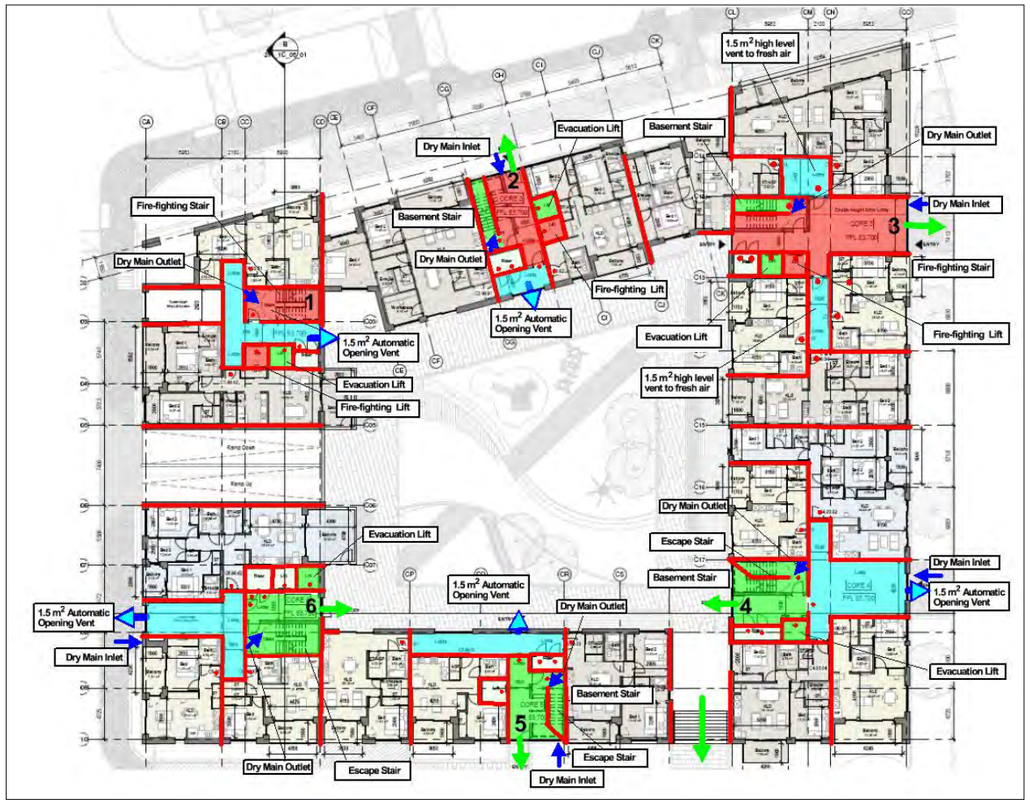

Figure 11. Block 1C Ground Floor Plan

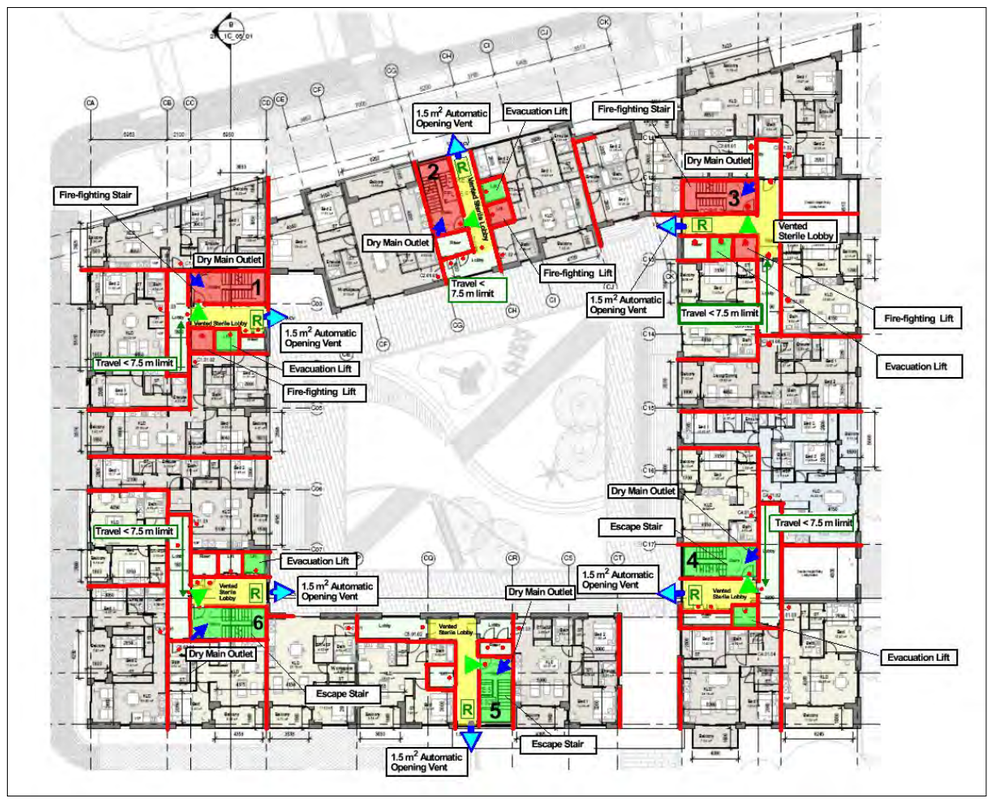

Figure 12. Block 1C First Floor Plan

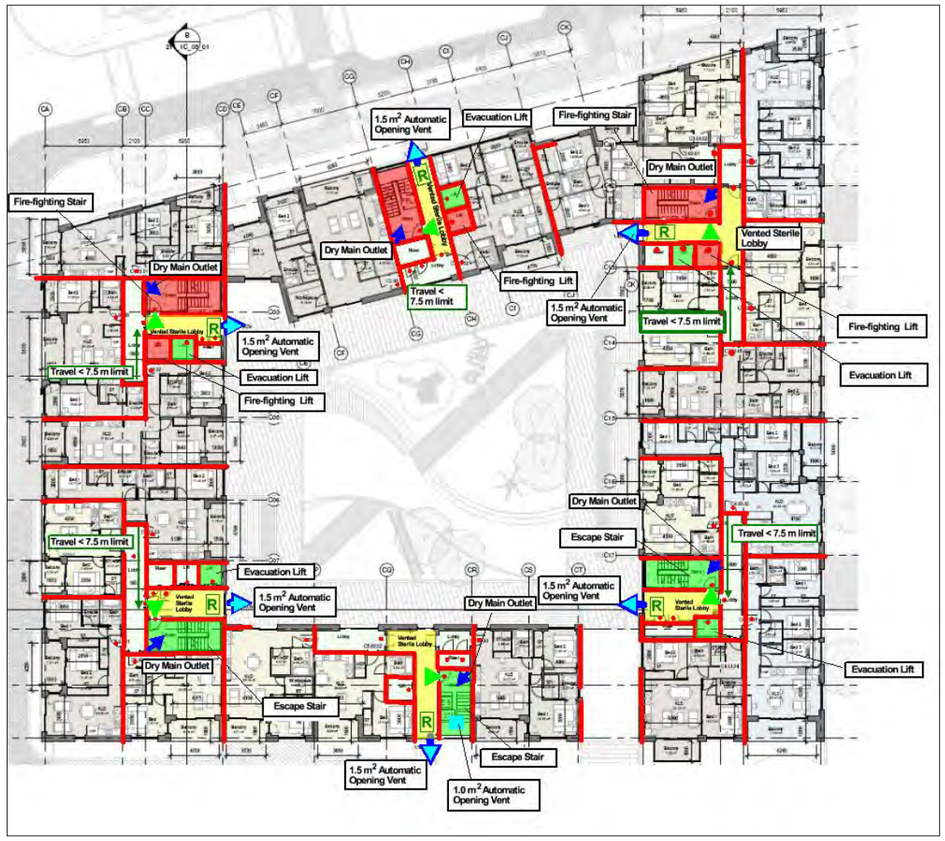

Figure 13. Block 1C Second & Third Floor Plans

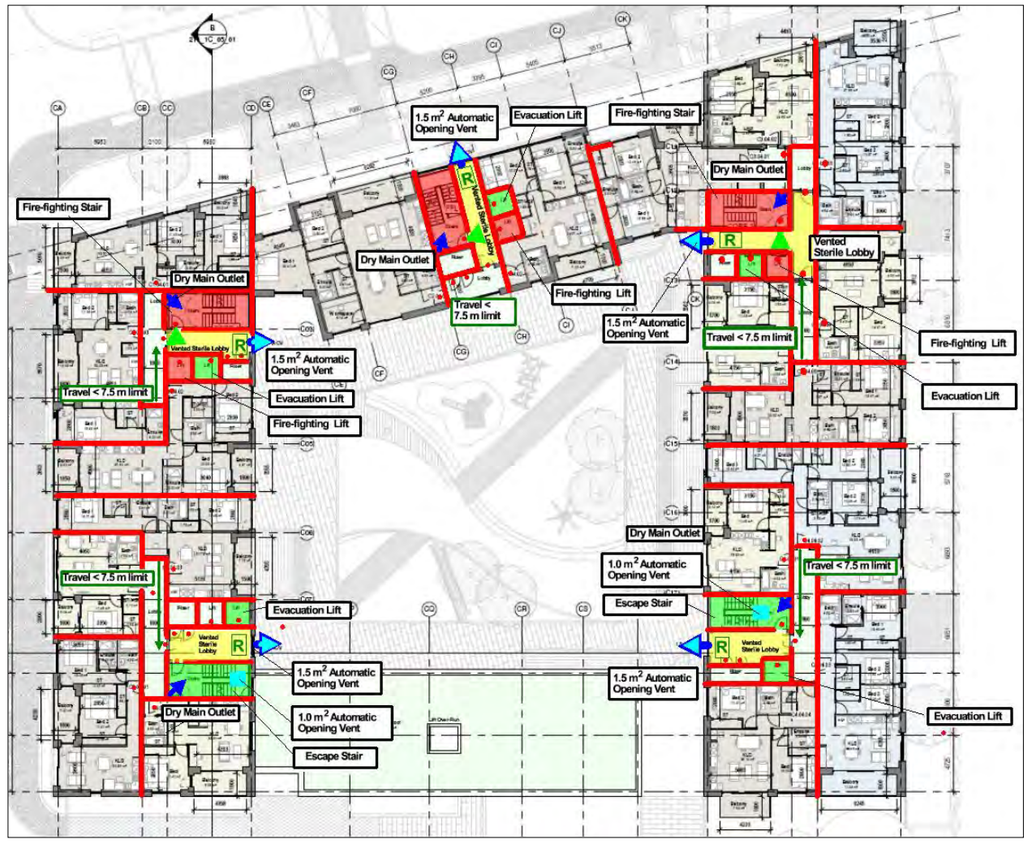

Figure 14. Block 1C Fourth & Fifth Floor Plans

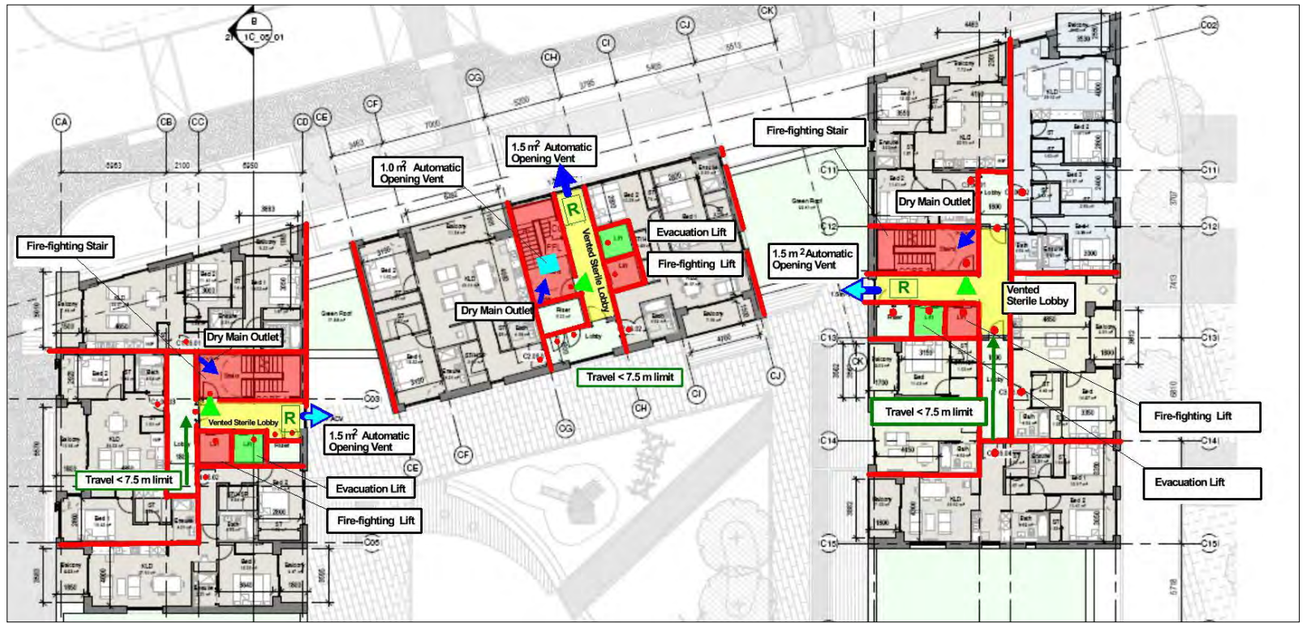

Figure 15. Block 1C Sixth Floor Plan

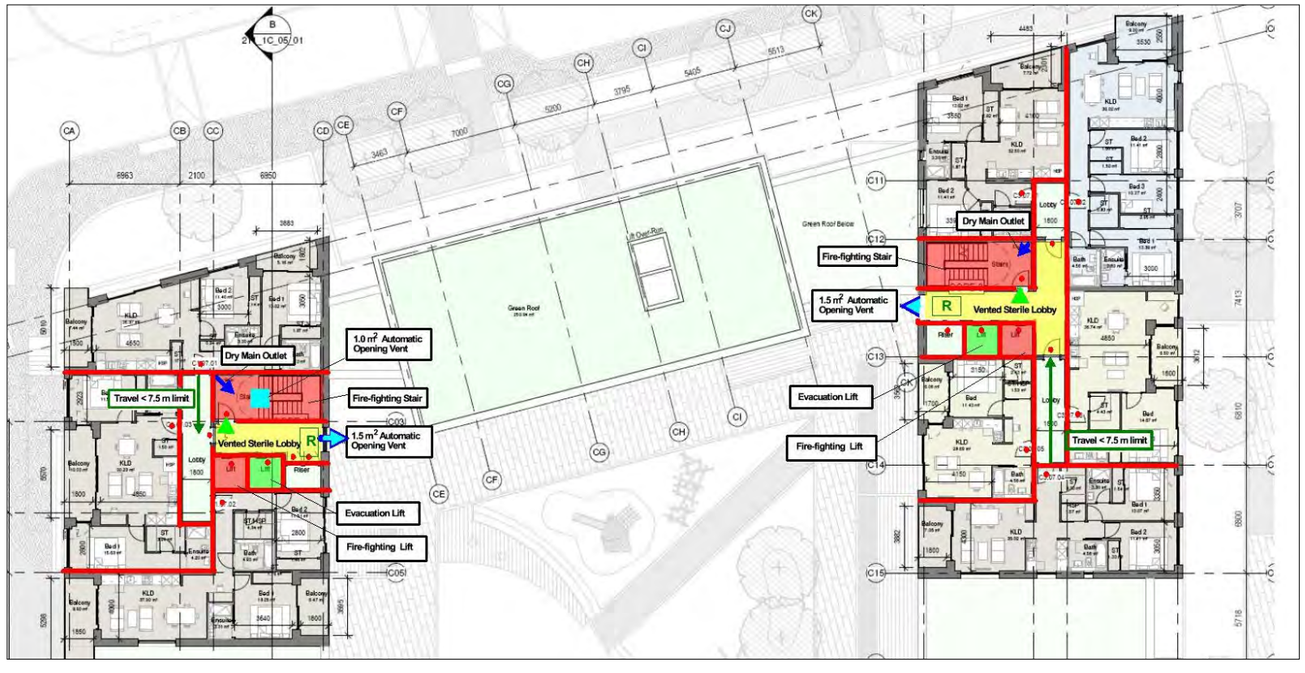

Figure 16. Block 1C Seventh Floor Plan

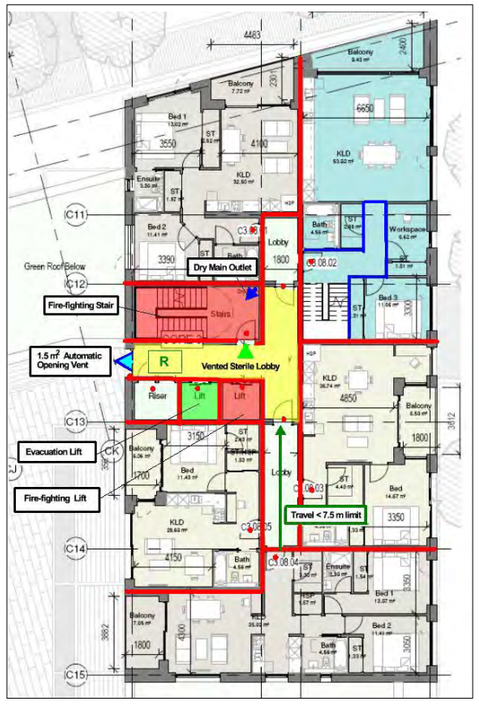

Figure 17. Block 1C Eighth Floor Plan

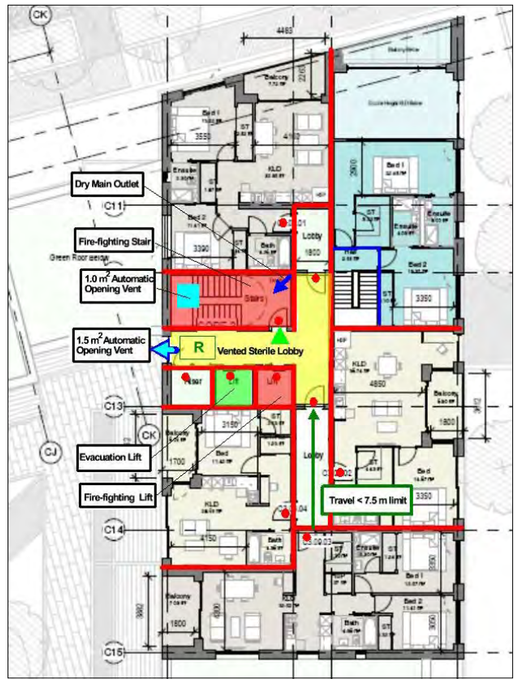

Figure 18. Block 1C Ninth (top) Floor Plan

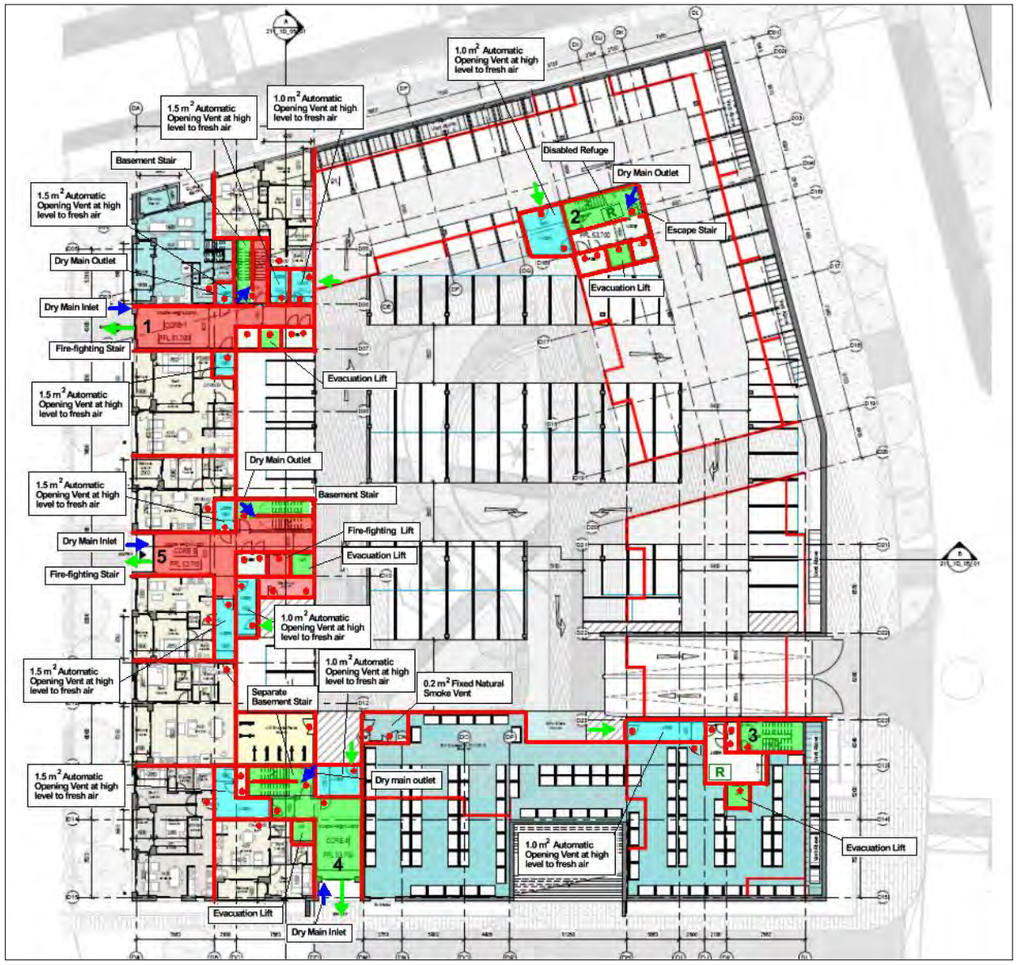

Figure 19. Block 1D Ground Floor Plan

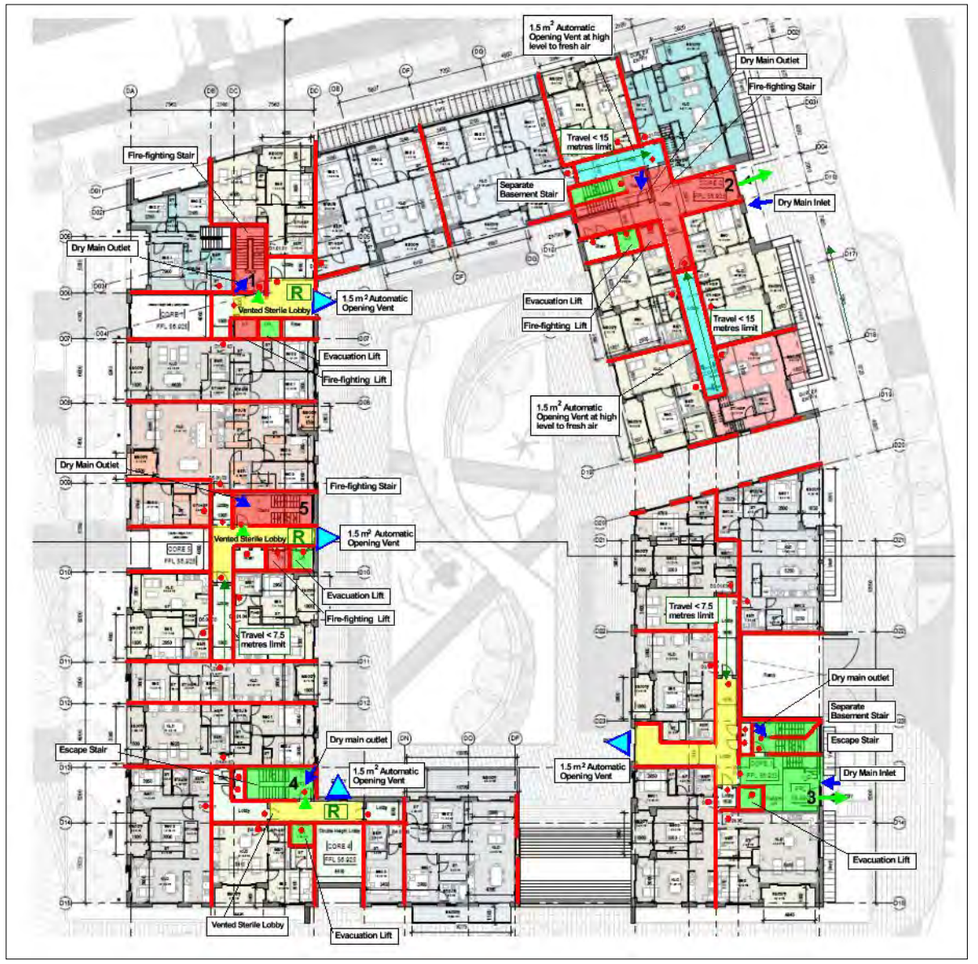

Figure 20. Block 1D First Floor Plan

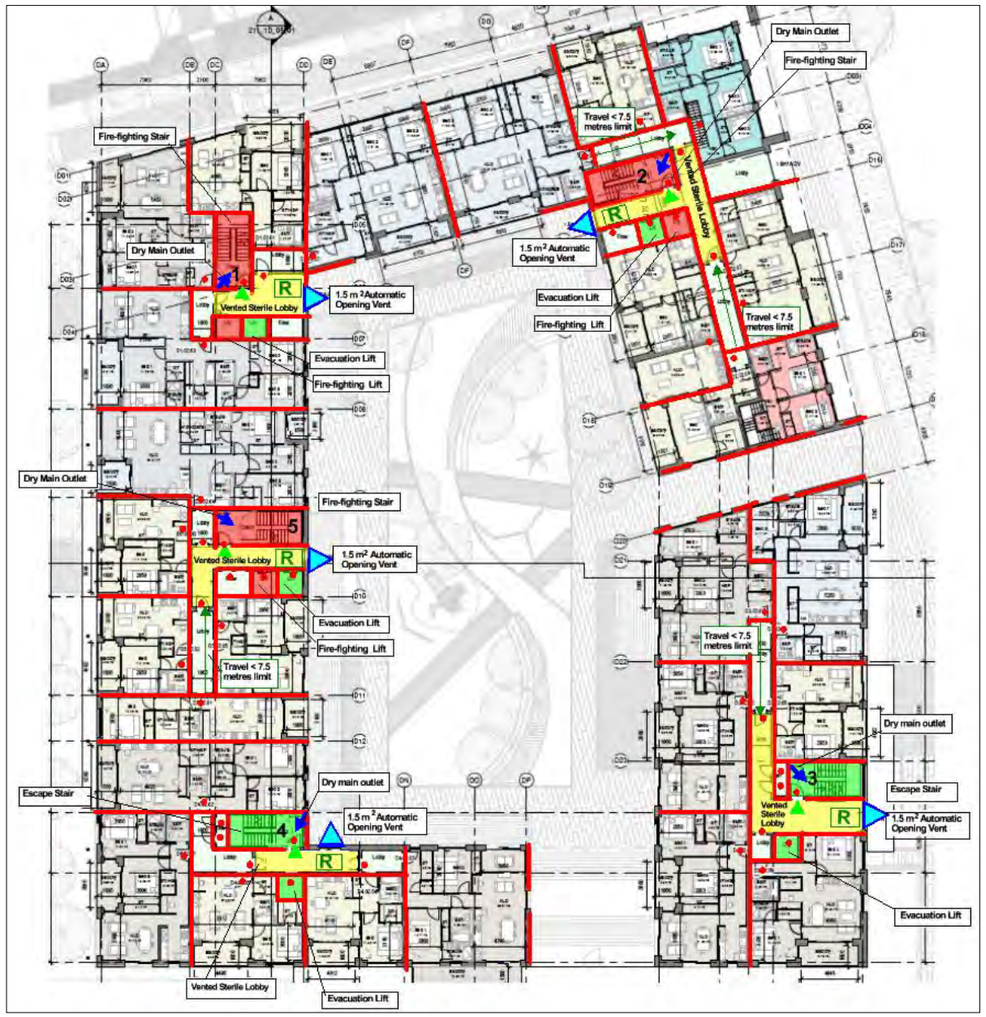

Figure 21. Block 1D Second Floor Plan

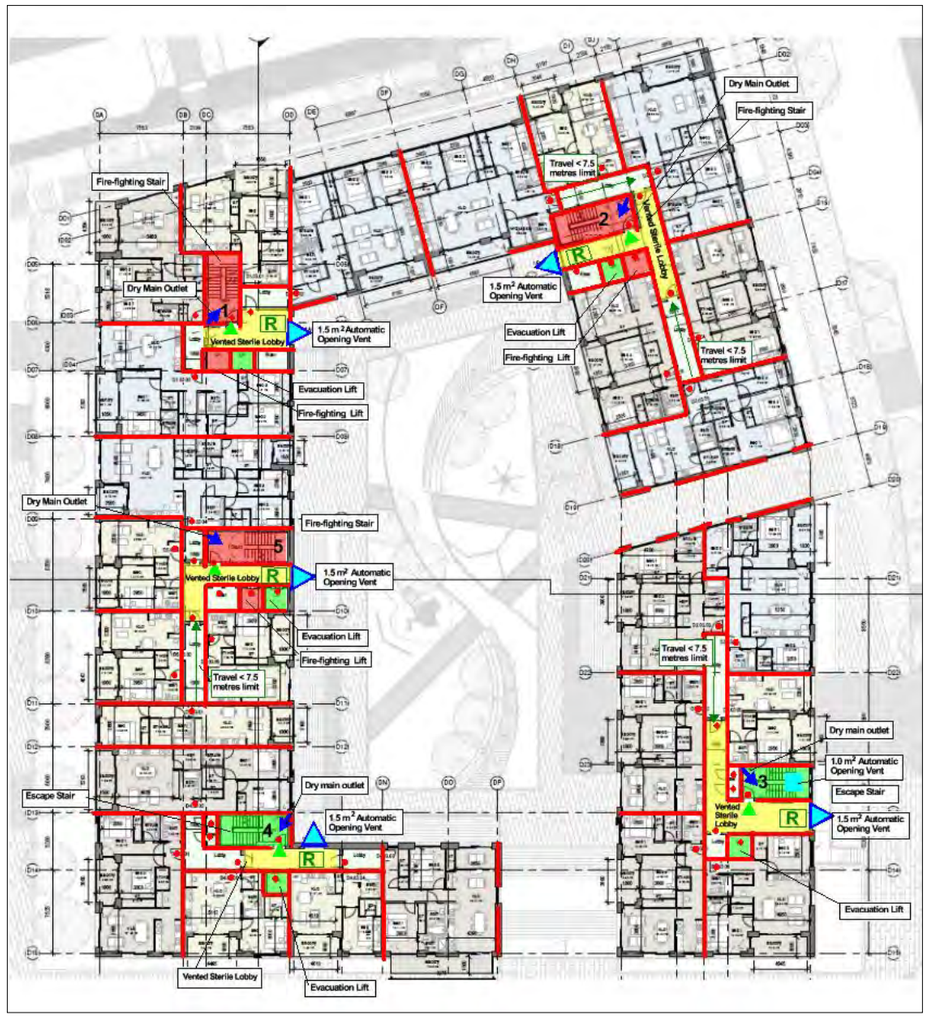

Figure 22. Block 1D Third Floor Plan

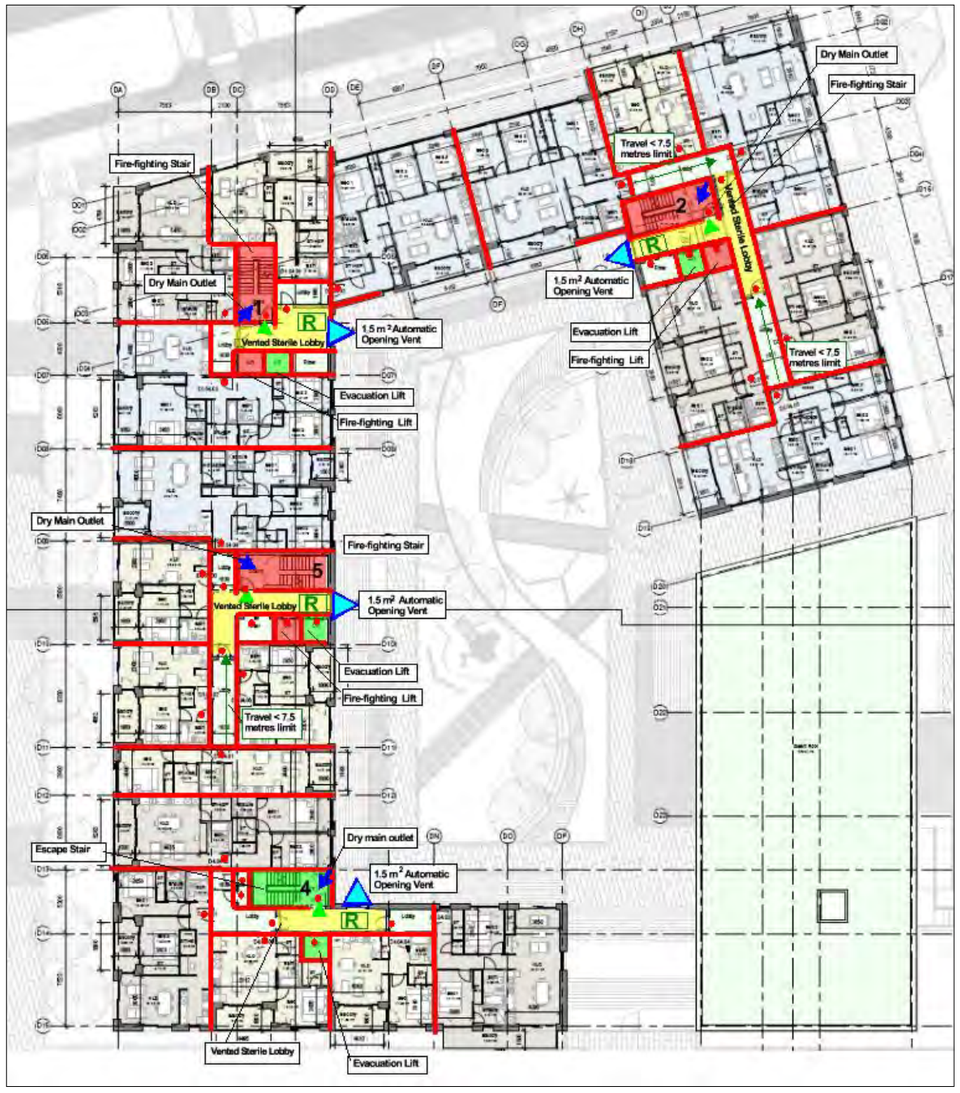

Figure 23. Block 1D Fourth Floor Plan

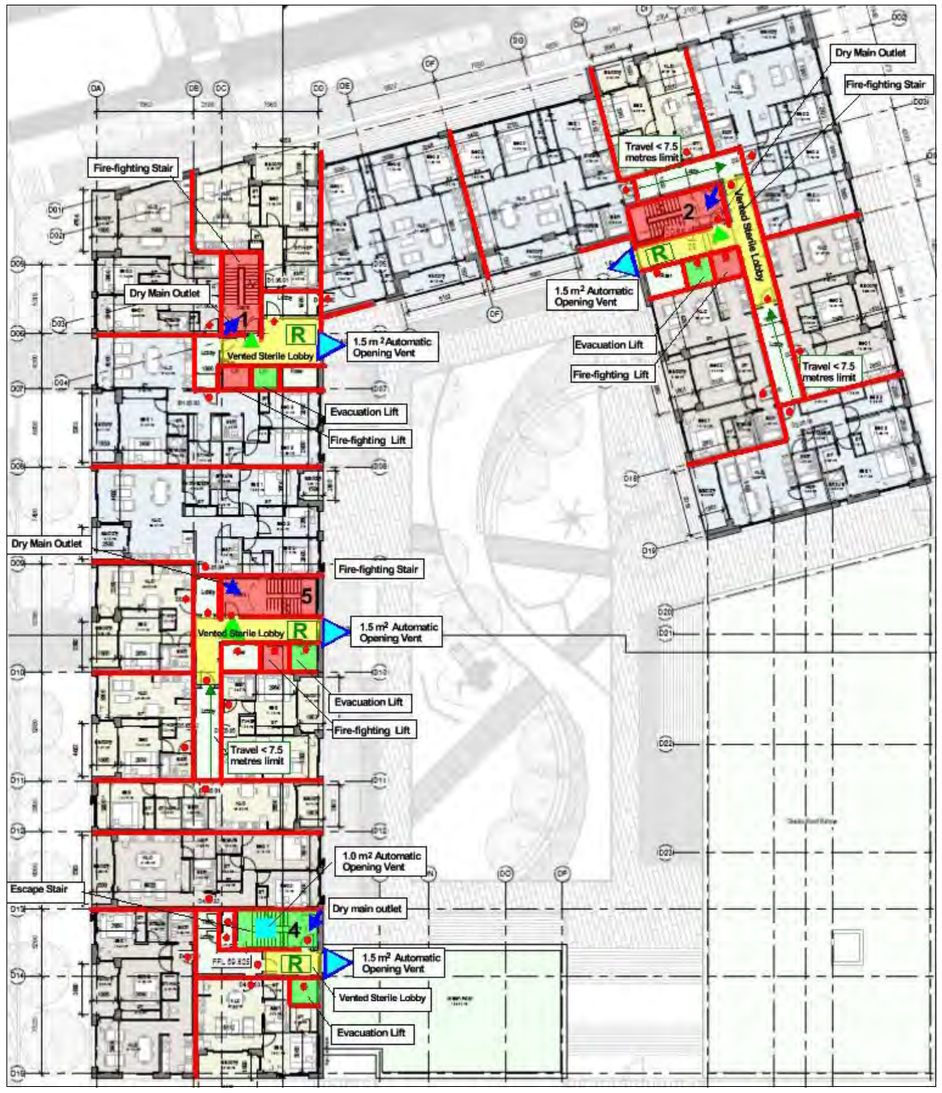

Figure 24. Block 1D Fifth & Sixth Floor Plan

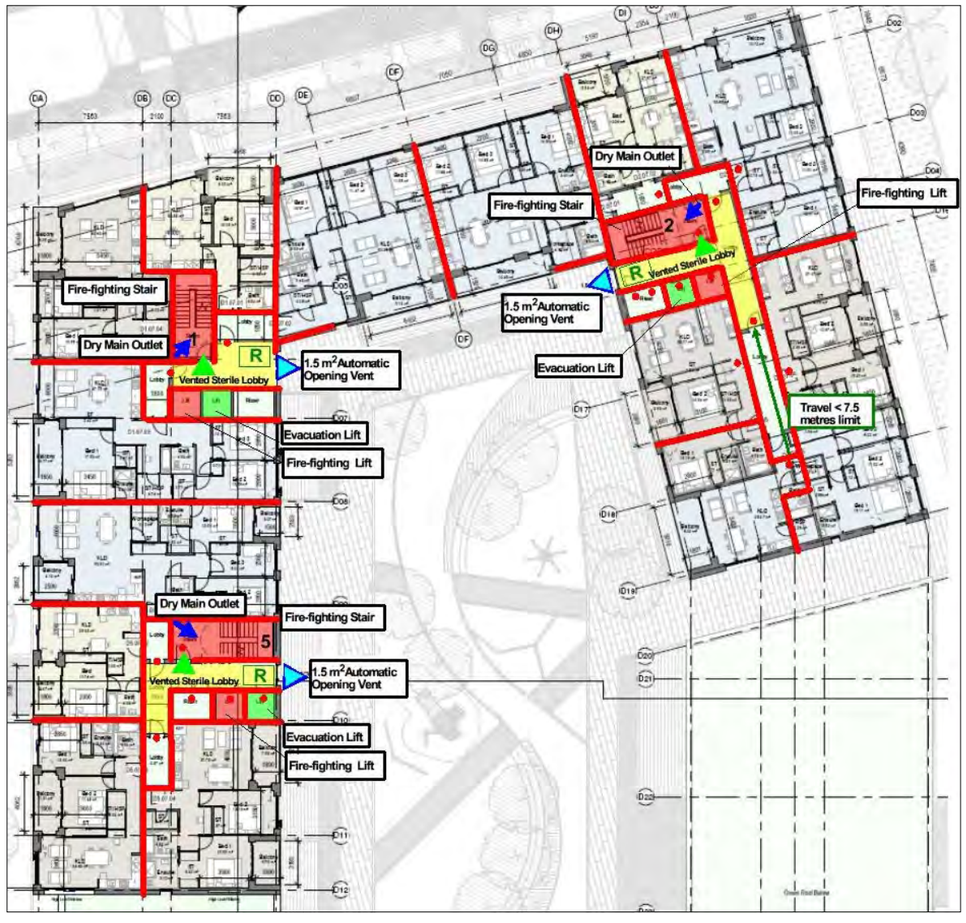

Figure 25. Block 1D Seventh Floor Plan

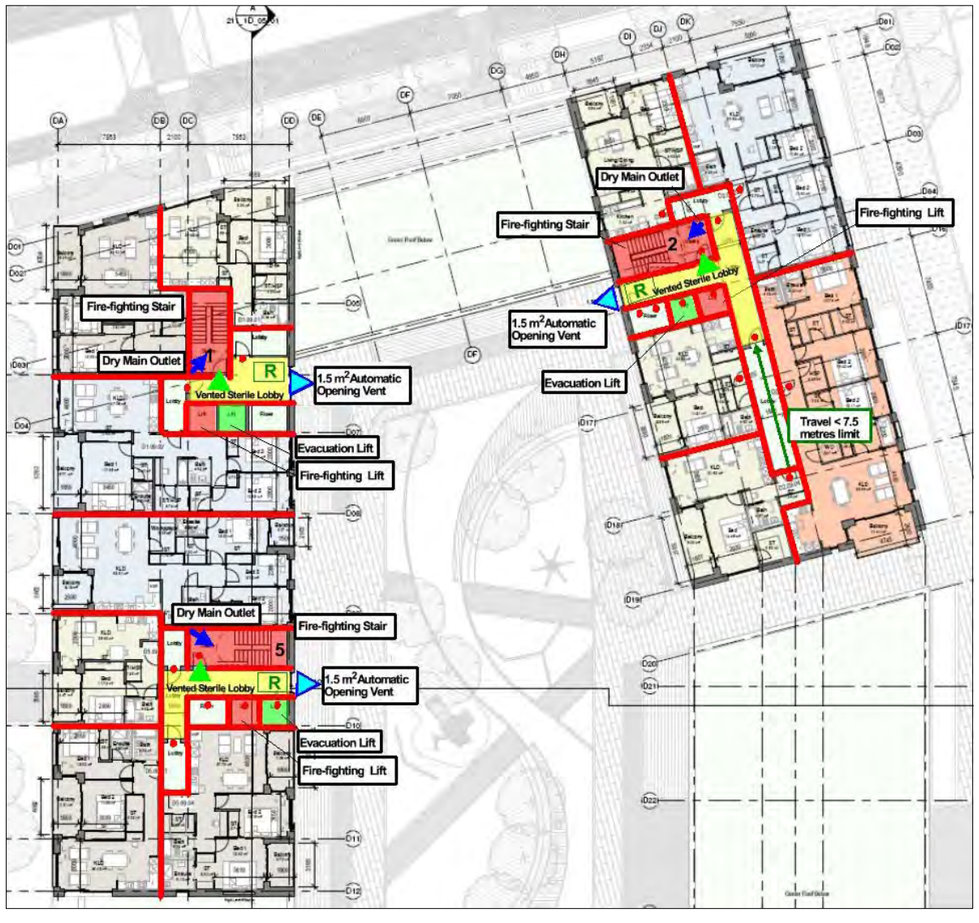

Figure 26. Block 1D Eighth Floor Plan

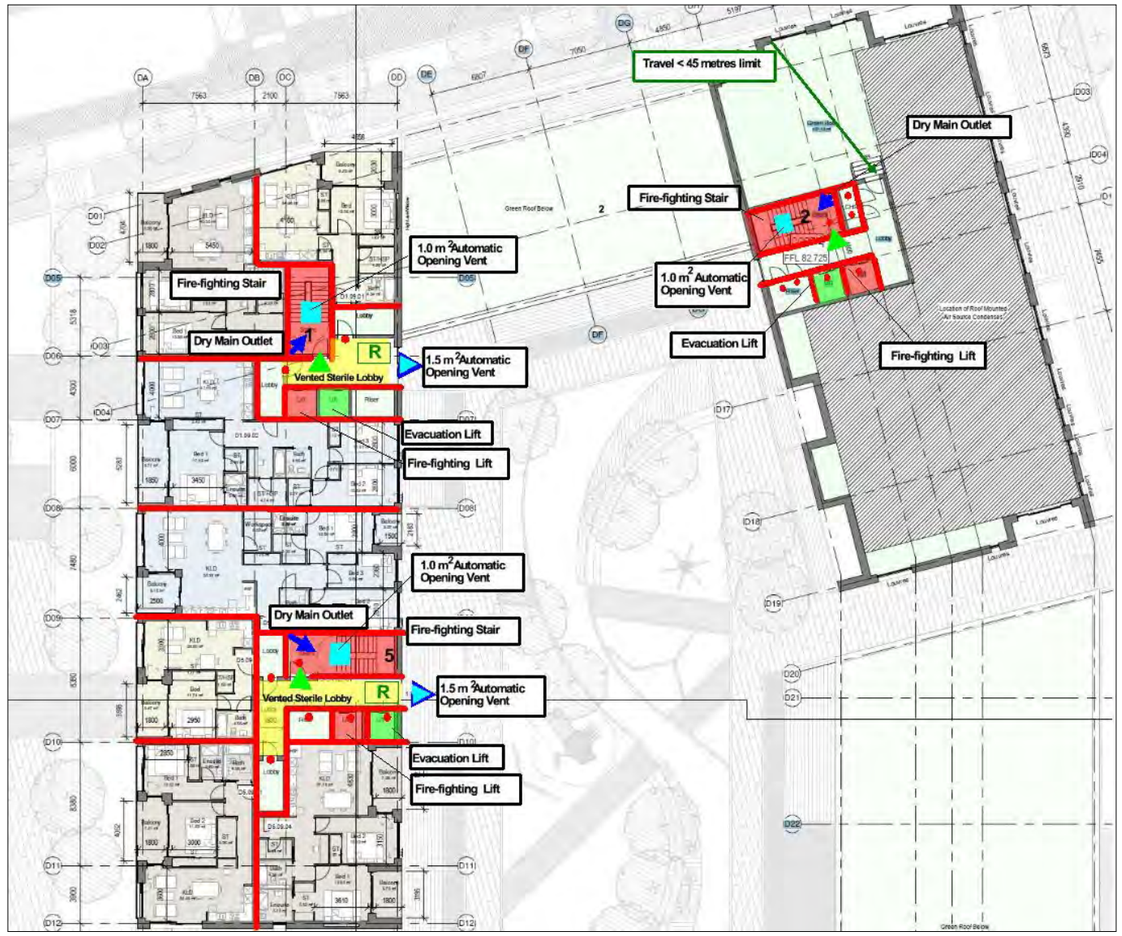

Figure 27. Block 1D Ninth (top) Floor Plan

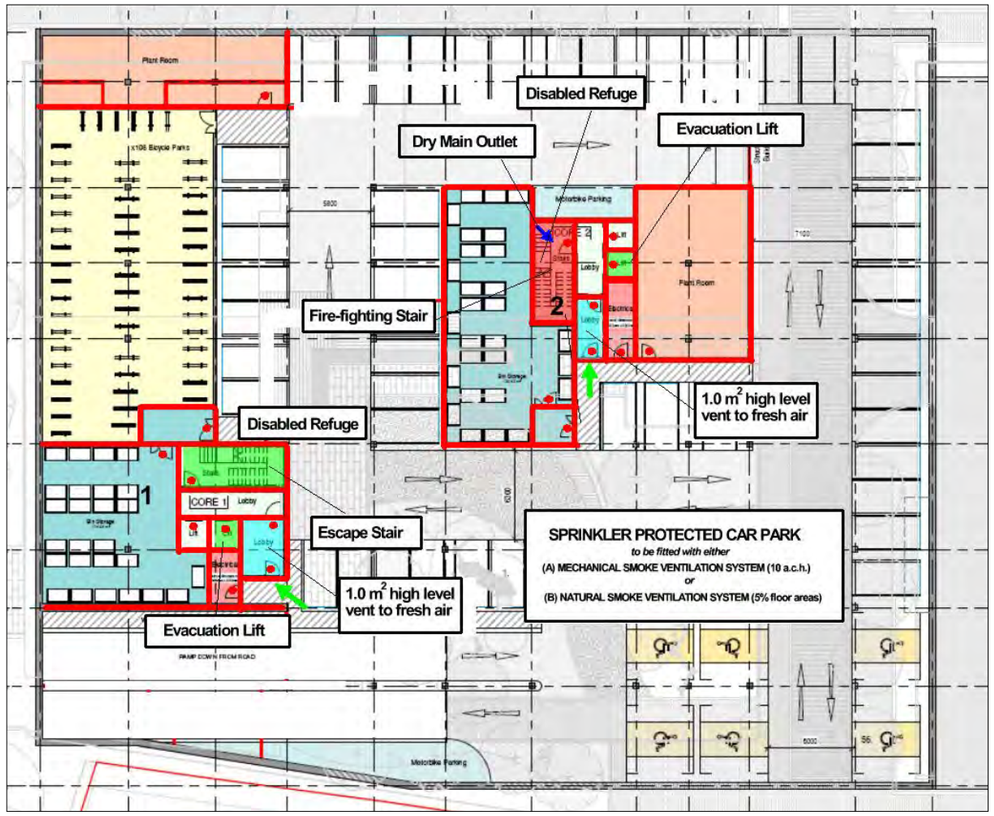

Figure 28. Block 1E Basement Floor Plan

Figure 29. Block 1E Ground Floor Plan

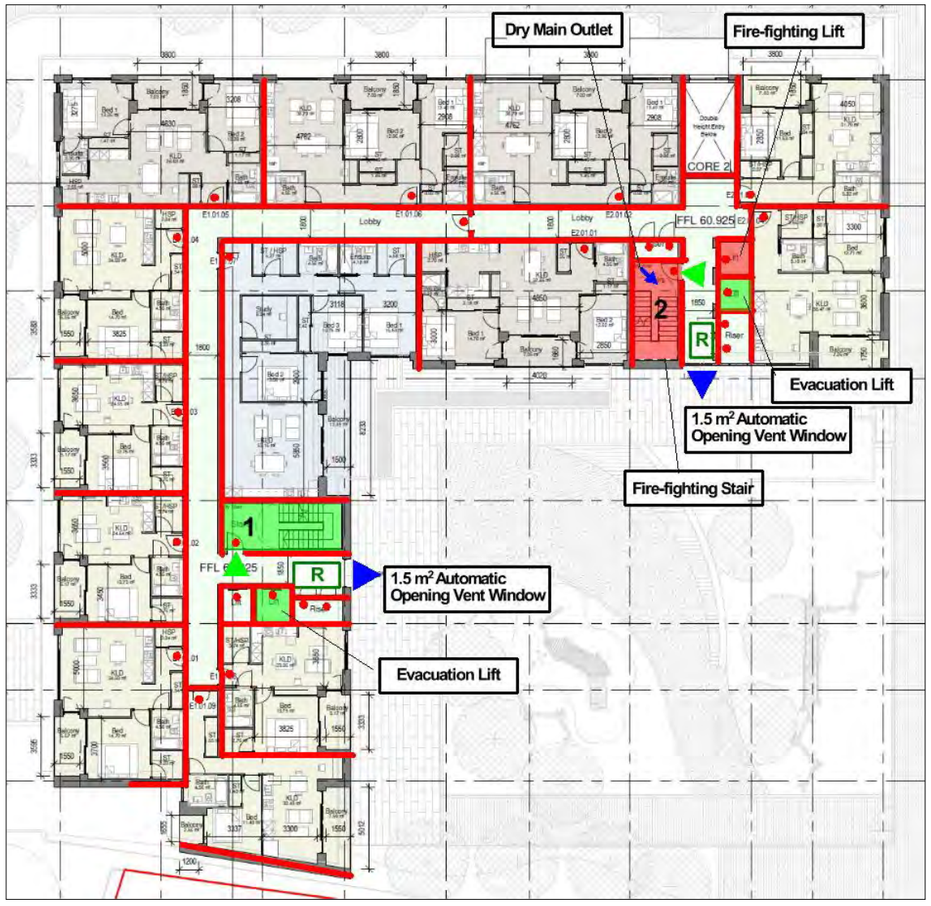

Figure 30. Block 1E First to Fourth Floor Plans

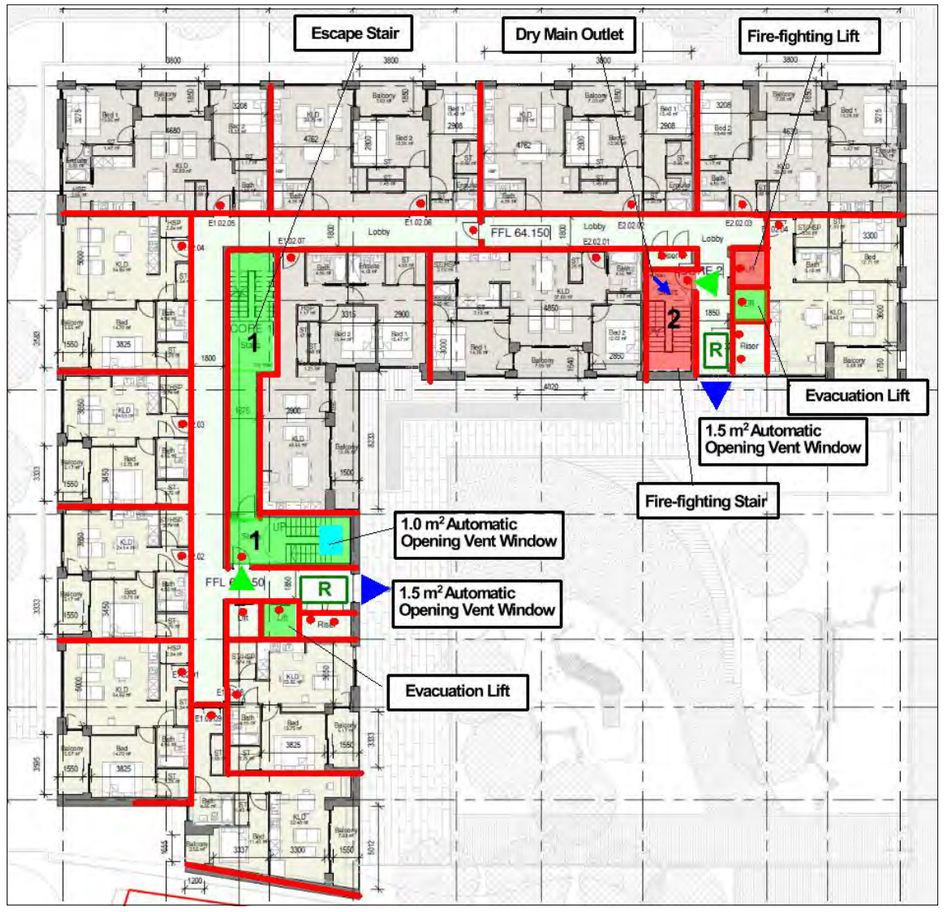

Figure 31. Block 1E Fifth Floor Plan

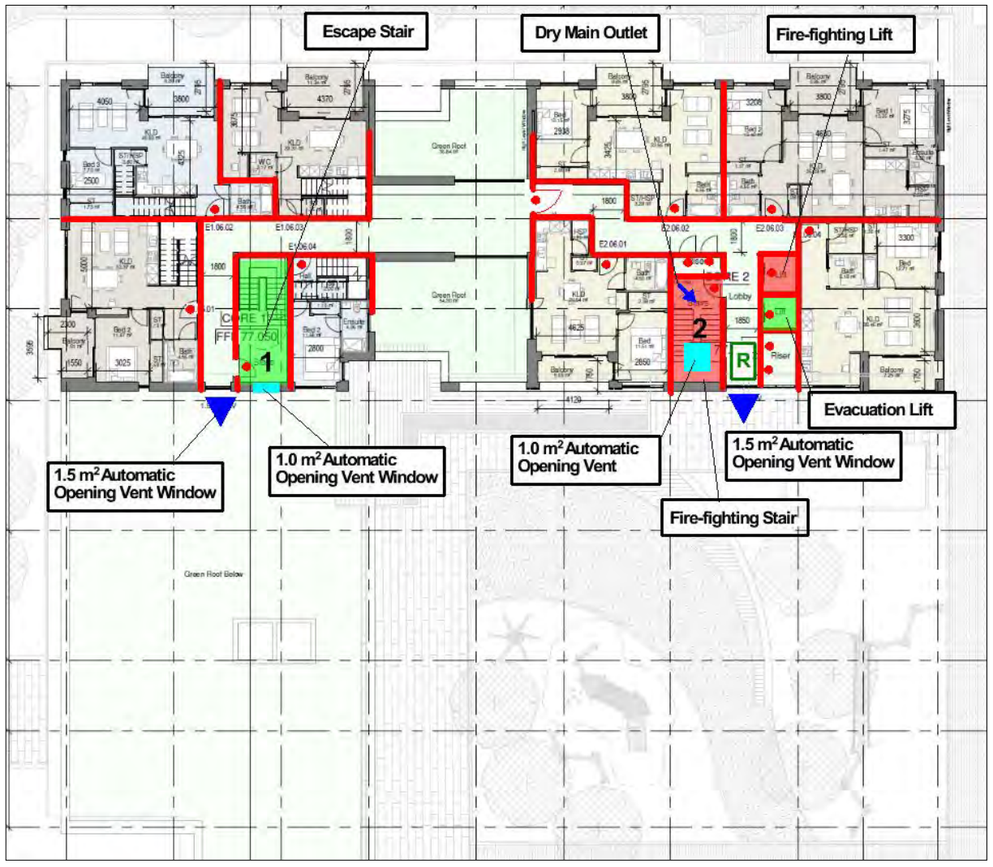

Figure 32. Block 1E Sixth Floor Plan

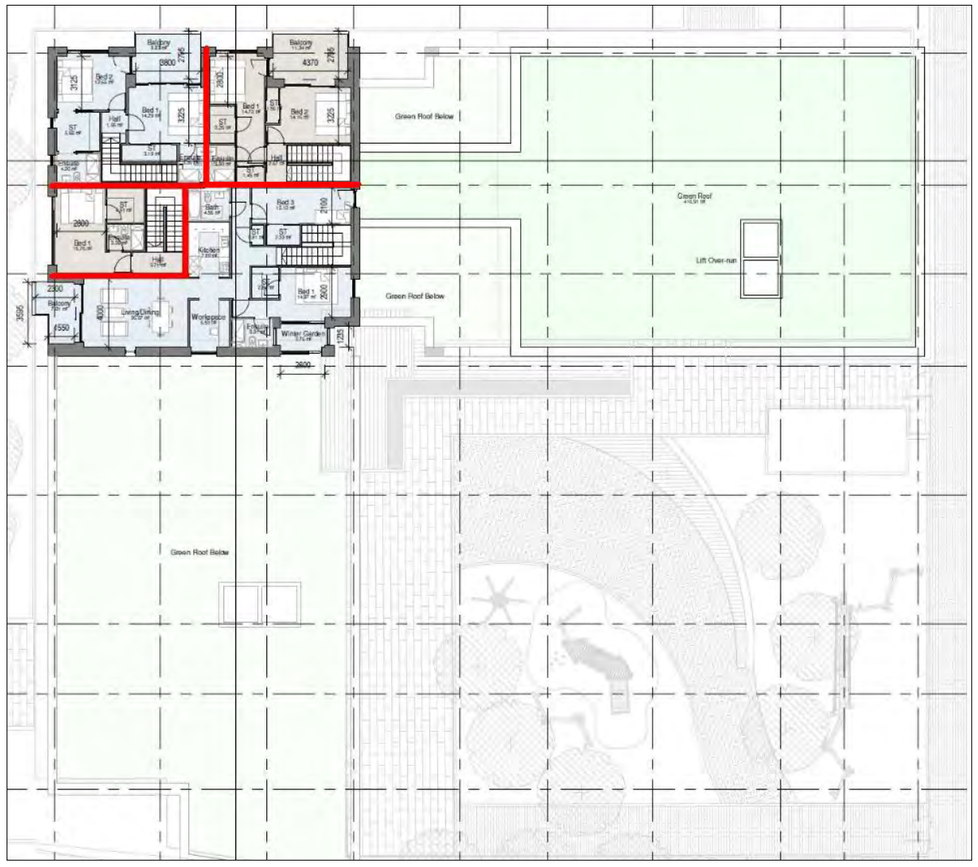

Figure 33. Block 1E Seventh (top) Floor Plan

Figure 36. Block 1F Ground Floor Plan

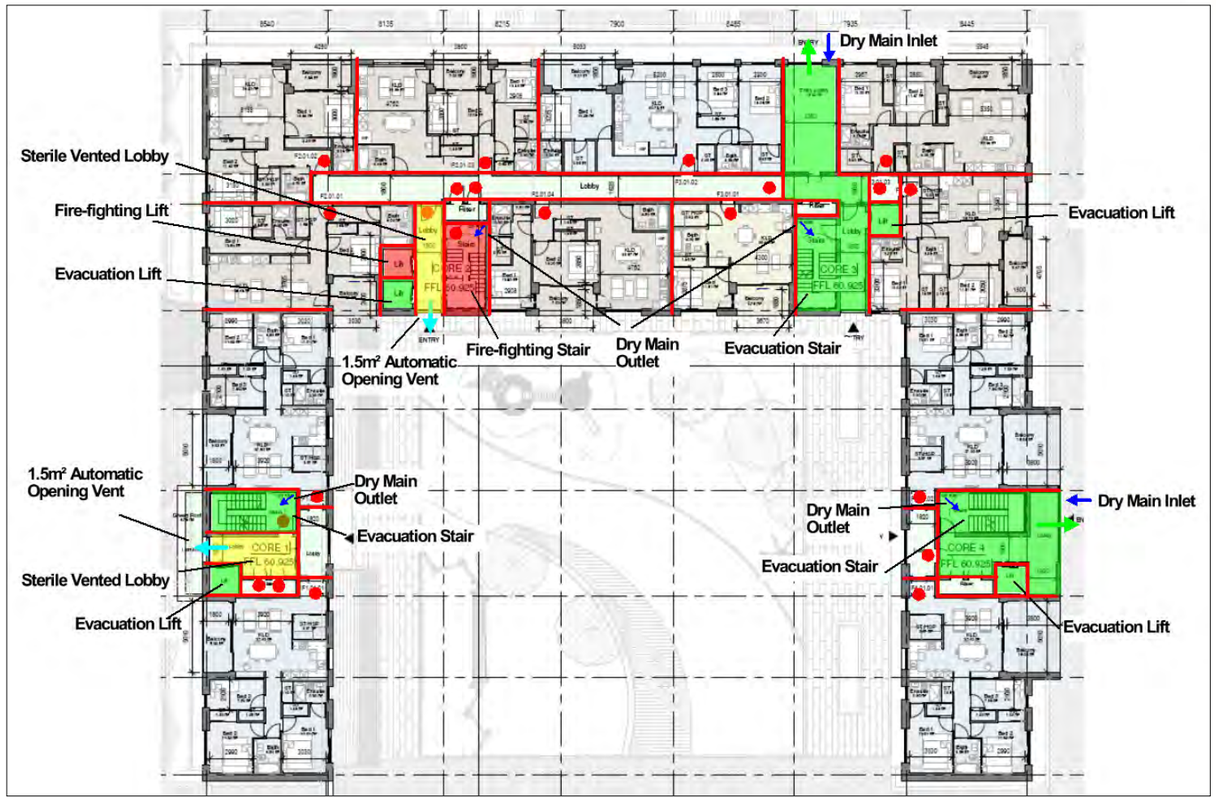

Figure 37. Block 1F First Floor Plan

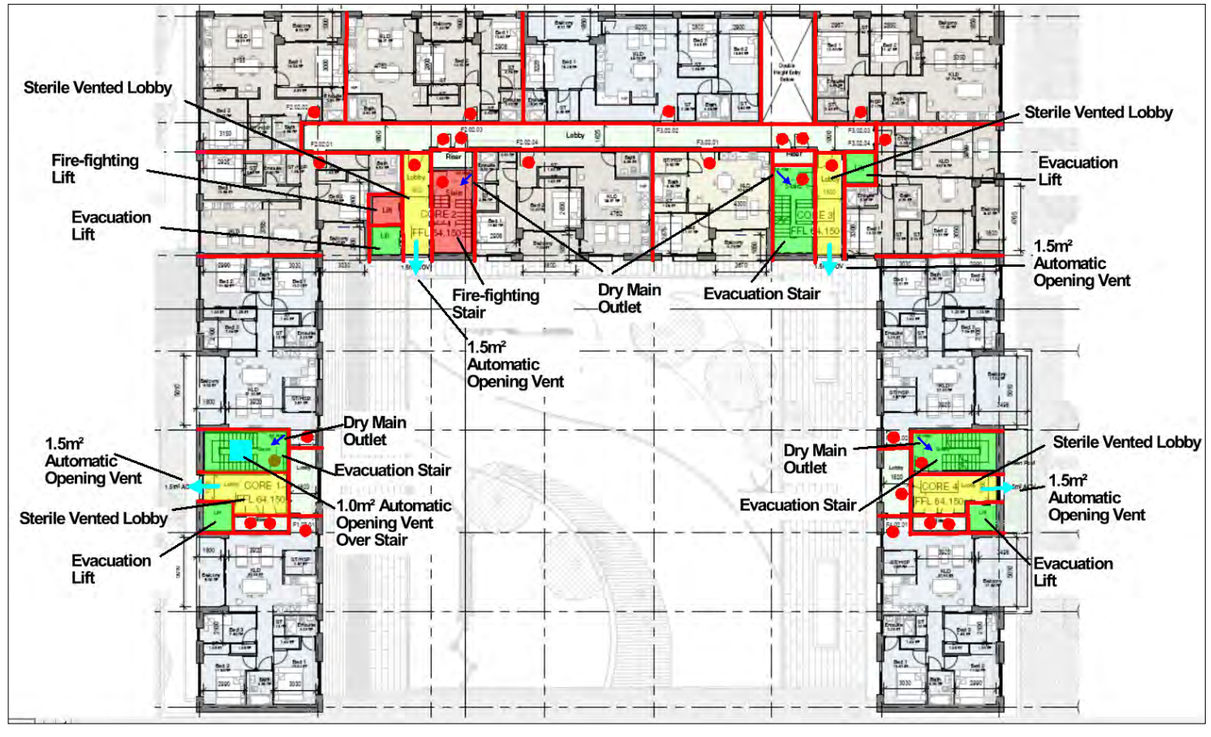

Figure 38. Block 1F Second Floor Plan

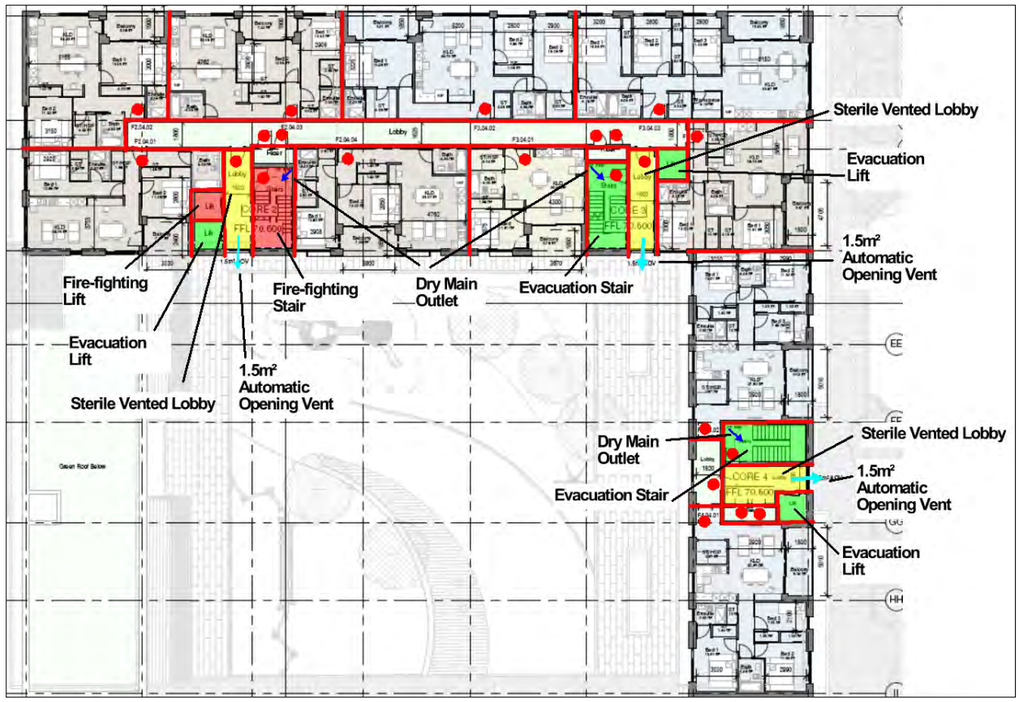

Figure 39. Block 1F Third Floor Plan

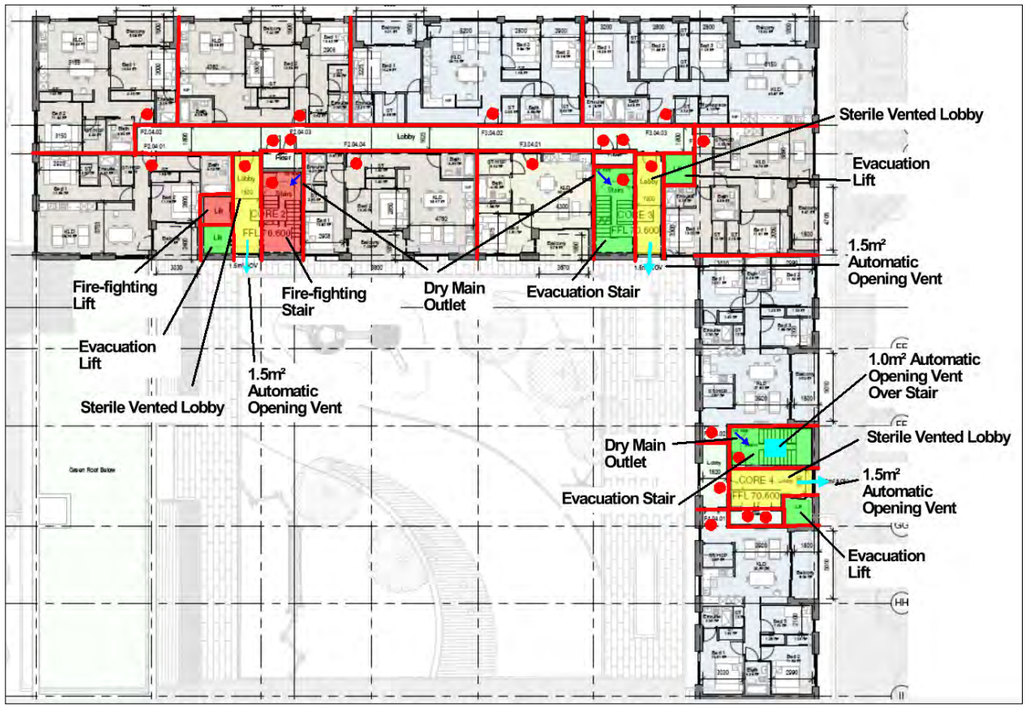

Figure 40. Block 1F Fourth Floor Plan

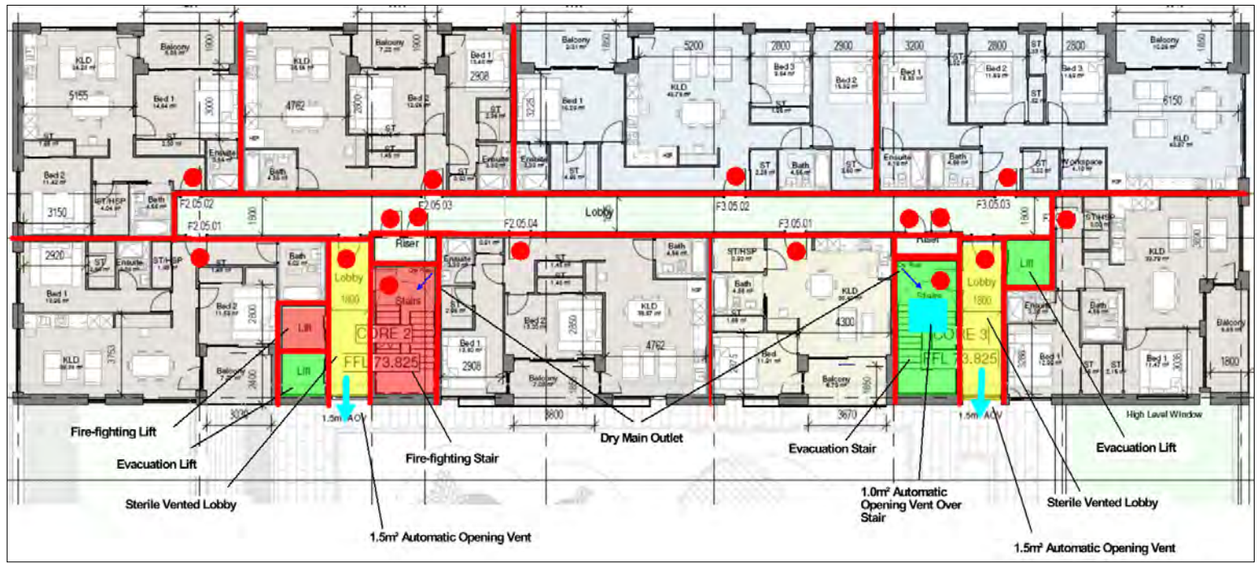

Figure 41. Block 1F Fifth Floor Plan

Figure 42. Block 1F Sixth Floor Plan

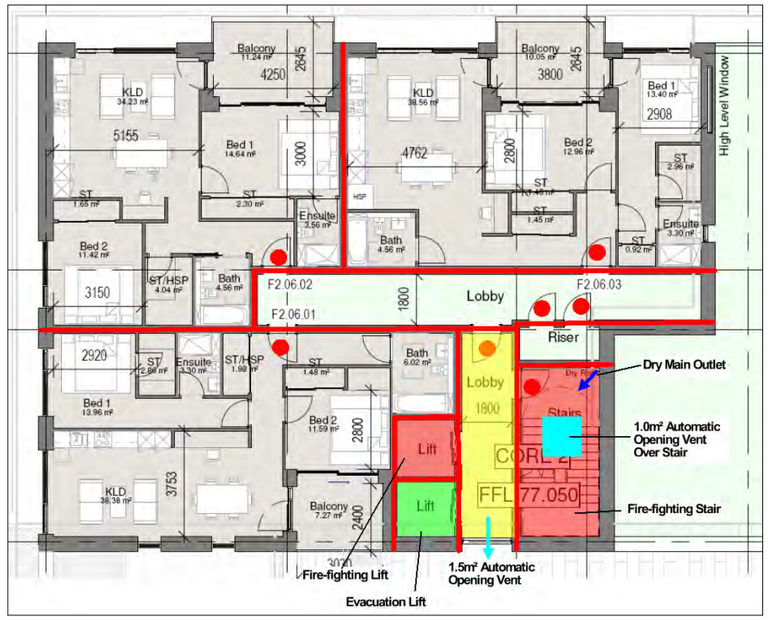

Figure 43. Block 1F Seventh (top) Floor Plan