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Preliminary Fire Safety and Access & Use Strategy

For

The Proposed Construction of a Residential Development

At

**The Junction of Ravens Rock Road and Carmanhall Road, Sandyford,
Dublin 18**

CLIENT : Sandyford Environmental Construction Limited
PROJECT TITLE : Tack Sandyford SHD
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1.0 INTRODUCTION

1.1 SCOPE OF REPORT

This Report is submitted in support of a planning application for the proposed construction of a residential development at the junction of Ravens Rock Road and Carmanhall Road, Sandyford, Dublin 18

The Fire Safety and Access & Use Strategy is being submitted with the Planning Application to demonstrate that the proposed design is in substantial compliance with Part B (Fire Safety) & Part M (Access & Use) of the Building Regulations and that it will be possible in due course to obtain a Fire Safety and Disability Access Certificate without giving rise to changes that would require planning permission.

1.2 OUTLINE DESCRIPTION OF THE PROPOSED DEVELOPMENT

Sandyford Environmental Construction Limited, intend to apply to An Bord Pleanála for planning permission for a strategic housing development at this site of c 0.7ha at junction of Ravens Rock Road and Carmanhall Road, Sandyford, Dublin 18.

The proposed development consists of 207 Build to Rent residential apartment units within 3 no. apartment blocks and as follows:

- 48 No. Studio
 - 103 No. 1 bed
 - 55 No. 2 bed
 - 1 No. 3 bed
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- All residential units provided with private balconies/terraces to the north/south/east and west elevations
 - Crèche 306 sqm
 - Residential amenity spaces 415 sqm
 - Height ranging from 6 to 10 storeys (over basement)
 - A public pocket park on the corner of Carmanhall Road and Ravens Rock Road and landscaped communal space in the central courtyard
 - Provision of a new vehicular entrance from Ravens Rock Road and egress to Carmanhall Road
 - Provision of pedestrian and cycle connections
 - Demolition of two light industry/office structures (total 1,613.49 sqm)
 - 79 parking spaces and 288 cycle spaces at ground floor/undercroft and basement car park levels

The development also includes 2 no. ESB substations, lighting, plant, storage, site drainage works and all ancillary site development works above and below ground

1.3 BASIS OF COMPLIANCE

The proposed development will be subject to Fire Safety Certificate and Disability Access Certificate applications based on the below design guidance documents:

Purpose Group	Design Guidance (Fire Safety / Access & Use)
Residential	TGD-B 2006 (Reprint 2020) & BS 5588-1 / TGD-M 2010, BS 8300: 2018 & UK ADM
Resident Amenities and Creche Facilities	TGD-B 2006 (Reprint 2020) / TGD-M 2010, BS 8300: 2018 & UK ADM
Car Park & Ancillary Accommodation	TGD-B 2006 (Reprint 2020) / TGD-M 2010, BS 8300: 2018 & UK ADM

The aforementioned guidance proffers prescriptive design solutions which are considered prima facie compliance with Parts B & M of the Building Regulations, alternative solutions are acceptable based on a fire engineering approach as set out in Technical Guidance Document B 2006 (Reprint 2020) to the Building Regulations. Accordingly the Fire Safety and Access & Use Strategies being adopted make provision for the acceptance of substantiated deviations from some of the prescriptive solutions in these codes, based on the use of the enhancement measures.

2.0 FIRE SAFETY STRATEGY

2.1 MEANS OF ESCAPE IN CASE OF FIRE

The residential Block's A, B & C are designed to include ventilation to the common corridors on each of the residential floors which will be provided by either a 1.5m² AOV on the external facade or alternatively an extract smoke shaft system venting the corridors. The dead-end travel distances will be limited to max. 15m in each vented corridor measured from the furthest apartment entrance door to the lift lobby/stair door.

The above travel distances are based on the proposed sprinkler protection to all apartments and the ventilation strategy to the relevant ventilated corridors.

The internal layout of the open plan apartments will be designed in line with Section 1.6 and Diagram 9A of TGD-B 2006 (Reprint 2020) which will include ensuring the cooking is located at least 1.8m away from the internal escape route and apartment entrance door and also ensuring a max travel distance of 20m within each apartment measured from the furthest point within the unit to its entrance.

The lower ground/ground floor resident's amenities and creche facilities are each provided with their own independent entrances/exits discharging directly to the external air at ground/street level.

The lower ground floor car park will be served via 4 no. escape routes via the stair core's whilst the basement car park will be served via 2 no. escape stairs.

2.2 INTERNAL FIRE SPREAD (STRUCTURE)

The proposed development structure will be designed to achieve minimum 90/120-minutes fire resistance (stability, integrity and insulation) noting that Block C's height exceeds 30m above ground/access level – note the structural fire rating of the development will be subject to agreement with the Fire Officer as part of the Fire Safety Certificate application process.

Block C has a top floor height greater than 30m and accordingly sprinkler protection will be provided throughout Block C in accordance with IS EN 12845: 2015 and BS 9251:2021 as applicable. The individual residential units to Blocks A, B & C will be sprinkler protected in accordance with BS 9251: 2021.

Each of the lower ground/ground floor units will be constructed as separate compartments whilst similarly each of the individual apartments will also be designed as separate compartments.

The basement level and the lower ground floor car park will be compartmented from all upper floors and adjacent accommodation whilst their ancillary accommodation will also be enclosed in their own separate compartments.

2.3 EXTERNAL FIRE SPREAD

The external walls and roof of the proposed development will be so designed and constructed that they afford adequate resistance to the spread of fire to and from neighbouring buildings as per the external fire spread requirements of BRE 187.

2.4 ACCESS & FACILITIES FOR THE FIRE SERVICE

The external site access routes serving the proposed development will be so designed such that there will be adequate provision for Fire Brigade appliance access to its fire-fighting shafts whereby vehicular access will be provided around the overall development via the existing local authority roads Ravens Rock Road and Carmanhall Road and also via the proposed access roads to and from the car park.

The central core's in Blocks A, B & C will each be constructed as fire-fighting shafts, (noting their topmost floors are greater than 20m above ground level), whereby it is proposed to provide a fire-fighting lift lobby as part of the Core design vis-à-vis the design provisions of Section 5.3 of TGD-B 2006

(Reprint 2020). Each fire-fighting shaft will comprise a fire-fighting stair, a fire-fighting lift, a fire-fighting lobby and a fire main which will provide Fire Brigade personnel access and internal fire-fighting facilities.

Dry riser inlet valves will be provided externally to Blocks A, B & C to allow Fire Brigade personnel to connect fire hose reels from the Fire Brigade appliances to serve the dry risers within these Cores.

It is proposed that the lower ground floor car park will be provided with minimum 2.5% permanent natural ventilation for smoke and heat ventilation whilst the basement floor is proposed to be provided with a mechanical extract system.

3.0 ACCESS & USE STRATEGY

3.1 EXTERNAL ACCESS ROUTES

It is noted that each of the residential Blocks A, B & C will be provided with Part M access directly from the external street/footpath along Carmanhall Road and Ravens Rock Road.

Each of the residential Blocks will be provided with an accessible entrance to facilitate wheelchair/disabled access either at ground floor level and/or at podium level.

Similarly each of the lower ground/ground floor resident's amenities and creche facilities will be provided with their own door accessible entrances accessed directly from Carmanhall Road and Ravens Rock Road.

The external site landscape including the footpaths, steps and gently sloped/ramped access routes along Carmanhall Road and Ravens Rock Road and also the ground floor podium/courtyard will be designed to be Part M compliant as applicable. Whilst it is noted the podium is designed to be wheelchair accessible via the Blocks and also via Ravens Rock Road, it is nevertheless noted that the primary access to the residential Cores will be at ground floor/street level.

The lower ground floor car park will be accessed via the roadway along the East Elevation whereby the car park will be provided with 4 no. designated disabled car parking spaces thus satisfying the minimum 5% design provision of TGD-M 2010.

3.2 CIRCULATION WITHIN BUILDINGS

The residential Cores serving the basement, lower ground floor and each of the upper floors as applicable will be provided with accessible passenger lifts and ambulant disabled stairs designed in accordance with TGD-M / BS 8300 / UK ADM as appropriate.

The crèche unit will be provided with an accessible passenger/platform lift and ambulant disabled stairs designed in accordance with TGD-M / BS 8300 / UK ADM as appropriate.

The circulation corridors to the residential floors are designed to comprise a minimum clear width of 1,800mm thus affording wheelchair users to pass by each other uninterrupted within the corridors.

The external communal rooftop gardens/terraces located on the seventh and the eighth floors will be provided with level access thus facilitating access for wheelchair users.

3.3 RESIDENT'S AMENITIES & CRECHE FACILITIES

The ground floor resident's amenities and creche facilities will be subject to future fit-outs requiring their own Disability Access Certificate applications whereby the proposed fit-outs shown are indicative only.

To comply with Part M (Access & Use) of the Building Regulations, it is noted that accessible sanitary facilities will be required to be provided within each unit as appropriate to the Building Regulations whereby the extent and provision of same will be dependent on the facilities being provided for able bodied persons, (e.g. an accessible WC will be provided where toilets are provided, an accessible shower/changing room will be provided where shower/changing room facilities are provided etc.).

3.4 RESIDENTIAL UNITS

The internal layout of each of the residential units will be designed in accordance with TGD-M 2010 such to include accessible entrance doors, visitable WCs and access to a habitable room (i.e. the kitchen/living area).