

CONDITIONS TO BE DISCHARGED:

4) a) Prior to the commencement of the part of the stone floor marked for removal, as shown on EXTENT OF FLOORING BEING REPLACED document (Received 17/04/2025), a methodology for its removal shall be submitted to and approved in writing by the City Council as Local Planning Authority. The proposal shall then proceed in accordance with the approved methodology.
 b) Upon the discharging of part a of this condition and the taking up of the stone floor, final details on the extent of the existing stone flooring that will be reinstated and that which is required to be replaced, will be submitted to and approved in writing by the City Council. Any replacement stone shall only be replaced in accordance with the material sample shown on the EXTENT OF FLOORING BEING REPLACED document (Received 17/04/2025). The development shall then be completed in accordance with the approved details.
 Reason - In the interests of preserving and protecting the historic character and appearance of the listed building in accordance with policies CC9 and EN3 of the Core Strategy, saved policy DC19.1 of the Unitary Development Plan for the City of Manchester and the National Planning Policy Framework.



GROUND FLOOR PLAN



Extent of flooring being removed due to new underfloor heating installation, concealed speedgates base, and concealed containment routes.

STONE SPECIFICATION

ITEM	DESCRIPTION	QUANTITY	UNIT
1	STONE SPECIFICATION		
2	STONE SPECIFICATION		
3	STONE SPECIFICATION		
4	STONE SPECIFICATION		
5	STONE SPECIFICATION		
6	STONE SPECIFICATION		
7	STONE SPECIFICATION		
8	STONE SPECIFICATION		
9	STONE SPECIFICATION		
10	STONE SPECIFICATION		

AGREED STONE SAMPLE AGAINST EXISTING FLOORING



In order to provide a response to Condition 4(a), a trial removal of a section of the existing stone floor has been undertaken to assess the feasibility of lifting the tiles without causing damage. We are pleased to confirm that the trial was successful. The tile was lifted intact using a carefully controlled method designed to protect both the stone and the substrate.

A report documenting this trial, including photographs and a detailed step-by-step methodology, is attached with this submission. The methodology used in the trial will be replicated during the full removal of the identified section of flooring. This approach is intended to ensure that all recoverable stone tiles can be preserved for later reinstatement, in line with the aims of the condition.

In response to Condition 4(b), it is expected that at least 80% of the existing tiles will be reusable. In preparation for the full removal, an order has been placed for the approved replacement stone equivalent to 20% of the total floor area, to allow for any breakage that may occur.

To ensure precise reinstatement, each tile will be numbered prior to removal, with the intention of reusing each tile in its original position. In any instance where a tile is found to be broken or unsuitable for reuse, it will be replaced with a new/existing stone tile selected to match the tone of the original material as closely as possible.

If a number of replacement tiles close to the 20% threshold are required, the intention is to concentrate them toward the west side of the area (marked in blue), in order to keep the main circulation route and most visible zone (marked in green) as similar to the current appearance as possible.



GROUND FLOOR PLAN

SITE INSPECTION REPORT – 29th April 2025

Present: Iain Donnachie (Structural Partnership)
Will Silk (Stirling & Grey)

1.0 Reason for Inspection:

- 1.1 The Structural Partnership were appointed by Stirling & Grey to attend The Hanover Building, Hanover Street, Manchester to determine the floor construction of the main north foyer off Hanover Street. This was a disruptive survey inside the building positioned close to the proposed new speed gate installation.

2.0 Inspection:

- 2.1 The inspection was carried out on 29th April 2025.
- 2.2 The area of survey is in Appendix A.
- 2.3 Drawings obtained online from the Planning Portal (Appendix B) indicated the existing slab construction comprised 163mm non-structural concrete, screed and floor finish on top of a structural concrete slab, which replaces the original filler joist concrete slab construction supported on steel beams. Note that it is our understanding from the drawing that the steel beams were retained.
- 2.4 The area off works was cordoned off and furniture cleared. (Photo No. 3)
- 2.5 The slab was cat-scanned to check for buried services within the suspended floor structure. Areas where electrical cables were sensed by the equipment were marked with orange tape to define zones not to be cored due to risk. (Photo Nos. 4 & 5) Note, the cables may be a false reading or maybe below the slab, but as this could not be proven, the marked area was avoided for penetrative work. A safe zone was identified against the north wall as Appendix C and an 'X' marked as per Photo Nos. 6, 7 & 8.
- 2.6 The power supply required for the tool used to survey was on the opposite side of the working area. A cable was run from the socket to the working area, taped to the floor and covered with a mat to maintain access to the Hanover Street access. The power supply was connected to a 110v transformer. (Photo Nos. 9, 10 & 11)
- 2.7 The stone tile that was selected for removal was also chosen as it was next to an expansion joint and adjacent to the wall which had a mastic seal. Both locations were presumed to provide unbonded edges that could be cut out with a sharp blade. The last two edges were grouted and were to be cleaned out using a multitool. (Photo No. 12)
- 2.8 The two grouted edges were cut out using a multitool (with a vacuum cleaner nozzle catching any dust) and found to be approximately 15-20mm deep with a void below. The two soft edges were cut out using a blade which allowed a compressible strip to be removed from the expansion joint which was approximately 20mm deep with 10mm of mastic seal.

Cleaning out the wider slot of the expansion joint allowed the depth of stone tile to be confirmed as 40mm. Probing the exposed slot around the tile revealed bedding compound had protruded upwards, which is common. The multitool was used to clean out the perimeter around the stone tile to more than 40mm deep. A vacuum cleaner was used to capture dust arising during this stage of the work. (Photo Nos. 13,14, 15 & 16)

2.9 The first attempt to remove the stone tile, without damage, was successful. This method utilised applying a Dewalt Grabo Lifter (Photo No. 17) which is a powerful handheld battery-operated vacuum lifter. The grip exerted on the surface of the stone tile transferred the hand-applied side-to-side shaking motion which was sufficient to break the adhesion bond between the stone tile and the grout bedding compound, allowing the stone tile to be lifted free and undamaged, leaving the grout bedding compound in place and intact. (Photo Nos. 18 & 19)

2.10 The next task was to core the substrate to prove the construction below the slab. The corer was a water-fed Weko 22 on a Braun stand. (Photo Nos. 20 & 21)

2.11 The core revealed the bedding was a cementitious compound layer 210mm thick. The compound appeared to be bonded to the concrete surface (60mm below FFL) underneath by a blue coloured adhesive. (Photo Nos. 22-26). The core depth was increased and verified that the concrete layer was a 60mm thick aerated sand cement screed. Close inspection of the aerated screed revealed synthetic fibre reinforcement to be present (Photo Nos. 26,33 & 34). Below the aerated screed is 50mm insulation. (Photo Nos. 28-32). Underneath the insulation a concrete surface was revealed and this was cored to a depth of 65mm and halted as this is considered to be the structural slab. The partial core was broken out and confirmed to be a non-aerated normal concrete with aggregate present. (Photo No. 31)

2.12 The overall construction above the structural slab was confirmed as: 170mm thick comprising:

- 40mm stone tile
- 20mm bedding compound
- 60mm aerated screed
- 50mm insulation

3.0 Floor Reinstatement:

3.1 The cored section was infilled with a rapid set concrete premix to allow the insulation layer to be reinserted and the layer above also infilled with a rapid set concrete level with the top of the bedding compound. A thin mix of Mapei tile grout was mixed and applied to the surface of the bedding compound for re-bonding the stone tile to the substrate. A Mapei floor tile grout was then added to the two originally hard grouted edges. The expansion joint and wall junctions were reinstated and finished with a silicone finish to seal against water ingress. (Photo Nos. 35-38)

- 3.2 The working area was then cleaned up and all materials and equipment removed from site. All furniture was repositioned. (Photo Nos. 39-41)

4.0 Assessment of Findings:

- 4.1 The anticipated floor build up was not as expected. The planned fixing of the new speed gates will require a suitable substrate. The presence of the insulated layer is not conducive to providing adequate restraint as long-term flexing can be induced by daily lateral loadings. Therefore, recommendation is given to locally cutting out the floor below the speed gate bases to allow the insulated layer to be replaced with fibre reinforced rapid set concrete up to the top of aerated screed layer and stone tiles re-bedded. Fixings can then be drilled and resin anchor fixed into the structural slab. Embedment depth of fixings is dependent on the design loading exerted by the speed gate bolts.
- 4.2 Removal of a stone tile without damage was successfully achieved. The proposed removal of approximately 80m² of stone tile will require care to be exercised and is expected to follow a similar approach taken during this trial removal. It is anticipated once one stone tile is removed, clearing the edge grout and using the suction grip to pull upwards, combined with careful application of a wide bolster placed at the junction of the stone tile and grout bed and struck with a hammer, should induce separation of the two materials. Before removal consideration is to be given to marking each tile in a logical sequence of numbered rows which are recorded on a drawing including dimensions of each row to prevent either over or under joint gapping resulting in an unsatisfactory placement of the last row of stone tiles.
- 4.3 A post inspection query related to lifting the stone tiles to ensure the extent of salvageable stone was defined. The query raised was if this could be done in advance of the works and the tiles re-laid temporarily. In our opinion temporary dry relaying would put the stone tiles at risk of moving and cracking as well as putting pedestrians at risk of potential injury. If an adhesive was used to relay the stone tiles this could cause damage to the stone tiles when removing them again. Recommendation is given to laying a temporary floor covering to allow safe passage.

Yours sincerely



Signed

Iain Donnachie

For The Structural Partnership

30th April 2025



Photo 1

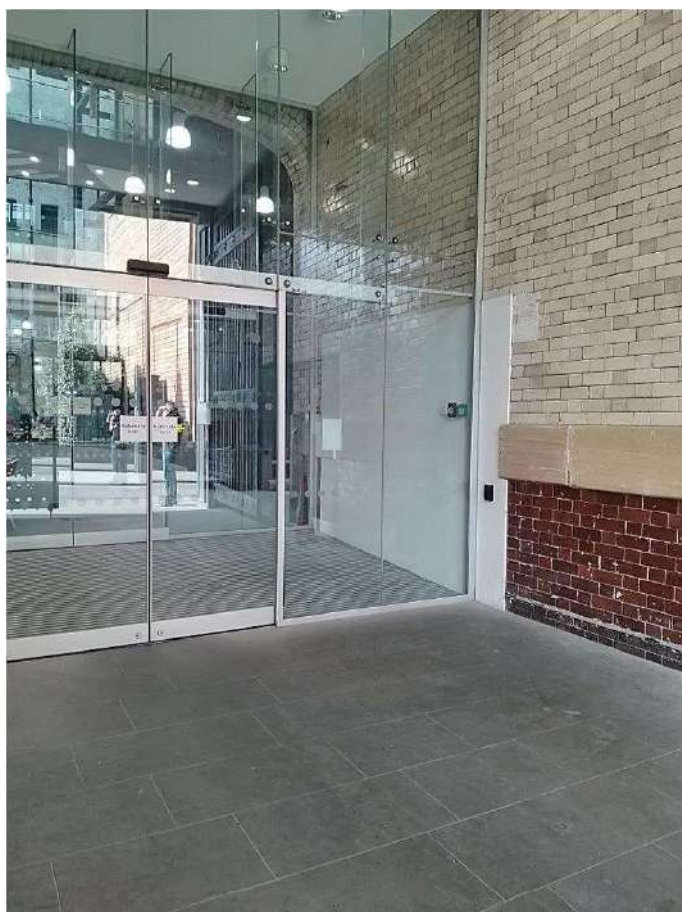


Photo 2

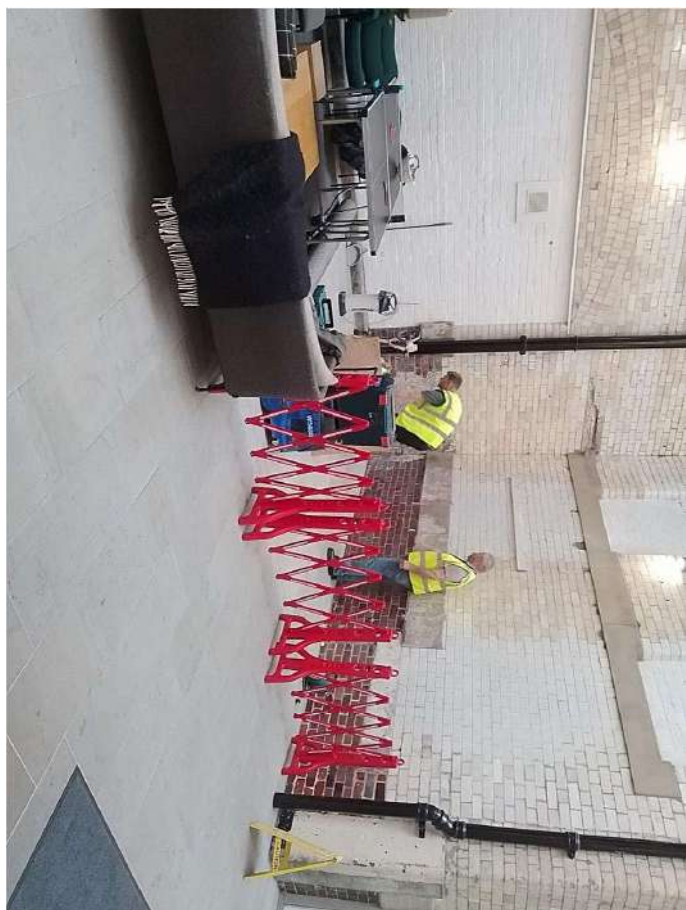


Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9

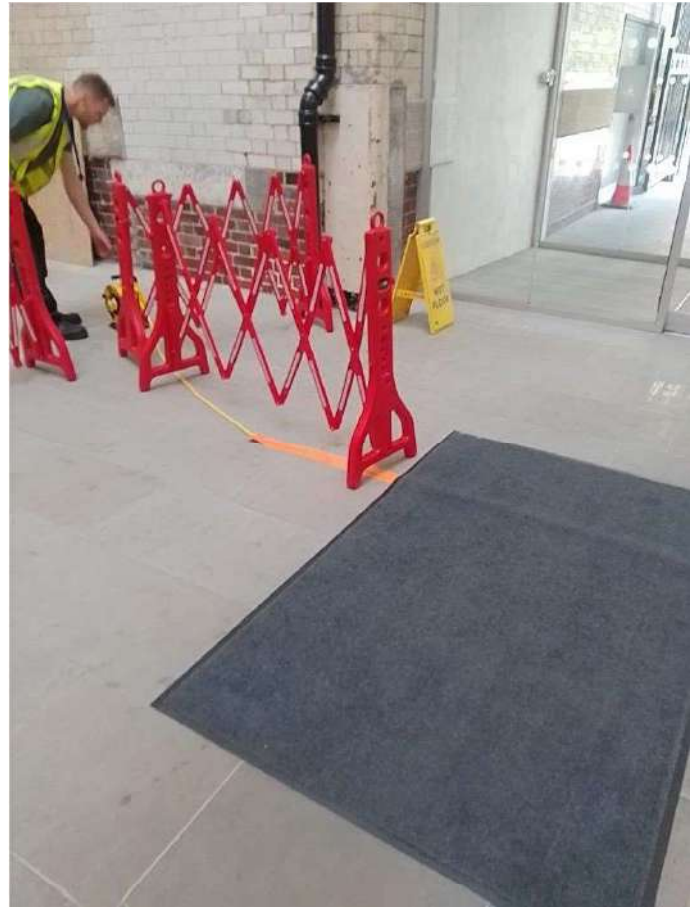


Photo 10



Photo 11

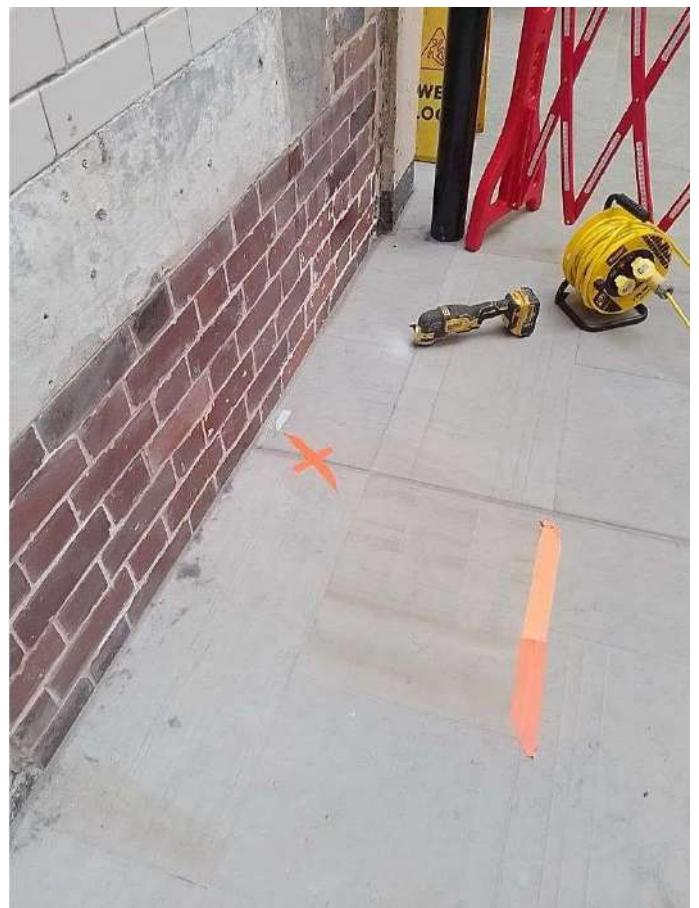


Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19

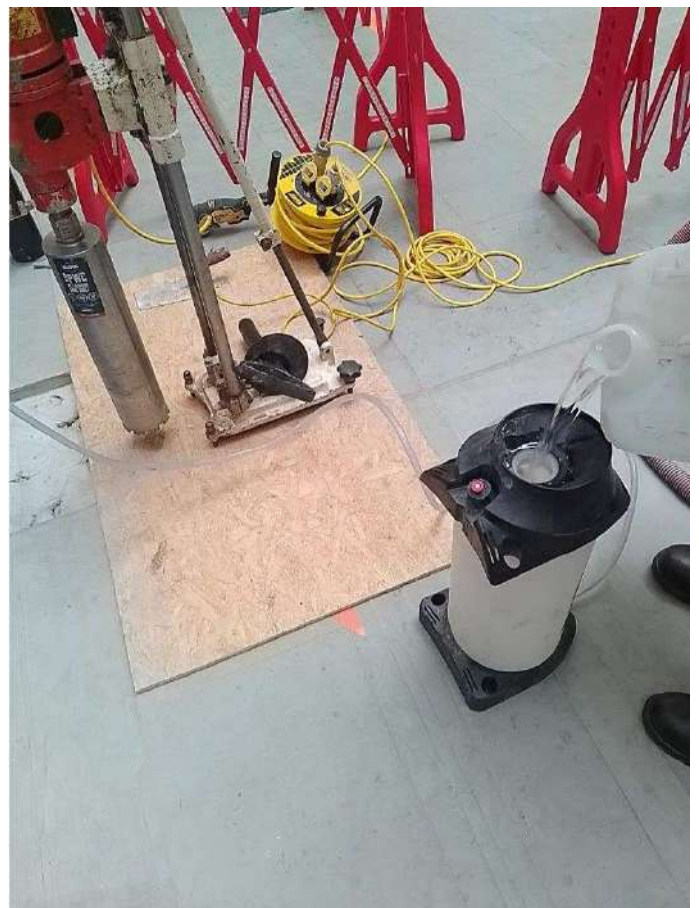


Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33



Photo 34



Photo 35



Photo 36



Photo 37

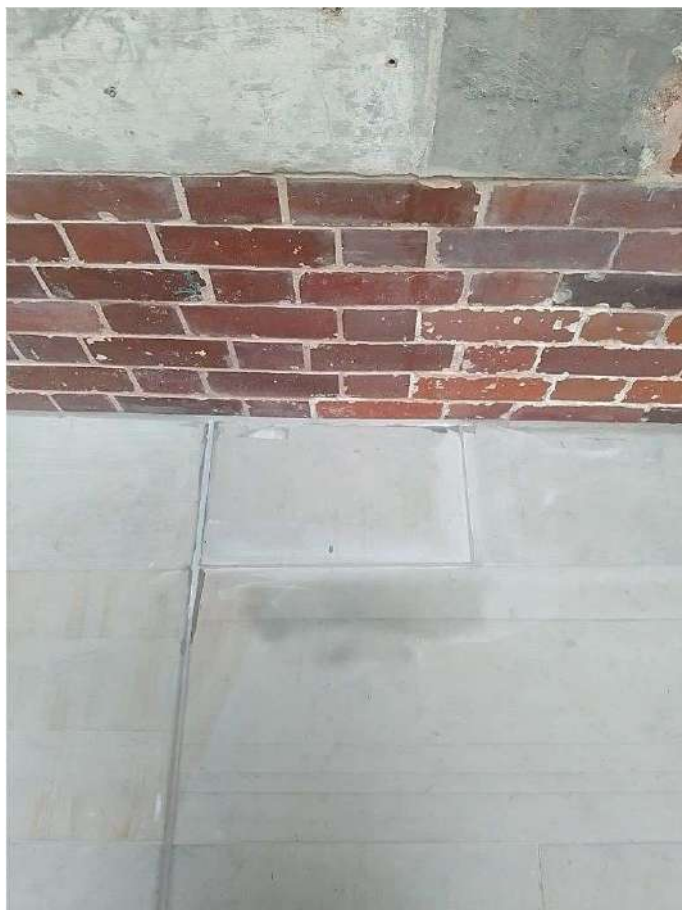


Photo 38



Photo 39



Photo 40



Photo 41