

Report for An Bord Pleanála

on

Appeal against Condition 5 and 6 on Fire Safety Certificate (7 Day Notice) FSC2104472DR_7DN (Submission No. 3003447)

for

CW Fitout – Dun Laoghaire Shopping Centre

at

**Dun Laoghaire Shopping Centre, Georges Street, Dun Laoghaire,
Co. Dublin**

Client: An Bord Pleanála
An Bord Pleanála Ref: 311827-21
Our Ref: ABP_R013_Issue 1
Date: 17th January 2022

1.0 Introduction

This report sets out my findings and recommendations on the appeal submitted by BB7 (Goldsmith Engineering DUB Ltd.) acting on behalf of Mr Colin Galligan, against Condition 5 and 6 on Fire Safety Certificate FSC2104472DR_7DN by Dun Laoghaire Rathdown County Council in respect of an application for works related to Proposed CW Fitout – Dun Laoghaire Shopping Centre, Georges Street, Dun Laoghaire, Co. Dublin.

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 5 and 6 of the granted Fire Safety Certificate (FSC2104472DR_7DN) by Dun Laoghaire Rathdown County Council are as follows: -

Condition 5:

Hose Reels are to be provided in accordance with Section 1.4.16 of Technical Guidance Document B.

Reason:

To comply with Part B of the Second Schedule to the Building Regulations, 1997 to 2019.

Condition 6:

Elements of structure and compartmentation (walls and floors) are to be a minimum of 120 minutes fire resisting construction (loading bearing capacity, integrity and insulation) in accordance with Section 3.5.3 of Technical Guidance Document B and Clause 14.4 of BS 5588: Part 10.

Reason:

To comply with Part B of the Second Schedule to the Building Regulations, 1997 to 2019.

2.0 Documentation Reviewed

- 2.1 Fire Safety Certificate Application (application form, compliance report and fire safety drawings) submitted by BB7 (Goldsmith Engineering DUB Ltd.) acting on behalf of Mr Colin Galligan dated 14th July 2021.
- 2.2 Granted Fire Safety Certificate FSC2104472DR/7DN (Submission No. 3003447) from Dun Laoghaire Rathdown County Council dated 4th October 2021.
- 2.3 Letter of Appeal from BB7 (Goldsmith Engineering DUB Ltd.) acting on behalf of Mr Colin Galligan, received by An Bord Pleanála on 1st November 2021.
- 2.4 Fire Officer's report on Fire Safety Certificate Appeal dated 11th November 2021 to An Bord Pleanála.
- 2.5 Letter from An Bord Pleanala to BB7 dated 20th January 2022.
- 2.6 Letter from BB7 on behalf of Mr. Colin Galligan to An Bord Pleanala dated 29th October 2021.

3.0 Building Control Authority's Case

Condition 5

Dublin Fire Brigade state that hose reels are to be proposed in accordance with Section 1.4.16 of Technical Guidance Document B which states: -

'First-aid firefighting equipment is provided in buildings to be used by the occupants, with appropriate training and where it is safe to do so, in the early stages in the development of a fire. This equipment may be a fixed installation, such as a hose reel or may be portable fire extinguishers.....'

....hose-reels conforming to IS EN 671: Part 1: 1995 should be provided in a building, where the floor area exceeds 500m², which is used as a shop (purpose group 4(a), a shopping centre (purpose group 4(b)), The installation of hose reels should comply with the relevant recommendations in BS 5306: Part 1: 1976 Fire extinguishing installations and equipment on premises, Part 1 Hydrant systems, hose reels and foam inlets.'

The proposed unit is a shop and is located in a shopping centre, purpose group 4 as stated on page 5 of the compliance report. Due to the proposed works, the amalgamation of Units 220, 221 and 222 at Level , the floor area exceeds 500m² as stated in Section 3.2.5.1, page 10 of the compliance report.

Condition 6

Dublin Fire Brigade state that elements of structure and compartmentation (walls and floors) are to be a minimum of 120 minutes fire resisting construction (load bearing capacity, integrity and insulation) in accordance with Section 3.5.3 of Technical Guidance Document B and Clause 14.4 of BS 5588: Part 10.

Technical Guidance Document B, Table A2 clearly refers to Section 3.5.3 for the minimum period of fire resistance for elements of structure which states: -

'Whilst the provisions in this Document about shops should generally be capable of application in cases where a shop is contained in a single separate building, complications may arise where a shop forms part of a shopping centre..... In particular, the provisions about fire resistance, separating walls, surface and boundary distances may pose problems.....'

To ensure a satisfactory standard of fire safety in shopping complexes, alternative measures and additional compensatory features to those set out in this document would be appropriate.....'

*(d) Fire resistance periods for loadbearing elements of structure, which are appropriate to the nature of the occupants and the overall size of the building
..... Guidance on these matters is set out in BS 5588: Part 10: 1991 Code of practice for shopping complexes.'*

Clause 14.4 of BS 5588: Part 10 states: -

The following recommendations are applicable.

(b) The fire resistance of any element of structure should be not less than that required for any element which it supports, and in no case less than 120 min.

(c) The following walls should have a fire resistance of not less than 120 min:

(1) walls between units (or other occupancies), and between units (or other occupancies) and service corridors.

(2) walls between parts of the complex which have different main uses.

(e) The walls listed in items (c) and (d) should be constructed from materials with a durability and resistance to impact damage not less than that given in appendix B...'

Appellant's Case

The works are the proposed combination of a few surrounding units (level 2 units 200, 221, 22 and level 2 mezzanine units M21 and M22) within an existing shopping centre that predates 1991 and therefore does not have a parent fire safety certificate.

The unit is spread across two levels of the shopping centre with no internal access from one level to the other, it should be noted that the upper part of the unit is contained wholly within the volume of the lower part and is its only means of communicating with the mall.

The unit itself has a floor area of c590m² on level 2 and the mezzanine level has a floor area of c240m².

Condition 5

The appellant states that hose reels are not proposed as part of the works as it is not recommended for staff or a member of the public to use hose reels within a building. Hose reels cause a trip hazard to occupants evacuating the building or fire fighters entering the building.

Furthermore, it is noted that the unit is to be fully sprinkler protected and provided with fire extinguishers to aid in first-aid fire fighting should a person be competent to do so. It is the appellants opinion that extinguishers are a more appropriate solution to first-aid fire-fighting as they have a lesser volume and empties faster than the water supply for hose-reel would.

Condition 6

This condition would apply to the service corridor at mezzanine level within the unit. It is the appellants opinion that this condition is overly onerous on account of the service corridor only being required to protect the escape route for occupants on the mezzanine level.

It is also noted that on the lower level the local authority only requested that a corridor in a similar location be constructed as to achieve 30 minutes fire resistance and fitted with an FD30S as per Condition 3 of the same granted certificate which is a contradiction of what they are asking for in terms of provisions.

It is noted that with respect to the appeal of Condition 6 An Bord Pleanala requested that the appellant confirm the extent of the appeal and they stated that it was their opinion that the Condition did not extend to walls and floors that are existing and that to do so would be an onerous reading of the Condition as the FSC application package was explicit in which parts of the building and construction were existing and therefore outside the scope of the application.

4.0 Consideration

Condition 5: -

The issue of the provision of Fire Hydrants is a contentious issue. It is noted that a number of Local Authorities do not require them whilst others continue to do so. It is noted that TGD-B 2006 (AMD 2020) states the following: -

1.4.16 First-Aid Fire-Fighting Equipment

First-aid firefighting equipment is provided in buildings to be used by the occupants, with appropriate training and where it is safe to do so, in the early stages in the development of a fire. This equipment may be a fixed installation, such as a hose reel or may be portable fire extinguishers. Portable fire extinguishers are excluded from the provisions of the building regulations but may be required when the building is in use for the purpose of the Fire Services Acts, 1981 and 2003 and the Safety, Health and Welfare at Work Act, 2005.

A hose reel consists of a length of tubing fitted with a shut-off nozzle and attached to a reel, with a permanent connection to a pressurized water supply. Hose-reels conforming to I.S. EN 671: Part 1: 1995 should be provided in a building, where the floor area exceeds 500 m², which is used as a shop (purpose group 4(a)), a shopping centre (purpose group 4(b)), industrial (purpose group 6) or for storage (purpose group 7(a), 7(b)). The installation of hose reels should comply with the relevant recommendations in BS 5306: Part 1: 1976 Fire extinguishing installations and equipment on premises, Part 1 Hydrant systems, hose reels and foam inlets.

It is noted that hose reels are recommended as a B1 recommendation (i.e. Means of Escape Provision) and not a B5 recommendation (i.e. Access and Facilities for the Fire Service).

BS 5588 Part 10: 1991 'Code of Practice for shopping complexes' states the following: -

Adequate and suitable means for manually firefighting should be provided throughout the shopping complex. Hose reels should be provided where water in the appropriate extinguishing medium. Portable appliances should be provided for special applications where water is not appropriate.

This document has been replaced in the UK by BS 9999: 2017 which states the following: -

Hose reels should be installed where the fire risk assessment shows it to be necessary. Where installed they should be in accordance with BS 5306-1 and BS EN 671.

Therefore, it is noted that although hose reels used to be required in shopping centres they no longer are by the latest UK guidance.

A further note is that the existing shopping complex far exceeds 500m². Therefore, if designed in accordance with the recommendations of TGD-B 2006 / BS 5588 Part 10 it would have been provided with hose reels irrespective of individual units being greater or smaller than 500m². It is not clear from any of the submissions whether hose reels are provided to the existing shopping centre.

A reasonable approach would be that in general that hose reels are not required but where they have been provided in an existing shopping centre then any material alterations to individual units (as is the case with this appeal) should maintain the existing fire strategy. Therefore, if the existing shopping centre has hose reels then it is reasonable to request the new unit to also have hose reel coverage. Having parts of the complex with hose reels and other parts without is not a suitable approach.

Condition 6: -

The applicant maintains that Condition 6 applies to the service corridor at mezzanine level within the unit only. They have clarified that it is their opinion that the Condition did not extend to walls and floors that are existing and that to do so would be an onerous reading of the Condition as the FSC application package was explicit in which parts of the building and construction were existing and therefore outside the scope of the application.

However, there are contradictions in the applicant's application with respect to the existing and proposed elements of structure. For instance: -

- Drawing 21A1579-FSC-006 'Level 2 mezzanine floor plan in context' shows the mezzanine level with undefined existing structure between adjoining stair and carpark, 60 minute compartment walls between stores and corridor, 30 minute walls to the store and staff room.
- Drawing 21A1579-FSC-006 'Proposed second floor plan in context' shows undefined existing structure between adjoining stair and carpark.
- Drawing 21A1579-FSC-004 'Proposed floor plans' shows the mezzanine level with undefined existing structure between adjoining areas (except mall), 60 minute compartment walls between stores and corridor, 30 minute walls to the store and staff room and 30 minutes between stores and rest of unit below.
- Drawing 21A1579-FSC-008 'Elevation and Section' shows the mezzanine level with undefined existing structure above and below unit, 30 minutes between stores and rest of unit below. This drawing also calls up the mezzanine floor as 90 minute loadbearing, integrity and insulation when tested to BS467: Part 21/22 or 60 minute fire resistance (REI) for loadbearing, integrity and insulation when tested in accordance with the relevant parts of IS EN 1365-2: 2014 for loadbearing elements and IS EN 1365-2:2018 for no load bearing elements
- Compliance report in section 3.2 (page 19) states that all new elements of structure will have the following: -

Element of structure	Fire resistance period minutes			Method of exposure
	Load-bearing	Integrity	Insulation	
Structural Frame, beam or column	90	-	-	Exposed faces
Compartment walls	90	90	90	Each side separately
Protected service lobby / corridor	60	60	60	Each side separately

It notes that table A2 of TGD-B refers to 3.5.3 of TGD-B which refers to BS 5588 Part 10 for the performance required but that BS 5588 Part 10 does not give specific performance criteria

- Compliance report in section 3.4.3 (page 20) states that all new compartments wall and compartment floors will have a period of 60 minutes for loadbearing, integrity and insulation
- Compliance report in section 3.4.3.1 (page 20) states that all compartment floors are existing and that no compartment floors are proposed as part of the works.

As noted by the Building Control Authority Clause 14.4 of BS 5588: Part 10 states: -

The following recommendations are applicable.

(b) The fire resistance of any element of structure should be not less than that required for any element which it supports, and in no case less than 120 min.

(c) The following walls should have a fire resistance of not less than 120 min:

*(1) walls between units (or other occupancies), and between units (or other occupancies) and **service corridors**.*

(2) walls between parts of the complex which have different main uses.

(e) The walls listed in items (c) and (d) should be constructed from materials with a durability and resistance to impact damage not less than that given in appendix B...'

Therefore, BS 5588 Part 10 does give specific performance criteria for walls between units and service corridors. It clearly recommends 120 minutes fire resistance.

In the Building Control's Case they do not distinguish between existing and proposed elements of structure, indeed neither does the wording of the Condition to the Fire Safety Certificate. The applicant's opinion that the condition should not apply to existing compartment walls and floors does seem reasonable. If these had to be upgraded due to a proposed fit out or amalgamation of retail units then such changes would not be viable.

It is noted that it would not be a reasonable approach in an existing shopping centre that predates both TGD-B 2006 and BS 5588 Part 10 that all elements of structure should be upgraded to achieve the recommended rating as per these standards. However, in a case where individual units are combined into a larger unit then the compartmentation of this new unit needs to be considered. The applicant has not done so sufficiently in their application. They haven't given sufficient justification for reducing the rating of the service corridor wall from 120 to 60 minutes.

6.0 Reasons and Considerations

With respect to Condition 5 having reviewed and considered the above a reasonable approach would be that in general that hose reels are not required but where they have been provided in an existing shopping centre then any maternal alterations to individual units (as is the case with this appeal) should maintain the existing fire strategy. Therefore, if the existing shopping centre has hose reels then it is reasonable to request the new unit to also have hose reel coverage. Having parts of the complex with hose reels and other parts without is not a suitable approach.

With respect to Condition 6 having reviewed and considered the above the applicant has not justified why any new elements of structure and compartmentation (walls and floors) should be less than the minimum of 120 minutes fire resisting construction as recommended by BS 5588 Part 10: 1991.

7.0 Conclusions and Recommendation

On the basis of my findings and conclusions I recommend that An Bord Pleanála instruct that Condition 5 and Condition 6 are replaced with the following condition or similar: -

Condition 5:

If hose reels are provided in the existing shopping complex then the proposed new retail unit (CW Retail Unit) should be provided with hose reel coverage in accordance with Section 1.4.16 of Technical Guidance Document B.

Reason:

To comply with Part B of the Second Schedule to the Building Regulations, 1997 to 2019.

Condition 6:

All new elements of structure and compartmentation (walls and floors) are to be a minimum of 120 minutes fire resisting construction (loading bearing capacity, integrity, and insulation) in accordance with Section 3.5.3 of Technical Guidance Document B and Clause 14.4 of BS 5588: Part 10.

Reason:

To comply with Part B of the Second Schedule to the Building Regulations, 1997 to 2019.

Signed by:

Des Fortune

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

Date: **30th May 2022**