

Date: 06/09/99

Ref: 45/1/166

Note: The following letter was issued by our former department, the Department for Environment, Transport and the Regions (DETR). DETR is now Communities and Local Government - all references in the text to DETR now refer to Communities and Local Government.

Building Act 1984 - Section 16(10)(A)

Determination of compliance with Requirement B3 (Internal Fire Spread (Structure)) of the *Building Regulations 1991 (as amended)* in respect of the installation of an additional accommodation staircase to a further storey

3. In making the following determination, the Secretary of State has not considered whether the plans conform to any other relevant requirements.

The proposed work

4. The building to which the proposed building work relates is an existing two storey retail unit situated in the basement and ground floors of a larger, six storey (including basement), building. The basement of the unit is used for the storage and display of clothes, whilst the ground floor is used for retail purposes. The basement and ground floors each have a floor area of approximately 172 square metres and are connected by means of an open staircase. It is not clear from your drawings if the basement does have access to a protected stair. The unit is at present fully compartmented from the remainder of the building.

5. Your client is now proposing to expand the unit to incorporate part of the first floor accommodation. Although the plans are not entirely clear, it appears that occupancy of the first floor will comprise approximately 96 square metres of converted retail space to the front of the building and 243 square metres of existing office space to the rear. Both these areas have access to protected stairs.

6. The proposed work comprises the installation of an open steel accommodation staircase to connect the ground floor to the front area of the first floor. The new stairway is not to be provided with any fire separation between the ground floor and first floor. It is unclear from the drawings whether any fire separation exists between the proposed new first floor retail area and the existing offices which are incorporated into the first floor accommodation. It is also unclear from the drawings whether there is any fire separation between your clients accommodation on the first floor and the other accommodation retained in other ownership on the first floor.

7. The proposals for the ground to first floor accommodation stairway and the associated partition alterations were the subject of two full plans applications. The first was rejected by the City Council on grounds, inter alia, of non-compliance with Requirement B3 (Internal fire spread (structure)) of the Building Regulations 1991. The rejection notice attached the suggested options of either compartmenting the basement or enclosing the proposed staircase between the ground and first floors to form a fire resisting shaft of 60 minutes rating. Your second application was again rejected on the basis of non-compliance with Requirement B3. This rejection notice suggested that you might wish to consider enclosing the existing basement stair in order to create a protected shaft.

8. The Council considers that because the basement and ground floors form a single fire compartment, the installation of an open staircase from ground to first floor level creates the conditions where a fire in the basement could rapidly spread unchecked through the ground floor to the first floor. The Council therefore does not accept that the proposed work would be in compliance with Requirement B3 unless compensatory fire resistance measures are installed. However, you believe that the proposed work does comply and it is in respect of this question that you have applied for this determination.

The applicant's case

9. You confirm that this retail unit as existing (ie comprising the basement and ground floors only) is fully compartmented from the remainder of the building. You contend that the purpose of a compartment floor over a basement is to contain any possible fire outbreak within the basement, thus preventing fire spread, and assisting the fire brigades fire fighting operations. You point out that prior to the 1991 Building Regulations, a basement under 200 square metres in floor area did not need to be separated from the remainder of the building by means of a compartment floor and that this accounts for the approval of your clients premises. You contend that there are many hundreds of such similar basements throughout the UK.

10. You point out that the 1992 edition of *Approved Document B (Fire safety)* exempts the need for smoke and heat ventilation to be provided to a basement under 200 square metres in area, and that in your view this therefore demonstrates that a fire in such a small basement area does not present such a problem for fire fighting.

11. You consider that the provision of an accommodation staircase connecting the ground and first floor cannot possibly have any effect on the existing situation. On the other hand you do not dispute the City Council's view that if a fire were to start then it would be able to spread to the first floor. However, you state that compartmentation between upper floors is not a requirement of the Building Regulations in this particular instance which indicates, in your view, acceptance that fire spread above ground level can be adequately dealt with by the fire service.

12. You also point out that the floors within this building are concrete with good masonry compartmentation between tenants. The means of escape is good with short travel distances, and the building is fitted with a fire alarm system and emergency lighting. You state that there is no dispute with the City Council in respect of means of escape.

13. You point out that the City Council, within their two notices of rejection, considered that the basement should either be fully compartmented from the ground floor, or the staircase (between ground and basement) should be enclosed to form a protected shaft. You contend that neither of these options are required; but add that if the Department should consider otherwise then your client would prefer compartmentation at basement level only.

14. You conclude by stating that the openness of the two accommodation staircases in such a small retail outlet is deemed to be essential for a successful trading environment.

The City Council's case

15. The City Council have rejected your proposals on the grounds that the new staircase opening to the first floor is not provided with any fire separation from the basement/ground compartment below. The City Council consider that a fire in the basement could rapidly spread unchecked up through the ground floor to the first floor, thus making more difficult the bringing of any fire under control by the Fire Brigade.

16. The City Council, within their two notices of rejection, considered that either (i) the basement should be compartmented from the ground floor, or that the proposed stair between the ground and first floors should be enclosed to form a fire resisting shaft of 60 minutes rating; or (ii) the existing staircase (ie between the ground floor and basement) should be enclosed to form a protected shaft.

The Department's view

17. The Department considers that the primary concern in this instance is that of the possible internal fire spread which could occur between the basement, ground and first floor, via the two open accommodation staircases. The Department notes that the open accommodation stair arrangement between the basement and ground floor existed before the application of the *Building Regulations 1991*, and that it would not now meet the current guidance regarding provision of compartment floors above basements contained within paragraph 8.18 (c) - B3 (Internal fire spread (structure)) of *Approved Document B*. This paragraph recommends that a floor above a basement - as in this particular instance - should be constructed as a compartment floor. In this particular case the floor is not so constructed; and what therefore needs to be considered is whether or not the provision of a new accommodation stair between the ground and first floor will make the existing situation worse with regard to internal fire spread within the premises.

18. The Department notes your comments with regard to the guidance within section B5 (Access and facilities for the fire service) of *Approved Document B* referring to the fact that small basements - ie those under 200 square metres - need not be provided with smoke/heat ventilation. Although technically correct, this particular guidance refers specifically to a Requirement B5 issue, not to Requirement B3 issues. In the Department's view the fact remains that if a fire were to occur within the basement then it would be highly likely that any products of combustion would quickly spread via the open accommodation stairs to both ground and first floors.

19. The Department notes that you do not consider that the provision of an accommodation stair between the ground and first floor would have an adverse affect on the existing situation. However, you go on to state that you do not disagree with the City Council's view that a fire starting in the basement or the ground floor would be able to spread up to the first floor. Nevertheless, you argue that there is no need under the Building Regulations for the upper floors in a building such as this to be compartmented and therefore you consider the regulations accept the fact that fire spread above ground level can be adequately dealt with by the fire service.

20. The Department concurs with the opinion that if the proposed new accommodation stair were installed and a fire were to occur within the basement, then it could spread very quickly to the first floor. In defence of your proposal you correctly point out that the guidance provided in *Approved Document B* would not, in the circumstances you describe, require the upper floors to be compartment floors - in fact it only necessitates the floor area on any one compartment within this type of building to be no larger than 2000 square metres. However, this guidance is based on the assumption that any basement will be compartmented and the fact remains that in this particular instance the existing basement is not compartmented.

21. The Department therefore agrees with the City Council's view that the provision of a new accommodation stair between ground and first floor would worsen the situation with regard to internal fire spread. The Department considers that if a fire were to occur within the basement of the retail unit as it currently exists, it would eventually spread up to and affect the associated ground floor; but that the compartmentation to the first floor would, at least initially, prevent its spread to the rest of the building. However, if the proposed additional accommodation stair were to be provided between the ground and first floor, then a fire starting in the basement could quickly spread to the first floor retail area, via the ground floor; and from there potentially into the adjacent associated first floor office space which, from your drawings, appears un-compartmented from the retail unit itself.

22. Having regard to the fact that there is already an existing open accommodation stair serving the basement storey, in the Department's opinion your proposal to provide an open accommodation stair between the ground and first floor would therefore not be in compliance with Requirement B3. In coming to this view the Department has noted that you state that a fire alarm system is provided within the building, but that you have made no

mention of the provision of automatic fire detection or sprinklers to the existing sales areas - additional precautions which could be considered as compensatory in this instance.

23. In addition, the Department has noted that the existing associated first floor office accommodation appears to be too large to be considered ancillary to the commercial purpose group, pertaining to the revised open retail unit which you propose; and no mention has been made of the fire separation, if any, which is to be provided between these different uses / purpose groups. It is therefore the Department's opinion that in order to provide for the installation of a new accommodation stair between the ground and the first floor, then the existing basement should be compartmented from the rest of the unit by means of fire resisting construction positioned at the basement level.

The determination

24. The Secretary of State has given careful consideration to the particular circumstances of this case and the arguments put forward by both parties. He has concluded, and hereby determines, that your proposals to construct an accommodation stairway between the ground and first floor of the enlarged retail unit do not comply with Requirement B3 (Internal fire spread (structure)) of Schedule 1 to the *Building Regulations 1991 (as amended)*.