



KEY

- Existing floors to be retained
- Existing floors to be strengthened / repaired by augmenting existing or adding new elements.
- Proposed new or replacement floors
- Existing beams / lintels
- New beams
- One way spanning
- Two way spanning
- Beams located within joist zone

MEMBER SCHEDULE

- FLOORS**
- S1 150mm thk insitu RC slab (1xA393 mesh) on 150mm MOT Type 1 sub-base
- S2 New 200x50 (C24) Timber joists @ 400mm C/C topped with 1No. layer of 18mm hardwood plywood
- S3 200mm thk limecrete slab on assumed 150mm thk insulation (to architect's specification)
- A Existing timber joists to be retained and reused where required. Allow for replacing 25% of joists like for like over full area. Assume 200x50mm joists @ 400 C/C
- B Double up existing joists by adding new 50Wx200D joists in existing spaces between joists. Existing timber joists to be retained and reused where required. Allow for replacing 25% of joists like for like over the full areas. Assume 200x50mm joists @ 400 C/C
- BEAMS**
- EB1 Existing 305x165x??UB
- B1 203x133x25UB (S355)
- B2 152x152x37UC (S355)
- B3 203x133x30UB (S355)
- B4 100Wx200D timber beam (C24) comprised of 2No. 50Wx200D sections bolted together with M12 bolts at 400mm C/C (horizontally)
- B5 150Wx200D timber beam (C24) comprised of 3No. 50Wx200D sections bolted together with M16 bolts at 400mm C/C (horizontally)
- COLUMNS**
- C1 100x100x5.0 SHS (S355)
- C2 150Wx200D timber column (C24) comprised of 3No. 50Wx200D sections bolted together with M16 bolts at 400mm C/C (vertically)
- C3 100x100 timber balustrade post (C24)
- WALLS**
- W1 140mm thk Dense Blockwork Wall

- FOUNDATIONS**
- FP1 600W x 600L x 300D mass concrete pad foundation
- FP2 400W x 400L x 300D mass concrete pad foundation
- LINTELS & PADSTONES**
- L1 100W x 215D precast concrete lintel (Naylor Hi-spec or similar approved)
- L2 100W x 140D precast concrete lintel (Naylor Hi-spec or similar approved)
- P1 215W x 440L x 215D precast concrete padstone (Naylor or similar approved)
- SHELF ANGLES & WALL PLATES**
- WP 50W x 200D timber wall plate (C24) fixed to face of masonry with M16 Hilti HLC Stud Anchors @ 300 mm C/C (Or similar approved).

Install rodding eye onto existing clay pipe to permit access for maintenance. Rodding eye point at surface to architects details and specifications.

Surround existing pipe in 'TYPE A' granular material to achieve 150mm cover on all sides then backfill the chamber with hardcore ground to dust at the underside of the proposed sub-base. Construct a new 150mm thk insitu RC slab dowelled into existing slab with 400mm long x M10 threaded rods @ 400mm C/C. Slab to be underlaid with 150mm MOT Type 1 sub-base.

Existing stone foundations to be underpinned with 300Wx500D mass concrete walls.

Allow for removing existing blockwork column as part of alterations to floors and stairs over. New beam to be provided over to support stair partitions and floor joists.

Existing doorway to be raised to allow circulation through corridor beneath main steps. Allow for temporarily propping existing masonry and stone slab over, removing blockwork columns and installing 4No. L2 lintels at each doorway.

Allow for clearing out existing rubble within this room from outside once the landing slab over has been removed. Allow for localised masonry repair works to internal faces of walls. Extent of repair works to be confirmed upon clearance of room.

PLAN 1:50 1 LOWER GROUND FLOOR

For existing beam (below) along head of openings allow for removing surface corrosion back to clean steel and painting beam for corrosion and/or fire protection.

Staircase design and details 'Others'.

Beam to support quarter landing below.

Timber beams to support flight and landing. Beam to be built into pocket in the existing masonry, and supported on new steel beam.

For existing steel lintels over the doorway, allow for removing surface corrosion back to clean steel and painting beam for corrosion and/or fire protection.

PLAN 1:50 2 GROUND FLOOR

Existing triangular arched window over lower opening - Allow for removing and replace localised bricks to consolidate the arch and replaster to architects specification.

For other, similar openings at this level no other obvious defects have been observed therefore we recommend keeping the plaster intact to avoid disturbing the masonry.

For existing beam (below) allow for removing surface corrosion back to clean steel and painting beam for corrosion and/or fire protection.

Note: For all proposals to the exterior of the building, refer to Mann Williams External Works Drawings.

- NOTES
- This drawing is copyright and may not be reproduced without the permission of Mann Williams.
  - All drawings are to be read in conjunction with the project specification with all works carried out in accordance with the latest British Standards and codes of practice.
  - Any ambiguities or discrepancies between this drawing and any other information given elsewhere must be reported to Mann Williams for clarification before work proceeds.
  - All dimensions to be checked on site and any discrepancies reported to the engineer before work commences.
  - Only figured or calculated dimensions should be used and no drawing, in any format should be scaled.

CDM RESIDUAL STRUCTURAL AND ENVIRONMENTAL RISKS

1. Risk of undermining existing wall footings during excavations for lift pit.

In accordance with the Contractors (Design & Management) Regulations 2016, Mann Williams has undertaken a design risk assessment for the elements of work shown on this drawing, residual risks are identified above.

REV	DESCRIPTION	BY	DATE
P1	PRELIMINARY	JB	28.02.24

P-PRELIMINARY T-TENDER CONSTRUCTION

PROJECT  
MERTHYR TYDFIL  
SYNAGOGUE

TITLE  
PROPOSED LOWER  
GROUND & GROUND  
FLOOR GENERAL  
ARRANGEMENT

**MANN WILLIAMS**  
CONSULTING CIVIL AND  
STRUCTURAL ENGINEERS  
53 MOUNT STUART SQUARE  
CARDIFF CF10 5LR  
T 02920 480333  
F 02920 435920  
E cardiff@mannwilliams.co.uk

DRAWN	CHKD	SIZE	SCALE	DATE
JB	PR	A1	1:50	27.02.2024

STATUS		
PRELIMINARY		
PROJECT	DRAWING	REV
9684	101	P1