


1 Proposed Art Store Floorboard Repairs
1 : 50

## FLOOR STRUCTURE WORKS

Existing solid concrete floor - no works

Area of new floor structure and floorboards (Scots Pine) to match adjacent & existing in depth and width, following removal of concrete oversite (refer to drawing MAG-BUT-08-B2-DR-A-00-1001). Refer to Structural Engineer's drawings for details of subfloor structure.

New timber floor structure as Structural Engineer's details, refer to 23-0002 for plywood floor coverings.

**Refer to Structural Engineer's drawings for details of repairs to floor joists**

## FLOORBOARD REPAIRS

**Lifting Boards**

**B02-B2-001**

All existing boards in the ceramic store are to be lifted as part of the works as Phase 1 Restoration spec. section RS16.3 to facilitate subfloor cleaning and excavation, and to allow for installation of new insulation between joists.

**B02-B2-003 - Lower Structure**

The floorboards to the lower structure are to be lifted to facilitate joist repairs (refer to structural engineer's documentation) and to allow subfloor cleaning and excavation. Boards to be lifted as Phase 1 Restoration spec. section RS16.3. These boards are tongue and groove; where lifting is causing excessive damage to the boards, the 'tongue' may be cut along the joint line to allow for the remaining boards to be lifted. See Repair Type 1 notes below.

**Fixing boards**

Existing ferrous nails are to be removed and boards and to be re-fixed with stainless steel countersunk partially threaded screws to BS 1210:1963, length to be at least 2.5x the thickness of the floorboards (see 23-0002 for floorboard thicknesses), in existing fixing positions where possible. Each board should have two fixings across the width of the board at each end and at joist locations.

**Board Repair Type 1: Boards to lower floor**

Existing boards to the lower floor structure in B02-B2-003 are to be relocated to the upper level and laid in the opposite direction to the current span (east-west). Boards are to be supplemented with new (see repair type 2 for new board requirements) to account for the increased floor area (~40m² area increase) and where boards are damaged beyond repair (amount to be determined following lifting).

**Board Repair Type 2: New boards**

Approximate extent of areas of missing floorboards / decayed floorboards to be replaced with new to B02-B2-001.
NOTES:
- Allowance should also be made to localised areas where boards have been cut, including where electrical floor boxes have been removed, for new boards to be pieced in as above.
- All boards to be assessed once lifted for any sign of decay to underside of boards.

New timber should be as follows:
- New boards are to match the timber species of the existing adjacent boards, refer to typical floor sections on drawing 23-0002 for details.
- New boards are to be machined to match the existing.
- New boards are to match the existing in depth and width.
- New timber to be preservative treated as Phase 1 Restoration spec. section RS16 (16.1.10)
- New timber for boards should not have a moisture content higher than 10% w/w.

For plywood inserts: Remove plywood and cut the adjacent floorboard back to the next joist. Fix ends of new and old board to joist as 'fixing boards'above.

For decayed or damaged boards: Carefully cut away damaged or decayed timber, and cut board back to the next joist. Fix ends of new and old board to joist as 'fixing boards'above.

**Board Repair Type 3: Splice repairs**

Where boards have broken edges but are otherwise in sound condition, a splice repair should be undertaken as follows:
1. Cut out around the broken edge of the board.
2. Sand off any loose fibres and remove dust and dirt from the edge of the board.
3. Piece in new board section to fit the old (see 'new boards' above).
4. Inserts should be fixed to the host material using a thin coat of epoxy glue to the end grains of the board, following application remove excess product to leave a smooth surface. Clamp in position until set (ensure block of wood is place between the board and clamp).
5. The new timber should be worked to the line of the existing timber.

**Board Repair Type 4: Holes from previous fixings**

Where boards have been removed, and the existing ferrous fixing has rusted and caused a hole in the existing board this may be repaired with resin as follows:
1. Remove all decayed and soft timber and create a 'shoulder' of at least 5 mm
2. Ensure the moisture content is no higher than 18%.
3. Sand off any loose fibres and remove dust and dirt
4. Prime all bare timber with Repair Care DRY FIX to ensure permanent bond between timber and resin for Dry Flex product
5. For small repairs (5-10mm) use Repair Care DRY FLEX 1 (1 hour cure time)
6. For medium repairs (5-20mm) use Repair Care DRY FLEX 4 (4 hour cure time)

**Joist bearing ends and wall plates**

Clear masonry pockets to joist bearing ends of silt and debris and ensure there is airflow. Where embedded in masonry, install DPC to underside of bearing end only as NBS F30/310. Cut back any decayed ends back to sound material and repair as Structural Engineer's details.

Install damp proof course under joists/ timber plates / behind wall plates to isolate from brick sleeper wall / masonry as NBS F30/310.

NOTE: Installation of the new DPC will involve lifting of joists. The position of all joists should be recorded prior to lifting to ensure they can be reinstated in position.

## SUB-FLOOR VENTILATION

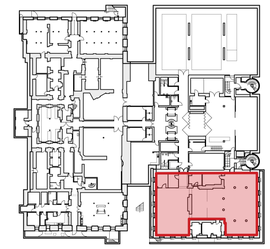
ALL sub-floor voids are to be thoroughly cleaned and cleared of all rubble and debris and excavated to a consistent level to ensure there is a continuous minimum 250mm void.

Refer to MAG-BUT-08-B2-DR-A-23-0003 for subfloor vent details:

- Vent Type 1
- Vent Type 2
- Vent Type 3

Note:
Do Not Scale from this drawing.
Dimensions are to be checked on site.
If in doubt please ask.

## KEY PLAN



## GENERAL NOTES:

All construction shall be undertaken and completed in strict accordance with all drawings, specifications, statutory Building and Planning regulations, Health and Safety regulations, all relevant codes of practice requirements and manufacturers' recommendations and instructions.

Any discrepancies in constructional information should be reported immediately to the contract administrator prior to commencement of any work.

1. For references and descriptions to work items, refer to separate **Phase 1 NBS Specification and 9518RS Architectural Restoration Specification (or Phase 2 Conservation Specification where indicated)**
2. All dimensions must be checked on site before proceeding. Dimensions of new work are to be adjusted to suit the existing where necessary. Do not assume that the existing structure or details are plumb, square or level.
3. Any discrepancies to be brought to the Architects attention as soon as possible.
4. Plan is based on survey information provided by MAG, corrected as far as reasonably possible to align with pointcloud survey data. All measurements to be checked on site.
5. The waterproofing guarantee provided for the cavity drain membrane is for hydrostatic ground water pressures under normal site conditions and does not cover surface water flooding events.
6. The 10 year waterproofing guarantee protects against water penetration to the treated area only, therefore does not cover water penetration through the floor areas.
7. Waterproofing works to specialist suppliers design. Waterproofing information is DESIGN INTENT ONLY- refer to specialist designer for further details.
8. The following drawings are to be read in conjunction:
   MAG-BUT-08-B2-DR-A-00-4001 - Proposed plan
   MAG-BUT-08-B2-DR-A-00-1001 - Alterations plan
   MAG-BUT-08-B2-DR-A-05-0001 - 5 - Internal elevations
   MAG-BUT-08-B2-DR-A-00-6001 - Section details
   MAG-BUT-08-B2-DR-A-06-6002 - GA Section
   MAG-BUT-08-B2-DR-A-22-0001 - Wall Types Plan
   MAG-BUT-08-B2-DR-A-22-0002 - Wall Lining Details
   MAG-BUT-08-B2-DR-A-23-0001 & 2 - Floor Repairs
   MAG-BUT-08-B2-DR-A-23-0003 - Floor Details
   MAG-BUT-08-B2-DR-A-23-0004 - Vent Details
   MAG-BUT-08-B2-DR-A-23-0005 - Floor Access Details
   MAG-BUT-08-B2-DR-A-31-0001 - Window proposals
   MAG-BUT-08-B2-DR-A-32-7001 - Door elevations and schedule
   MAG-BUT-08-B2-DR-A-32-7002 - Door details
   MAG-BUT-08-B2-DR-A-35-4002 - Reflected Ceiling Plan
   MAG-BUT-08-B2-DR-A-35-4003 - Ceiling details
   MAG-BUT-08-B2-DR-A-40-0001 - Finishes plan
9. To be read in conjunction with the associated structural and MEP documentation for Work Package 8

| Rev | Date | Intls | Details |
|---|---|---|---|
| C01 | 06/02/25 | HB | For Construction |
| P02 | xx/01/24 | HB | DRAFT |
| P01 | 29/11/24 | HB | Stage 4 for acceptance - Revised Floor Design |

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MANCHESTER CITY COUNCIL

**Buttress**

**Manchester**
41 Bengal Street
Manchester
M4 6AF
0161 236 3303

**Leeds**
Clockwise, Yorkshire House
Greek Street, Leeds
LS1 5SH
0113 539 7965

www.buttress.net

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|---|---|
| **Project Title** | Manchester Art Gallery |
| **Client** | Manchester City Council |
| **Location** | Mosley St, Manchester M2 3JL |
| **Drawing ref** | Proposed Timber Floor Repair Plan |
| **Date** | 06/02/2025 12:37:06 |
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| **Checker** | Checker |
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