APPROVED

Fire Precaution Works to Historic Buildings

SPG BH note 19

supplementary planning guidance

What is an SPG?

A Supplementary Planning Guidance Note (SPG) is one of the material considerations that can be taken into account when determining a planning application. It is intended to provide helpful guidance for the developer, consistent with the provisions of the Local Plan. This SPG Note is one of a series produced Brighton & Hove City Council and it is to be read in conjunction with the Brighton and Hove Local Plan. It is intended to supplement policies HE1, HE 6 and HE10. This SPG is also based on the guidance contained in the Government's Planning Policy Advice Note PPG15 – Planning and the Historic Environment. This SPG was approved by the council's Environment Committee at its meeting of1st July 2004 following a period of public consultation.

Introduction

Historic buildings are vulnerable to fire, particularly those in multiple occupation, and fire is a threat to both human life and our architectural heritage. The council will therefore use its powers under the Building Regulations and Housing Act to ensure that such vulnerability is addressed by measures to both resist the spread of fire and to protect safe escape routes through and from buildings. However, such measures will often require listed building consent and/or planning permission, and conflicts can arise between the precautionary requirements and the need to preserve the special architectural or historic character of listed buildings and buildings within conservation areas. The cumulative effect of a large number of minor alterations can result in a serious loss of character to an historic building.

This SPG Note explains the council's policies and guidelines for fire precaution works affecting historic buildings; advises on the type of works requiring consent; and sets out how such works may be incorporated without significantly harming the special character of these buildings. It is particularly aimed at buildings in residential use but some of the guidance will be more widely applicable. The advice given generally conforms to the Building Regulations and Housing Act requirements but there may be some cases where a different approach is necessary and in such cases early consultation with a Conservation Officer and officers from Building Control and/or Private Sector Housing is recommended to ensure that the approach taken satisfies both conservation and fire safety requirements.

General Principles

The general principles for historic buildings are that alterations should: cause the minimum amount of intervention in the historic fabric; should take proper account of the way historic buildings were

designed and constructed; should be carried out in an appropriate and compatible manner; and should, as far as possible, be reversible.

Where these criteria cannot be met and the special character of a listed building would not be preserved, Listed Building Consent will be refused. In such cases alternative methods of compliance such as enhanced detection systems should be investigated. In some cases, the use of a Fire Engineered solution prepared by consultant engineers may be an appropriate alternative to satisfy the Building Regulations and fire regulations. Often a less damaging solution can be found, but any fire precautions must adequately safeguard the occupants of the building. If an alternative acceptable solution cannot be achieved then, in exceptional cases, a different use for the building(s) may have to be considered.

Conversely, a scheme which offers a range of restoration works (e.g. removal of modern partitioning and lobbies, removal of overboarding from original panelled doors or removal of flush doors and reinstatement of panelled doors to match the originals) can be taken into account in considering the overall impact of the scheme on the character of the building.

The Need for Planning Permission and Listed Building Consent

Internal alterations to a listed building which affect its special character will require Listed Building Consent, irrespective of the grade of listing. In the case of fire precaution requirements, such works will normally require consent. The only exceptions will be minor works such as: fitting intumescent and cold smoke seals to doors or door sets; upgrading letter plates; painting doors with intumescent paint; altering modern flush doors; lining meter cupboards with fire-proof material; and replacing glazing in existing modern screens or partitions with fire resistant glass.

External alteration works to a listed building will normally require both Planning Permission and Listed Building Consent and both applications should be submitted simultaneously. Such works would include the erection, extension, alteration or removal of fire escape stairs, ladders, balconies or walkways; the creation of new exit doors; and the alteration of windows to form escape windows.

If there is any doubt as to whether works require consent you should consult a Conservation Officer at an early stage, as the carrying out of unauthorised works to a listed building is a criminal offence.

In the case of unlisted buildings within conservation areas, the external alterations referred to above would normally require Planning Permission, but no consent is required for internal works.

Information Required for Applications

Large scale detailed drawings will normally be required for Listed Building Consent applications and for Planning applications for external works to buildings in conservation areas. The application should include fully annotated floor plans at 1:50 scale of the existing layout and of the proposals, showing clearly the location and extent of proposed alterations, including which features are to be removed and which retained in situ.

Where the works involved are significant in scope the application should also include sample elevations at 1:20 scale showing the details of new lobbies, doors, escape windows, etc. These may need to be supported by 1:1 scale joinery and moulding details and large scale sections through floors/ceilings showing how their upgrading is to be achieved, if this involves more than the simple filling of floor/ceiling voids with fireproof matting. A statement justifying the extent of the works and the method(s) chosen should also be included and this statement must be based upon a clear understanding of the building's architectural and historic interest.

Where the works are comparatively minor in scope it may be acceptable to supplement the scale floor plans with a specification of works and supporting photographs of existing doors etc. The floor plans

included with Housing Act Notices are useful as additional information but are not acceptable as a substitute for proper scale floor plans.

An application for Planning Permission for external escape stairs, balconies and windows etc. will require a 1:50 scale elevational drawing showing the works in relation to the rest of the facade, as well as a floor plan showing their location on the building.

Smoke Lobbies

Smoke lobbies and/or screens are often required under the Building Regulations to contain the spread of fire and secure a protected means of escape, either within individual flats or within the communal stairway, although this is not always necessarily the case.

Lobbies and screens on stairway landings can block natural light to staircases and make for cramped landings which look mean and incongruous beside generous and well-proportioned flights of stairs. Where this would be the case, alternative and more sensitive methods of compliance should be investigated to achieve a Fire Engineered solution. However, on spacious landings such a lobby arrangement may be the better way to preserve the proportion and detail of important rooms. Where a lobby in a stairway or communal hallway is unavoidable, it should be kept clear of features such as decorative arches etc. and be well related to the floor plan. Sometimes a moulded framed timber screen with solid lower panels and fire resistant glazing to the upper panels may be the right approach; in other cases a solid partition wall with a solid timber door may be preferable.

The sub-division of rooms by the insertion of smoke lobbies is similarly not normally acceptable, as this spoils the proportions and plan form of a room. This is especially harmful to the original principal rooms. In the typical 18th and 19th century town houses of Brighton and Hove, these are usually the front rooms at the ground and first floors and often the rear ground and first floor rooms too, particularly where they are connected to the front rooms by arches and/or folding doors.

Where there is no alternative to smoke lobbies, they should be located in secondary rooms where possible, and care taken to avoid obstructing or disrupting important features, such as panelled folding doors between reception rooms, chimney breasts and fireplaces, architraves etc. The new partitioning should be cut around decorative features such as skirtings, dados, picture rails and cornices and any joints filled with an approved fire stopping method. The new work should be carefully matched in, including doors, architraves, dados, picture rails, cornices, etc. Sometimes where there are ornate cornices it is better not to carry the partitioning right up to the ceiling but to terminate it at picture rail level and run new matching picture railing around the top.

Smoke lobbies and screens will always require Listed Building Consent.

Walls and Ceilings

There are various options where walls or ceilings need upgrading, and solutions should be found which avoid or minimise removal, disruption or covering over of skirting boards, panelling, tongue and groove boarding, dados, picture rails, cornices, ceiling roses etc. In some cases this can be done by the application of intumescent veneers. Where more extensive measures are unavoidable, such as removing lathe and plaster and filling stud walls with fire proof matting and /or cladding with additional layers of plasterboard or fireproof boarding, this should be done on the plainest side of the wall. Any features should be carefully removed, set aside and refixed on the new surfaces to maintain the proportions of these features in relation to the plane of the wall. Any features that are damaged or cannot be removed must be recreated to exactly match the originals.

Where timber panelled or boarded partition walls exist in hallways or other escape routes, the panelling will need to have a fire retardant finish applied. Where this is not sufficient under the Building

Regulations it may have to be clad with fireproof boarding and in such cases this should be done on the least important side (e.g. on the inside face of under stairs areas). Where both sides are important (e.g. between a staircase and a principal room), the panelling or boarding should be recreated on top of the fireproof boarding but a fire retardant finish may still be required.

Suspended ceilings are rarely appropriate in listed buildings as they harm the original room proportions, reduce the spaciousness of rooms and conceal original decorative features. In rooms with plain ceilings (e.g. basements or attic rooms) suspended ceilings of matching finish may be an acceptable option, provided that there is sufficient headroom and adequate clearance above window heads (and provided that the original ceiling is itself in good condition). Pelmet recesses are not visually acceptable though. Alternatively in such cases, plasterboard or fireproof boarding can be fixed to the ceiling without harm, provided that nailing is carefully done to minmise damage to the existing lathe and plaster.

Ceilings decorated with plasterwork cornices or roses, however, should be retained intact and an alternative method to overboarding used. One method involves carefully lifting the floor boards in the room above and gently laying mineral wool fireproof matting within floor/ceiling thickness and/or fixing fireproof boarding over the joists and relaying the floorboards. Original floorboards should always be retained, either on top of the new fireproof boarding or, if necessary, beneath a layer of plywood or hardboard. In rare cases this approach may not be acceptable, if the disruption to floors, skirtings and doors on the floor above is too great (*see figure 1 below*).

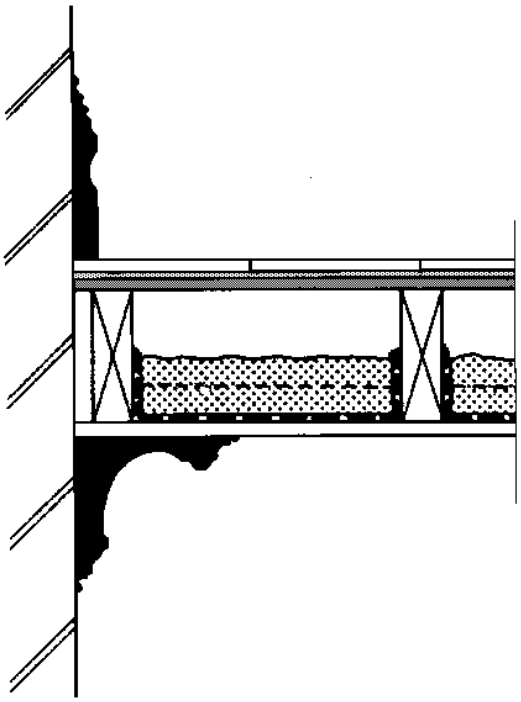


Figure 1

Section through floor / ceiling showing fire resistant matting incorporated into the void without disturbance to existing ceiling and cornice and with skirting refixed.

Intumescent membranes have been and are being developed to improve the fire resistance performance of lath and plaster ceilings. Membranes as thin as 2mm are available which bond to the underside of the existing plaster using special adhesive. This option should always be investigated where ornate plaster ceilings require upgrading.

The use of intumescent paints or veneers to upgrade plastered walls and ceilings will not normally require Listed Building Consent. Where fireproofing of floors can be achieved in the existing floor/ceiling voids without changing their depth or disrupting features, consent is similarly not required. In all other cases consent is likely to be required.

Glazing

Where original glazed fanlights require upgrading, this should be carried out using plain, unwired fire resisting glass. Sometimes window openings in internal walls, giving borrowed light onto staircases, landings and corridors, need to be upgraded. Where these windows are later alterations of no architectural or historic interest, they may be removed and suitably infilled. In other cases, secondary glazing with "Georgian" wired glass may be an acceptable solution. However, if the borrowed lights are historic stained glass a form of secondary glazing in plain fire resisting glass, fixed on the least important side, may be the best solution. This would, though, require consent.

Fire Doors

Wherever possible original doors should be retained and sensitively upgraded to TRADA standards to provide the necessary half-hour fire resistance. On each floor of a typical listed building there will be variations in the size and detailing of doors and these variations should be respected. Original panelled doors on the ground and first floors (and sometimes other floors too) are often at least 45mm thick and only the panels will need upgrading. In these cases the upgrading may be achieved by use of intumescent paints and/or applying intumescent veneers on the faces of panels, and fitting intumescent strips and cold smoke seals rebated into the edges of doors. Intumescent paint is available in a range of colours and is not affected by overpainting, except where the number of new coats is excessive. Where recessed panels are plain, the panels can be overboarded with slim fire resisting board (such as calcium silicate or glass reinforced gypsum) and the panel mouldings refixed. The exact method will depend upon the type and thickness of the panel. Where the doors open onto a stairway or commonway the upgrading should normally be done on the room side (*see figure 2 on last page*).

Where original doors are less than 45mm thick they can in some cases be built up to the required thickness on the room side, recreating the moulding details, or split and sandwiched with a layer of fireproof material. In other cases, or where an hour fire resistance is required, it will be necessary to replace the doors with new fire resisting doors purpose made to be exactly the same size, proportions and design as the originals, including moulding profiles. Original doors which are too thin to be upgraded can also be reused where half hour fire resistance is not required, e.g. for bathrooms / shower rooms.

Self-closing mechanisms fitted to original panelled doors should normally be of the concealed mortice type, which are set within the thickness of the door and frame (subject to careful placing to protect the integrity of the door). Surface mounted door closers look unsightly and can damage the architraves.

Where a listed interior is much altered and has already lost its original panelled doors, it will be acceptable for new doors to be standard panelled fire doors, which are widely available. Plain flush doors are not acceptable. Unusual or very old doors (e.g. veneered or ledged and braced doors) will require specific solutions and the advice of a Conservation Officer should be sought at an early stage.

It must be stressed that this is only general advice and each case must be agreed on its merits, having regard to both conservation and fire safety. The structural condition of existing doors will be an essential consideration in this respect. Further technical advice on upgrading doors is available in a publication from English Heritage.

Intumescent paints, veneers and strips and concealed self-closing mechanisms will not normally require Listed Building Consent but all other alterations will do so.

Electrical Installations

The cumulative impact of electrical installations for emergency lighting, fire alarms and smoke/heat detectors can seriously disfigure a listed interior. Careful planning of electrical systems, however, can avoid many technical and visual problems.

Where cabling has to be fitted it should normally be run behind skirting boards and architraves, within floor and ceiling voids, behind lathe and plaster on studs, or chased into solid walls and the walls made good. Exceptions to this rule may be made in respect of buildings with historic tiled floors or walls or where a solid stone staircase rises up the building. Where fire alarm cable runs cannot be concealed, or doing so would cause unacceptable disruption to the fabric and features of the building, radio-controlled fire alarms can be used, which avoid the need for cable connections. The council may insist upon a radio-controlled system where an interior is particularly decorative.

In those cases where cabling has to be surface mounted, this should be carried out as neatly and unobtrusively as possible and cable runs should be minimised wherever possible. Where only one or two cables are involved, sheathed core cabling should be used, rather than ordinary cabling in large plastic conduits. Where large numbers of cables are involved, encasing these in square or rectangular trunking may be more appropriate. Surface mounted round trunking is not normally acceptable. The cabling should not be run across open expanses of walls and ceilings but should be fitted in corners of rooms and run along skirtings, dado rails, architraves or cornices, so as to be as neat and unobtrusive as possible, and painted to match in.

Fittings such as switches, break-glass call points, lights, alarm bells and smoke detectors etc. should also be fitted as sensitively and unobtrusively as possible without harming efficiency of operation, and should avoid disrupting or concealing decorative features. As far as possible, they should not be randomly scattered on walls and ceilings, but located in discreet positions in corners and recesses, or in the case of alarm call-points, alongside existing light switches. Where fittings cannot be tucked away in corners for reasons of efficient practical operation, centring them above doors may be more appropriate. Control panels should also be located discreetly and the most appropriate location will normally be just inside the main entrance, avoiding any dado rail moulding, or alongside or inside existing meter cupboards. They should not, though, be fitted onto decorative wall tiling.

External cabling should be confined to rear elevations only (not visible from the street) and should be run unobtrusively in corners or behind downpipes. Any trunking should be coloured to match the elevation but in the case of brick elevations copper sheath wiring may be less obtrusive.

The installation of fire alarm and emergency lighting systems will require Listed Building Consent unless all wiring /cabling is to be concealed and no decorative features would be affected by the various fittings.

Sprinkler Systems

In some cases the installation of sprinklers as part of a fire protection system may be useful or required. The use of sprinklers in residential premises is still in its infancy and anyone considering installing them should obtain specific advice from Private Sector Housing, Building Control and Conservation officers at the earliest possible stage. The installation of a sprinkler system in a listed building is likely to have significant implications for the character and historic fabric of the building, due to the need for the necessary pipe work, sprinkler heads and pressurised tanks. Possible water damage would also be a material consideration.

The installation of sprinklers would always require Listed Building Consent.

Fire Escape Stairs and Balconies

The council will discourage new fire escape stairs, ladders or balconies on historic buildings in favour of an internal protected means of escape. Steel fire escapes are not only visually obtrusive but also expensive to maintain and potentially damaging to the fabric of the building. External escape stairs are not acceptable on street elevations or other important elevations in the street scene. Where proposed alterations, extensions or change of use would require a new external means of escape to satisfy Building Regulations, consent is likely to be refused for such alterations, extensions or change of use.

However, where an internal route is impractical, or would be too damaging to the character of the building, an external fire escape or link balcony may be acceptable if out of public view, discreetly sited and of a size, colour and design appropriate to its setting. In such cases they should not obscure or disrupt the architectural features of the building's elevation, such as windows and mouldings. Landings should be kept to the minimum size necessary. Where the building is painted, they should be painted to match, but where the elevation is unpainted render or facing brick they should normally be painted black. There may also be planning amenity issues involved, such as the effect of the proposal on other flats in the same building or on adjacent buildings, in terms of loss of daylight and sunlight, or causing a poor visual outlook or sense of enclosure.

Planning applications for the removal of redundant fire escapes will be welcomed, provided that this has been fully and jointly agreed by Building Control and Private Sector Housing officers. In such cases care should be taken to ensure that all redundant fixings are also removed and all brickwork and/or render made good in matching materials.

External Fire Escape Doors and Windows

Where new fire escape doors or windows are required, these should be carefully related to the existing pattern and rhythm of window/door openings and match them in size, proportions, detailing and materials. Where they would disrupt that pattern they will not be permitted. It is possible to obtain traditional vertical sliding sash windows from specialist joiners which also function as hinged outward opening escapes for emergencies. Where a window opening has to be adapted for use as an escape exit it should match the original window design, including pane subdivisions and glazing bar widths. Existing sash windows can be adapted so that the bottom sashes are hinged to swing inwards in emergencies.

Definitions

For the purposes of this SPG Note a historic building is defined as:

I. A building included on the statutory lists of buildings of special architectural interest for Brighton and Hove; and /or

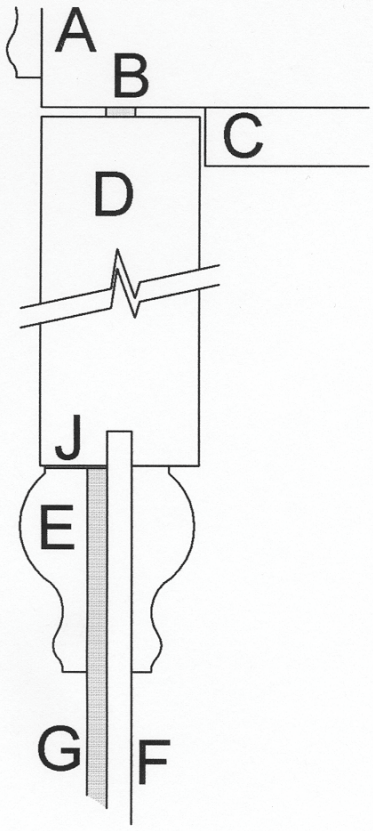
II. A building situated within a conservation area; and / or

III. A building of local architectural or historic interest and which is referred to as a material consideration in either the former Brighton Borough Plan or the former Hove Borough Local Plan.

Related Publications

Further advice on listed building policy can be found in the Brighton & Hove City Council publications SPGBH 13 "Listed Buildings – General Advice" and SPGBH 11 "Listed Building Interiors".

Further technical guidance can be found in the English Heritage publications "Timber panelled doors and fire" and "The use of intumescent products in historic buildings".



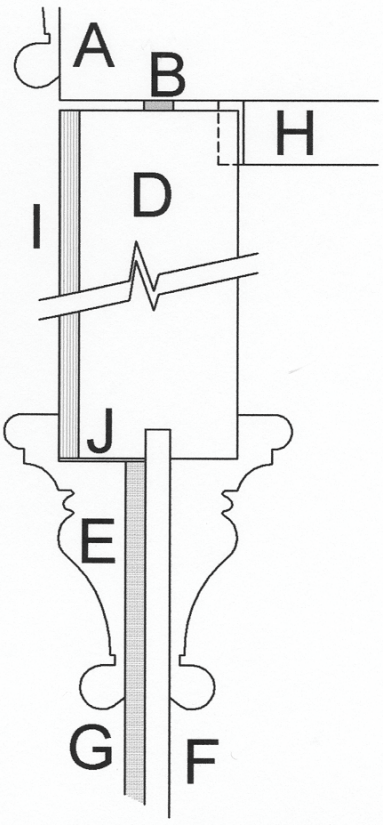


Figure 2

Examples of typical moulded panel doors upgraded to provide ½ hour fire resistance.

A. Door frame.

B. Intumescent strip and cold smoke seal.

C. Doorstop to be a minimum of 12mm thick.

D. Door stile.

E. Mouldings removed and subsequently refixed.

F. Existing Panel. (In good condition and of minimum thickness requirements).

G. Smooth ½ hour fire resisting board. Securely screwed to panels and stiles.

H. Doorstop repositioned. (See also note C above).

I. Plywood planted to simulate door stile.

J. Intumescent sealant.