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Bord  
Pleanála

## Inspector's Report

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**FS05E.FS0543**

<b>DEVELOPMENT:</b>	Three storey primary school, Scoil Mhuire, Stranorlar, Co. Donegal.
<b>Building Control Authority:</b>	Donegal County Council
<b>Building Control Authority Reg. No:</b>	FS/15/117
<b>Applicant/Appellant:</b>	Department of Education and Skills
<b>Application Type:</b>	Fire Safety Certificate
<b>Building Control Authority Decision:</b>	Grant
<b>Type of Appeal:</b>	First Party –v- Conditions.
<b>Date of Site Inspection:</b>	N/A
<b>INSPECTOR:</b>	<b>Patricia Calleary</b>

## 1.0 INTRODUCTION

**FS05E.FS0543** relates to an appeal against Condition No. 1 attached to a decision to grant a fire safety certificate for a new school building in County Donegal.

## 2.0 SUBJECT MATTER OF APPEAL

An application for a fire safety certificate (Ref: FS/15/117) was lodged by the Department of Education and Skills on 24<sup>th</sup> November 2015 for a new three storey primary school building at Stranolar, Co. Donegal. Further information was furnished to the BCA on 20<sup>th</sup> May 2016 and 24<sup>th</sup> June 2016.

Donegal County Council issued a decision to grant a Fire Safety Certificate on 13<sup>th</sup> day of July 2016 subject to 2 conditions.

This appeal relates to Condition No.1 which is set out directly under as follows:

***Condition No.1:*** Pursuant to Section B1 of Part B of the second schedule of the Building Regulations, 1997, exit doors direct to the open air should be provided from ground floor classrooms (1,2,3,4,5,6,7 and 8) to ensure safe and effective means of escape in the event of fire, for pupils in the younger age ranges. Clause 2.1.4, 4.1.3.2 and 4.3.2.1 of Building Bulletin 100 refers.

***Reason:*** To ameliorate fire safety aspects.

## 3.0 DESCRIPTION OF WORKS

The works would comprise of the construction of a new 3 storey primary school building and would include 24 mainstream classrooms, a General Purpose room, 3 resource rooms, learning support rooms, staff room, offices and WCs.

#### **4.0 DOCUMENTS REVIEWED**

The following documents were reviewed as part of my assessment of this appeal.

- Fire Safety Certificate application and supporting maps, drawings and fire safety compliance report;
- Further information requests and responses;
- Fire Safety Certificate decision;
- Grounds of appeal by First Party;
- BCA response to appeal;
- Further response by first party to BCA response.

#### **5.0 FIRE SAFETY CERTIFICATION HISTORY**

I am aware of 2 previous appeals where similar issues arose. Both appeals were allowed.

- **05G.FS0509** – Extension to primary school at Cashelcraw, Carndonagh, County Donegal.
- **05E.FS0533**:- Extension to Glenswilly National School, Rashedoge, Newmills, Letterkenny, Co. Donegal

#### **6.0 GROUNDS OF APPEAL**

The principal grounds of the appeal lodged relate to the requirement of direct exits from all classrooms on the ground floor which the first party

considers is not warranted. A summary of the specific points put forward is set out under.

### **Condition No.1**

- Clause 2.1.4 of BB100<sup>1</sup> is contained as background information and a narrative on the movement of smoke. It does not make any explicit recommendation for design requirements;
- Clause 4.1.3.2 of BB100 acknowledges the conditions of initial single direction means of escape and is not deemed to infer that there should always be alternative means of escape;
- Clause 4.3.2.1 of BB100 references provision of direct exits from classrooms *'for infant and nursery school age children'* only and as a measure which should be *'considered'* and not as a strict requirement for compliance;
- Clause 4.2 of BB100 acknowledges that the provision of manual detection of fire is sufficient (Type M) and automatic detection is not required. However, the scheme proposes L2/L3 as an automatic detection which would prompt early evacuation enhancing the fire safety strategy.

## **7.0 APPEAL RESPONSES**

### **7.1 Building Control Authority (BCA) Response**

The following provides a summary of the key relevant points in the response to the appeal by the BCA.

- Research has identified significant deviation between movement of children and adults in emergency evacuation and children are particularly vulnerable with respect to fire;

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<sup>1</sup> Building Bulletin 100: Design for safety in schools'

- The inclusivity of pupils with particular needs in mainstream schools has not been considered explicitly under prescriptive guidance;
- Clause 2.1.4 of Section 2 of BB100 indicates that the younger more vulnerable pupils must be considered at design stage and that the right measures must be put in place to allow safe egress;
- Clause 4.1.3.2 provides criteria for means of escape. It also indicates conditions 'where direct escape to a place of safety is not possible' provision of direct exits should be incorporated into the design;
- Section 4.3.2 makes reference to direct escape for very young children (infants/nursery school age);
- Response references various academic studies conducted on movement parameters of children in evacuation including horizontal, vertical travel speeds and pre-movement times;
- Clause 2.1.4 of BB100 requires that right measures need to be in place to allow safe egress; It comments that designers need to consider the younger, smaller and shorter pupils;
- Onus on designers and Fire Authorities to ensure design meet the performance requirement of Part B of the Second Schedule to the Building Regulations;
- Up to date research must be acknowledged in the assessment;
- Under Fire Safety legislation, the provision of automatic fire detection is a minimum requirement and not one which exceeds the code as put forward by the first party.

## **7.2 Response by the First party to the BCA response**

The following provides a summary of the new relevant points raised by the first party in their response to the BCA's response to the appeal.

- BB100 has considered the difference between different categories of children and the requirement to consider direct exits is intended for infant/nursery school accommodation and not primary schools;

- BB100 is the referenced guidance for fire safety in schools. DoES and Chief Fire Officers association also produced 'Supplementary Guide for Design Teams: Fire Safety in Schools'. Neither document has a stated requirement for direct exits from classrooms;
- No evidence provided that the non-provision of direct exits from classrooms represents an unacceptable risk;
- Much of research referenced relates to studies and comparative studies of behaviour of children in mainland Europe and non-European countries where standards of fire safety differ to those enforced in Ireland;
- Accepts that automatic detection is appropriate and is proposed in the school premises and it exceeds the requirement of BB100.

## 8.0 BUILDING REGULATIONS and TECHNICAL GUIDANCE

The following are considered relevant in my assessment of the appeal.

1. **Part B (Fire Safety) of the 1997-2014 Building Regulations.** Specifically, **B1** (Means of escape in case of fire).
2. **Technical Guidance Document (TGD) B: Fire Safety (2006)** is relevant, specifically B1- Means of escape in case of Fire.
3. **Building Bulletin 100 (design for fire safety in schools) 2007** (Department for Children, Schools and Families<sup>2</sup>) is relevant particularly clauses 2.1.4, 4.1.3.2 and 4.3.2.1 which are referenced as a basis for the attachment of Condition 1. Clause 4.3.2.14 to 4.3.2.16 are also relevant.
4. **Department of Education and Skills - Technical Guidance Document TGD – 022 (as revised 2013).** Specifically, TGD 022-D01 (Typical Classroom Plan Drawing).

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<sup>2</sup> The Department for Children, Schools and Families (DCSC) was a department of the UK government between 2007-2010 which was replaced by the Department of Education in 2010.

5. **Department of Education and Skills** 'Supplementary Guide for Design Team: Fire Safety in schools' 2004.

I have included extracts of the aforementioned documents referred to throughout my appeal assessment within the appendix to this report.

## 9.0 ASSESSMENT

Having reviewed all relevant documentation and drawings on file, I am satisfied that the determination by the Board of this application as it had been made to it in the first instance would not be warranted. Accordingly, I consider that it would be appropriate to use the provisions of Article 40(2) of the Building Control Regulations 1997-2015 in this case. My assessment therefore considers the Condition No.1 as set out under.

### 9.1 Consideration of Condition No.1

The effect of Condition No.1 is to require exit doors leading direct to open air to be provided from all proposed classrooms at ground floor level. The BCA consider this is necessary to provide safe means of escape for young pupils and pupils who are classified as a vulnerable group. Reference is made to various international academic research which it is stated has found that safe emergency evacuation is age dependant. The first party considers that there is no such requirement for direct exits under applicable fire safety legislation or associated guidance in the Irish context and requests that Condition No.1 be removed.

In my assessment, I must objectively consider whether or not Condition No.1 is warranted having regard to the legislative provision and the applicable technical guidance, mainly TGD: B 2006 and supporting guidance, Building Bulletin 100 (Design for fire safety in schools) 2007. Compliance with TGD: B is considered *prima facie* evidence of compliance with the requirements of Part B of the second schedule to the Building Regulations 1997-2014. BB100 is a UK guidance document which provides technical guidance for school development projects and it is considered

applicable to the design of Irish schools. It replaces/supersedes Building Bulletin 7 (Fire and the design of educational buildings) 1998 which is cited in TGD:B 2006. Donegal County Council makes reference to Clauses 2.1.4, 4.1.3.2 and 4.3.2.1 of BB100 to support the attachment of Condition 1, each which I have considered under.

**Clause 2.1.4** of BB100 provides general commentary and background information on smoke movement and its impact on escape. It includes reference to younger pupils who would feel the effects of smoke inhalation more rapidly. It emphasises that *‘escape routes must be protected against smoke penetration and the storey or final exit must be reached before they become untenable.’*

Clause 2.1.4 does not have any requirement to provide exits opening directly to open air from classrooms.

**Clause 4.1.3.2** sets out criteria for means of escape. It advocates for alternative means of escape in most situations. It also provides that where direct escape to **a place of safety** is not possible, that a place of safety should be possible within a reasonable travel distance. Having reviewed the drawings and documents, I note that the travel distances do not exceed the limits set out in Table 1 (Guidance to suitable travel distance) of BB100 or Table 1.2 of TGD: B and that escape corridors meet the requirements of Clause 4.3.2.14 to Clause 4.3.2.16 of BB100 (as detailed under B1.2.5 / P.7 of applicant’s compliance report).

Accordingly, I consider that the requirement of clause 4.1.3.2 is satisfied without the need for direct exits from ground floor classrooms.

**Clause 4.3.2.1** provides guidance on the number of escape routes and exits to be provided in a school. It states that **consideration should be given to direct escape from classrooms** but only in the case of very young children (**infants /nursery school age**). The document itself has a wide scope in that it applies to nursery schools, primary and post primary schools, academies and city technical colleges. I concur with the first party that the requirement for direct escape needing to be considered in the



context of nursery schools and is not relevant for primary schools. I note the applicant's fire strategy includes automatic fire detection L2/L3 (IS 3218:2013) which would prompt early evacuation in the event of a fire. I accept the BCAs point that automatic fire detection is a minimum requirement for a school building and I note that this is a stated requirement under Section 1.4.14 of Department of Education and Skills 'Fire Strategy in schools' 2004 document.

It is of relevance to note that in all school situations, young children would not be left unattended and would be supervised in the event of emergency evacuation from classrooms to escape corridors and onwards to the final external place of safety.

Having regard to the above, I am satisfied that the requirement of clause 4.3.2.1 is met without the need for direct exits from ground floor classrooms.

## **9.2 Technical Requirement Discussion – Condition 1**

There is no stated requirement for direct exits from classrooms in primary schools under each of the aforementioned clauses or elsewhere under Bulletin BB100 2007. Neither is there any such requirement set out under TGD: B 2006. Having reviewed the drawings and documents submitted with the Fire Safety Certificate application, noting in particular the design and layout of the classrooms and the provision and design of escape corridors where no dead end corridors are proposed, it is evident that the number and position of exits from classrooms meet the relevant requirements of both TGD-B 2006 and Building Bulletin 100. It is also noted that the classrooms follow the primary school guidance (Technical Guidance Document TGD – 022), particularly TGD 022-D001 (Typical Classroom plan drawing). While I acknowledge the desire of the BCA to require direct exits as an additional fire safety measure having particular regard to very young children, the requirement has not been justified by reference to relevant technical or supporting guidance for primary schools.

## 10.0 CONCLUSIONS AND RECOMMENDATION

Arising out of my assessment above, I recommend that the appeal against the attachment of Condition No.1 should be upheld and that the BCA be directed **to delete condition No.1** from the schedule of conditions.

### REASONS AND CONSIDERATIONS

Having regard to the design and layout of the proposed primary school building, to the guidance given in **Technical Guidance Document B: Fire Safety (2006)**, to the supporting guidance given in **Building Bulletin 100: Design for fire safety in schools (2007)**, to the submissions made in connection with the Fire Safety Certificate application and appeal and to the report and recommendation of the appointed inspector, it is considered that, notwithstanding the omission of condition number one, the proposed development would achieve an adequate level of fire safety that would ensure compliance with Part B1 (Means of Escape in case of fire) of the Second Schedule to the Building Regulations 1997-2014.

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Patricia Calleary  
Senior Planning Inspector  
11 October 2016

#### Appendix:

1. Extract from TGD: B: 2006.
2. Extracts from Building Bulletin 100 (BB100): Design for fire safety in schools. (Department for Children, Schools and Families) 2007.
3. Extract from Department of Education and Skills - Technical Guidance Document TGD – 022 (as revised 2013). Specifically, TGD 022-D01 (Typical Classroom Plan Drawing).

4. Extract from Department of Education and Skills – Fire Strategy in Schools (2014), supplementary guide for design teams.