Report for An Bord Pleanala

on

Appeal against Condition 2, 5 and 8 on Fire Safety Certificate FSC/23/003

for

New Creche Including Onsite Parking, Secure Toddlers Play Areas

at

Crieve Mor Avenue, Letterkenny, Co. Donegal

Client:	An Bord Pleanala
An Bord Pleanala Ref:	317203-23
Our Ref:	ABP_R027_Issue 1
Date:	29th February 2024

1.0 Introduction

This report sets out my findings and recommendations on the appeal submitted by Clarke Engineering & Consultancy Services, acting on behalf of GDC Ireland Ltd., against Condition 2, 5 and 8 on Fire Safety Certificate FSC/23/003 by Donegal County Council in respect of an application for works related to proposed New Creche including Onsite Parking, Secure Toddlers Play Areas at Crieve Mor Avenue, Letterkenny, Co. Donegal.

It is noted that having regard to the nature of the Conditions under appeal, it is considered that the appeal can be adjudicated upon without consideration of the entire of the application.

1.1 Subject of Appeal

Condition 2, 5 and 8 of the granted Fire Safety Certificate (FSC/23/003) are as follows: -

Condition 2:

Travel distances to be in accordance with Section 3.3.3 of Fire Safety in Pre-Schools (Department of Environment, 1999).

Reason:

To demonstrate compliance with Part B of the Second Schedule to the Building Regulations 1997 to 2022 Section B1: Means of Escape in Case of Fire.

Condition 5:

A disabled refuge is to be provided at first floor level. The disabled refuge is to comply with Annex G of BS9999: 2017. In Particular, the refuge space is to be provided with an emergency voice communication system conforming to BS5839-9: 2011.

Reason:

To demonstrate compliance with Part B of the Second Schedule to the Building Regulations 1997 to 2022 Section B1: Means of Escape in Case of Fire.

Condition 8:

Escape route from first floor to be in accordance with Section 3.3.4 of Fire Safety in Pre-Schools (Department of Environment, 1999). The maximum number of children (who are not sleeping) accommodated at first floor level must never exceed 20.

Reason:

To demonstrate compliance with Part B of the Second Schedule to the Building Regulations 1997 to 2022 Section B1: Means of Escape in Case of Fire.

2.0 Documentation Reviewed

2.1 Fire Safety Certificate Application (compliance report and fire safety drawings) submitted by Clarke Engineering & Consultancy Services, on behalf of GDC Ireland Ltd., uploaded to the BCMS on 4th January 2023.

2.2 Request for Additional Information from Donegal County Council dated 27th February 2023.

2.3 Additional Information from Clarke Engineering & Consultancy Services uploaded to the BCMS on 30th March 2023.

2.4 Granted Fire Safety Certificate No. FSC/23/003 from Donegal County Council dated 27th April 2024.

2.5 Submission of Appeal from Clarke Engineering & Consultancy Services, acting on behalf of Quintain Ireland Ltd., received by An Bord Pleanála on 25th May 2023.

2.6 Fire Officer's report on Fire Safety Certificate Appeal dated 20th June 2023 to An Bord Pleanála.

2.7 Clarke Engineering & Consultancy Services response to Fire Officer's report dated 27th July 2023 to An Bord Pleanála.

3.0 Building Control Authority's Case

Condition No 2.
With regards to the appeal of Condition No. 2 Donegal County Council note the following observations in relation to the condition and the content of the appeal submitted.

1. Both revisions of the compliance report accompanying the Fire Safety Certificate Application FSC 23/003 note that the worst - case travel distance from the first floor level is "approximately 18 - 19m". A distance of 19m is shown on the original floor plans (Drawing No. 4817/FSC - 201). The floor plans submitted in response to the revised information request from Donegal Fire Service (Drawing No. 4817/FSC - 201 'A') incorporated a fire rated lobby to the protected stair at first floor level and measured the travel distance to the lobby entrance door. This distance is shown on Drawing No. 4817/FSC - 201 'A' as 16m. Technical Guidance Document - B (TGD - B) and Building Bulletin 100 (BB100) both require that the travel distance is measured to the storey exit which is defined as "A final exit, or a doorway giving direct access into a protected stairway, fire-fighting lobby, or external escape route". Based on this definition the travel distance should be measured to the stair door as opposed to the lobby door.

2. The appeal submission (CECS053-ASTR-23.05.2023) notes the following in respect to travel distance "The respective travel distance in the proposed design are in line with both the recommendations of BB100 and TGDB, i.e. 18m in single direction & 45m where alternatives are provided." This statement does not align with the information contained within the compliance report or drawings accompanying the Fire Safety Certificate Application, which as noted in point 1 above refers to a single direction travel distances exceeding the maximum allowable distance of 18m at first floor level.

3. Proposals for single direction travel distances exceeding the maximum allowable distance of 18m were not accepted during the assessment of the Fire Safety Certificate Application nor is this appeal seeking to justify travel distances in excess of 18m. However, the information submitted as part of the Fire Safety Certificate Application show the maximum permissible single direction travel distance being exceeded at first floor level. As such it is important that a condition limiting the travel distance is retained.

4. The appeal submission (CECS053-ASTR-23.05.2023) expresses the view that "we consider the relevance of Condition No. 2 inappropriate for the building, as the approach using BB100 to the means of escape design for the entire building is considered robust." It should be noted that the provisions within TGD - B, BB100 and Fire Safety in Pre-schools are the same in respect to the maximum permissible single direction of travel which is limited to a maximum distance of 18m in all these documents. Given the contradictions between the claims of compliance within the appeal submission (CECS053-ASTR-23.05.2023) and the information contained within the Fire Safety Certificate Application we would ask that Condition No. 2 is retained to ensure that the maximum allowable single direction travel distance of 18m is not exceeded.

Condition No. 5
With regards to the Appeal of Condition No. 5 Donegal County Council note the following observations in relation to the condition and the content of the appeal submitted.

1. In respect to means of escape in case of fire, the functional requirement of Part B of the Second Schedule to the Building Regulations is as follows: "A building shall be so designed and constructed that there are adequate means of escape in case of fire from the building to a place of safety outside the building, capable of being safely and effectively used." The functional requirement does not distinguish between occupants who can evacuate independently or those who may require assistance while evacuating and as such adequate means of escape is required for all occupants irrespective of their abilities.

2. The compliance report accompanying the Fire Safety Certificate Application and the subsequent appeal submission (CECS053-ASTR-23.05.2023) state that BB100 is the appropriate design document to use for the design of the escape routes within the building. Section 4.4.3 of BB100 requires that a refuge be provided for each protected stairway affording egress from each storey, except storeys consisting exclusively of plant rooms. Section 4.4.3.1 of BB100 requires that an emergency voice communication system complying with BS 5839 - 9 should be provided within a refuge. For the proposed building to comply with the design documents which have been referenced as the basis for compliance a refuge and emergency voice communication system would be required at first floor level.

3. The appeal submission (CECS053-ASTR-23.05.2023) makes various references to discrete clauses of BS9999 in support of the omission of a refuge to the first-floor level. It should be noted that this document was not the design basis for the building subject to this appeal, and further to this Clause 0.2 of BS 9999 notes the following in respect to the general use of the document and in particular its use in justifying variations from other codes:

   "It is important that users of this standard use it as a whole; the use of individual parts in isolation (e.g., To justify variation from other codes or standards) might not necessarily result in acceptably safe design solutions."

   It is also worth noting that if the building subject to this appeal was designed to align fully with BS 9999 then a refuge with a communication system would be required at first floor level.

4. The appeal submission (CECS053-ASTR-23.05.2023) refers to an anticipated high level of management within the building (when occupied). While there are no provisions in the Building Regulations in relation to fire safety management, the guidance contained within design standards such as BB100 and TGD - B does assume that an adequate level of fire safety management will be provided when the building is in use. As such it is not clear how anticipated high levels of management within the building (when in use) can be considered as adequate compensation/justification for the removal of fire safety features such as refuges.

5. Section 1.4.15 of TGD - B notes that "Where access for people with disabilities is provided to a building or part of a building in accordance with Part M of the Second Schedule to the Building Regulations, provision should also be made, in the building or part of the building (as the case may be) for appropriate means of escape for such people." While the Fire Safety Certificate Application and subsequent appeal refer to anticipated high levels of management and supervision within the building, they do not provide specific detail on how appropriate means of escape for occupants requiring assistance is achieved.

Condition No. 8

With regards to the Appeal of Condition No. 8 Donegal County Council note the following observations in relation to the condition and the content of the appeal submitted.

1. As noted within the Fire Safety Certificate Application it is intended to locate younger children at ground level and older children at first floor level. The application and subsequent appeal do not provide further explanation on how the separation of age groups will be maintained or how children under 6 years of age would be prevented from using the upper floor. It should be noted that children under 6 years of age may be in after school services.

2. Within the Fire Safety Certificate Application, the basis for compliance is noted as being TGD - B and BB100. While BB100 refers to nursery's it does not give any specific advice on this type of building nor does TGD - B. Fire Safety in Pre-Schools (Department of Environment, 1999) does contain specific advice for this type of building as such it is not clear why this advice would be disregarded in favour of more generic guidance which does not appear to distinguish between children and adults in regard to means of escape from the building.

3. It is worth noting that in the recent draft of TGD - B, which was published for public consultation, a single escape route from an upper storey would only be acceptable in a creche if it served a storey not likely to contain more than 25 persons. While it is acknowledged that this document is a draft for public consultation and this figure is an increase on the figure stated in Section 3.3.4 of Fire Safety in Pre-schools it would indicate a clear intent to limit the number of occupants on the upper floors of creches where a single escape route is available.

4. Adopting a design philosophy which disregards Codes of Practice which contain specific provisions regarding the evacuation of children in favour of more generic design standards which do not specifically address this issue or take account of the potential vulnerabilities associated with this occupancy profile may lead to incorrect conclusions regarding the level of safety within the development. As such we would ask that the above condition, which does take account of the potential vulnerabilities associated with this building's occupancy profile be retained.

4.0 Appellant's Case

BUILDING DESCRIPTION

The proposed Creche will provide childcare services within a standalone two storey building located on a greenfield site at Crieve Mor, Letterkenny, Co. Donegal.

The ground floor of the proposed building will be used for early years care, i.e., pre-school services, with one room at this level also catering for School Age Childcare (S.A.C) up to the age of 15 years old.

The upper storey will provide two classrooms for S.A.C, afterschool services for school attending children. This upper storey will also provide some ancillary accommodation for staff, etc.

The total floor area of the building will consist of 596m^2, with approximately 405m^2 of floor area provided at ground floor with the remaining 191m^2 provided at first floor.

The Ground Floor will provide five childcare rooms for nursey and pre-school year groups with one room catering for S.A.C. The respective rooms will be provided with individual fire exits direct to outside.

LEGISLATION AND GUIDANCE DOCUMENTS

Building Regulations

Part B1 to Part 5 'Fire Safety' of the Second Schedule to the Building Regulations 1997 - 2022, set out performance standards which must be achieved in the design and construction of buildings. Regulation B1 relates to means of escape in the case of fire stating the following:

'A building shall be so designed and constructed that there are adequate means of escape in case of fire from the building to a place of safety outside the building, capable of being safely and effectively used.'

Technical Guidance Document B notes that Regulation B1 may be met if the following performance requirements are achieved in the design of the building:

a) If there are routes of sufficient number and size, which are suitably located, to enable persons to escape to a place of safety in the event of fire;
b) If the routes are sufficiently protected from the effects of fire in terms of enclosure, where necessary, and in the use of materials on the routes; and
c) If sufficient lighting, means of smoke control and an alarm system to warn the occupants of the existence of fire are provided to enable them to use the routes safely;

All to an extent necessary that is dependent on the use of the building, its size and height.

Therefore, the means of escape provisions required for Building Regulation compliance, should be relative to the use and size of the building, taking consideration for the number of persons likely to be using the adequately sized protected escape routes.

SUPPORTING DESIGN GUIDANCE

Purpose Group Classification

In line with the recommendations of Technical Guidance Document B 2006 (reprint edition 2020) (referred to as TGDB hereafter), the building will provide for educational and recreational school facilities for the minding of children during the working day and therefore would be defined as a Purpose Group 5 use, i.e., Assembly and Recreation.

TGDB & BB100 Design Guidance

As outlined above, the primary guidance document employed to demonstrate compliance with Part B of the Building Regulations is TGDB. The guidance document provides prescriptive recommendations for fire safety design as opposed to a 'fire safety engineered approach' using BS7974 for example.

Given the multi-use nature of the creche (pre-school services, afterschool care, etc.), the design strategy in terms of demonstrating compliance with Part B1 of the Building Regulations was based on the following approach:

Paragraph 1.16 Part (iii) of TGBB recommends the use of Building Bulletin 7 for the means of escape design in educational buildings such as schools, etc. Building Bulletin 7 has since been replaced with Building Bulletin 100 (BB100). Section 1.3 of BB100 guidance document applies to all typical school environments including nursery schools/pre-schools.

Subsequently in 2014, the Department of Education & Skills issued a supplementary guide for Design Teams titled 'Fire Strategy in schools'. This document also refers to the use of BB100, given that Building Bulletin 7 has been removed.

On the above basis, it is considered the use of BB100 to be an appropriate and robust design guidance document for demonstrating compliance with Part B1 of the functional requirements of the Building Regulations (Means of Escape).

CONDITION NO 2 & 8

The appellant considers that Condition No 2 & 8 are interrelated with respect to the application and relevance of the Fire Safety in Pre-Schools (Department of Environment, 1999) guidance document to this development.

It is felt that the application of the 'Fire Safety in Pre-School' guidance document by the local authority is inappropriate and furthermore the 'cherry picking' of a few isolated recommendations (i.e., Section 3.3.3 and 3.3.4) from the guidance document to be unduly onerous.

The appellant acknowledged the 'Fire Safety in Preschool (1999)' guidance document in the technical submissions as part of the respective statutory approvals process for this building, however do not consider the recommendations of Section 3.3.3 and 3.3.4 of the guidance document to be applicable/relevant for the proposed building on the following basis:

The 'Fire Safety in Preschool' guide relates only to fire safety in premises used for pre-school services which cater for children under 6 years of age and who are not attending national school. Whilst the ground floor of the proposed building will provide for predominately early years care, i.e., pre-school services with one S.A.C room, the upper storey will cater for School Age Childcare only, i.e., afterschool services, and some ancillary accommodation for staff, etc.

On this basis, the design strategy is based on having the nursery children situated at ground floor level.

Only supervised children who are attending national or secondary school will be using this upper storey.

While still under strict supervision, these older aged children would require less assistance in an emergency compared to pre-school children/infants. The fire safety provisions in the proposed building and, in particular, the means of escape from the first floor, would be no less satisfactory than a national or secondary school designed to comply with the recommendations of BB100. In this regard, students/pupils attending a national/secondary school which has been designed to BB100 should not be at any greater risk if they attend an 'afterschool' facility which has also been designed to the same recommendations.

Appropriate Use of BB100 Guidance Document

Paragraph 1.1.6 Part (iii) of TGDB recommends the use of BB100 for the means of escape design in educational buildings such as schools, etc. As outlined above in Section 2.2.2. BB100 has been developed as a robust guidance document for the design of all typical school environments including nursery schools/pre-school services. BB100 applies to all educational buildings with students up to the age of 19 years old.

Moreover, the statutory objective of the application is to demonstrate compliance with the functional requirements of Part B of the Building Regulations (1997 - 2022). In terms of the means of escape provisions, as outlined in Section 2.1 of this report, it is considered that the design approach employed using BB100 & TGDB adequately demonstrates compliance with the functional requirements of the Building Regulations, Part B1.

Section 1.2 of the 'Fire Safety in Pre-School' document offers guidance to the operator of such premises regarding their statutory responsibilities under the Fire Services Act 1981. However, Section 1.6 of the document notes that TGDB provides the guidance base for demonstrating compliance with Part B of the Building Regulations.

As TGDB refers to BB100 for the means of escape design in Purpose Group 5 educational building, it is considered a robust guidance document, i.e., BB100, which is appropriate for the building use, i.e. Nursery School / Creche, was applied in the design of the First Floor means of escape.

Travel Distances

The respective travel distances in the proposed design are in line with both the recommendations of BB100 and TGDB, i.e. 18m in single direction & 45m where alternatives are provided.

The 'Junior Nursery' is the only room intended to provide sleeping for children within the building. As with all the classrooms at ground level, the 'Sleep Room' as part of this nursery room has been designed to accommodate an exit door direct to outside and therefore the travel distances are very modest.

Whilst the proposed design complies with the recommended travel distances in Section 3.3.3 of Fire Safety in Pre-school, it is considered the relevance of Condition No 2 inappropriate for the building, as the approach using BB100 to the means of escape design for the entire building is considered robust. Moreover, the design approach using BB100 is considered to adequately meet the functional requirements of B1 of the Building Regulations.

First Floor Design Occupancy

Section 3.3.4 of 'Fire Safety in Preschools' guide recommends that alternative escape routes be provided where more than 20 children use a room/area which are subject to pre-school services.

Whilst it may be reasonable to apply the recommendations of the Fire Safety in Pre-Schools guidance document to areas of the building that are used by pre-school children (i.e., not attending primary school), however it is considered inappropriate to apply the recommendations related to 'Pre-schools' to areas of a building that are not used by pre-school services. As outlined above, the two rooms at first floor will be used for both primary and secondary school attending children, i.e., School Age Childcare.

In line with the recommendations of Para. 4.4.2.1 of BB100 compliant design, 120 children (potentially of any age) plus supervisors are permitted at first floor, with additional staff only permitted to use additional floors above the first-floor level. In the proposed building, only 38 children (Maximum 19 in each classroom) plus supervisors/staff would be using the first floor with no additional floors above.

Section 1.5 of the Fire Safety in Preschools' guide notes the following:

'It is recognised that pre-school services are provided in many different building types and there will be a need for flexibility in the implementation of the Guide's recommendations in particular cases. The provisions of the document are an aid to, and not a substitute for, professional judgement and common sense.'

The proposed building has been designed as a purpose built Creche with a design strategy that considers travel distances, internal linings, structural fire resistance, etc. As outlined above, the pre-schools are often provided across a variety of older buildings some of which could be family dwellings. These respective buildings may have been converted or adapted for the childcare use and not subjective to a statutory approvals process (e.g., built/adapted pre 1992 with no requirement to obtain a fire safety certificate). For the provision of pre-school service in these types of older buildings, the conservative nature of the 'Fire Safety in Preschools' guide may be more applicable.

Given the inherent design features of the first floor, i.e., proximity of the respective SAC rooms to the protected escape stair, modest travel distances, fire resisting construction and a good standard of automatic fire detection, it is considered the recommendations of Section 3.3.4 of the 'Fire Safety in Preschools' guidance to be inappropriate in this instance.

Potential Code Compliant Design Scenario
By way of a mere example, take another purpose group 5 type building, e.g., Assembly Hall/Multi-Purpose Hall within a Local Community Centre building. Based on TGDB recommendations, this building would be permitted to have a multi-purpose hall at first floor which could be served by a single escape stair with up to 50 persons of any age range i.e., potentially 50 under 6-year-old children who are not attending school, using this upper storey. This code compliant arrangement could have minimal automatic fire detection and alarm provision. The level of supervision and management could also be limited in this type of scenario.

On the above basis it is considered the use of BB100 in the proposed design to be robust in demonstrating statutory compliance with Part B1 of the Building Regulations for the proposed premises.

CONDITION 5:
By virtue of the generous landing provided at the head of the protected escape stair in the proposed

building, a modest refuge space is inevitably created. However, given the inherent design of the building, it is considered onerous to include the provision of a refuge space with a two-way emergency voice communication system on the following basis:

Section 1.4.15 of TGDB recommends that where a building or part of a building (as the case may be) provides access for occupants with disabilities, then the escape routes should be designed to comply with Part M of the Building Regulations.

In the proposed new Creche, the ground floor has been designed to comply with Part M of the Building Regulations. The first floor will not be provided with a lift however as per the granted Disability Access Certificate, the upper storey has been designed to be 'ambulant disabled'. In general, 'Ambulant Disabled' covers a wide range of disabilities (e.g., diabetes, epilepsy, etc.) who are not regular wheelchair users.

On this basis, it would not be expected to have any disabled occupants with a serious mobility impairment on the upper storey, i.e., wheelchair user, major walking impairment, etc.

Given the use of the building for registered childcare/afterschool services, management & supervision staff would be aware of those children with impairments, e.g., impaired sight or hearing, etc., using the building. Whilst fire safety management of occupied buildings falls outside the scope of the Building Regulations (ref: Para. 1.4.15 of TGDB), it would be expected that good fire safety management practices would be in place. In this regard, in line with the recommendations of Para. 45.7 of BS9999 (2017), it would be expected that Personal Emergency Evacuation Plans (PEEP's) would be in place for those requiring assistance to leave the building.

Moreover, Para. 17.8 of BS9999 notes the following in relation to the various methods for the vertical means of escape for disabled persons.

Even with extended distances (where additional means of support are included), most disabled people are expected to be able to reach a place of relative safety without assistance. However, certain people, such as some wheelchair users, cannot negotiate stairs unaided.

As outlined above the first floor has been designed to be 'Ambulant Disabled', with ambulant compliant stairs, etc. In this regard, any few disabled occupants with mobility, hearing or sight impairments should be able to negotiate the vertical means of escape within the protection of the escape stair. With no lift provided, wheelchair users would not be located on this upper level.

The proposed design occupancy for the first floor is 38 children plus supervision staff. The stair serving the upper storey is generously sized with a clear width of 1100mm. The travel distance from the respective classrooms at this upper level are modest into the protection of the escape stair which is enclosed in at least 30mins fire resisting construction. The ambulant disabled stairs are sufficiently sized to permit a mobility impaired occupant to move down the stair whilst allowing other evacuees to pass without hindering travel speeds.

As acknowledged in Annex G.1 of BS9999, disabled refuge spaces are generally for use by wheelchair users. The escape stair offers a generous landing level to a few evacuees to take temporary refuge before continuing their means of escape. With the highly managed nature of a childcare setting, it would be expected that adequately trained staff would be available to offer the few ambulant disabled children requiring evacuation assistance down the stairs and through the final exit to a place of safety.

The provision of a two-way communication system would be of benefit in a building with multiple storey's above ground level, e.g., a 3 or 4 storey building. In this scenario, a disabled wheelchair user using a refuge space on the top storey would be able to keep in contact with the evacuation team at the base of the stair.

However, the proposed building is only single storey thus one flight of ambulant disabled stairs. Any mobility impaired occupant with a restricted walking speed for example would be able to verbally stay in contact with a supervising staff member (the staff member at worst case might only be at the base of the stair/final exit door). That been said, it would be expected that staff would not leave a child in a temporary refuge location in this type of building.

Albeit BS5588 Part 8 (1999) has been replaced by BS9999, it is noted that Section 8.2 of the document suggests that a refuge area is not required in a building which contains not more than a basement, a ground floor and a first storey. The floor area of each storey should be less than 280m^2, i.e., total floor area of 840m^2 and have a single occupancy.

Whilst the ground floor in the proposed building is app. 405m^2 with multi escape doors direct to outside, the first floor is only 191m^2. With the proposed building having a single occupancy, the combined floor area is app. 596m^2.

Given the inherent design features of the building it is considered the recommendation to provide an emergency voice communication system is very conservative considering that the building is not provided with a lift and the virtue that staff would be fully aware of any disabled occupants attending the building. Moreover, the single flight of stairs has been designed to accommodate ambulant disabled occupants who should be able to evacuate the building without the need to take refuge.

Any wheelchair user or child with a serious walking impairment, etc. of school age, (requiring School Age Childcare/Afterschool care) would be accommodated within the S.A.C classroom at ground floor which is provided with exit provision direct to outside.

FIRE OFFICER REPORT

Further to the Fire Officers report the appellant responds as follows: -

- In the interest of clarifying Point 4 raised by DCC, the appellant fully acknowledge and agree that the maximum permissible single direction of travel recommendation is the same across all respective standard guidance documents. The appeal of this condition is solely directed at the appropriateness of the 'Fire Safety in Pre-schools' guidance to this application.

- The said document touches on fire safety design aspects, however, provides more general advice & guidance in terms of management, furnishings & fittings, etc. In addition, Section 1.2 of 'Fire Safety in Pre-schools' guide notes the following:

- While the Guide is aimed primarily at persons in control such as owners, occupiers and managers, it is also relevant to staff, parents and maintenance personnel.

- Whilst the Fire Safety in Pre-school document may have a function and purpose for operators of pre-school services, the document does not provide a complete fire safety design package which can be applied as a whole, to demonstrate compliance with the Building Regulations.

- Moreover, the fundamental objective of this application is to demonstrate compliance with Part B1 to Part B5 'Fire Safety' of the Second Schedule to the Building Regulations 1997 - 2022. Technical Guidance Document B (reprint 2020) is considered to demonstrate 'prima facie' compliance with Part B of the Building Regulations.

- Paragraph 1.16 Part (iii) of TGDB recommends the use of Building Bulletin 7 for the means of escape design (i.e., Part B1 of the Building Regulations) in educational buildings such as schools, etc. Building Bulletin 7 has been replaced by Building Bulletin 100 (BB100).

- Subsequently in 2014, the Department of Education & Skills issued a supplementary guide for Design Teams titled 'Fire Strategy in schools' which refers to the use of BB100, given that Building Bulletin 7 has been removed. The 'Fire Safety in Pre-schools' guidance is not cited or referenced in TGDB.

- On the above basis the appellant considers the use of BB100 to be an appropriate, correct, and robust design guidance document for demonstrating compliance with Part B1 (Means of Escape) of the functional requirements of the Building Regulations.

- Furthermore, the appellant does not concur with the claims of contradiction. As presented within the detailed technical justification to DCC at assessment stage, prescriptive guidance such as BB100 & TGDB provide standard recommendations on how to meet the requirements of the Building Regulations.

- TGDB & BB100 also permit the designer to adopt alternative approaches to 'demonstrate a comparable standard of fire safety' (Reference Section 1.2 of BB100 & Section 0.1.4 of TGDB) in isolated instance where it is not possible to meet the recommendations of prescriptive guidance. Section 1.2 of BB100 notes the following:

- A designer is not required to follow the guidance in this document, but may adopt an alternative approach, possibly based on fire safety engineering. This should be a risk-based approach, with the aim of providing an acceptable level of safety that gives good value for

money. The onus is on the designer to demonstrate that the design results in an appropriate safety level, as good or better than that achieved by following the detailed design guidance here.'

- The initial Technical Compliance Report (CECS-FSTCR-15.12.22 Rev 1) which accompanied the fire safety certificate application, acknowledged the single direction of travel from the staff room to the storey exit at first floor as being, at worst, 1m more than the permitted maximum recommended in prescriptive guidance. There were no claims that the arrangement was code compliant. Technical justification was provided to demonstrate functional compliance with the Building Regulations.

- At 'revised information' stage, the 'protected lobby' was added to create an extension to the escape stair following a telephone discussion with the assessing Fire Officer, Mr. Edward Cassidy. Following this discussion, a detailed Further Information response (CECS053cecs-dcc29.03.23), Technical Compliance Report (Ref: CECS053- FSTCR- 27.03.23 Rev 2, Section 3.5.1.2) and associated drawings were submitted to include an additional fire door to the corridor serving the 'staff area' along with an alternative escape route via SAC 2 classroom.

- In the revised solution, the travel distance from the furthest point in the 'Staff Room' into the protected lobby measures 16m plus an additional 2 - 3m into the protected stair. The alternative route via the S.A.C 2 classroom into the protected stair is 17.5m - 18m in a single direction.

- The comparative technical analysis presented demonstrates the same or better standard of fire safety as that of prescriptive guidance such as BB100 and furthermore meets the functional requirements of Part B1 of the Building Regulations.

- Regarding the observations made by DCC in Point 1, the appellant acknowledges the definition of a storey exit, however the creation of the ‘protected lobby’ is effectively forming an extension to the protected stair.

- The said lobby also benefits from the provision of an openable window for use by the attending Fire Service to vent smoke in the manner as within a protected escape stair, reference Para. 5.4.3.3. Standard guidance recommends that a 'protected lobby' may be used as a place of refuge. The provision of the fire door along the corridor in this scenario is no different. Once the evacuee travels through the self-closing fire door, the protection of the fire door and associated construction forming the lobby would afford the occupant additional protection to reach the storey exit. Whilst the appellant are not trying to apply the recommendations of BS9999 to demonstrate compliance with the Building Regulations, the appellant merely acknowledges that based on the recommendations of BS9999 for an A2 risk profile, the maximum permitted single direction of travel with minimum fire protection methods (i e., no automatic fire detection, high ceiling, etc.,) would be 22m. With additional fire protection measures, the single direction of travel could be increased to a maximum of 26m under the recommendations of BS9999.

- As outlined above, whilst TGDB & BB100 provide the same recommendations in respect to maximum permissible travel distances, the use of 'Fire Safety in Pre-schools’ guidance document is not considered to be an appropriate document for demonstrating compliance with Part B1 of the Building Regulations. The appellant request that reference to this document be removed and replaced to include reference to TGDB & BB100 only.

- In respect to Point 1, Para. 1.4 15 of TGDB recommends the following for the provisions for people with disabilities: “Where access for people with disabilities is provided to a building or part of a building in accordance with Part M of the Second Schedule to the Building Regulations, provision should also be made, in the building or part of the building (as the case may be) for appropriate means of escape for such people. ”

- Furthermore, Technical Guidance Document M (2022) and, in particular Para. 1.3.4.3 of the documents, recommends the following in relation to Internal Stairs Suitable for Ambulant Disabled People;

- Stairs serve many different functions in a building e.g., a means of escape, a means of access for ambulant disabled people or an effective, efficient and simple means of vertical circulation, or sometimes a combination of these.'

- Under Part M of the Building Regulations, this building is not required to be provided with a lift to serve the upper storey. Therefore, the First Floor will not provide access for people with mobility impairments, i.e., wheelchair user, major walking impairment, etc. The First Floor has been designed to be 'ambulant disabled' in line with requirements under Part M.

- In general, 'Ambulant Disabled’ covers a wide range of disabilities (e.g., diabetes, epilepsy, etc.) who are not regular wheelchair users.

- These ambulant disabled users would be capable of making their own unaided escape in the same manner to which they accessed the upper storey in this first instance.

- The Ground Floor level has been designed to provide level escape routes direct to outside at this level.

- Based on the recommendations of Para. 14 15 of TGDB above, only “part of a building" may provide access for people with disabilities. The proposed provisions for people with disabilities are in line with the functional requirements of Part B1 of the Building Regulations

- In relation to Point 2 raised, the appellant acknowledge the recommendations of Para. 4 4 3 of BB100, however this respective paragraph notes that mobility impaired occupants should be directed to a refuge / place of safety Mobility impaired occupants would not fall under the definition of 'Ambulant Disabled’ and therefore would not be accessing the upper storey.

- In respect to Point 3, the design has not used BS9999 to justify the approach. The reference to BS9999 is made solely for comparison purposes only.

- The appellant does not concur with DCC comments raised in Point 4 & 5 in respect to the 'anticipated high level of management'.

- The appeal submission does acknowledge that fire safety management is outside the scope of the Building Regulations and therefore specific details on means of escape for occupants requiring assistance is outside the scope of this application.

- The design strategy does not use high management levels as a substitute for any so-called shortcomings. The local approving authority is failing to recognise that, given the mere use of

the building for registered childcare/afterschool services, the inherent level of management & supervision staff would promote good management & supervision.

- Trained staff would be aware of those children with impairments and would have appropriate protocols and systems in place to assist and care for these children.

- Also, there is no acknowledgment of the inherent design features of the escape stair serving the first floor. A generous landing is incorporated at the head of the protected stair which is representative of a 'refuge'. This would allow a few evacuees to take temporary refuge before continuing their means of escape.

- As outlined, the single flight of stairs has been designed to accommodate ambulant disabled occupants who should be capable of evacuating the building without the need to take refuge.

- As outlined in our response to Condition No 2 above, the fundamental objective of this application is to demonstrate compliance with Part B1 to Part B5 'Fire Safety' of the Second Schedule to the Building Regulations 1997 - 2022

- TGDB is considered to demonstrate 'prima facie' compliance with Part B of the Building Regulations Paragraph 1.1.6 Part (iii) of TGDB recommends the use of Building Bulletin 7 for the means of escape design in educational buildings such as schools, etc. Building Bulletin 7 has been replaced by BB100.

- Subsequently, in 2014, the Department of Education & Skills issued a supplementary guide for Design Teams titled 'Fire Strategy in schools' which refers to the use of BB100, given that Building Bulletin 7 has been removed. The 'Fire Safety in Pre-schools' guidance is not cited or referenced in TGDB.

- Whilst the Fire Safety in Pre-school document may have a function and purpose for operators of pre-school services, the document does not provide a complete fire safety design package which can be applied as a whole, to demonstrate compliance with the Building Regulations.

- The use of BB100 is an appropriate, correct, and robust design guidance document for demonstrating compliance with Part B1 (Means of Escape) of the functional requirements of the Building Regulations.

- With respect to Point 1 raised by DCC, the design has been based on all younger year groups located at ground floor for ease of access/egress to outside play areas, etc. The ground floor also includes capacity of 'School Aged Children' (SAC) to also be using one of the ground floor classrooms. There is adequate capacity at ground floor level for the younger year groups without using the upper floor.

- The two classrooms on the first floor are designed for SAC pupils.

- However, setting this aside, the BB100 design guidance document applies to 'nursery schools' and therefore the need to separate or prevent children under the age of 6 years from using the first floor is irrelevant, as this design guidance specifically acknowledges nursery / preschool users.

- Page 2 of BB100 provides the following overview: ‘The guidance applies to nursery schools, primary and secondary schools, including sixth form colleges, academies and city technology colleges, special schools and pupil referral units.

- The guide is intended for all those with an interest in fire safety in schools, but in particular designers, fire engineers, building control officers (or equivalent) and fire safety officers. ’

- Based on the definition below, a pre-school and nursery school ultimately cater for the same age range of children.

- Wikipedia provides the following definition for a 'Preschool':

  A preschool, also known as nursery school, pre-primary school, play school or creche, is an educational establishment or learning space offering early childhood education to children before they begin compulsory education at primary school.

- Moreover, BB100 provides specific guidance on single escape routes and single stair buildings, see Para. 4.3.2.1 & 4.4.2.1 of BB100, and furthermore notes the following in respect to 'very young children':

- Very young children (infants/nursery school age) will move more slowly than older children or adults, and also require constant supervision and direction during egress Consideration should be given to providing direct access to an external place of safety from their classrooms.

- The proposed design does provide fire exits direct to outside from the ground floor classrooms. In addition, the proposed design occupancy for First Floor is significantly less than the permitted maximum for a single stair building under BB100, i.e., 38 < 120.

- The commentary set out in Point 3 is irrelevant. Likewise in respect to Point 4, the appellant feels that DCC comments are attempting to discredit the fire safety design guidance contained within BB100. BB100 is not a generic document.

- ‘Fire Safety in Pre-Schools’ guidance was published in 1999 and the opening section acknowledges that ‘the recommendations in this Guide are advisory only and are not statutory requirements.' The latest revision of TGDB was updated and published in 2020 The Department of Housing did not take the opportunity to include reference to the 'Fire Safety in Pre-Schools' guidance at that time.

- In a mere conclusion, the appellant feel that the local authority is taking liberty of 'cherry picking' certain recommendations from various different documents without applying the entire design guidance, i.e., not applying the document 'as a whole'.

- The overarching fundamental is that the Fire Safety in Pre School' design guidance document is not cited within TGDB. TGDB is sought to provide 'deemed-to-satisfy' guidance on how to meet the functional requirements of the Building Regulations. The appellant considers that the functional requirements of Part B1 of the Building Regulations are being met through the application of BB100 recommendations which are specific to this purpose group.

- In this regard, the appellant feels that Condition No 8 should be removed or revised to reference the maximum permissible first floor occupancy based on BB100 recommendations for a single stair building.

6.0 Consideration and Conclusions

The main issue of contention between the Local Authority and the Appellant is which is the most appropriate guidance document / code of practice to use in designing the premises to ensure compliance with Part B of the Second Schedule of the Building Regulations. The Appellant consider BB100 a suitable guidance standard, whereas the Local Authority considers this a generic design standard and that the DOE Guide to Fire Safety in Premises Used for Pre-School Services should be used instead.

Technical Guidance Document B 2006 (AMD 2020) (referred to as TGD-B from here onwards) states the following: -

> The materials, methods of construction, standards and other specifications (including technical specifications) which are referred to in this document are those which are likely to be suitable for the purposes of the Regulations. Where works are carried out in accordance with the guidance in this document, this will, prima facie, indicate compliance with Part B of the Second Schedule of the Building Regulations. However, the adoption of an approach other than that outlined in the guidance is not precluded provided that the relevant requirements of the Regulations are complied with. Those involved in the design and construction of a building may be required by the relevant building control authority to provide such evidence as is necessary to establish that the requirements of the Building Regulations have been complied with. In the case of an application for a fire safety certificate under the Building Control Regulations, it is necessary to demonstrate compliance with Part B of the Second Schedule to the Building Regulations.

So therefore, where the recommendations of TGD-B are followed then this demonstrates prima facie compliance with Part B of the Second Schedule of the Building Regulations.

In addition, it is noted that section 0.1.4 of TGD-B states the following: -

> **0.1.4** The detailed provisions set out in this Document are intended to provide guidance for some of the more common building situations. In other situations, alternative ways of achieving compliance with the requirements of Part B of the Second Schedule to the Building Regulations may be appropriate. There is no obligation to adopt any particular solution contained herein. The use of alternative design solutions, standards, systems or methods of fire protection to those outlined in this document are acceptable, provided the level of fire safety achieved is adequate to satisfy the requirements of the Building Regulations.

Therefore, it is noted that TGD-B acknowledges that other standards can be used as an alternative method of demonstrating compliance with the requirements of Part B of the Second Schedule of the Building Regulations.

So therefore TGD-B does not preclude the use of other codes of practice or guidance standards as a means to demonstrate compliance with the requirements of Part B of the Second Schedule of the Building Regulations.

This means that TGD-B does not preclude the use of the DOE Guide to Fire Safety in Premises Used for Pre-School Services, BB7 or BB100 as a means of demonstrating compliance with the requirements of Part B of the Second Schedule of the Building Regulations. The onus however is on the designer to demonstrate that the chosen standard is fit for purpose and appropriate to the proposed building type and design.

Section 1.1 of TGD-B states the relevant means of escape provisions for different purpose groups and building types. The proposed building is an Assembly and Recreation purpose group.

Section 1.1.6 of TGD-B states the following: -

> (iii) Guidance on the provision of means of escape in schools is provided in the following:
>
> - Department of Education and Science (UK) Building Bulletin 7, Fire and the design of educational buildings; and
>
> - Sub-section 1.4 (general provisions for means of escape) of this Technical Guidance Document.
>
> Recommendations in relation to means of escape are contained in paragraphs 34 to 91 inclusive of Building Bulletin 7.
>
> Buildings or parts of buildings which form part of a school or other educational facility may be used for purposes which are outside the scope of Building Bulletin 7. Where these occur, they should comply with the relevant code of practice or other document outlined in this sub-section (1.1).

It is noted that this section of TGD-B does not specifically mention pre-schools, creches etc. It does however acknowledge the use of BB7 as the primary design guidance for schools. It is further noted that BB7 is a UK design guidance document that has been superseded and replaced with BB100.

BB100 has been accepted by both the Department of the Environment and the Department of Education in the design of schools.

It is noted that in the executive summary of BB100 it states the following: -

> This guide provides fire safety design guidance for schools in England and Wales. The guidance applies to nursery schools, primary and secondary schools, including sixth form colleges, academies and city technology colleges, special schools and pupil referral units.

Therefore, although pre-schools, creches etc are not mentioned in TGD-B, BB100 is a suitable guidance document for the design of nursey schools.

DOE Guide to Fire Safety in Premises Used for Pre-School Services states the following in its Foreword: -

> The Guide sets out general principles of safety which should be applied having regard to the individual circumstances of each premises. The recommendations in this Guide are advisory only and are not statutory requirements. However, the provisions of the Guide, if carefully applied, should minimise the occurrence of fires in these premises and the potential for fatalities, injuries and damage.

Therefore, it acknowledges that it is an advisory guide and not a guide to the statutory requirements.

DOE Guide to Fire Safety in Premises Used for Pre-School Service states in section 1.1: -

> The Regulations apply to **pre-school services** which *"means any pre-school, play group, day nursery, crèche, day-care or other similar service"* which caters for children under 6 years of age and who are *"not attending a national school or a school providing an educational programme similar to a national school".*

DOE Guide to Fire Safety in Premises Used for Pre-School Service states in section 1.2: -

> The purpose of this Guide is to assist persons in control of premises used for **pre-school services** in discharging their statutory responsibilities under the Fire Services Act, 1981.

Therefore, the following with respect to the DOE Guide to Fire Safety in Premises Used for Pre-School Service can be concluded;

- It is not a statutory guidance document.
- It applies to pre-school services only (i.e. children under 6 years of age who are not attending school

Therefore, the appellant is correct in their assertion that the DOE Guide to Fire Safety in Premises Used for Pre-School Service would not be applicable to all the proposed occupants of the new proposed creche. The first floor S.A.C. (School Age Childcare) is intended as an after-school care facility for children who are obviously attending school.

Given the above BB100 is considered an appropriate guidance document for use to demonstrate compliance with Part B of the Second Schedule of the Building Regulations.

Condition 2

The Local Authority is correct in their statement regarding the maximum recommended travel distance being 18m in both TGD-B and BB100. They are also correct in their statement that the distance is measured from the furthest point to the entrance to the stair. However, it is noted that when I measured the distance I got a distance of 18.5m. This very marginally above the recommended and I would consider this acceptable given the following: -

- The area where the marginal excess occurs is in a staff room and not a classroom.
- 0.5 of a metre will have negligible impact of the escape time of the occupants of the staff room (the area with the 18.5m travel distance).
- The majority of the travel distance is within a protect corridor and lobby and this will reduce the potential negative impact of the single direction of travel.

Therefore, it is my opinion that the provision of the additional lobby to the stair is a sufficient compensation measure for the marginal excess in single direction of travel. Therefore, Condition 2 is not required and should be removed from the granted Fire Safety Certificate.

Condition 5

Section 3.3.7 of BB100 states the following: -

> The evacuation of children with disabilities, such as impaired mobility, sight or hearing, requires special consideration. Guidance on the provision of means of escape for disabled persons is contained in *BS 5588: Part 8: 1988: Code of practice for means of escape for disabled people*. The principles outlined in this standard are based on the provision of refuge areas and the management of evacuation.

Section 1.4.15 of TGD-B states the following: -

> Where access for people with disabilities is provided to a building or part of a building in accordance with Part M of the Second Schedule to the Building Regulations, provision should also be made, in the building or part of the building (as the case may be) for appropriate means of escape for such people.
>
> Guidance on the provision of means of escape for people with disabilities is contained in BS 5588: Part 8:1999 Fire precautions in the design and construction of buildings, Part 8, Code of practice for means of escape for disabled people. The principles outlined in BS 5588: Part 8: 1999 are based on the provision of refuge areas and the management of evacuation. Refuge areas are areas within a building, separated by fire-resisting construction and provided with a safe route to a storey exit, where people with disabilities can await assistance for their evacuation.

Therefore, both BB100 and TGD-B refer to the evacuation of children with disabilities and the potential need for disabled refuges by reference to BS 5588 Part 8: 1999.

Section 8.2 of BS 5588 Part 8 states the following: -

Whether or not a lift is provided the following recommendations are applicable.

a) A refuge should be provided for:

1) each protected stairway affording egress from each storey; and

2) each final exit leading onto a flight of stairs as shown in Figure 2.

NOTE 1 The provisions in a)1) and 2) do not apply to:

i) buildings comprising not more than a basement, a ground floor and a first storey, with the floor area of each storey 280 m^2 or less, and in a single occupancy;

ii) storeys consisting exclusively of plant rooms.

NOTE 2 "Storey" includes any open areas to which the public or staff have access, such as a roof garden.

b) Each refuge should provide an area accessible to a wheelchair in which a wheelchair bound person can await assistance.

c) Where a refuge is a protected stairway or protected lobby or protected corridor, the wheelchair space should not reduce the width of the escape route. Where the wheelchair space is within a protected stairway, access to the wheelchair space should not obstruct the flow of persons escaping.

d) When the number and locations of refuges have been decided the essential requirement for independent communication between the occupants and evacuation management personnel needs to be met A1 (see BS 5588-12) A1.

e) Where a refuge is within a pressurized stair it should conform to BS 5588-4.

Given that the first floor is less than 280m^2, that no lift access is provided and that the ground contains a S.A.C room (i.e. as per the first floor) it is considered reasonable that the first floor is not provided with a disabled refuge space. Therefore, Condition 5 is not required and should be removed from the granted Fire Safety Certificate.

Condition 8

Section 4.4.2.1 of BB100 states the following: -

Ideally, single stairways should be avoided in new buildings. This is consistent with the avoidance of dead ends in new buildings.

The situations where a building (or part of a building) may be served by a single escape stair are:

a. from a basement which is allowed to have a single escape route in accordance with section 4.3.2.1 and table 1; and

b. from a building which has no storey with a floor level more than 11m above ground level and in which every storey is allowed to have a single escape route in accordance with section 4.3.2.1 and table 1.

Note: where case (b) applies, the storeys above the first floor level should only be occupied by adults. There should be no more than 120 pupils plus supervisors on the first storey and no place of special fire hazard. Classrooms and stores should not open onto the stairway.

Therefore, in accordance with the recommendations of section 4.4.2.1 the first floor of the proposed premises can have an occupancy of up to 120 pupils plus supervisors. The proposed occupancy is considerably less than this.

The condition to comply with section 3.3.4 of Fire Safety in Pre-Schools (Department of Environment, 1999) and limit the maximum number of children (who are not sleeping) accommodated at first floor level to 20 is onerous given the proposed use of the floor and the age of the children that will be using this space.

7.0 Recommendation

On the basis of my findings and conclusions I recommend that An Bord Pleanála grant the appeal and instruct that Condition 2, 5 and 8 be removed from the Fire Safety Certificate.

Signed by:

_____

Des Fortune
MSc(Fire Eng), BSc(Eng), CEng MIEI, MIFireE

Date: **29th February 2024**