Northumberland Hall

Alterations to Existing Building.

Bailiffgate Museum & Gallery, Alnwick.

FIRE COMPLIANCE REPORT
REVISION 01 – Jan 2025

Tony Scott – Fire Safety Diploma

1 Table of Contents

2 List of Figures and Tables

3 Version Control

Revision	Date	Description	Prepared	Reviewed	Approved
00	12-24	Fire Compliance Report - Draft	TS		
01	01-25	Fire Compliance Report - Final	TS	IG	WF
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Authorised by					

Disclaimer

Where the building is a new construction project, this report only relates to the statutory requirements for Building Regulation compliance. Where the building is an existing building, the report relates to the statutory requirements for the effective management of fire safety by designated persons.

Where the building to which this report relates involves a combination of a construction project as part of an existing building undergoing a material alteration for which Building Regulation approval is required, the report considers necessary guidance that is applicable for each area.

This report relates only to statutory requirements for Building Regulations compliance. Additional fire safety measures may be necessary for insurance and other purposes. Where no reference is made within this report to a certain element, all detailed aspects of the design and construction will, unless explicitly stated otherwise in this report, be in accordance with the recommendations of the selected design guidance and any appropriate approved documents and associated British Standards.

The validity of this report is dependent upon the recommendations being implemented in full and as described. This report is based on the Client's description of their requirements and is subject to assumptions that ProFire can reasonably be expected to make in accordance with sound professional principles and experience. ProFire accept no liability for the accuracy of the information provided by the Client or other third parties. ProFire shall not be held responsible or liable for the designs produced by any other consultants, sub-consultants or sub-contractors, including any original designs produced by others which you may adapt, modify or develop in the carrying out of the services. The report is based on the drawings referenced. Any subsequent changes to the design which are not agreed with ProFire invalidate the report.

This report relates to a project that is subject to review from approval authorities. It should be ensured that the contents of the report are agreed with all the relevant approval bodies prior to implementation.

4 Executive Summary

4.1 Introductory comment

4.1.1 This compliance report has examined the proposed fire strategy, the document is specifically tailored to reviewing and outlining the fire principles to the design team and to assist in developing the scheme for site delivery. The report will be used at the RIBA stage 3 level to evaluate the fire safety design and to identify any issues which are likely to require further exploration / engineered analysis prior to construction phase.

4.1.2 Building Regulations (7) are intended to ensure that building works achieve a reasonable life safety standard. In practice, this means that a building's fire safety measures needs to ensure all occupants can evacuate safely. The legal requirement for life safety provision is for building designers to comply with Building Regulations.

4.1.3 The compliance report will examine and provide comment in line with the standard design principles of AD-B (9). Where Part B applies to existing buildings, particularly buildings of special architectural or historic interest for which the guidance within AD-B might prove too restrictive, some variation of the provisions of AD-B may be appropriate. In such cases, it is appropriate to assess the hazard and risk in the particular case and consider a range of fire safety features in that context. It is likely that Northumberland Hall will be considered a building of historic interest as it is classified as a Grade I listed building therefore consideration has been made to that effect.

5 Existing Building

5.1 Existing Building Information

5.1.1 Built in 1826, the lower floor provided accommodation for butchers while the double height Assembly Room was used as the main assembly rooms for the Town. It was extended eastwards in 1830 to provide for a fish and butter market.

5.1.2 The ground floor arcade designed area currently provides space for small retail (3) units and public toilets. The ground floor accommodation is considered to be separate from the upper floor areas.

5.1.3 The first floor level is accessed via two staircases located diagrammatically opposite each other to the east and west elevations of the building. The West stair also provides access to a second floor level, the accommodation at second floor level is limited to office and WC provision. The East stair terminates at first floor level.

5.1.4 The main double height Assembly Hall is located at first floor level. To the East side of the first floor a Kitchen area has been provided. Toilets are located to the West side of the first floor. A single passenger lift is also located in this area. The Lift currently terminates at first floor level.

5.1.5 It is assumed that the initial building was not built to any modern building code but is likely to have been built in line with the building by-laws appropriate at the time of construction.

5.1.6 More recent works / alterations including material alterations were designed in accordance with the applicable guidance and regulations at the time of construction and, therefore, existing provisions should be adequate.

5.1.7 The building is constructed in line with the methods of that period from local materials including solid sandstone walls to the external façade which could be up to a thickness of 500mm.

5.1.8 The stairs are of concrete and stone construction.

5.1.9 Internally some partition walls may have been constructed from a modern method of construction using plasterboard lining to either a block or timer substrate.

5.1.10 For any new works or material alterations being undertaken, under the Building Regulations (7)a building owner is required to provide an adequate level of life safety to the building by providing suitable means of escape, means of warning to occupants of a fire, limiting internal fire spread, protecting adjacent property from fire, and facilitating Fire Service operations. This can be achieved by the adoption of standard guidance as documented within Approved Document B (AD-B) Volume 1 2019 Edition Incorporating 2022 Amendments (Office of the Deputy Prime Minister, 2000 Edition)(9). However, AD-B further recognises that alternative solutions may provide a more appropriate design. The use of an alternative approach is detailed in AD-B, 0.9, Alternative Approaches.

5.1.11 The building is considered to contain a single occupancy in the form of the ‘Bailiffgate Museum and Gallery’. This compliance report concentrates on the proposed building design and will indicate potential non-compliance issues where necessary as well as compliance with fire safety legislation.

5.2 Scope

5.2.1 Pro Fire Safety & Training Ltd has been commissioned by the Bailiffgate Museum & Gallery to provide fire safety support for the proposed alterations.

5.2.2 The compliance report relates to the entire building.

5.2.3 The compliance report is to be used to inform discussion with the Design Team and responsible persons and may be referenced against during any future improvements/alterations that may involve a design team and to assist the client in gaining acceptance from Approved Authorities.

5.2.4 Whilst this report is not a fire risk assessment for the purpose of the Regulatory Reform (Fire Safety) Order 2005 (the RR(FS)O) (, it is intended to assist the fire risk assessor and building management in understanding the fire safety precautions within the building and therefore support the fire risk process via a clearly articulated compliance document. It is also intended to assist where future works or refurbishments are applied to the building.

5.2.5 It will remain the responsibility of the building management and the Responsible Person to ensure that following acceptance of the final fire strategy that it is reflected by the onsite constructions as part of the RR(FS)O risk assessment and review process. This may necessitate additional surveys and reviews to be undertaken to as necessary to establish the adequacy of the constructions.

5.2.6 Where any works are subcontracted to third parties, and this involves the procurement of fire strategies from alternative sources, the recommendations contained herein may be invalidated where these alternative approaches are adopted in part or in their entirety. Such procurement of subsequent alternative approaches is undertaken entirely at the risk of the client.

6 Limitations

6.1 The advice provided to ProFire refers solely to the fire safety design of the proposed development. The recommendations contained within this document may affect measures introduced in order to comply with other parts of regulations applicable to the development.

6.2 It is recommended that the fire compliance report is circulated amongst all members of the building management team. It is further recommended that other parties concerned with the operation of the building have sight of the report to avoid significant changes later in the project.

6.3 Any proposed or future design information and fire safety management procedures applicable to the buildings should be made available to the company given responsibility for the overall detailed fire strategy report.

6.4 Where any revisions are undertaken, the client must ensure that any current issue of the fire strategy remains valid and, where this is not the case, determine whether revisions to the fire strategy document are required in order to ensure continued validity. If subsequent significant information is provided, then it is likely that the strategy would require to be reviewed.

6.5 Where revisions are required to any existing version of the fire strategy, it is important to consider the complexity and or the extent of the revisions required in the context of the time taken to complete the revision and impact upon the strategy and its validity. A small change to one element of the buildings design or management may have a significant impact upon many areas of the document. Where required revisions are complex and numerous, more time will be required to update and review any fire strategy and in turn any required compliance report.

6.6 The Fire Safety Strategy represents only the best judgement of the consultants involved in its preparation, and is based, in part, on information provided by others. Under no circumstances is liability accepted for the accuracy of such information provided by others.

6.7 Northumberland Hall is graded as a Grade I listed building and as such this will require consideration when assessing both AD-B compliance and any variation agreed away from the approved document guidance standards.

7 Statutory Requirements & Design Basis

7.1 Statutory Requirements

7.1.1 Different parts of U.K. legislation apply at different stages in the project and building life cycle. Those that may have key impact on the fire safety arrangements in this project include:

- The Building Regulations 2010 (as amended).
- The Regulatory Reform (Fire Safety) Order 2005 (as amended).
- The Construction, Design and Management (CDM) Regulations 2015.

7.1.2 It should be noted that when assessing the current building and initial building design compliance as required by Approved Document B, will be referenced against the statutory requirements laid out in clause 7.1.1.

7.1.3 Where Part B applies and the AD-B document is used against existing buildings, particularly buildings of special architectural or historic interest for which the guidance in this document might prove too restrictive, some variation of the provisions in this document may be appropriate. In such cases, it is appropriate to assess the hazard and risk in the particular case and consider a range of fire safety features in that context.

7.1.4 It is recognised that the design is dealing with a situation of an existing grade listed building which is likely to place some restrictions on complete compliance with AD-B but never the less the design must show that following completion of proposed works the building must be in no worse position in terms of fire safety then from which the building changes started from.

7.1.5 This document offers a concept to fulfil the requirements of the Building Regulations and the Regulatory Reform (Fire Safety) Order 2005 (6)(henceforth referred to as the "RR(FS)O). This is subject to the existing system of management considered to be suitable and sufficient.

7.1.6 Any reference to other relevant legislation will be made where required. Property protection will not form part of this compliance report.

7.1.7 The management team should ensure the recommendations within this document are incorporated into the building design.

7.1.8 In accordance with Regulation 38 of the Building Regulations, information concerning the structure, services and fire safety systems in the building should be provided to the persons responsible for the building, this will include any future material alterations.

7.1.9 A copy of the final version of the fire strategy together with any other relevant information should be issued to the responsible person(s) at the earliest reasonable opportunity.

7.2 List of Drawings and Related Documents

7.2.1 The report has been developed based upon information contained in the following documentation provided by the client up to a given date. This report should be read in conjunction with any drawings and other supporting documentation, prepared and submitted by other consultants who are acting on behalf of the project team. This must include specialist fire system contractor documentation where necessary.

Table 1 - Drawing Register (including related documents)

Drawing number or Document Title	Issued by	Document Date	Rev.
1076 -002	Mosedale Gillatt Architects (MGA)	October 24	-
1076-102	MGA		-
1076-150	MGA		-
1076 -106	MGA	Dec 24	-

7.3 Design Team and Meetings

7.3.1 It has been assumed that fire strategy has been developed as part of a multidisciplinary design team approach, with consultation with the regulatory authorities at appropriate stages of the design development process. The following organisations are involved with progressing this development:

Table 2 - Design Team

Role	Company
Client	Bailiffgate Museum & Gallery
Architect	Mosedale Gillatt Architects
Project Managers	TBC
M&E Services	TBC
Structural Engineers	TBC
Principle Contractor	TBC
Fire Strategy	TBC

Fire Safety Management	TBC
Building Control	TBC
Fire Authority	Northumberland Fire and rescue Service.

Table 3 - Consultation Meetings/ Inspections

Meeting	Attendees	Date
Site Inspection.	Tony Scott – ProFire Katherine Whitehead - MGA	4/12/24

8 General Considerations

8.1 Considerations / Assumptions

8.1.1 For compliance assessment purposes the following assumptions have been made:

- It is assumed that all relevant persons occupying the building will be able to perceive and respond to an alarm activation in an appropriate manner. Any assistance required to evacuate individuals requiring assistance and the arrangements deemed to be necessary are the responsibility of the responsible person.
- The fire strategy is based upon the premise that all means of escape routes and final exits must be kept available for the designated period of fire resistance of the relevant elements of structure as a minimum standard.
- For the purpose of this compliance report, it is assumed that there is a single seat of fire.
- All escape routes are to be close to fire sterile as practicable.
- All building work where applicable has been carried out in accordance with Regulation 7 of the Building Regulations.
- The building will comply with all other parts of the Building Regulations.
- The building has no basement levels.
- The Responsible Person for the building has control over the entire building and can ensure that the fire safety standards and systems will be properly maintained in full working order throughout the life of the building.

8.2 Building Height

8.2.1 The top occupied storey of the proposed building is considered to be <11 m above ground level. The height was determined through an onsite assessment following the requirements for building measurement set out in Approved Document B (AD-B) Volume 1 – Dwellings (Appendix D).

8.3 Evacuation Philosophy

8.3.1 The evacuation strategy for anyone within the premises upon discovery of a fire is to be an immediate simultaneous evacuation.

8.4 Purpose Groups

8.4.1 The purpose of identifying different purpose groups within a building is primarily to recognise that there are areas that pose varying levels of fire hazard. AD-B then requires that these different purpose groups be separated by compartment walls and floors (p8.3 AD-B). Generally compartmentation will be required to provide a 60 minute fire resistant standard.

8.4.2 With the exception of the ground and first floor occupancies the remaining storage and office type accommodation are considered to be ancillary to the main use of the compartment they are located within (< one-fifth of the total floor area) and therefore do not require to be fire separated for this purpose.

8.4.3 The following purpose groups have been assigned within Northumberland Hall.

Table 4 – Purpose Groups

Area	Assigned Purpose Group Title	Assigned Group
First Floor Main Display Hall	Assembly & Recreation	5
Ground Floor Retail	Shop and Commercial	4

8.4.4 Confirmation of the existing first floor fire resistance will be required to a 60 minute FR standard. The proposed FR protection provided by the protected staircase is likely to achieve the required fire separation standard and therefore considered to be compliant for this purpose

9 Means of Fire Warning / Detection and Alarm Systems. (B1)

9.1.1 The existing fire alarm installation within Northumberland Hall is likely to be to a standard of BS 5839-1, category L1 classification type alarm system. The Fire Alarm Panel (FAP) is located in a suitable position within the main hall entrance foyer.

9.1.2 BS 5839 -1: 2017 (5) , Annex A indicates the 'Choice of appropriate category of fire detection and fire alarm systems,' Table A1, states that for a small 'Place of Assembly' type premises (occupancy less than 300 persons), then a Type 'M' system would be an appropriate minimum standard (not taking property protection into account), the existing and proposed system is considered in excess of the recommended minimum standard.

9.1.3 The fire detection system is stated as an 'L1' classification and this includes a 'Beam' type system at first floor level installed due to the dual height roof space within the main assembly hall.

9.1.4 The proposed extension is both in line with the current coverage classification and greater than the minimum required compliant level.

9.1.5 Any alterations to the system due to changes to the building layout e.g. ground floor retail units / additional fire exit door from proposed new East stair may require relocation of automatic fire detection and additional provision of Manual Call Points (MCPs. In addition visual alarm indicators will need to be considered for the benefit of Disabled occupants, all works must comply with the requirements of BS 5839-1: 2017)(5).

10 Means of Escape in Case of Fire: Functional requirement B1

10.1 Maximum Occupancy

10.1.1 The occupancy capacity of a room, storey, building or part of a building is either (note due to the proposed extension affecting only part of a building the maximum occupancy calculations have been calculated using only the expected numbers from areas that are likely to use the escape routes within that area of the building where the extension is taking place.) :

1 The maximum number of persons it is designed to hold; or

2 The number calculated by dividing the area of the room or storey(s)(m^2) by the appropriate floor space factor (m^2 per person).

10.1.2 Where a design occupancy is not known, method 2 will be used, otherwise method 1 is used within this report for compliance assessment purposes.

10.1.3 The predominating risk occupancy characteristic for a ‘Place of Assembly ’ and ‘Shop and Commercia)’ may be described as both awake and unfamiliar although both areas will contain staff whom will be familiar with the building layout and are likely to be tasked with assisting occupants to evacuate the building in an emergency situation.

10.1.4 Relevant persons will be typically mobile for this type of occupancy. Indeed, it is expected that measures will be implemented as part of the management plan end evacuation strategy to take account of relevant persons with some form of disability whether it be physical or other.

10.1.5 The worst case first floor occupancy has been indicated at 110 person, although this figure will be rarely reached. The figures from table below are based on approximate floor space calculation but indicate that the calculated occupancy is considerable less than the indicative 110 persons.

Table 5 - Perceived Occupancy numbers

Area	Usage	Floor Space Factor	Size M2	Occupancy
Meeting Room	Meeting room	1.0	18	18
Retail space	Shop	7.0	72	10
Office / store	Office	6.0	72	12
Ground Floor		**Total GF Occupancy**		**40**
Main Hall	Museum	5.0	335	67
Mezzanine	Museum	5.0	69	14
First Floor		**Total FF Occupancy**		**81**
		Total Occupancy		**121**

Note: – At this design stage the second floor occupancy is considered to be both so low and not containing permanently habitable rooms that any figures would be negligible with regards to occupancy numbers for calculation purposes.

11 Means of Escape in Case of Fire – Horizontal

11.1 Travel Distance

11.1.1 The maximum prescriptive travel distance for Premises described as 'A Place of Assembly and Recreation and Shop and Commercial is given below (they are considered to be the same therefore the travel distance requirements for the main buildings occupancy are considered to be identical.) :

Table 6 - Prescribed Travel Distance – table 2.1 AD-B extract

Table 2.1 Limitations on travel distance

Purpose group	Use of the premises or part of the premises		Maximum travel distance[1] where travel is possible in: One direction only (m)	More than one direction (m)
2(a)	Residential (institutional)		9	18
2(b)	Residential (other):			
	a. in bedrooms[2]		9	18
	b. in bedroom corridors		9	35
	c. elsewhere		18	35
3	Office		18	45
4	Shop and commercial		18	45
5	Assembly and recreation:			
	a. buildings primarily for disabled people		9	18
	b. areas with seating in rows		15	32
	c. elsewhere		18	45
6	Industrial[3]	Normal hazard	25	45
		Higher hazard	12	25
7	Storage and other non-residential[3]	Normal hazard	25	45
		Higher hazard	12	25
2–7	Place of special fire hazard[4]		9[5]	18[5]
2–7	Plant room or roof-top plant:			
	a. distance within the room		9	35
	b. escape route not in open air (overall travel distance)		18	45
	c. escape route in open air (overall travel distance)		60	100

11.2 Escape Routes

11.2.1 The arrangement for means of escape from the ground floor is generally considered to be independent to the escape routes from the first floor, with the exception of the accessible kitchen escape in more than one direction is available from all areas. There are seven exit doors available from this area with at least one final exit being reached within the set travel distance guidelines of 45m.

11.2.2 The Kitchen or Staff area has an initial travel distance in a single direction of approximately 4.5m before escape in two directions is available, this is considered to be code compliant. .

11.2.3 The plans have indicated that storage and WCs are considered to be an inner room arrangement, whilst this maybe technically correct practically these areas are not considered to be inner rooms as they are not considered to be habitable areas, rather areas were occupants may occupy for small periods of time only.

11.2.4 Initial Escape from the first floor Assembly and Exhibition hall is considered to be simple and with an alternate direction of escape available, the travel distance to a storey exit (2) is within the prescribed travel distances provided within the design code.

11.2.5 The second floor accommodation consists of a proposed collections store, it is understood that this area could be occupied by a small number of occupants for short periods of time. It consists of a single escape route of a travel distance of approximately 12m to reach a storey exit and considered to be within the guidelines contained in table 2.1 of AD-B.

11.2.6 Those areas which are provided with available alternative escape routes are considered to be in directions which are greater than 45 degrees apart and considered true alternate routes.

11.2.7 The minimum number of escape routes that is required to be provided for the intended occupation levels calculated is considered to be compliant with design code requirements.

Table 7 - Min no. of escape routes/exits – table 2.2 AD-B extract.

Table 2.2 Minimum number of escape routes and exits from a room, tier or storey

Maximum number of people	Minimum number of escape routes/exits
60	1
600	2
More than 600	3

11.3 Width of Escape Routes

11.3.1 The following guidance contained within Table 2.3 of AD-B has been used to assess the escape route widths that are to be provided within the proposal.

Table 8 - Escape route width – table 2.3 AD-B extract

Table 2.3 Widths of escape routes and exits

Maximum number of people	Minimum width (mm)[1][2][3]
60	750[4]
110	850
220	1050
More than 220	5 per person[5]

NOTES:

1. See Appendix D for methods of measurement.
2. Widths may need to be increased to meet guidance in Approved Document M.
3. Widths less than 1050mm should not be interpolated.
4. May be reduced to 530mm for gangways between fixed storage racking, other than in public areas of 'shop and commercial' (purpose group 4) buildings.
5. 5mm/person does not apply to an opening serving fewer than 220 people.

11.3.2 For Escape purposes the minimum stair width as recommended by AD-M (8) is 1200 mm providing they serve no area with an occupancy of greater than 250 persons.

11.3.3 Both the proposed East staircase width and the existing West stair provide stair widths in excess of 1200mm and are considered adequate for the intended occupancy for escape purposes.

11.3.4 The escape routes examined all appear to provide a greater width than 1050 mm and therefore will provide adequate escape width for an occupancy of 220 persons. The limitation on occupant capacity from first floor escape is likely to be the stair width provision which for the existing stairs is calculated at a clear width of 1100mm providing a maximum occupancy level of 230 persons.

Table 9 - Existing & Proposed Widths

Example of existing and proposed widths			
Location	Width	Occupancy	Photographic No.
Existing West stair width	1250 mm	260	3
Proposed East Stair width	1500mm	330	N/A
Existing East Stair width	1100mm	230	1
Mezzanine	1600mm (800mm x 2 stairs)	14 *(Calculated Occupancy)*	N/A

11.3.5 The flights and landings of the escape stairs are constructed from non-combustible materials and are considered compliant with regards to fire resistance.

11.4 Mezzanine (Intermediate Gallery Floor Area)

11.4.1 Within the main hall the proposal is to provide a mezzanine floor level (intermediate Gallery floor level). The main use within the level is to be one of a viewing / display platform for visiting museum exhibits. The design will also provide a staff desk, so it is considered that this will also be a dedicated working area. The intermediate floor level will be required to be considered as a Storey in its own right as it is proposed within an occupancy classed as an assembly building (purpose group 5).

11.4.2 In addition to a working and viewing platform access is proposed for disabled occupants with a passenger platform lift included in the design for access purposes.

11.4.3 The maximum single travel distance to the stairs is 10m with further 3m of stairs to travel (13) until an alternative escape route becomes available from the base of the Gallery stair. From this position escape to the nearest storey exit is calculated at a further 15m. The total travel distance calculated is 28m. These figures are considered to meet the travel distance guidelines of table 5.

11.4.4 The height of the finished floor level of the mezzanine / gallery floor will be 2.7m above first floor level. The total floor height from the first floor to ceiling height is 7.2 m. The height from mezzanine floor to ceiling height is therefore 4.5m.

11.4.5 The dimensions of the proposed mezzanine floor is 16m x 6.5m (total 104 m2) with the total main hall floor area of 266 m2 (28m x 9.5m). When considering the means of escape provision practically, it is relevant that the floor space is considered to be less than half of the total main hall floor area and it is also will be of a limited width (9.5m).

11.4.6 Through definitions taken from AD-B the proposed floor is likely to be considered a ‘Storey’ level and therefore should be assessed as a separate floor level as the gallery floor is not considered to be provided to be a loading gallery, fly gallery, stage grid, lighting bridge, or any gallery provided for similar purposes, or for maintenance and repair.

11.4.7 The proposed gallery floor is likely to meet several of the requirements required of raised floor areas in other types of buildings i.e. only one tier, for storage or display use only, low occupancy numbers (14), floor is open above and below the display floor space, AFD provided beneath the upper floor area. However as ADB requires a floor within a building in use as a place of assembly to meet those requirements for other floor levels including providing an internal protected staircase the proposal is likely to be considered non-compliant. It is therefore recommended that an alternate approach be adopted as per para 0.9 of AD-B in order to satisfy the functional requirements whilst taking into account the features measured above.

11.4.8 Further consideration should also be given to means of escape for ‘Disabled Persons’. Access to the gallery floor is to be provided by an access stair and also an access / evacuation passenger type lift. This means that the management of escape for disabled persons must be examined and planned in full as no prescriptive dedicated disabled refuge is available.

11.4.9 There may be the opportunity to utilise the height of the main Assembly Hall in conjunction with smoke control provision which would allow smoke calculations to indicate the Available Safe Evacuation Time. This may provide evidence to the enforcing authorities which would allow the gallery floor to be considered a place of relative safety within the overall evacuation strategy

11.4.10 For a standard passenger lift to be used in an emergency either as a firefighter lift or emergency evacuation lift, it must comply with BS 9999 Annex G (1) (fire regulations) which means there must be a separate EN 50171 rated backup power supply to the lift, independent of the mains supply. Otherwise, the passenger lift would have to be ‘grounded’.

11.4.11 Whilst it may not be practicable for the intended use of the main hall it would be wise to consider a fire engineered approach which included the installation of a Sprinkler system or a form of fire suppression system. (Further guidance not provided at this stage.)

11.5 Sub division of corridors

11.5.1 There are no proposed areas considered to be corridors therefore no sub division for fire protection purposes has been deemed to be required.

12 Means of Escape in Case of Fire – Vertical

12.1 Staircase Provision

12.1.1 The proposal will contain two dedicated staircases providing access and egress from the upper floor levels. The West staircase is existing and dates back to the original build date of the Hall. The existing East stair is to be replaced with a new stair installation. The position of the stairs at each end of the building provides escape in both directions from most areas of the first floor level. The stairs are considered to be adequately sized and also protected stairs which will be required in order to secure adequate means of escape for occupants.

12.1.2 The protected staircases discharge directly to the outside area of the Hall. The West staircase is accessed from a protected lobby approach providing additional fire protection to the escape stair.

12.1.3 Each existing staircase enclose will discharge directly out of the building on the ground floor with doors which open in an outwardly direction providing a clear width of 1159 mm (West Stair) and 865mm (East Stair). The width provided of doors are likely to be adequate for the intended occupancy numbers indicated in table 5, however the East Stair width may not be sufficient for the use of disabled evacuation. AD-M(*) (table 2) indicates that for new installations a width of 1000mm would be required where for existing buildings a clear width of 775mm is considered adequate.

12.1.4 All stairs are a minimum width of approximately 1250mm. Photographic evidence provides examples of the existing stair width provision and layout.

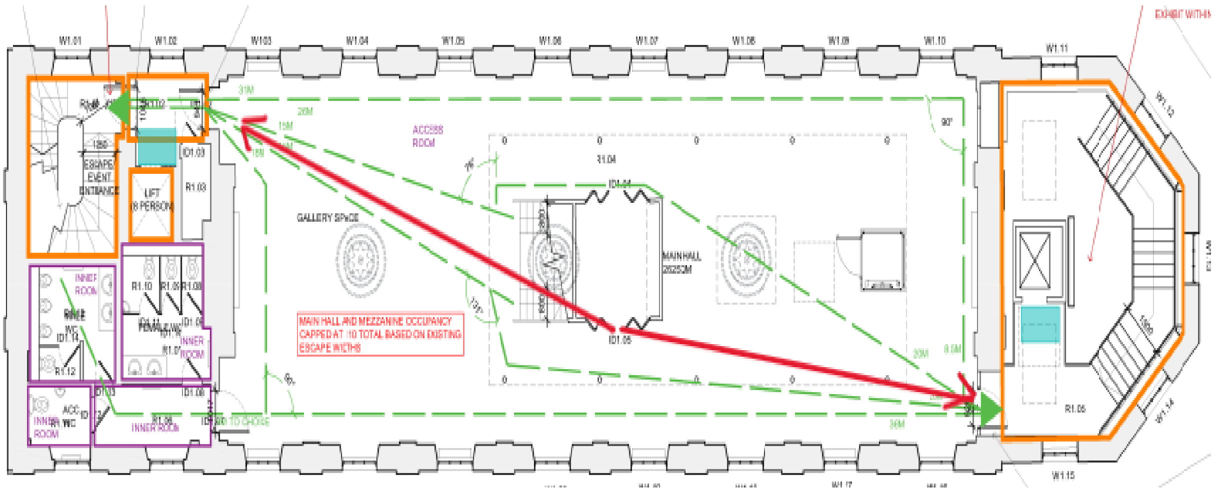


Figure 1 - location of available staircases highlighted in orange.

12.2 Staircase Protection.

12.2.1 All internal staircases will be required to be protected staircases, that is stairs which should be constructed and enclosed using fire-retardant construction materials. It is the enclosed fire-retardant space around the stairway that gives its "protected" status and makes it integral to providing adequate means of escape provision.

12.2.2 The existing West staircase is accessed from a lobby approach, both lobby doors appear to have been installed as fire doors although no certification of fire rating (FR) is available it is likely that they would provide a notional level of fire protection. (a notional fire door in this situation is a fire door that satisfied the standards applicable to fire door resistance at the time of construction. The existing types of doors are therefore considered not to be the most up-to-date with the latest codes and tests.)

12.2.3 The lobby approach design appears to have been installed in order to provide fire protection to the second floor level. The proposed occupancy of the second floor level will contain a collections store only, this area is not expected to be permanently occupied. The proposed arrangements are considered to provide adequate fire protection.

12.2.4 The new East stair has been indicated as being enclosed in fire protective materials. Further details of the sliding glazed door arrangement should be provided in order to confirm its FR suitability. The door enclosing the stair at first floor level is indicated as being upgraded, further details should be provided. It is likely however that any upgrade will meet the AD-B minimum requirement ensuring the premises is no worse than the original provision.

12.2.5 Both staircase will be provided with final exits at their base in line with AD-B which will give direct egress away from the building.

12.2.6 The protected stairs are not considered the only stair serving the building or part of the building therefore cupboard provision enclosed with fire resisting construction would be acceptable within the protected staircase.

12.2.7 The fire protection to the staircase in terms of fire resistance is set out in Table B4 of AD-B which requires a minimum period of 60 minutes to be provided.

12.2.8 The doors forming the enclosure of walls within a protected staircase must be of a FD30 s standard tested to BS 476-22 (10).

13 Means of Escape General (B1)

13.1 General

13.1.1 Doors on escape routes generally should be hung in the direction of escape. There were several doors identified within the escape routes of the proposal that were not code compliant. Where doors are found to be inward opening the occupancy numbers using that route should not exceed 60 persons.

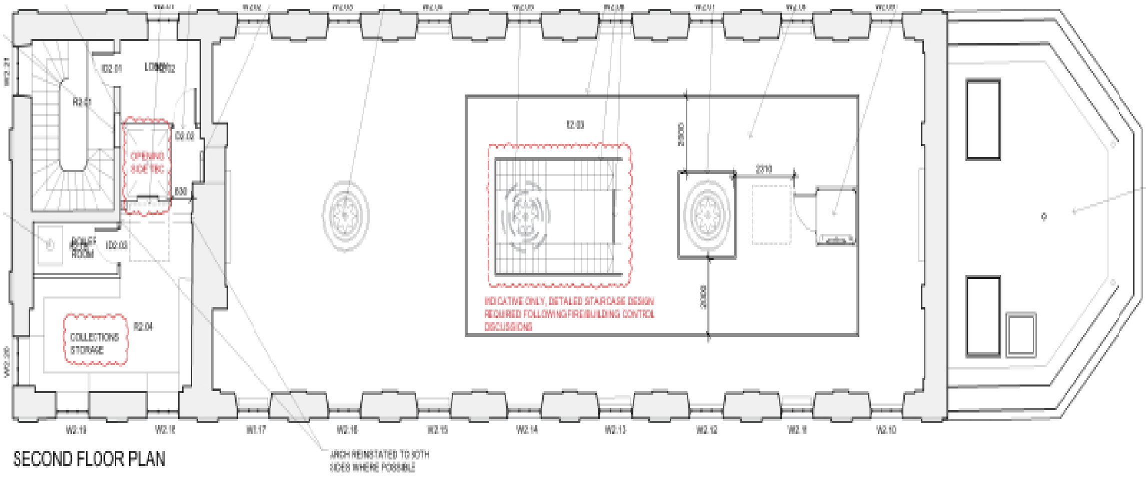
13.1.2 Any door required for escape purposes from the areas used as a place of Assembly must not be fitted with a lock, they may be secured however, with panic fastenings in accordance with BS EN 179 (for Emergency exit hardware) and BS EN 1125 (for Panic exit hardware) (11).

13.1.3 Part of the existing formed escape route leading directly away from the building to the South side of the building contains a small number of steps, as they are existing and are not considered to provide a significant risk to escape, this potential hazard is unlikely to prevent rapid movement away from the building. (Note surrounding lighting is likely to be available to this elevation.)

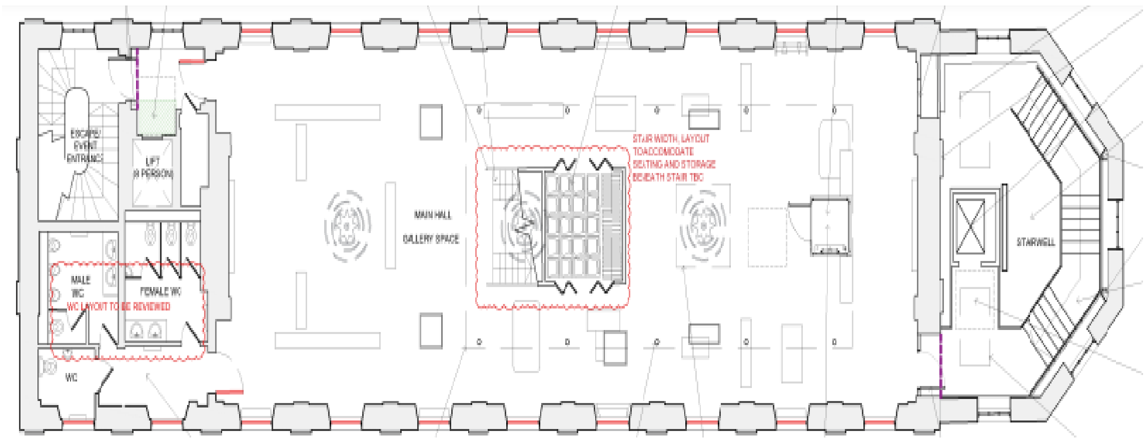
Figure 2 - Existing steps on escape route from Northumberland Hall.

13.1.4 The escape routes are considered to provide at least a headroom height of 2m in accordance with code compliance.

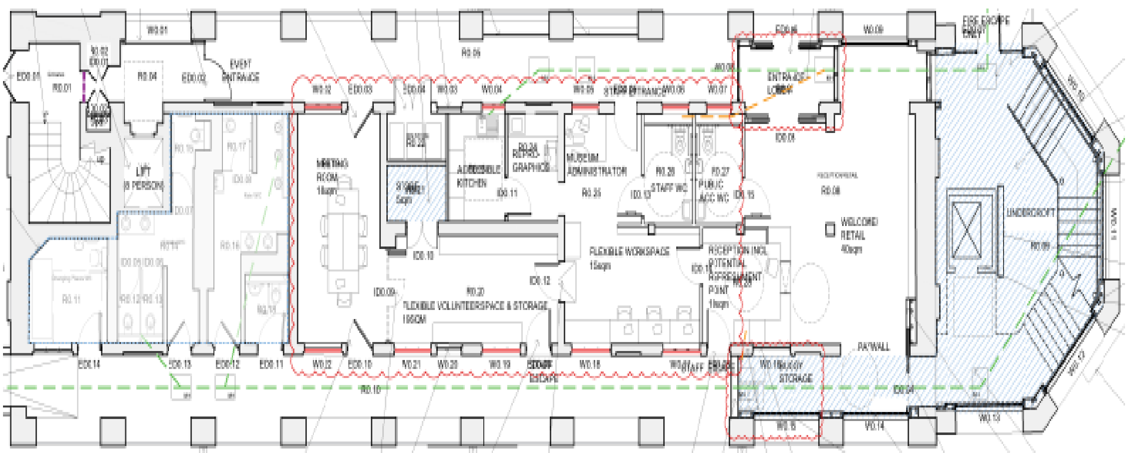
Figures 3-5 - Means of Escape Floor Layout Ground to Second Floor



SECOND FLOOR PLAN

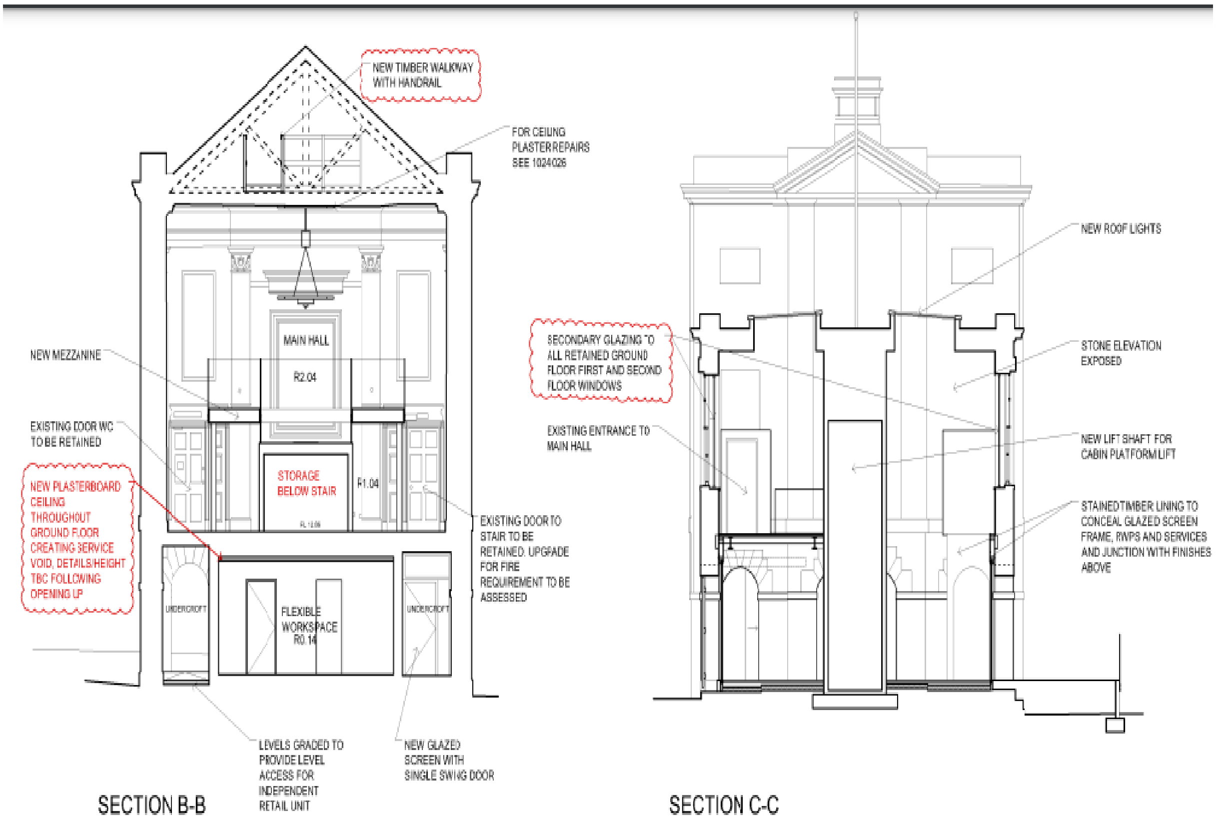


FIRST FLOOR PLAN



GROUND FLOOR PLAN

Figure 6 - Sectional layout.



13.2 Fire Safety Signage

13.2.1 All internal and external escape routes should be distinctively and conspicuously marked by emergency exit signs following the recommendations of ISO 3864-1 (British Standards Institution, 2011) and BS 5499-4 (British Standards Institution, 2015) (2).

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13.3 Fire Door Signage

13.3.1 All fire rated doors should be readily identified according to their function and location. The following signs should be used for fire doors within the building:

Table 10 - Examples of Fire Door Signage

Location	Sign Obverse
On FD30S or FD60S located on means of escape routes	
On FD30, FD30S, FD60, FD60S to any storeroom, store or riser dedicated to building management	
On FD30, FD30S, FD60, FD60S to any door that is automatically opened or closed by the fire alarm system.	

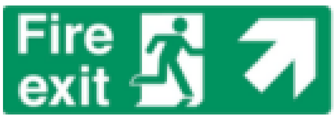
13.3.2 The signs may be constructed from rigid plastic and for a viewing distance of up to 1m, should be 100mm wide and 100mm high.

13.4 Escape Route Signage

13.4.1 Escape route signage (and lighting where necessary) should be provided to include directions outside the building to a place of ultimate safety or to the nominated fire assembly or muster point(s). The specific details of the type and extent of emergency lighting should be given in the specialist contractor design documents.

13.4.2 The key types of escape signage incorporated into the building décor are shown as follows:

Table 11 - Examples of Fire Escape Route Signage

Location	Sign Obverse	Sign Reverse
Above door indicating means of escape.		
On wall or as pendent providing direction of escape route (turn right from here).		
On wall or as pendent providing direction of escape route (turn left from here).		
On wall or staircase landing level providing direction of escape route (go down and to the right from here).		
On wall or staircase landing level providing direction of escape route (go down and to the left from here).		
On wall or staircase landing level providing direction of escape route (go up and to the left from here).		
On wall or staircase landing level providing direction of escape route (go up and to the right from here).		
Pendent sign opposite storey exit indicating position of door.		

On outside face of final exit		

13.4.3 The signs may be constructed from rigid plastic and, for a viewing distance of up to 17 metres, should be 340mm wide and 120mm high. Other viewing distances will require different dimensions. Escape route signage should be provided to include directions outside the building to the nominated fire assembly point where possible.

13.5 Emergency Escape Lighting

13.5.1 Emergency escape lighting should be designed, installed, and commissioned in accordance with the suite of BS 5266 documents.

13.5.2 Emergency lighting is currently installed to all common escape routes including the main assembly hall. The Emergency escape lighting for premises of this type i.e. Assembly and Recreation requires adequate escape lighting to be provided externally in order to allow occupants to move away from the building safely. The external street and associated lighting is likely to assist with this provision.

13.5.3 The design of the system and subsequent provision of Regulation 38 documentation is the responsibility of the appointed competent person, these documents should be retained to assist with Safer Building principles.

13.5.4 BS 5266-1 (British Standards Institution, 2016) (3) recommends that people using premises can be expected to be reasonably familiar with the layout as it does not represent a complex layout. Also, safety provisions and orderly evacuation can normally be expected in the event of an emergency. Based on these considerations, emergency lighting systems of 1 h duration should be used in premises of this class, unless there is a particular requirement for early reoccupation, in which case a longer duration might be necessary.

13.5.5 Where overlays are provided to incorporate fire escape route and fire exit signage in the emergency escape lighting system, care must be taken that minimal levels of light intensity are maintained.

13.5.6 From client information provided the M&E design is still currently at design stage and further information regarding the exact EML design won’t be available the next planned design stage early in 2025.

14 Internal Fire Spread (Linings) Functional Requirement B2:

14.1 Classification of Linings

14.1.1 Restrictions are placed on the wall and ceiling lining materials within certain areas of the building, this is to limit the spread of fire and production of smoke in those specific areas.

14.1.2 Surface coverings or coatings on floors, walls and ceilings should also meet the requirements of AD-B to ensure that the likelihood of the development and spread of fire is kept to a minimum.

14.1.3 Wall and ceiling linings are summarised below.

Table 12 - Classification of Linings – table 6.1 extract of AD-B

Location	European Class	National Class
Small rooms of area not more than $30m^2$ or $4m^2$ in residential accommodation.	D-s3, d2	3
Other rooms.	C-s3, d2	1
Other circulation spaces	B-s3, d2	0

14.1.4 Existing walls are provided with a variety of existing linings / construction which are primarily plaster finished and coated with a water based paint they are likely to meet the code compliant standard. i.e. the main assembly hall wall linings may be of materials that would only provide a limited contribution to any potential fire spread. Any changes should be identified within RIBA stage 4.

15 Internal Fire Spread (Structure): Functional Requirement B3:

15.1 Introduction

15.1.1 Unless stated otherwise, the fire resistance levels within this report are specified as R/E/I. where R: Loadbearing capacity, E: Integrity and I: Insulation.

15.2 Loadbearing Elements of Structure

15.2.1 An Element of structure such as **structural frames**, beams, columns, loadbearing walls (internal and external), floor structures and **gallery structures**, should have at least the fire resistance given in appendix B, table B3 of AD-B, which then refers guidance to table B4.

15.2.2 The existing buildings construction and overall frame is likely to be considered to provide adequate resistance to fire in order to prevent failure in a fire situation for escape to be secured for occupants and to allow initial fire service intervention to take place without the building failing or collapsing.

15.2.3 The proposed Gallery floor construction as a structural frame will be required to provide the indicted period of fire resistance which for Assembly and Recreation is 60 minutes.

15.2.4 It is important to note that any element supporting or giving stability to another is required to have the same fire resistance, in particular, any element which supports upper floors.

15.2.5 Confirmation should be provided that the elements of structure provide a minimum period of 60 minutes.

16 Compartmentation

16.1 Compartmentation

16.1.1 The purpose of fire compartmentation is to provide a physical fire-resisting barrier to restrict fire spread between different occupancies and between single occupancy parts and communal areas.

16.1.2 In terms of size of building (<2000m2) and height there is considered to be no further compartmentation requirements. The compartmentation between different purpose groups has been covered elsewhere within the report.

16.1.3 There are few specific areas within the proposed works that are considered to be ‘Places of Special Fire Risk’. There is however a proposed ‘Boiler Room’ located at second floor level and this area should be enclosed within materials which will afford 30 minutes fire resistance.

16.2 Fire Escape Staircases (Protected Shafts)

16.2.1 The escape stairs are installed within a protected shaft, therefore should be enclosed in 60 minutes fire resistance. There are no additional escape stairs to be provided within the proposal, however the East stair (existing) is to be replaced with a new staircase contained within an existing shaft location which is to be extended to include the current area used as a kitchen area.

16.2.2 Escape stairs are generally accessed from doors providing at least 30 minutes (FD30s) and therefore, it could be argued that the staircase is protected by doors providing a combined 60 minutes.

16.2.3 A lift well can be a route for vertical fire spread. A lift well which is enclosed by walls with fire-resistance will be a barrier to fire spread. A lift well which is totally within a protected area such as an enclosed stair, is already within a fire-resisting enclosure. The Lift contained within Northumberland Hall is contained within an enclosed staircase.

16.3 Fire Doors

16.3.1 Additional new Fire doors are provided in all fire rated enclosures in accordance with:

- BS 476-22 or BS EN 1634-2 (Fire Resistance).
- BS 476-31 or BS EN 1634-3 (Smoke Leakage) (“S” denotes smoke seals).
- BS 8214 (Fire Doors Sets).

16.3.2 The door leaf on any doorway on a fire escape route or exit should, where reasonably practicable, be hung to open in the direction of escape and should always do so if the expected occupancy is more than 60 persons.

16.3.3 Vision panels are required where doors on the escape route sub-divide corridors, or where any doors are hung to swing both ways and the door is not glazed or is glazed with translucent glass.

16.3.4 All fire doors are to be installed in accordance with manufacturer’s instructions and are to be certified as being fit for purpose, in order to fulfil the use for which they are intended in this fire strategy and to comply with AD-B, Appendix C – Fire Doorsets where applicable.

16.3.5 It would be expected that doors have been fitted by third-party accredited installers who are deemed competent to undertake the work and any evidence and certification supplied, as part of the fire door package, should be included in the fire safety pack to be handed to the building owner upon completion of the project.

17 Cavity Barriers

17.1 Cavities

17.1.1 The provision of any existing cavity barrier should be confirmed, cavities, which could otherwise form a pathway around a fire-separating element and closing the edges of cavities; therefore reducing the potential for unseen fire spread. Cavity barriers should be used to sub-divide any cavity to limit the maximum dimensions of the cavity in any direction up to 20m.

17.1.2 Cavity barriers are unlikely to be provided or required within the existing original solid sandstone wall construction.

17.1.3 The existing roof void sits directly above the main assembly hall. The void itself is likely to be of a restricted height. The space is in excess of 20m in length and therefore required to be sub divided by fire resistant construction. As previously indicated, this is an existing building with no proposed works taking place within the roof space, it would therefore be reasonable to assume that this area would be no worse following the completed works than before and therefore deemed to comply with Building Regulation requirements. This issue should be discussed further with the appointed inspector. It should also be noted however, that the inclusion of any such fire barrier installation is likely to benefit the property protection afforded the building.

18 External Fire Spread

18.1 External Fire Spread – Functional requirement B4:

18.1.1 External surfaces of walls should be constructed in order to adequately resist the spread of fire across the envelope of the building and to an adjacent boundary. If the external walls are required to perform as an element of structure, the appropriate level of fire resistance is found by reference to the section 'Internal Fire Spread (Structure) above.

18.1.2 The roof of the building shall adequately resist the spread of fire over the roof and from one building to another, having regard to the use and position of the building.

18.1.3 *AD-B,* External Fire Spread, requires that consideration is given to the chances of fire spreading across an open space between buildings and the consequences if it does, will depend upon the following factors:

- The size and intensity of the fire in the building concerned;
- The distance between the buildings;
- The fire protection given by their facing sides; and
- The risk presented to people in the other building(s)

Table 13 – External Fire Spread Summary provision

Item	Comments
External Fire Spread Analysis	Northumberland Hall as a place of Assembly meets the requirements set out in table 12.1 of Approved Document B – Volume 2:2022 Up to 10m above ground level: class C-s3, d2 or better Up to 10m above a roof or any part of the building to which the public have access: class C-s3, d2 or better From 10m in height and above: no minimum performance
External Wall Construction	Height of building is <11m, Northumberland Hall is considered to be more than 1000mm from any relevant boundary. *External surface of walls should have Class B-s3, d2 or better if the building is less than 1000 mm from the relevant boundary. If the boundary is more than 1000 mm then Up to 10m above ground level: class C-s3, d2(3) or better Up to 10m above a roof or any part of the building to which the public have access: class C-s3, d2(3) or better(4).* *From 10m in height and above: no minimum performance requirement.*
Roofs	Roof covering to be designated as BROOF(t4).
External Wall Cavity's	Cavity barriers are unlikely to be provided or required within the existing original solid sandstone wall construction

Table 14 – Permitted Unprotected Areas

Elevation	Separation Distance from boundary(m), relevant boundary set at centre line of existing road.	Permitted unprotected area
North	12.42 (6.2)	50%
East	38 (19)	>12.5m therefore unlimited
South	9.4(4.7)	40%
West	25 (12.5)	>12.5m therefore unlimited

The existing building photographic evidence indicates that to the elevations which are required to provide limitation on openings that they are within the permissive limits of AD-B table 13.1. Calculations if required can be provided but considered unnecessary at this stage.

Figure 7 – Existing North and South Elevations

North Elevation as existing	South Elevation as Existing
	

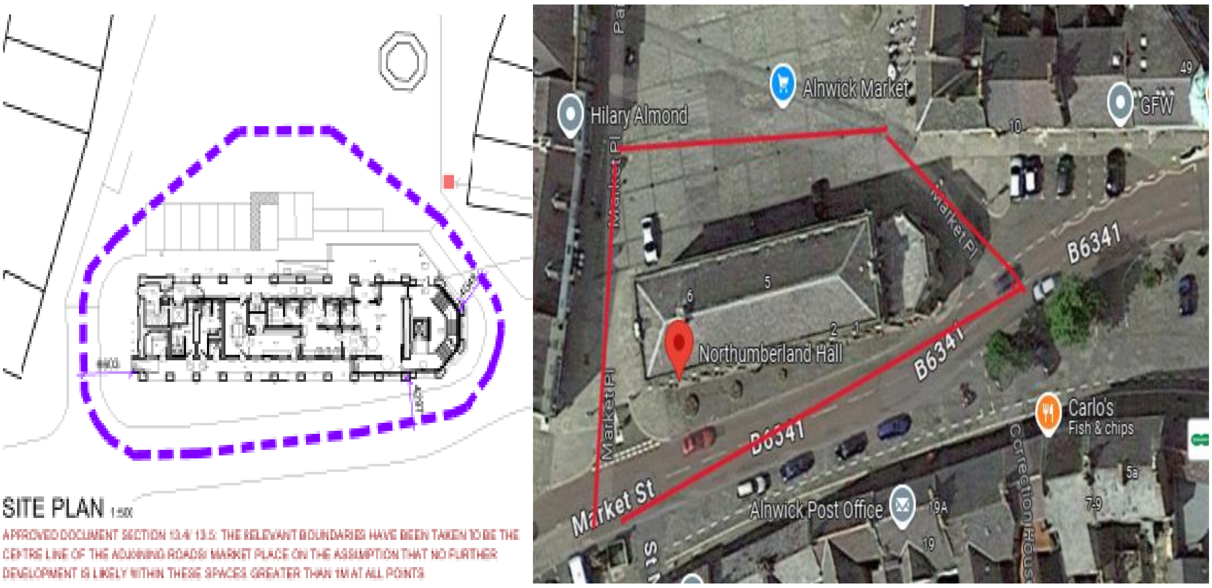


Figure 8 – Indicated Relevant Boundary

18.2 Roof Coverings

18.2.1 Performance of the fire resistance of roofs to external fire exposure is measured in terms of penetration through the roof construction and the spread of flame over its surface.

18.2.2 The existing roof enclosure is unlikely to be within less than 6m of other relevant boundaries and does not form part of the means of escape construction to the circulation space below.

18.2.3 The performance in terms of fire resistance is that the roof needs to meet a National class AA AB or AC classification or Broof (t4) European class standard. This compliance standard should be confirmed.

19 Access and Facilities for the Fire Service – Functional Requirement B5:

19.1 General

19.1.1 The proposed alterations to the building are likely to maintain the buildings existing accepted facilities to assist fire fighters for the purposes of protection of life.

19.1.2 Reasonable existing provision is made within the site of the building to enable fire appliances to gain access to the building.

19.1.3 Provision is currently made to provide reasonable access into and within the buildings for fire-fighting personnel.

19.1.4 In relation to AD-B, Buildings Not Fitted with Fire Mains, clause 15.1,there should be vehicle access for a pump appliance to within 45m of an entrance door.

19.1.5 Access is possible to within 45m from an appliance for a number of entrance doors within Northumberland Hall including the doors providing access to the protected stairs. Therefore, this provision is deemed compliant for a building that does not require a fire main.

19.2 Fire Service Vehicle Access

19.2.1 To comply with Part B of the Building Regulations, suitable provision should be made for fire service vehicle access as below:

Table 15 - Table Detailing Fire Service Vehicle Hard Standing Requirements

(extract taken from Table 15.2 of AD-B)

Appliance Type	Minimum width of road between kerbs (m)	Minimum width of gateways (m)	Minimum turning circle between kerbs (m)	Minimum turning circle between walls (m)	Minimum carrying capacity (tonnes)
Pump	3.7	3.1	16.8	19.2	12.5
High Reach	3.7	3.1	26.0	29.0	17.0

Notes:

- *Fire appliances are not standardised. The Building Control body may, in consultation with the local fire and rescue service, use other dimensions.*
- *The road base can be designed to 12.5 tonne capacity. Structures such as bridges should have the full 17 tonne capacity. The weight of high reach appliances is distributed over a number of axles, so infrequent use of a route designed to accommodate 12.5 tonnes should not be expected to caused damage.*

19.2.2 Northumberland Halls position within the town centre and directly accessing the original town square allows the building to retain several access points to the building which are considered to meet code compliance guidelines.

19.3 Turning Facilities

19.3.1 There is no dead end provision surrounding the building with vehicle access provided around the entire building, therefore additional turning facilities will not need to be provided

19.4 Hydrants or Other Water Supplies

19.4.1 Fire hydrants shall be located within 90m of an entrance to the building and not more than 90m apart. This existing provision located around the town centre is likely to provide adequate provision and coverage.

20 Management

20.1 Regulation 38

20.1.1 This will be specific to any new building works being undertaken affecting Northumberland Hall.

20.1.2 Regulation 38 of the Building Regulations requires that fire safety information be given to the person responsible for the occupied building.

20.1.3 Copies of the finalised fire strategy report and the other relevant fire safety information on all aspects of the passive and active fire safety provision in the building should be issued to the responsible person on completion of the project.

20.1.4 Currently, the buildings are managed in relation to fire safety by Northumberland County Council. Where management procedures and maintenance regimes are recommended by this fire strategy or any of the documents relating to the installation of any fire system, an assessment should be made by the client to ensure that the management regime will not be unrealistic or unsustainable.

20.1.5 It is important that specific fire safety information (of which this fire strategy is integral) is retained along with any product data, information or maintenance and specification sheets and instructions to allow the end user, owner or occupier of any building to discharge their responsibilities effectively under the Fire Safety Order when managing the building and its fire safety systems.

20.1.6 The key responsibilities will include but not limited to:

- Understand and implement the fire safety strategy of the building.
- Maintain any fire safety systems provided in, or for the building.
- Ensure that access can be gained to all areas of the building to undertake essential maintenance and to gather information to inform a fire risk assessment process.
- Complete a suitable and sufficient fire risk assessment or review an existing FRA of all areas of the building including any interface between areas where different legislative fire safety requirements apply or where one area may have an impact on the fire safety of another.

20.1.7 The provision of building information to any third-party appointed to assist with managing fire safety in the building will ensure that any recommendations or significant findings will be appropriate for the building.

20.1.8 The complexity of the building and the systems employed will dictate the amount of information supplied under Regulation 38 where applicable or other requirements as laid down by the building regulations, it is important that information is clear, legible, comprehensive, and provided in a suitable format for use and retention by the end users.

20.2 Materials and Workmanship

20.2.1 Regulation 7 of the Building Regulations requires that all building work should be carried out in a workmanlike manner, with adequate and proper materials that are appropriate for the circumstances in which they are used, are adequately mixed and prepared, and are applied, used or fixed so as to perform the function for which they are designed.

20.2.2 Further guidance is provided in the Approved Document supporting Regulation 7.

20.2.3 Independent certification schemes exist to provide additional confidence that the products are manufactured and installed to an appropriate and consistent standard. Such schemes can assist in ensuring that the Material and Workmanship requirements of Regulation 7 are satisfied. It is therefore suggested that, where appropriate, manufacturers and installers that are to independent certification schemes are specified when undertaking work within this building.

20.2.4 Apart from the existing fire door installation, all new fire rated doors where applicable are to be installed to either the FD30 or FD60 type, offering the required fire resistance and have been tested in accordance with BS 476: Part 22 1987 (The British Standards Institution, 1987) (the British Standard) or BS EN1634-1 (British Standards Institution, 2014+A1:2018) (the UK adoption of European Standards).

20.2.5 Any new fire doors and associated hardware fitted to the existing building, or any new alteration should be installed to current building regulations.

20.2.6 Where electromechanical locks are used for access purposes, these should be capable of being manually overridden with a simple thumb turn or lever handle on the escape side and occupants should not have to manipulate more than one release mechanism.

20.2.7 Existing fire doors situated to the building may appear to be in a reasonable condition and will offer a notional level of fire resistance up to 30 minutes. According to advice by UK government, a notional fire door is a fire door that satisfied the standards applicable to fire door resistance at the time of construction. These types of doors are therefore not the most up to date with the latest codes, regulations and tests, and should be checked by a competent person to ensure they are suitable and sufficient.

21 SUMMARY OF ACTIVE AND PASSIVE FIRE SAFETY MEASURES

21.1 Active Fire Safety Measures

21.1.1 The following form the key active fire safety measures that are provided within the building.

- Automatic fire detection to L1 category will be designed to BS 5839-6. The building will operate a 'Simultaneous Evacuation' strategy.
- Emergency lighting provided in accordance with BS 5266-1.
- Back-up power supplies to fire protection measures, such as fire detection and alarm system and emergency lighting.
- Evacuation Lift installed to Gallery Floor.

21.2 Passive Fire Safety Measures

21.2.1 The following form the key passive fire safety measures that are provided within the buildings.

- Inherent likely fire resistance to existing building construction and 60-minute fire protection to elements of structure.
- 60-minute fire resisting construction provided to compartments including protected staircase.
- 30 minutes fire resisting construction provided to escape routes.
- Existing fire doors to represent a 'Notional' type door providing a reasonable level of fire separation with an expected period of 30-minutes and be fitted with self-closers and cold-smoke seals on means of escape other than doors forming a duct or storage facility.
- Escape signage designed to meet the recommendations of BS 5499-:2013.

22 Conclusion and Recommendations

22.1 Recommendations

22.1.1 Generally with the exception of the potential fire safety non-compliance issues identified within this report, the proposal, provides occupants with an appropriate level of fire safety such that the fire safety requirements of AD-B and therefore Building Regulations are met. Regulation 38: *Fire Safety Information,* as described in current Building Regulations 2010 requires that, where work involves the erection or extension of a relevant building, or relevant changes of use of a building, fire safety information shall be given to the responsible person at the completion of the project or when the building or extension is first occupied. The information will facilitate the production of any fire risk assessment or review, a requirement under the Regulatory Reform (Fire Safety) Order 2005.

22.1.2 The majority of the proposals submitted and examined have been assessed as providing compliance with AD-B code compliance or certainly providing no worse a situation within the existing building areas. There are however non-compliance issues identified in particular within the proposed Gallery / Mezzanine floor area and in specifically in relationship to the evacuation of disabled persons from this area. The identified non compliance issues will require to be addressed prior to any formal building regulation submission.

22.1.3 It is recommended that a comprehensive maintenance strategy and fire safety management strategy be developed upon completion and habitation of the building to ensure that the operator meets their legal requirements under the Regulatory Reform (Fire Safety) Order 2005.

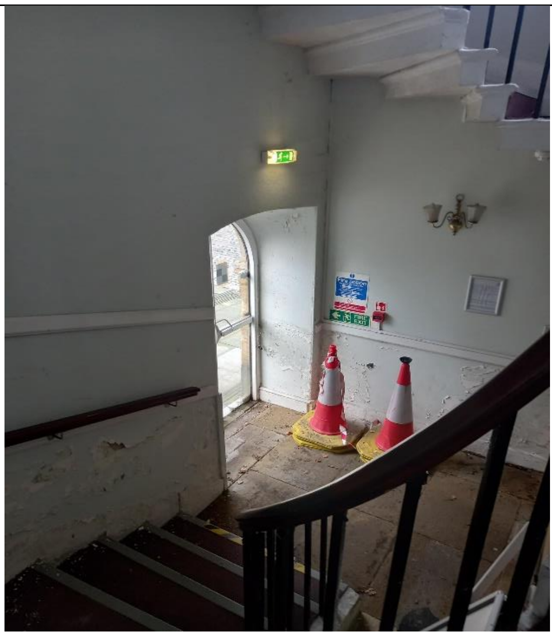
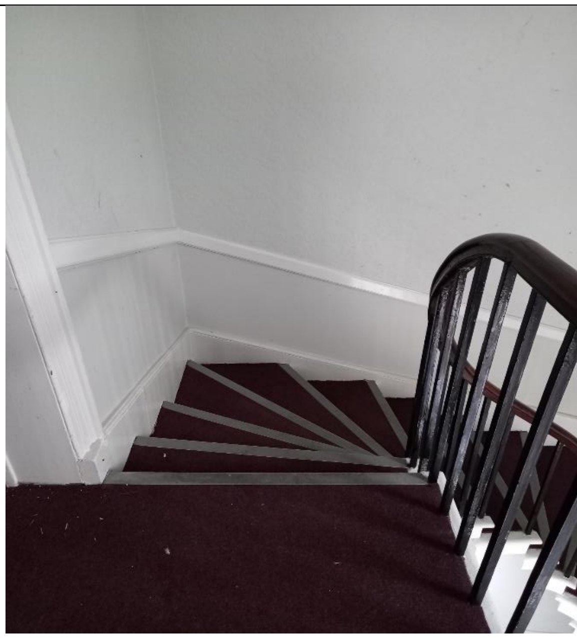
22.1.4 It will need to be ensured that the building fabric and fire protection measures are maintained throughout the life cycle of the premises. All fire safety systems, installations and equipment should be maintained in accordance with the manufactures recommendations.

22.1.5 All issues identified within the recent fire risk assessments are to be considered and remediation action where necessary is to be taken in a timely manner.

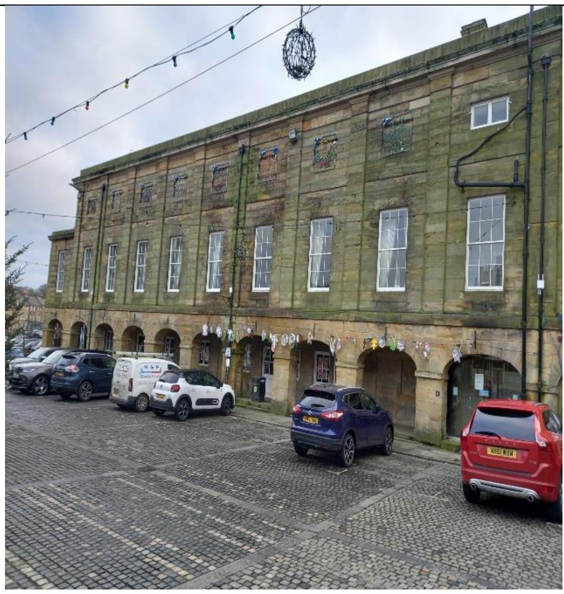
22.1.6 Where advised the Fire and Rescue Service should be consulted with as part of the management of fire safety and issues identified within this report.

23 Appendix 1 – Photographic Images

23.1.1 Photographic images taken during site visit of Northumberland Hall dated 4/12/24.

1- Exit doors from base of West Stair.	2- Fist floor landing with Lift Installation.
	
2- Base of East Staircase 3 (1100mm)	4-Existing East Stair providing 12500mm width
	

5 – Existing Main Assembly Hall	6 – Fire Alarm Panel adjacent main entrance.
	
7a and 7b – Photos showing existing external escape routes.	
	

8 – West Elevation	9 -.North Elevation
	
10 – North Elevation	N/A
	

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