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Report 3748

**An Bord Pleanála Appeal regarding the attachment of
Conditions No. 9, 10 & 11 by Dublin City Council to grant of
Fire Safety Certificate for single floor extension to existing building
at One & Two Hatch Street Upper, Dublin 2**

Client: An Bord Pleanála,
64 Marlborough Street,
Dublin 1

FAO: The Secretary

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BUILDING CONTROL ACT, 1990 to 2014 – APPEAL

**FIRE SAFETY CERTIFICATE APPLICATION
SINGLE STOREY EXTENSION TO THE ONE & TWO PARK PLACE BUILDING IN
HATCH STREET UPPER, DUBLIN 2**

**APPEAL AGAINST THE ATTACHMENT OF CONDITIONS NO.s 9, 10 AND 11
TO FIRE SAFETY CERTIFICATE (REG. REF. FSC 1080/22 DATED 25th FEBRUARY 2022)**

AN BORD PLEANÁLA APPEAL REFERENCE 313107-22

Local Authority: Dublin City Council

Appellant: Clancourt Management UC c/o Michael Slattery & Associates

RECOMMENDATION

In my opinion, the Board may rely on Article 40(2) of the Building Control Regulations to consider the subject appeal on the basis of Conditions only.

It is recommended that Condition No. 9, 10 and 11 be removed.

The remaining 14 no. Conditions (Conditions No.'s 1, 2, 4, 5, 6, 7, 8, 12, 13, 14, 15, 16 and 17) attached to the granted Fire Safety Certificate are not subject of this appeal and should remain. The granted Fire Safety Certificate should therefore remain subject of 14 no. Conditions.

Reasons & Considerations

Having regard to the form, use and layout of the building and to the fire safety design measures proposed by the appellant, to the submissions lodged in connection with the Fire Safety Certificate application and the appeal and to the report and recommendation of the reporting Inspector, it is considered that the appeal may be determined under Section 40(2) of the Building Control Regulations 1997-2017 on the basis of Conditions only. The imposition of Conditions No. 9, Condition No. 10 and Condition No. 11 is not proportionate in this specific case to the increased fire safety risk arising from the proposed extension and all 3 no. Conditions should be removed.

Dr. Raymond J Connolly
BE, PhD, CEng, MIEI, MIFireE, MSFPE

23/06/2023

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1. RELEVANT INFORMATION

- i. Application for a Fire Safety Certificate by Clancourt Management UC to Dublin City Council dated 5th October 2020.
- ii. Compliance Report (18382-1R001) by Michael Slattery Associates dated 5th October 2020 including associated drawings.
- iii. Compliance Report (18382-1R001a) by Michael Slattery Associates dated 26th August 2021 including associated drawings.
- iv. Compliance Report (18382-1R001b) by Michael Slattery Associates dated 1st October 2021 including associated drawings.
- v. Fire Safety Certificate (Register Ref. FSC 1080/22) granted by Dublin City Council dated 25th February 2022 (subject of 17 no. Conditions).
- vi. Letter of appeal from Michael Slattery Associates on behalf of Clancourt Management UC to An Bord Pleanála dated 23rd March 2022.
- vii. Letter from Dublin Fire Brigade to An Bord Pleanála dated 26th April 2022 commenting on the appeal.
- viii. Letter to An Bord Pleanála dated 17th May 2022 from Michael Slattery Associates on behalf of Clancourt Management UC responding to the Dublin City Council submission.

2. BACKGROUND

Michael Slattery Associates acting as agent for Clancourt Management UC made an application to Dublin City Council for the 8th storey extension of an existing 8 no. storey building (over basement) at One & Two Hatch Street Upper, Dublin 2. The Fire Safety Certificate was granted by Dublin City Council (under Register Ref. FSC 1080/22) on 25th February 2022 subject to 17 no. Conditions including *inter-alia*:-

Condition No. 9

All elements of construction including the floor of the proposed roof at ninth floor level and all compartment walls and floors throughout the building shall have a minimum fire resistance period of 120 minutes.

Reason:

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

Condition No. 10

A sprinkler system shall be fitted throughout the building in accordance with IS EN 12845:2015+A1:2019 Fixed fire-fighting systems – automatic sprinkler systems – design, installation and maintenance.

Reason:

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

Condition No. 11

The atrium shall be in accordance with BS 5588-7 and the atrium smoke control system methodology and analysis shall be independently assessed by a specialist firm who shall confirm or modify the design. Once installed they shall further verify the system before the area is used or occupied.

Reason:

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

On 23rd March 2022, Michael Slattery Associates acting as agent for Clancourt Management UC appealed to An Bord Pleanála against the attachment of Conditions No.'s 9, 10 and 11 to the granted Fire Safety Certificate. The residual Conditions (Conditions No.'s 1, 2, 4, 5, 6, 7, 8, 12, 13, 14, 15, 16 and 17) are not subject of the current appeal.

3. REPRISE OF APPEAL (AS PRESENTED)

The subject works are stated to comprise the single storey (roof-top) extension of an existing 8 no. office building above a basement car park. The fire safety design proposed by Michael Slattery Associates allows the existing building to remain substantially unchanged by the roof-top extension. The basis for this approach is that the extended building is stated to remain beneath the 30 metres height threshold that would typically trigger a range of enhanced fire safety precautions.

In the letter of appeal dated 23rd March 2022, Michael Slattery Associates outlined the basis of their appeal against the attachment of Condition No.'s 9 and 10 to include:-

- (i) The provisions of Conditions No.'s 9 and 10 exceed the minimum requirements of Part B to the Building Regulations with reference to BS 9999:2017.
- (ii) BS 9999:2017 defines building height in terms of the largest vertical distance between the topmost relevant storey level and the fire and rescue service access level. On the basis that Hatch Street Upper comprises the fire and rescue service access level, the building height is proposed to be 29.95 metres, i.e. not more than 30 metres.
- (iii) Access for the fire service to the proposed 8th floor extension is "readily achieved" from Hatch Street Upper.
- (iv) The current proposal is the "exact same proposal set out in the most recent granted Fire Safety Certificate for One & Two Park Place FSR 1001/19 for which an extension was proposed above Block B, albeit for a smaller floor plate" with an unchanged building height to that being currently proposed.

Michael Slattery Associates go on to outline the basis of their appeal against the attachment of Condition No. 11 to include:-

- (i) The provisions of Condition No. 11 exceed the minimum requirements of Part B to the Building Regulations with reference to BS 9999:2017.
- (ii) The proposed extended atrium meets the requirements contained in BS 9999:2017 for atria greater than 18 metres in height but less than 30 metres in height.
- (iii) The new floor will be separated from the atrium by fire-rated glazing and "consequently as far as the atrium is concerned the floor doesn't exist, as no smoke or heat can enter the atrium".

- (iv) The reservoir being provided is now a storey deeper, thus improving the time available before smoke can descend to the toughened glass levels below.

The letter from Dublin City Council to An Bord Pleanála dated 26th April 2022 (including the Fire Officer's Report) explains the background to its attachment of Conditions No.'s 9 and 10. It is noted that no further justification is offered in respect of Condition No. 11. Dublin City Council make the following arguments:-

- (i) The previous extension of the building (under FSC Register Reference 18/1555) related only to the front portion of the building. Notwithstanding same, the Council refused the application and it was granted on appeal by An Bord Pleanála.
- (ii) The proposed extension to the entirety of the 8th floor requires fire service access to all four elevations of the building. The height of the building when measured from fire service access levels on all four elevations is as follows:- 29.95 metres (north elevation; stairs 1, 2, 3 and 7); 30.4 metres (south elevation; stair 5); 30.5 metres (west elevation; stair 6) and 33.75 metres (east elevation; stair 4).
- (iii) In this context, the Fire Authority declares that "the distance of the surface of the highest point of the floor of the highest storey to the fire and rescue service access level measured at the centre of that face of the building where the distance is greatest is 33.75 metres".
- (iv) Table 23 of BS 9999:2017 requires that elements of structure in buildings above 30 metres in height be 120 minutes fire-resisting.
- (v) Clause 30.2.2 of BS 999:2017 requires that buildings taller than 30 metres in height be sprinkler protected throughout.

The appellant in a further submission to the Board of 17th May 2022 responds to the issues raised in the Dublin City Council's Fire Officer's Report as follows:-

- (i) Dublin City Council has presented a "narrow rigid interpretation of Clause 3.66 of BS 9999:2017.
- (ii) Fire-fighting cores 2 and 3 are accessible from Hatch Street, i.e. within 30 metres vertical height from 8th floor extension. However, fire-fighting core 1 is accessed off a ramp to basement level and sits more than 30 metres below the 8th floor extension.
- (iii) Along the entire north elevation, fire service access is available within 30 metres of external ground level.

- (iv) Along the west elevation, the average building height is 30.2 metres (ranging from 29.95 to 30.45 metres). The appellant contends that this excess in height is very marginally over the 30 metres threshold and is “not significant” in terms of the operating range of typical high reach appliances.
- (v) The 30 metres threshold is a conversion from the imperially measured 100 foot turntable ladder and is a rounding of the actual 30.48 metres conversion.

4. CONSIDERATION

Conditions No. 's 9 and 10

The basis for the appeal has evolved between the making of the appeal on 23rd March 2022 and the most recent letter to the Board dated 17th May 2022. Initially, the appellant claimed that the height of the building when measured in accordance with BS 9999:2017 would remain at less than the 30 metres threshold that would trigger the requirement for sprinklers and increased structural fire resistance ratings throughout the entire building. Faced with more detailed height measurements by the Fire Authority that clearly demonstrated an excess over 30 metres, the basis of the appeal has morphed into the argument that the 30 metres threshold should be open to more flexible interpretation, including possibly one that the value should in fact have been 30.4 metres in its conversion from imperial units. Furthermore, in practical terms that appellant contends that a marginal excess over the 30 metres height threshold is not significant in practice. In summary, the applicant's case is predicated on the contention that fire service access entirely from Hatch Street Upper via cores 2 and 3 is sufficient, with extra access available including descent of a vehicular ramp to access via core 4.

In this case, the issue of compliance does not relate solely to Part B4 to the Building Regulations. Buildings taller than 18 metres in height are expected to be fitted with fire-fighting stairs, fire-fighting lifts and fixed fire mains to facilitate fire service operations including fire-fighting internally within the building. Such provisions are stated to be provided within the existing building and same are to be maintained and extended to the new 8th floor level.

There is no requirement for elevations to be accessible from public highways to allow pitching of turntable ladders and ladder height, whether it be measured in imperial or metric units, is in this context an irrelevance. In any event, the existing building is extremely poorly served by external fire service access with Hatch Street Upper being the only realistic elevation available for external fire service intervention. Given the depth of the building from north to south is c.75 metres, external access for hose-streams on turntables ladders on Hatch Street Upper is of limited value and certainly not of itself sufficient.

In a similar context, access to cores 2 and 3 on the north of the building would in isolation be insufficient and access via core 4 is also required to serve the rear of the building. This is even moreso the case in those options presented by the applicant that involves multiple tenancies. It is noted that access into core 4 at basement level is a full storey below Hatch Street Upper and yields a local building height of 33.4 metres. Access to core 4 is in excess of 18 metres from the fire service appliance hard-standing on Hatch Street Upper. The proposed journey by fire service personnel from Hatch Street Upper, down the ramp and then up 33.4 metres to the 8th floor is significantly in excess of

normal standards. This approaches the nub of the issue, which is that fire-fighting intervention in tall buildings is likely to take longer than in less tall buildings. During the delay in fire service intervention and in the absence of sprinkler protection, fires must be presumed to continue to grow in size. Fires that grow in size will also likely reach higher temperatures as they consume more fuel and release more heat within the building. The resistance of building structure to failure and/or collapse under the thermal action of fires is a direct function of fire temperature and duration of burning and in very simple terms the bigger the fire gets the more likely the building is to collapse. It is for this reason that guidance relating to delivering compliance with Part B3 to the Building Regulations seeks to impose increased fire resistance ratings and a requirement for installation of sprinklers for taller buildings. Guidance in Technical Guidance Document B, BS 5588:Part 11 and BS 9999:2017 all align in their determination that the threshold height for maximum likely delay in fire service intervention is 30 metres and above that threshold the maximum extent of fire resistance and sprinklers are required.

The adoption of a single threshold value for imposition of a significantly increased extent of fire precautions is always problematic for buildings that are constructed “marginally” on the wrong side of the threshold. This is moreso the case where an existing building is being subsequently extended to a height that exceeds a threshold and triggers requirements for significant enhancements to fire safety standards throughout the new and existing parts of the building. Whilst, concrete framed buildings that were designed to a 90 minutes standard may have inherent fire resistance ratings of 120 minutes as a function of the material technology, it is more likely that steel framed buildings (relying on board protection or similar) will need physical intervention to reach the increased fire rating. This would particularly be the case for external steelwork elements designed using fire engineering and “computer models” as intimated by the applicant in this case. Equally, the requirement to retrospectively install sprinklers throughout 8 or even 9 no. storeys of an existing building to facilitate a roof-top extension would be a very significant imposition.

The contrary argument is that developers could use an incremental or phased approach to construction to erect buildings with reduced levels of fire safety right up to the threshold 30 metres, e.g. 29.95 metres as initially claimed in this appeal, only to subsequently add a storey bringing the building beyond the threshold without upgrading the fire precautions on the basis of them being an undue or disproportionate requirement. This could result in neighbouring buildings of exactly equal height being provided with sprinklers in one case and not the other, 120 minutes in one case and 90 minutes the other solely as a result of construction phasing. For many reasons, including the passage of time between the original construction and the proposed roof-top extension, it is unambiguously clear that such tactical “gaming” of fire safety design is not occurring in this case.

The extent of fire service access to the existing 8 no. storey building (< 30 metres) is poor but it has been approved by Dublin City Council at various stages since 2004. The more recent Block B extension (> 30 metres) was rejected by Dublin City Council but approved by An Bord Pleanála on appeal simply on the basis that Hatch Street Upper could be designated the fire service access level and the resulting BS 9999:2017 measurement of building height is 29.95 metres. Given that Block B relies on access via core 4 (accessed from basement level) and that fact was ignored in determining the relevant appeal. The basis for ignoring the role of core 4 is allocating fire and rescue service access level was not necessarily erroneous given that the fire service vehicular access would likely be limited to Hatch Street Upper. In theory that previous Board decision could provide a precedent to permit this current appeal were the Board so minded.

This inspector is of the view that the appellant is not seeking to incrementally increase building height beyond the 30 metres threshold as a tactic to minimise his fire safety precautions. Further, the impact of delivering compliance with Conditions 9 and 10 within an existing building of this size is disproportionate to the additional risk being created by a single storey roof-top extension. In fundamental terms, the new 8th floor is the level likely to be subject of “unduly” delayed Fire Service intervention – due to it being the only one exceeding 30 metres in height. However, the elements of structure on the new 8th floor only support the roof (including roof-top plant) and as such are exempted from the requirements of Part B3 to the Building Regulations – unless the new 8th floor roof is integral to the stability of the overall structural frame. This deconstruction of the simple 30 metres height threshold guidance is obviously overly simplistic but it does offer a basis for introduction of proportionality between the increased fire risk arising from extending the building at roof level and the existing situation. In simple terms, my conclusion is that the additional risk generated by the extension does not merit the extent of intervention resulting from imposition of Conditions No.’s 9 and 10 and accordingly, those conditions should be set aside.

Condition No. 11

The measurement of atrium height is from the floor of the atrium and same remains unchanged by those issues raised in the consideration of Conditions No.’s 9 and 10. The height of the atrium is increased by the proposed extension but not to more than 30 metres and as such BS 5588:Part 7 (Exemplar 3) remains a credible basis for delivering ongoing compliance.

It is agreed that the requirements imposed by Condition No. 11 are in excess of the minimum requirements of the Building Regulations and the Condition should be set aside.

5. CONCLUSION

The appeal regarding the subject Conditions No. 9, 10 and 11 should be upheld. All 3 no. Conditions should be removed from the granted Fire Safety Certificate.

The remaining 14 no. Conditions (Conditions No.'s 1, 2, 4, 5, 6, 7, 8, 12, 13, 14, 15, 16 and 17) attached to the granted Fire Safety Certificate are not subject of this appeal and should remain. The granted Fire Safety Certificate should therefore remain subject of 14 no. Conditions.

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