JGA

Fire Engineering Consultants

Appeal Against Conditions attached to Fire Safety Certificate (FSC2099/15)

Appeal Ref: FS29B. FS0514

Project	**Kestrell House Office Development Clanwilliam Place Dublin 2**
Local Authority	**Dublin City Council**
Date	**28 January 2016**

Contents

1.0 INTRODUCTION

The project involves the construction of a new office development consisting of 7 floors over basement, at Clanwilliam Place Dublin 2.

A Fire Safety Certificate application for the works was granted by Dublin City Council on the 19th October 2015. The following conditions were attached:-

Condition 1
The conditional grant of this application is on the basis of the additional information received on 18th and 19th June 2015, the 22nd July 2015, the 27th August 2015, the 14th 17th and 28th September 2015 and the 5th, 6th and 9th of October via email and the 14th of October 2015.

Reason: To comply with Part B1 of the Second Schedule to the Building Regulations, 1997 to 2013.

Condition 2
Portable fire extinguishers shall be provided and shall be in accordance with the recommendations of IS 291 2015 and are to be manufactured to the appropriate standard such as IS EN3-7.

Reason: To comply with Part B1 of the Second Schedule to the Building Regulations, 1997 to 2013.

Condition 3
The emergency exit doors and doors leading to emergency exits shall be free from fastening and be fitted with panic bolts complying with IS EN 1125 2008 and shall open in the direction of escape or be held open at all material times. The use of any other device or apparatus is strictly prohibited.

Reason: To comply with Part B1 of the Second Schedule to the Building Regulations, 1997 to 2013.

Condition 4
An L1 voice alarm (evacuation) fire detection and alarm system complete with associated manual call points shall be provided in these premises. The system shall be designed, installed and maintained in accordance with IS 3218,2013.

Reason: To comply with Part B1 of the Second Schedule to the Building Regulations, 1997 to 2013.

Condition 5
The dry risers (one serving staircore one and two respectively) shall comply with the requirements of BS 9990, 2015 and shall be suitably located in proximity to the main entrance of the office block to enable ease of fire fighting operations.

Reason: To comply with Part B5 of the Second Schedule to the Building Regulations, 1997 to 2013.

The appeal is against conditions 3, 4 and 5.

2.0 INFORMATION REVIEWED

In assessing this appeal the following information was considered:-

- Fire safety certificate application including
- Drawings submitted 4th June 2015
    - Ordinance Survey Map
    - Proposed site layout
    - Proposed basement floor plan
    - Proposed lower ground floor plan
    - Proposed ground floor plan
    - Proposed first floor plan
    - Proposed second floor plan
    - Proposed third floor plan
    - Proposed fourth floor plan
    - Proposed fifth floor plan
    - Proposed sixth floor plan
    - Proposed longitudinal sections
    - Proposed north east elevation
    - Proposed south east elevation
    - Proposed south west elevation
- Drawings submitted 18th June 2015
    - Proposed site layout
    - Proposed basement floor plan
    - Proposed lower ground floor plan
    - Proposed ground floor plan
    - Proposed first floor plan
    - Proposed second floor plan
    - Proposed third floor plan
    - Proposed fourth floor plan
    - Proposed fifth floor plan
    - Proposed sixth floor plan
    - Proposed longitudinal section C-C
    - Proposed cross sections A-A and B-B
    - Proposed north east elevation
    - Proposed south east elevation
    - Proposed south west elevation
    - Proposed north west elevation
- Drawings submitted 14th September 2015
    - Proposed lower ground floor plan
    - Proposed ground floor plan
    - Proposed first floor plan
    - Proposed second floor plan
    - Proposed third floor plan
    - Proposed fourth floor plan
    - Proposed fifth floor plan
    - Proposed sixth floor plan
    - Proposed south west elevation
    - Proposed north west elevation
- Drawings submitted 14th October 2015
    - Proposed first floor plan
    - Proposed second floor plan
    - Proposed third floor plan
    - Proposed fourth floor plan
    - Proposed fifth floor plan

    - Proposed cross sections A-A and B-B
    - Proposed north west elevation
- Additional information submission dated 17 June 2015
- Additional information submission dated 18 June 2015
- Additional information submission dated 21 July 2015
- Additional information submission dated 11 September 2015
- Additional information submission dated 16 September 2015
- Additional information submission dated 25 September 2015
- Email to Dublin Fire Brigade 6 October 2015
- Email to Dublin Fire Brigade 9 October 2015
- Additional information submission dated 13 October 2015
- Fire Safety Certificate grant dated 19th October 2015
- Appeal submission from G Sexton & Partners dated 13th November 2015
- Fire Officers Report on Fire Safety certificate Appeal dated 12 December 2015
- Response to Fire Officers Report letter from G Sexton & Partners dated 7th January 2016.

3.0 DISCUSSION

3.1 Condition No. 3

The emergency exit doors and doors leading to emergency exits shall be free from fastening and be fitted with panic bolts complying with IS EN 1125 2008 and shall open in the direction of escape or be held open at all material times. The use of any other device or apparatus is strictly prohibited.

The condition contains two aspects – the type of locking mechanism and the direction of opening.

3.1.1 Door Fastenings

The appellant states that the intention with respect to door fastenings is to comply fully with sub-section 1.4.3.2 of Technical Guidance Document B. This states:

"In general, doors on escape routes, whether or not the doors are fire doors, should either not be fitted with lock, latch or bolt fastenings, or they should only be fitted with simple fastenings that can be readily operated in the direction of escape without the use of a key

Where security on final exit doors is an important consideration, such as some assembly or commercial uses, panic bolts should be used to secure doors."

The Fire Safety Certificate compliance report states that all doors on escape routes will be fitted with simple fastenings readily operated in the direction of escape without the use of a key. This essentially repeats the guidance in TGD B which goes on to state:

"Where security on **final exit** doors is an important consideration, such as some assembly or commercial uses, panic bolts should be used to secure doors." The guidance in TGD B is clear in that the provision of panic bolts only applies to final exit doors, not doors leading to exits. The only exception to this is in assembly or recreation buildings which does not apply here.

3.1.2 Direction of Opening

In relation to the direction of opening of doors on escape routes, the appellant refers to section 1.4.3.3 of TGD B, the basis of which was used in the Fire Safety Certificate compliance report. Essentially this states that doors can open in the direction of escape where they do not lead from a place of special fire risk or the numbers of occupants are not expected to exceed 50. This is correct.

The BCA counters this by stating that to comply with Health and Safety Regulations, doors should open outwards. It is noted that the basis of a Fire Safety Certificate is to demonstrate compliance with Part B of the Second Schedule of the Building Regulations and therefore, Health and Safety Regulations are outside the remit. The appellant also states that this issue has been decided on by the Bord on a number of occasions which is correct.

The BCA stated in their response that they applied the condition in light of extended travel distances to enable a quick evacuation. However, I have reviewed the Fire Safety Certificate drawings and compliance report and travel distances would appear to be within the maximum recommended limits for an office building. In light of this and the above, it is considered that this condition should be removed.

3.2 Condition No. 4

An L1 voice alarm (evacuation) fire detection and alarm system complete with associated manual call points shall be provided in these premises. The system shall be designed, installed and maintained in accordance with IS 3218,2013.

The proposal contained in the Fire Safety Certificate compliance report was for an L2/L3 fire detection and alarm system compliant with IS 3218:2013. In my experience this is a standard provision in a modern office building of this nature, albeit in excess of the minimum standard (Manual M Type) recommended by Building Regulations Guidance.

In some cases, where deviations from code guidance occur, e.g. extended travel distances, inadequate escape routes etc, enhancements to the fire detection and alarm system to provide a greater degree of coverage, maybe appropriate as part of a fire engineering solution. However, as stated above travel distances appear to be within maximum recommended limits, and two compliant escape stairs serve each level. I can see no reason therefore, to increase the extent of coverage from L2/L3 to L1.

The provision of voice alarm is a separate issue. Voice alarm systems are very effective at reducing occupant response times and overall evacuation times. However, they are normally only effective in public buildings where occupants are not familiar with the building layout, the escape routes or the evacuation procedures. Research has shown that in public buildings occupants' first reaction is information seeking. In this respect voice alarm system providing them with information that there is a fire and where they should go is very effective. That is not the case in office buildings where people are familiar with the building layout and the escape routes and due for regular testing and drills know what the fire alarm sounds like and what they should do.

On the basis of the above therefore, this condition should be removed.

3.3 Condition No. 5

The dry risers (one serving staircore one and two respectively) shall comply with the requirements of BS 9990, 2015 and shall be suitably located in proximity to the main entrance of the office block to enable ease of fire fighting operations.

The building is greater than 20m in height and therefore, should be provided with fire fighting cores. The number of fire fighting cores required is determined on the basis of 1 for every 900m^2 of floor area of the largest floor that is more than 20m above ground level. In this case that is the 6th floor which has a total floor area of just of 400m^2. On this basis the building requires one fire fighting core.

The Fire Safety Certificate compliance report is confusing in that it assesses the degree of perimeter access for high reach appliance. This is incorrect as section 5.2.2. of TGD B states that where a building is provided with a fire main (which in this case it would due to the height being greater than 20m) then vehicle access should be provided to within 18m and within sight of the fire main inlet. I can only assume that this confusion led the BCA to condition a second dry riser in stair core 2. Having assessed the fire fighting facilities however, they would appear to be in compliance with current code guidance and therefore, this condition is unnecessary.

4.0 RECOMMENDATIONS

It is recommended that the appeal is upheld and that the BCA are directed to remove conditions 3, 4 and 5.

Signed.....
Martin Davidson
B.Eng MSc (Fire Eng) CEng MIEI

Date.....