



An  
Bord  
Pleanála

## FSC Report

**ABP-318438-23**

**Appeal v Refusal or Appeal v  
Condition(s)**

Appeal v Condition 10

**Development Description**

One Ballsbridge Park, The works are located in Dublin 4, Co. Dublin. The works will see the construction of a new 8 storey office building with one basement level, plus roof.

**Building Control Authority Fire Safety  
Certificate application number:**

FSC1514/23

**Appellant**

Mr. Derek McGrath

**Agent**

BB7

**Building Control Authority:**

Dublin City Council

**Inspector**

Stefan Hyde

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## 1.0 Introduction

- 1.1. The report sets out my findings and recommendations on the appeal submitted by BB7 on behalf of Mr. Derek McGrath regarding a proposed development at One Ballsbridge, Dublin 4.
- 1.2. The proposed development consists of the construction of a new 8 storey office building with one basement level, plus roof.
- 1.3. The appeal was submitted against Condition 10 of the Fire Safety Certificate (Reg Ref FSC1514/23) granted by Dublin City Council [hereafter referenced as DCC] on 17<sup>th</sup> October 2023.

Condition 10 reads as follows:

### **Condition 3:**

*The basement car park shall be provided with an automatic sprinkler system throughout in accordance with I.S.E.N 12845:2015 + A1:2019 Fixed firefighting systems – Automatic sprinkler systems – Design, installation and maintenance.*

With the stated reason for the condition being:

Reason: To comply with the provisions of Part B of the Second Schedule to the Building Regulations, 1997 – 2022.

## **2.0 Information Considered**

2.1. The information considered in this appeal comprised the following:

- Appeal submission by BB7 received by An Bord Pleanála on 10<sup>th</sup> November 2023
- Full copy of the FSC application package received by DCC in the course of the assessment of the FSC. Issued to An Bord Pleanála on 16<sup>th</sup> November 2023 by DCC.
- Granted Fire Safety Certificate issued by DCC on 17<sup>th</sup> October 2023
- Response by the Building Control Authority [hereafter referenced as BCA] received by An Bord Pleanála on 8<sup>th</sup> December 2023
- Further submissions from the appellant received by An Bord Pleanála on 4<sup>th</sup> January 2024.

### **3.0 Relevant History/Cases**

3.1. Whilst there have been several appeals in recent years in relation to sprinkler protection in car parks of residential developments this condition is not frequent on office development car parks. Below is a non exhaustive list of appeals in relation to residential developments includes

- ABP 315367-23
- ABP 315985-23
- ABP 317213-23

## 4.0 Appellant's Case

4.1. The appellant initially set out the appeal against Condition 10 of the FSC on the basis of the following:

- The building is designed in accordance with BS 9999: 017 and this only references sprinkler coverage in a car park in an office building in three instances:
  - When car stackers are utilised
  - Where the building itself is >30m high to the top occupied floor; or
  - Where the compartment size exceeds the limits set out in Table 28
- The car park was designed to a B2 risk profile rather than an A2 risk profile thereby applying more onerous requirements on the design that would be normally required vis a vis travel distance limits, compartment sizes, storey exit widths and stair widths.
- The car park is provided with two exits affording alternative routes to occupants.
- A simultaneous evacuation strategy is proposed rather than a phased evacuation strategy therefore reducing the risk for occupants in the building.
- The expected occupancy figures are low compared to the maximum available exit capacity.
- A firefighting core has been continued to basement which will afford the Fire Brigade an additional factor of safety
- Two of the three stairs in the building above ground floor level do not continue to basement therefore ensuring continued availability in the event of a fire at basement level. The third stair which does continue down is provided with ventilated protected lobby and an additional protected lobby.
- The amount of ventilation provided to the car park exceeds the minimum amount require by 12% (i.e. 2.8% vs 2.5%) which will reduce the amount of smoke and heat build up vs a car park with the minimum provisions.

- The appellant then references that TGD-B 2020 also does not require the provision of sprinkler coverage in a building <30m and notes a number of other points in relation to this guidance document not requiring the provision of sprinkler coverage in this type of design.
- The appellant further cites BS 73460 Part 7: 2013 in a similar manor.
- The final point raised by the appellant is a comparison with a scheme of similar height comprising residential units over a larger basement car park which was previously approved (FSC2104644DC\_7D) in January 2022. They note that this development consists of a higher risk profile and therefore the decision in relation to the office car park is at odds with established precedent.

4.2. Following receipt of the BCA response to the initial appeal submission the appellant responded with the following points:

- They refute the BCA statement in relation to the purported inadequacies of the design standards list examples of updates to numerous standards which still do not require sprinklers in office buildings or car parks within where the building is <30m tall.
- They refute the case study data citing a significant reduction in car park fires in Ireland over the period of 2000 – 2021 from data published on gov.ie. They further note that there had been no fatalities in car park fires in that period.
- They address what is considered a normal car park fire and note the design exceeds the minimum standards set out for a car park.
- They note new EU standards in relation to electric charging points and progression in electric car battery design whilst also challenging the fires reported by DFB vis a vis involvement of electric cars and the assistance of these in the fire spread between vehicles.
- They conclude that in their opinion the requirement for sprinklers this instance does not have any basis in Irish Guidance or any supplementary guidance and therefore the condition should be removed.

## 5.0 Building Control Authority Case

5.1. The BCA responded to the appellants submission with a response summarised below which contained an introduction, observations and then highlighted previous papers/research by others, examples of car park fires, risks associated with fighting car fires encountered by DFB, Structural integrity/Fire Protection Concerns, BS 9999: 2017 – Basement Car Park Ventilation, Broader implications considered and a conclusion:

- Introduction setting out the proposed development of a new office building over a basement car park, the basis of compliance of the application being noted as BS 9999: 2017 and noting that following the review of the application and the additional information submissions the granting of an FSC with thirteen conditions of which Condition 10 was the subject of appeal.
- Dublin Fire Brigade (DFB) observations:
  - They refer to introductory statements in the compliance report submitted demonstrating compliance with Part B of the Second Schedule of the Building Regulations.
  - They noted that Article 7 of the above allows for the introduction of “Technical Guidance Documents” and that the current edition in relation to Part B is TGD-B: 2006 (Reprint 2020).
  - They note that BS 9999:2017 does not refer to or consider electric vehicles or the associated new hazards
  - They note that they sought sprinklers in the basement car park in accordance with BS 9251 in an additional information request in accordance with DFB policy and the response from the applicant was that none were required.
  - They note further that the appellant specifically references TGD-B 2020 and the statements contained within regarding car parks. DFB contend that the statements contained in the 2020 reprint of TGD-B are outdated and they consider the risk to be much greater now.



- Evidence derived from research into the fire risks associated with modern vehicles – DFB are submitting that Fire Resistance ratings of car parks have not changed since 1968
- BRE, Fire spread in car parks, BD 2552, Department for Communities and Local Government – a number of statements are made regarding extracts from these documents
- NFPA, Modern Vehicle Hazards in Parking Garages & Vehicle Carriers, 2020 – there is a summary of the document however no specific statement in relation to the design proposed in this instance
- Case studies of 13 examples from of car park fires both within its jurisdiction and internationally from a period ranging from 2004 to 2020. The examples range from basement car parks to above ground open sided.
- Brief summary of risks associated with modern vehicles which DFB operation personnel typically encounter highlighting increased potential higher environmental risks and smoke generation from EV car fires.
- Structural integrity/Fire Protection Concerns – DFB note that structural fire ratings for basement car parks do not take account of the fire load of cars with extensive plastics, and nor for the extensive use of Electric Vehicles
- BS 9999:2017 and bs 734-7 2013 Basement/Covered Car Park Ventilation – DFB propose that the requirements set out in these standards are not sufficient for multiple car fires and that EV car fires will produce higher volumes of smoke. They noted the applicant had proposed at least the minimum 2.5% natural ventilation required which is in line with the current requirements set out in the relevant design standards.
- Broader implications – DFB note a number of reasons why they believe it would be more appropriate to sprinkler protect a basement car park
- In conclusion DFB note that taking account of the above and their interpretation of the Building Regulations that the Condition should be upheld.

## 6.0 Assessment

- 6.1. Having considered the drawings, details and submissions on the file and having regard to the provisions of Article 40 of the Building Control Regulations 1997, as amended, I am satisfied that the determination by the Board of this application as if 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, as amended.

- 6.2. The appellant provides clear indications as to the basis of their design which is demonstrated in the FSC application submission and is further highlighted in the appeal submission noting that sprinklers have been provided solely as a requirement of the open plan apartment type design in the development.
- 6.3. The appellant clearly states the instances where BS 9999: 2017 which was the applied standard for the design of this building would mandate sprinkler protection in a basement/covered car park.
- 6.4. The appellant further references sections in TGD-B 2022. Clause 3.5.2 (b) notes that “where a car park is well ventilated, there is a low probability of fire spread from one storey to another” and therefore “car parks are not normally expected to be fitted with sprinklers”. They also confirm that Clause 5.4.3.1 of TGD-B equally states that “basement car parks are not normally expected to be fitted with sprinklers” to back up the basement level of the car park.
- 6.5. The BCA allude to the potential inadequacy of the current BS 9999: 2027 AND TGD-B 2020. BS 9999: 2017 has been subject to one update since its introduction in 2008 however it did replace the BS 5588 suite of documents which is much older. TGD-B has been revised three times since its introduction in 1991 and on each occasion the Local Authorities were afforded opportunities to make submissions in relation to proposed changes. Electric cars and cars with increased plastics have both been in wide use since TGD-B was revised in 2006 and 2020 and the Department of Housing and Local Government have not amended the provisions in relation to car parks (above ground or basement) in either instance. The same

applies for BS 9999 which was open to consultative periods prior to its introduction in 2008 and again its update in 2017.

- 6.6. The BCA note that the issue of EV cars was raised during the course of the FSC application. The appellant purported it was not raised however sprinkler protection to BS 9251 was requested in the first additional information request. The appellant responded to this additional information request citing reasons why sprinkler coverage was not required.
- 6.7. The appellant has submitted a design based on BS 9999: 2017 which has been assessed by the BCA and deemed to comply with Part B of the Building Regulations subject to a number of conditions. The condition in relation sprinklers is based on a DFB policy position rather than any National Guidance. The BCA has not provided a clear basis to dismiss the use of BS 9999: 2017 as a route to guidance in this instance.

## **7.0 Recommendation**

- 7.1. Based on the above I would recommend that An Bord Pleanála direct the Building Control Authority to remove Condition 10.

## **8.0 Reasons and Considerations**

- 8.1. BS 9999: 2017 does not require the provision of sprinklers in basement car parks of office buildings of this height and scale.
- 8.2. The appellant has submitted a design based on the guidance set out in BS 9999:2017 and this has been assessed by the BCA as an acceptable route to comply with Part B of the Second Schedule to the of the Building Regulations.
- 8.3. The BCA has not given clear technical reasoning based on BS 9999: 2017 or TGD-B 2020 behind the imposition of sprinklers in Condition 10 of the granted FSC.
- 8.4. Therefore Condition 10 as originally attached by the Building Control Authority to the FSC is not necessary to meet the guidance set out in BS 9999: 2017 or accordingly to demonstrate compliance with Part B of the Second Schedule to the Building Regulations 1997, as amended. The Board was satisfied that, subject to the attachment of the remaining conditions (excluding Condition 10) as removed by the Board, it has been demonstrated that the proposed development, if constructed in accordance with the design presented with the application and appeal, would comply with the requirements of Part B of the second schedule to the Building Regulations 1997, as amended.

## 9.0 **Conditions**

9.1. Direct the Building Control Authority to remove Condition 10.

## 10.0 **Sign off**

I confirm that this report represents my professional assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

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Stefan Hyde

06/11/2024