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Fire Strategy Requirements

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1 Introduction

The proposed development will consist of single storey semi-detached dwelling type accommodation. Fire Safety Certificates will not be required for the proposed developments as semi-detached houses are exempted from Part III of the Building Control Regulations 1997 2020. As single storey dwelling type units, the fire safety design of the proposed works will be reviewed in line with the five (5) headings as contained in Part B (Fire) of the Building Regulations i.e. Part B6 B11 of the Second Schedule to the Building Regulations, 2017 which provides for Dwelling Houses.

2 Fire Safety Design Requirements

The key fire safety design requirements for single storey dwelling houses of the type arising in the proposed development are as follows

2.1 Means of Escape

- Houses shall be provided with escape windows to each habitable room going direct to outside as there is no entrance hall proposed.
- Escape windows to bedrooms will conform to Section 1.3.7.1 of TGD B (single storey dwelling type units) Volume 2 B6 B11 in particular they will comprise;
 - An openable section which provides an unobstructed clear open area of at least 0.33m².
 - The height should be not less than 450mm.
 - The width should be not less than 450mm.
 - The opening section should be capable of remaining in the position which provides this minimum clear open area.
 - The bottom of the window opening will be not more than 1100mm off the internal finished floor level (except where guarding is required under TGD K).
 - The area beneath the window externally will be suitable to afford escape or rescue purposes i.e. suitable landscaping or surface treatments will be available so that a ladder can be used for access/rescue purposes by the fire service.
 - Where there is a canopy below a window for escape or rescue, it should be structurally adequate to support those using the window.
 - The escape window will be provided with a simple lever handle fastening which will be readily openable from the inside without the need for a key. Where safety restrictors will be fitted to the windows (TGD K Section 2.7) these should be easy release to allow the window to be fit for purpose (and will not be provided with a key lock).
- All residential units will be provided with a Grade D, LD2 type domestic fire alarm system, comprising interconnected self contained mains powered/battery backup alarm with smoke alarms provided within the dining / lounge area and all bedroom accommodation, and a heat alarm within the kitchen/dining accommodation.

2.2 Internal Fire Spread (Linings)

- The provision of internal plasterboard linings both to walls and ceilings will achieve a Class O (National)/Class B s3 d2 (European) internal surface spread of flame classification which will exceed the minimum requirements as set out Section B2.4, Volume 2 TGD B; 2017. The above provision will ensure compliance to Sections B2 & B7 of the Building Regulations, Part B (Fire).

2.3 Internal Fire Spread (Structure)

- All compartment walls between residential units (in respect of semi-detached dwellings) will achieve a 60 minute fire resistant standard. The compartment walls will be of imperforate construction and no services will be incorporated within the compartment wall construction. The compartment walls will be provided with a separate service void zone to allow for the installation of sockets or similar where required to ensure that the integrity of the compartment wall construction is not breached
- The wall between semi-detached dwellings shall be constructed as a separating wall and shall meet the requirements of Diagram 10 and Section B3.5 of Volume 2 TGD-B 2017. The external cavity wall treatment will also include the installation of vertical cavity barriers at Compartment wall (party wall) junctions between each of the residential types. This will include the installation of horizontally cavity barriers (HCBs) at the top of the external cavity wall to close the top of the external wall

2.4 External Fire Spread

- The external finishes to the external facades of the overall residential accommodation area will be Class O (National) / Class B s3 d2(European) surface spread of flame classification which exceeds the minimum recommendations of Section 4.4.3 of TGD B, Vol 2, 2017 to which due to the separation of each element by at least 1.0m from a relevant boundary that no special provision for the surface spread of flame classification of the external façade would apply. External fire spread between dwellings, or the dwelling and boundary meet the requirements of TGD Vol 2 regarding external separation and boundary distances such that no additional fire separation requirements arise. There shall be less than 12m² unprotected area with a boundary distance greater than 4m.
- The performance of the roof coverings will be reviewed to satisfy that they are in accordance with I.S. EN 135015: 2006+A1 2009. The proposed membrane roof coverings will achieve a BROOF(t4)(European class) or AA, AB or AC (National class) i.e. the best performance rating that can be achieved which will satisfy the corresponding requirements of Section 4.6.3 of TGD B, Vol 2, 2017.

2.5 Access and Facilities for the Fire Service

- The site will be provided with an access roadway which shall exceed 3.7m in width, measured between kerbs) for a fire tender pump appliance. and have direct access to the front entrance door of all residential units off from the main access roadway to within 45m of any dwelling
- An autotrack has been included in the engineering drawing pack confirming satisfactory turning available for fire tender vehicles.
- A new watermain shall be provided (minimum internal 100mm ring main system) with hydrants installed to BS 9990:2006 Code of practice for non automatic fire fighting systems in buildings.