

**BALUSTRADE GUARDING**

Typical Glass Specification x2 toughened laminated glass with 1.5mm interlayer Lamination Internal Application--PVB Interlayer External Application--Sentry Ionoplast Interlayer.

Balustrade guarding must resist as a minimum loads given in BS EN 1991 - 1 - 1 and is to be designed in relation to the required line loading for the project, as per the table opposite;

Building Occupancy Class	Line Load (applied 1100mm above FFL)	UoL (applied to entire glass face, below line load height)	Concentrated Load (applied to any part of the glass panel below line)
1 Domestic and Residential – single family dwellings Office and Work Areas – light pedestrian traffic routes	0.36 kN/m	0.5 kN/m <sup>2</sup>	0.25 kN
2 Domestic and Residential – multi-occupancy, balconies and edges of roofs Office and Work Areas – areas not susceptible to over crowding Areas without obstacles for moving people and not susceptible to over crowding – stairs, landing, corridors, and balconies	0.74 kN/m	1.0 kN/m <sup>2</sup>	0.5 kN
3 Areas where people might congregate – areas having fixed seating within 530mm of the barrier Areas with tables or fixed seating – restaurants and bars Areas susceptible to over crowding – footways or footpaths less than 3 metres wide, adjacent to sunken areas Retail areas – all retail areas including banks, building societies or betting shops	1.5 kN/m	1.5 kN/m <sup>2</sup>	1.5 kN
4 Areas susceptible to over crowding – theatres, cinemas, shopping malls, assembly areas. Footways or pavements greater than 3 metres wide adjacent to sunken areas	3.0 kN/m	1.5 kN/m <sup>2</sup>	1.5 kN

Guarding to be designed in accordance with the heights identified in Diagram 3.1 of Part K of Building regulations, see below;

Balustrade to be fixed as per manufacturers' instructions to achieve the required resistance to loads for its location.

Building Category and location	Height (h)
Single family dwellings Stairs, landings, ramps, edges of internal floors External balconies including Juliette balconies and edges of roof	900mm for all elements 1000mm
Factories and warehouses (light traffic) Stairs, ramps Landings and edges of floors	900mm 1000mm
Residential, institutional, educational, office and public buildings All locations	900mm for flights otherwise 1000mm
Assembly Within 530mm in front of fixed seating All other locations	800mm (R) 900mm for flights elsewhere 1000mm (R)
Retail All locations	900mm for flights otherwise 1000mm
Glazing in all buildings At opening windows except roof windows in loft extensions, see Approved Document B1 At glazing to changes of levels to provide containment	800mm below 800mm

Diagram 3.1 Guarding design

**INTERNAL STAIRS**

Maintain clear landings to top and bottom of stairs.

New staircase from ground floor to first floor and from first floor to new second floor to comprise 14no. risers at maximum rise of 220mm and goings minimum 220mm maximum 300mm. Maximum pitch 42°.

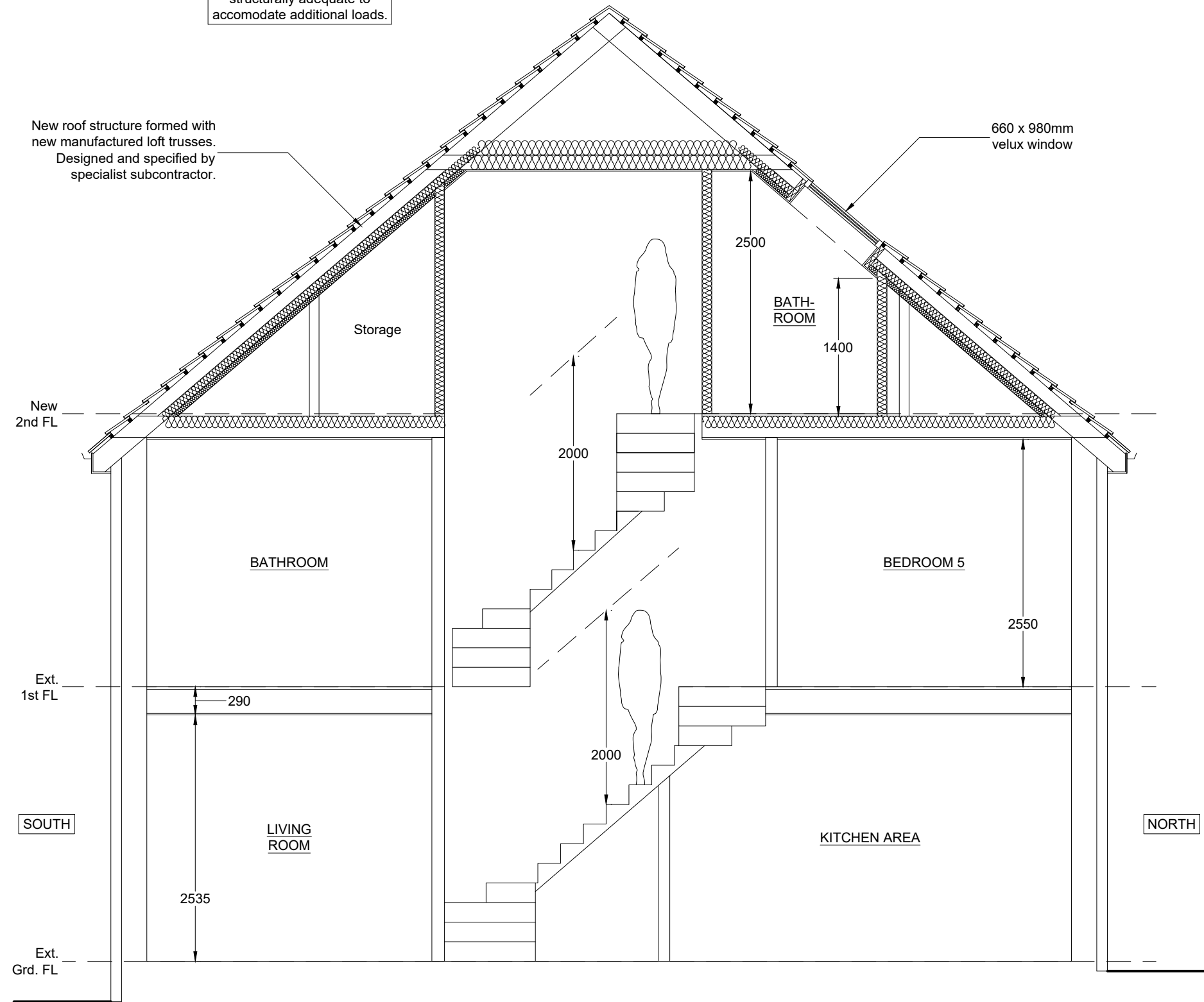
Handrails fixed at 900mm measured vertically above pitch line and 1100mm above landings. 100mm newel post. Balusters to be at maximum 100mm centres.

Maintain clear landings to top and bottom of stairs.

Floor to be trimmed out to receive proposed new staircase. Floor joists doubled up for stair trimmers.

2000mm clear headroom to be maintained to staircase flight.

The existing inner timber frame and structure is to be checked that its structurally adequate to accommodate additional loads.



Existing walls, lintels and foundations to be exposed and checked for adequacy to support additional loads.

**PROPOSED SECTION B-B**

**NOTE:**  
CONTRACTOR TO VERIFY ALL SIZES ON SITE BEFORE COMMENCEMENT.

**NOTE:**  
PLEASE DO NOT SCALE FROM THIS DRAWING.

**Party Wall Act**  
Notices under the Party Wall Act are to be served by the building owner or appropriate body appointed by the building owner. For further clarification on the Party Wall etc Act 1996 contact: Cairn Wharf Consultancy Ltd, 2 Boroughgate, Off Bay Horse Court, Otley, LS21 1SB M 07739 576181 cw@cairnwharf.com For further information on the Party Wall etc Act 1996: http://www.communities.gov.uk/documents/planningandbuilding/pdf/133214.pdf

**Building Contract**  
It is recommended that a formal written agreement is put in place between the building owner and the building contractor. A typical agreement that protects both owner and builder would be produced by the JCT. For further information on building contracts contact: Cairn Wharf Consultancy Ltd, 2 Boroughgate, Off Bay Horse Court, Otley, LS21 1SB M 07739 576181 cw@cairnwharf.com

**CDM 2015 Regulations**  
The Construction (Design and Management) Regulations 2015 applies to all construction work. Designers, builders and Clients all have duties under the regulations. For further information on the CDM 2015 Regulations contact: Cairn Wharf Consultancy Ltd, 2 Boroughgate, Off Bay Horse Court, Otley, LS21 1SB M 07739 576181 cw@cairnwharf.com

**GENERAL NOTES**  
Materials to match existing.  
These notes do not comprise a full specification. The drawings are for building regulation purposes only and are not working plans. They do not comprise of a complete specification for the whole of the works. Their primary function is to assist the local authority inspector to determine compliance in line with building regulation standards. Where further clarifications are required contractor shall refer to the client for details and instruction.

All dimensions must be checked by the contractor and any discrepancies noted in writing to MAS Design Consultants Ltd.

All works must be carried out in accordance with current Building Regulations, Codes of Practice and Planning Officers requirements.

All materials must comply with current British Standards in situations used.

REV

01943878398

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**PROPOSED**

**EXTENT OF PROJECT:**  
**PROPOSAL: PROPOSED LOFT CONVERSION WITH VELUX WINDOWS; FORMING 2 BEDROOMS / BATHROOM.**

**CLIENT DETAILS:**  
**MR ROBBINSON.**  
**51 CLIFFE LANE WEST,**  
**BILDON, SHIPLEY.**  
**BD17 5QL.**

**DRAWING TITLE:**  
**PROPOSED SECTION B-B.**

PAPER	SCALE	DATE	DRAWING No	REV
A3	1:50	08/23	M4078/04/301	.