

REPORT TO AN BORD PLEANÁLA

ON

APPEAL AGAINST REFUSAL OF A FIRE SAFETY CERTIFICATE

(Register Ref No: FA/16/1186, FSR1571/16)

ISSUED BY DUBLIN CITY COUNCIL

FOR

MATERIAL ALTERATIONS (REMOVAL OF SPRINKLER SYSTEM)

AT

NAZARETH HOUSE, MALAHIDE ROAD, DUBLIN 3

Client: An Bord Pleanála
An Bord Pleanála Ref: FS 0530
Our Ref: CTA1632
Date: Aug 2016

1.0 BACKGROUND

This Report sets out my findings and recommendations on the appeal submitted by Maurice Johnson & Partners (MJP) against a refusal of a Fire Safety Certificate (Register Ref. No: FA/16/1186, FSC1571/16) issued by Dublin City Council (DCC) in respect of an application for material alteration at Nazareth House, Malahide Road, Dublin 3. The proposed material alteration was to remove/omit the sprinkler protection as required in condition No. 1 of Fire Safety Certificate FSC98/16 previously granted for the development.

The proposed works on the site relate to a major extension and material alterations to a complex that includes nursing home accommodation, convent, apartments and ancillary facilities such communal areas, assembly hall, chapel etc.

Condition No. 1 of the previous Fire Safety Certificate FSC98/16 stated:

“A sprinkler system with life safety requirements is to be provided in the extension”

Reason: *“To comply with B1 and B3 of the Second Schedule to the Building Regulations 1997-2013”.*

Having considered the drawings, details and submissions on the file 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, as no significant matters have been noted other than the subject matter of the appeal. Accordingly, I consider that it would be appropriate to use the provisions of article 40(2) of the Building Control Regulations, 1997 in this case.

1.1 SUBJECT MATTER OF THE APPEAL

- An application for a Fire Safety Certificate (FA/16/1186) was lodged by MJP and received by DCC on 8th April 2016.
- The Fire Safety Certificate was refused by DCC, dated 21st April 2016, with one reason stated for the refusal.
- An appeal against the refusal was submitted by MJP on 6th May 2016.

The reason stated by DCC for the refusal was: *“The proposed works do not comply with Dublin Fire Brigades policy document for Nursing Homes”*

1.2 DOCUMENTS REVIEWED

- Application for Fire Safety Certificate lodged by MJP, received by DCC on 8th April 2016
- Appeal submission by MJP to An Bord Pleanala, dated 6th May 2016
- Submission by DCC to Bord Pleanala received 2nd June 2016
- Appeal submission by MJP to An Bord Pleanala, dated 29th June 2016

2.0 FINDINGS

The case made by the Appellant is summarised as follows:

- The provision of sprinkler protection to a nursing home currently is not a recommendation under Technical Guidance Document B 2006 which the fire safety design for this building (extension) has been developed under.
- The current TGDB 2006 is the current prima facie design guidance issued by the Department of the Environment, Community and Local Government in relation to compliance with Part B of the Second Schedule of the Building Regulations, as referenced in TGDB, which states *“Where works are carried out in accordance with the guidance in this document, this will, prima facie, indicate compliance with Part B of the Second Schedule of the Building Regulations”*.
- The only recommendation for sprinkler protection in TGDB 2006 is as follows (in 1.3.5.4(c)):
“If the building has a storey with a floor over 30m above ground level, the building should be protected throughout by an automatic sprinkler system meeting the relevant recommendations of BS5306 Fire extinguishing installations and equipment on premises: Part 2: Specification for sprinkler systems i.e. the relevant occupancy rating together with the additional requirements for life safety”.
- It is noted the proposed extension is well under 30m, so it is clear that to comply with B1 and B3 ...of Part B there is no requirement for the provision of sprinklers to a nursing home.
- Full compliance with B1 and B3 of Part B is achieved without recourse to the provision of sprinklers.

- The imposition of a condition for sprinklers by DFB (Dublin Fire Brigade/DCC), on anticipation of the inclusion of such a requirement in a proposed revised TGDB, is pre-emptive of a potential change in the guidance, a change which in fact may never come to pass.
- To use 'what might be in' the draft of a document as a basis for current policy is not acceptable.
- They are aware that a representative of the DoELG has indicated that the provision of residential sprinklers designed to BS9251 **may** form part of a revised **draft** (MJP emphasis) TGDB which was due to have been issued in 2015 but now likely will not be issued until late 2016 at the very earliest.
- In any event the draft TGDB was to be issued out for public comment prior to its finalisation and during this draft for comment period submissions could be made by interested parties in relation to any technical changes proposed.
- It is their understanding that the key stakeholders in relation to nursing/community homes (including the HSE) will be making robust submissions against the introduction of any new requirement to install residential sprinklers in nursing homes having regard to the substantial additional costs involved and the total lack of evidence of cost-benefit in this jurisdiction.
- Any new TGDB will have transitional arrangements (from the date of issue) similar to those contained in the current issue of TGDB, allowing for a lead-in time for the new arrangements. Even if the new TGDB is issued during the assessment period of this appeal, even if it includes the provision for sprinklers (which is far from certain) the transitional arrangements will allow for design to the old TGDB and achieve prima facie compliance with Part B **without** the provision of sprinklers (emphasis by MJP).
- The requirement for sprinklers in nursing homes appears to be a new Dublin Fire Brigade policy that came into force in June 2015, after the planning permission for the works was granted. It was not circulated to the fire safety community or issued in any other formal process that they are aware of.
- The cost-benefit analysis referenced by DFB (DCC) relates to Wales, but the demographics of Wales and the Dublin area are not comparable, based on population.
- The Welsh cost-benefit analysis is for new care homes/dormitories, but (any benefit) is due mainly to the reduction in property damage and business interruption, so is a property

protection rather than a life safety benefit, with BRE figures suggesting the cost of sprinklers is double the life safety benefit.

- The analysis suggests a cost per care home of around £11,000, whereas the cost in the case of the subject building in this case is estimated at around €300,000, which calls into question the validity of the cost-benefit report.
- In terms of fatalities in nursing home fires, there appears to have been nil in Ireland in the last 10 years, which does not justify a fundamental shift in fire safety policy.
- If sprinklers are required, the project will not be financially viable.
- An additional service zone would be required for the sprinkler installation, which would require increased building height which would invalidate the planning permission. Sprinklers were not considered at design stage (as it was considered they were not required)
- Although DFB (DCC) has questioned the reliance of current Irish guidance on passive fire protection, this is the case for all types of residential buildings, not just nursing homes, with the obvious conclusion that all buildings should be sprinkler protected. It is not appropriate that they make this decision which would have far reaching consequences for building costs in Ireland. The DoELG and not DFB (DCC) are the appropriate body for making such decisions, following normal public consultation process/periods, that could fundamentally impact the construction industry in Ireland.
- The lack of confidence which DFB (DCC) say they have in passive fire protection in this instance is opposite to the position which they have taken on several other building types where they have traditionally been sceptical of active solutions as an alternative to passive fire protection.
- It seems that DFB's (DCC) in-house policy document that requires the provision of sprinkler protection in nursing homes was prepared without consultation with the wider fire safety community, was issued without notice to the building industry and was implemented without any reasonable transitional arrangement, all of which is contrary to international and Irish good practice.
- Were this kind of approach to be countenanced there would be essentially separate sets of guidance for each building control authority. This in time would impact on decisions which developers would make in relation to where to locate their premises (i.e. in Kildare without sprinklers or Dublin with sprinklers). Any decision to make such a change in guidance ought

to be based on sound cost benefit analysis and in a manner which allows all stakeholders to input to the process –it should not be made behind closed doors on dates unknown and without consultation.

The case made by the building control authority is summarised as follows:

- Dublin Fire Brigade (DFB) has developed its own in-house policy document for new nursing home developments and substantial extensions to existing nursing homes, requiring an automatic sprinkler system to be installed.
- This document was developed due to the challenges faced in evacuating a nursing home. The staff-to- occupant ratio in a residential nursing home varies greatly between day and night hours (greatly reduced at night). International research has shown that the majority of fire deaths in care homes occur in the evening and during the night.
- The time to evacuate residents (with reduced staffing at night) can lead to significant delays and prolonged evacuation times (due to age, mobility, mental clarity and the requirement for progressive horizontal evacuation). Tests have shown that the provision of an automatic sprinkler system ensures that all escape routes remain tenable for a longer period of time, reducing the risk to residents.
- In 2004 the BRE published the results of a two and a half year project (*“The effectiveness of sprinklers in residential premises”*) which concluded that an automatic sprinkler system is probably cost-effective for residential care homes. Following this the provision of sprinklers (in new care homes) became a mandatory requirement in Scotland in 2005.
- In 2012, a further review by BRE for the Welsh government resulted in mandatory sprinklers in new care homes in Wales from 2014. The review was based on a country with a similar size population and demographic which determined that sprinklers are cost effective in that situation.
- The current guidance in Ireland relies totally on compartmentation and fire resisting doorsets to contain a fire within a room of origin while the evacuation of the compartment is completed. PD7974: 7: 2003 (*Probabilistic risk assessment*), concludes (from UK data) that in a fire situation fire doorsets could fail to act as intended in over 40% of installations. Other data indicates that no passive fire resisting system gives 100% reliability.

- Dublin Fire Brigade is of the opinion that the installation of sprinkler systems will save lives in these types of residential care premises.

3.0 CONSIDERATIONS:

The DFB policy document referred to in the appeal submissions (and submitted by DCC with their appeal submission) and in the reason given for refusal is titled ***“Guidance regarding principals (principles) to be included in fire safety certification applications for nursing homes or similar establishment with a sleeping risk: Purpose Group 2(A) to include extensions to existing nursing homes where the ground floor area of the extension exceeds 25% of the ground floor area of the existing nursing home or where the total floor area of the extension exceeds 25% of the total floor area of the existing nursing home”***.

The content of the guidance is as follows:

1. Provide a sprinkler system in accordance with IS EN 12845: 2015: Fixed firefighting systems - Automatic sprinkler systems – Design, installation and maintenance with the special requirements for life safety systems in accordance with LPC Rules for Automatic Sprinkler Systems.

OR

2. Provide a Category 3 sprinkler system in accordance with BS9251: 2014: Fire sprinkler systems for domestic and residential occupancies – Code of practice, together with the special requirements for life safety systems in accordance with LPC Rules for Automatic Sprinkler Systems incorporating IS EN 12845: 2015. The minimum duration of supply for the combined stored water capacity for the system to be 60 minutes.
3. Provide self-closing devices for bedroom doorsets or equal equivalent (free swing closers or care free plus closers or similar)
4. Provide smoke activated fire resisting dampers for ventilation ductwork in addition to being thermally activated where the ductwork penetrates compartment construction or fire resisting construction.

There is no reference in the document as to the author or publishing body, or a date of issue, other than a hand written heading (on the file copy) stating *“Appendix 1 – Dublin Fire Brigade Policy on Residential Care Homes”*.

A copy of the BREGlobal Cost benefit analysis for the use of sprinkler protection in Wales is included on the file. This shows a small cost benefit for the use of sprinklers in care homes, based on the estimated nett potential savings in prevented losses resulting from a fire. The

analysis is in respect of newly constructed care homes. It also notes that the cost effectiveness of sprinkler systems in care homes is mainly due to the reduction in financial losses from damage to the building, its contents and business disruption.

The main issue in this case arises from the reason stated for the refusal (*“The proposed works do not comply with Dublin Fire Brigades policy document for Nursing Homes”*).

Under the Building Control Regulations, the Building Control Authority is restricted to considering only the extent to which the design of the works complies with the requirements of Part B (Fire) of the Second Schedule to the Building Regulations.

In this case, the appellant is relying on compliance with the recommendations of TGDB as a means of demonstrating compliance with Part B. Under the Introduction section of TGDB, it states *“where works are carried out in accordance with the guidance in this document, this will, prima facie, indicate compliance with Part B of the Second Schedule of the Building Regulations”*.

Section 1.1 of TGDB references a number of alternative guidance documents suitable for use for design of means of escape, but nursing homes are not included in these references, so Section 1 of TGDB can be taken as appropriate guidance in respect of prima facie compliance with Part B1 in this case. In general, Sections 2, 3, 4 and 5 of TGDB are relevant references in terms of prima facie compliance with Parts B2, B3, B4 and B5. None of these sections have a recommendation for the provision of sprinkler systems in a nursing home premises (except in the case of much taller buildings, generally in excess of 30m to top floor level).

The recommendations in TGDB are issued as statutory guidance, under Article 7 of the Building Regulations, in support of compliance with Part B of the Building Regulations, providing prima facie evidence of compliance. Alternative recommendations, as referenced from TGDB, can also reasonably be taken as prima facie evidence of compliance e.g. relevant recommendations from BS5588: Part 1 in respect of means of escape design for flats. Alternative guidance is also allowable, provided it can be demonstrated by the applicant that it is relevant to the situation and provides adequate measures to meet the functional requirements of Part B.

It is considered to be a different matter where additional requirements are set by a Building Control Authority that go beyond what the statutory guidance recommends as sufficient, prima facie, to meet the functional requirements. In this particular case, the Fire Safety Certificate was refused on the basis that the applicant, although compliant with the recommendations of TGDB, was not willing to comply with additional requirements set by DCC.

The relevant 'policy document' does not appear to have been issued by DCC (or in fact issued at all), but exists as an 'in-house policy document' within Dublin Fire Brigade (which carries out technical assessment of Fire Safety Certificate applications within DCC, the Building Control Authority in this case).

DCC have stated (through the submission provided by DFB) that they have concerns regarding the effectiveness of passive fire protection measures within nursing homes, and, in anticipation of possible new guidance in an updated TGDB expected to be issued in the future, are requiring new nursing homes and major extensions of same to have sprinkler systems installed.

Such recommendations have been flagged by the DoELG for a revised TGDB, but there is no certainty they will be introduced following public consultation.

Nonetheless, it is not considered appropriate that DCC should, in effect, set requirements (without a statutory basis) that go beyond the recommendations set out in the current TGDB, which do have a statutory basis, as the issue of such guidance would appear to be reserved to the relevant government Minister/Department under Article 7 as noted above. In doing so, they are in effect stating that compliance with the recommendations of TGDB is no longer accepted as prima facie evidence of compliance with Part B.

In any case, any recommendations issued in respect of compliance with Part B should be consistent across all Building Control Authorities; it would not be reasonable to have different standards applied, say, to a nursing home on one side of a street that may be within Dublin City and another nearby that might be in Fingal, or between other adjoining counties.

The 'in-house policy document' itself is unclear as to the type of system required. Item 2 references a BS9251 residential sprinkler system (which normally requires a water supply for 30 minutes), to be complemented by the life safety requirements from a BS EN 12845 commercial sprinkler system with a 60 minute water supply. It is unclear whether the mixing of systems to two different standards in this way is compatible, and whether they could be properly certified under either standard.

On the basis of the above considerations, the Building Control Authority should be directed to grant the Fire Safety Certificate, without conditions.

4.0 CONCLUSIONS:

The Fire Safety Certificate should be granted, without conditions.

5.0 REASONS and CONSIDERATIONS:

Having regard to the submissions made in connection with the Fire Safety Certificate application and the appeal, the type of use of the building (as a nursing home), the obligations on the Building Control Authority under Article 15 of the Building Control Regulations (Consideration of application) and the imposition of requirements in excess of the recommendations in Technical Guidance Document B (relied on by the applicant as prima facie evidence of compliance with Part B (Fire) of the Second Schedule to the Building Regulations 1997-2014), it is considered that the Building Control Authority should issue a grant of a Fire Safety Certificate without conditions.

Signed by:

COLM TRAYNOR BE FIEI Chartered Engineer

Date: 2nd Aug 2016