

DETERMINATION OF COMPLIANCE WITH REQUIREMENT B1 (MEANS OF WARNING AND ESCAPE) IN PART B (FIRE SAFETY) OF SCHEDULE 1 TO THE BUILDING REGULATIONS 2000 (AS AMENDED), IN RESPECT OF A ROOF/LOFT CONVERSION

The proposed work and question arising

4. The papers submitted indicate that the building to which this determination relates is a three storey town house in a conservation area containing: two bedrooms (one en-suite) and a bathroom on the second floor; a lounge, study and toilet on the first floor; and a kitchen/diner, hallway, toilet and garage on the ground floor. The proposed building work comprises the conversion of the existing roof/loft space to create a new third floor (fourth storey) and provide an additional en-suite bedroom. The proposed four storey house would have two floors more than 4.5m above ground level, with the top storey more than 7.5m above ground level.

5. The above proposed work was the subject of a full plans application deposited with the Council on 8 March 2010. The Council responded in an undated letter which you received on 12 May 2010 referring to the guidance in Approved Document B (Fire safety, Volume 1 - Dwellinghouses, 2006 edition), relating to dwellinghouses with more than one floor over 4.5m above ground level, and requesting further information. From the papers provided it is not clear whether a formal decision was made to pass or reject your plans, but the Council's letter to the Department states that in its view your proposals do not comply with Requirement B1 (Means of warning and escape) in Part B (Fire Safety) of Schedule to 1 to the Building Regulations 2000 (as amended). However, as you consider that your proposals provide adequate provision for warning and safe escape, you have applied to the Secretary of State for a determination in respect of this question.

The applicant's case

6. You state that you were informed by the Council prior to submitting your full plans application that the current guidance in Approved Document B details certain provisions for dwellinghouses with more than one floor over 4.5m above ground level, i.e. either an alternative escape route via an additional protected stairway or a sprinkler system would need to be installed throughout the house. However, you add that you were "informally" advised to seek a determination on your proposals from the Secretary of State.

7. You enclosed a copy of a 'method statement' with your letter of 18 May 2010 which provides details of the proposed building work, in particular the fire safety provisions, and sets out your case for compliance with Requirement B1, briefly as follows:

- (a) A pair of double glazed roof/skylights will be installed on the rear slope of the building with the bottom one positioned to provide an egress window from the proposed third floor.

- (b) Access to the proposed third floor will be provided by extending the existing protected stairway, ensuring that the stair enclosure is protected by a minimum 30 minutes fire resisting construction.
- (c) All the existing doors to habitable rooms and the proposed new door into the new bedroom on the third floor are/will be 30 minutes fire resistant, with smoke or intumescent seals fitted.
- (d) A mains operated automatic fire detection and alarm system will be installed, comprising of interlinked detectors in all habitable rooms and landing/circulation areas, with battery back-up. Heat detectors will be installed in the garage and in the kitchen cooking area on the ground floor and a smoke detector in the dining area.
- (e) All existing habitable rooms have adequate egress windows/doors to both front and rear elevations which can be reached by ladders with extensions from the front and back of the house.
- (f) With regard to the guidance in Approved Document B relating to dwellinghouses with more than one floor over 4.5m above ground level, you are of the opinion that planning permission for an external fire escape would be unlikely to be approved for a house in a standard urban suburb, let alone a conservation area as in this case, and the provision of a sprinkler system would be too onerous and difficult to install and manage in a family dwelling environment.

8. You summarise your method statement with your view that the above proposed fire safety provisions provide adequate compensation to allow for the omission of an alternative means of escape from the proposed third floor and add that “it is fully conceivable” that the occupants of this floor could be rescued by the Fire Service.

The Council’s case

9. To support its view that the proposed building work does not comply with Requirement B1 of the Building Regulations, the Council refers to paragraph 2.7 of Approved Document B, which states that:

“Where a dwellinghouse has two or more storeys with floors more than 4.5m above ground level (typically a dwellinghouse of four or more storeys) then, in addition to meeting the provisions in paragraph 2.6:

- a. an alternative escape route should be provided from each storey or level situated 7.5m or more above ground level. Where the access to the alternative escape route is via:
 - i. the protected stairway to an upper storey; or
 - ii. a landing within the protected stairway enclosure to an alternative escape route on the same storey; then

- iii. the protected stairway at or about 7.5m above ground level should be separated from the lower storeys or levels by fire resisting construction, see Diagram 3; or

b. the dwellinghouse should be fitted throughout with a sprinkler system designed and installed in accordance with BS 9251:2005”.

10. The Council considers that your proposals do not accord with the above guidance and are only your suggested compensatory features. The Council acknowledges the point raised that the installation of a mains operated interlinked smoke detection system has been referenced in a similar previous appeal case prior to the 2006 edition of Approved Document B, cited in support of your proposals, but observes that the current guidance indicates that an appropriate sprinkler system is now the considered acceptable compensatory feature to the provision of an alternative escape route.

11. The Council notes that the proposed third floor will have travel distances in excess of 13.5m, and the occupants will be required to descend three flights of stairs to reach the final exit. In the Council's opinion, the time taken to exit from the new floor may allow the stairway to become smoke-logged and the untenable conditions would prevent escape.

12. The Council argues therefore that there is still a need to provide an alternative means of escape from the top floor in accordance with paragraph 2.7a. of Approved Document B, or the house should be fitted throughout with a sprinkler system designed and installed to BS 9251:2005 in accordance with paragraph 2.7b.

The Secretary of State's consideration

13. The Secretary of State has given careful consideration to the circumstances of this case and the arguments presented by both parties. He notes that in this particular case the main consideration is the safety of the occupants of the converted roof/loft space (i.e. a new third floor) if a fire occurs at a lower level.

14. The Council states that an alternative escape route should be provided from each storey or level situated 7.5m or more above ground level, or a sprinkler system should be fitted throughout the house in accordance with BS 9251:2005, as detailed in the current guidance in Approved Document B. However, you are of the opinion that planning permission for an external fire escape is unlikely to be approved for a house in a standard urban suburb, let alone a conservation area as in this case. You also consider that a sprinkler system would be too onerous and difficult to install and manage in a family dwelling environment.

15. You have instead proposed a package of features intended to compensate for the omission of the additional escape route. The package includes egress windows to the proposed third floor, 30 minute protected stairway and an enhanced mains operated automatic fire detection and alarm system.

16. The Secretary of State considers the means of escape for a traditional three storey house as relatively straightforward. However, he is of the opinion that

additional measures, such as those described in Approved Document B, are necessary for floors in houses more than 7.5m above ground level to address the increased risk of the occupants of a floor becoming trapped at this level. As the Council indicates, the increased risk is due to the additional time it will take to travel down the stairway, but also the reluctance of the occupants to use an escape route which may be becoming obscured by smoke. Furthermore, when increasing the height more complex provisions are needed because emergency egress through upper windows becomes increasingly hazardous.

17. The Secretary of State notes that in this case you are proposing an approach for means of escape in case of fire which relies, in part, on external rescue. He takes the view that where a three storey house is converted into effectively a four storey house then the same or similar level of provision to that of a three storey house would not generally be acceptable.

18. As the top storey in this case will be more than 7.5m above ground level, it will be of a height not considered to be safe for people to make their own escape from windows. Whilst rescue by the Fire Service may be possible from a window at this height as you suggest, it would be inappropriate to make the assumption that rescue at such a height could be guaranteed and this should not be a material consideration for achieving compliance with Requirement B1 of the Building Regulations. The Secretary of State considers that to ensure the occupants of the proposed third storey have reasonable provision for means of escape, additional measures should be provided – such as an alternative escape route or fire suppression by sprinkler protection throughout the building. As such, a design which partly relies on external rescue is not considered to be adequate in this case.

19. It should be noted that each individual determination and appeal case is assessed by the Secretary of State on its own merits, given the particular circumstances of the proposals. Building Regulations only apply at the time when building work takes place. The fact that an approach may have been considered reasonable in the past, as you have apparently suggested to the Council, is not in regulatory terms sufficient in itself as a justification for it to remain acceptable. Approved Documents provide practical guidance on achieving compliance with parts of the Building Regulations and are essentially a statement of what is considered to be reasonable at the time they are issued and it is inevitable that what is considered reasonable will change with time.

20. Whilst the Secretary of State recognises your proposals have gone some way in attempting to mitigate the omission of an alternative escape route, in particular by the inclusion of a fully protected stairway extending from the proposed third floor to the final exit and an enhanced mains operated automatic fire detection and alarm system, he does not feel that the measures proposed represent compliance with Requirement B1. In his view, such provisions would not be capable of adequately compensating for an inadequate means of escape, nor does he accept planning constraints or potential disruption caused by a sprinkler installation as material considerations.

The determination

21. As indicated above, the Secretary of State considers that your proposals, as submitted, do not make appropriate provision for means of escape in case of fire from the proposed third floor. He has therefore concluded and hereby determines that the plans of your proposed building work do not comply with Requirement B1 (Means of warning and escape) in Part B (Fire Safety) of Schedule 1 to the Building Regulations 2000 (as amended).

22. Please note that in the application of building regulations to the proposed building work, it is relevant when that work begins. Where the work - which as in your case is the subject of full plans deposited with the Council before 1 October 2010 - is started before 1 October 2011 the Building Regulations 2000 (as amended) will apply and the Secretary of State has made his determination on this basis. But if the work is started after that date, the Building Regulations 2010 (which came into force on 1 October 2010) will apply instead. However, currently there is no difference in practice as the substantive provisions have not changed.

23. Please also note that the Secretary of State has no further jurisdiction in this case and that any matters that follow should be taken up with the building control body.