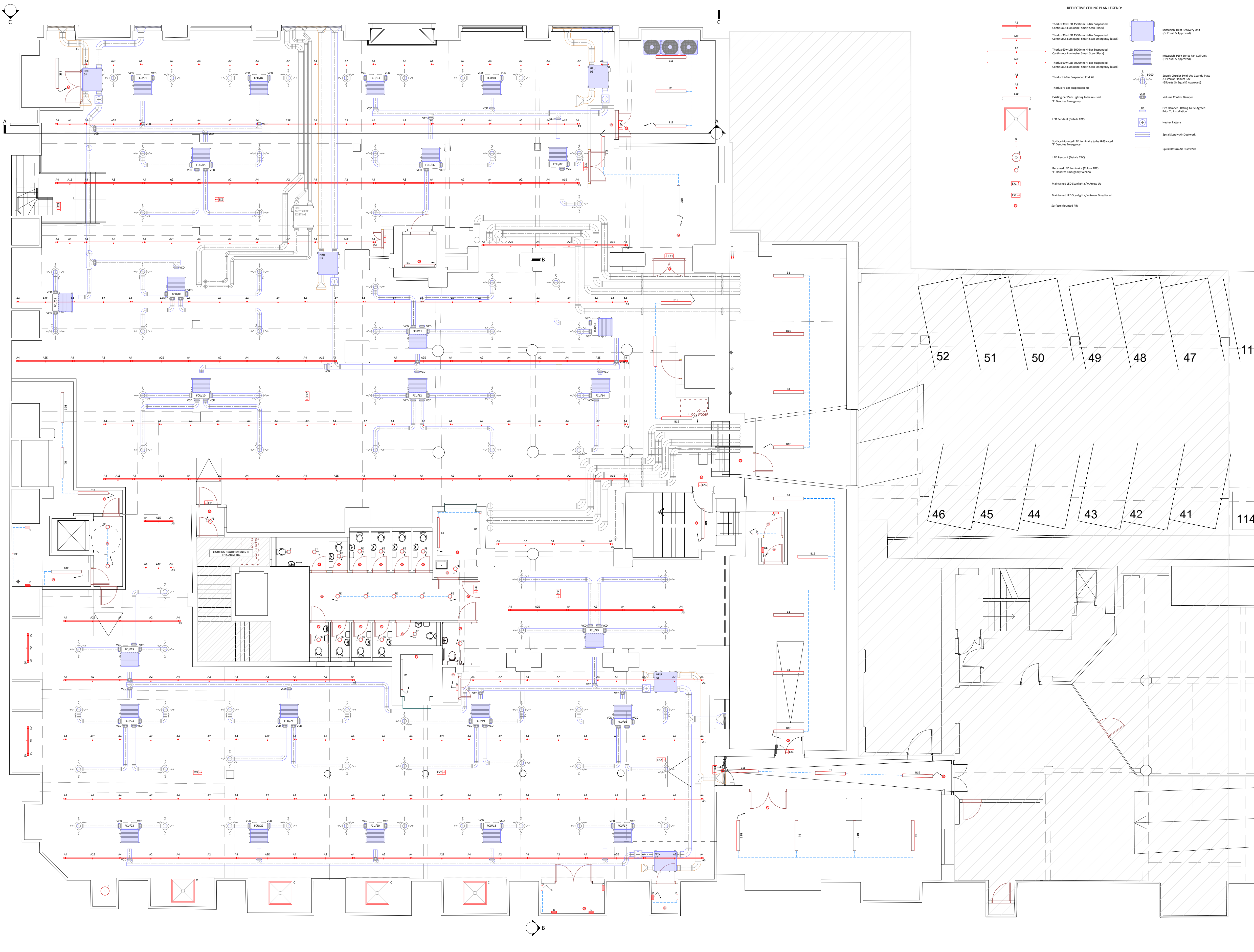
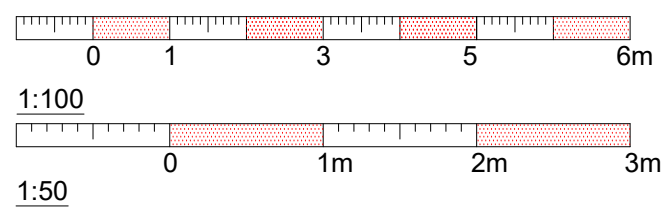




**Broadhurst - Basement Level
Reflective Ceiling Plan**

These lines measure 100mm in length when plotted correctly.



All scaled dimensions taken from this drawing shall be verified on site.
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Notes

- This drawing shall be read in conjunction with the relevant Marketaylor Ltd specification(s) and all relevant Architect's and other Engineer's drawing(s).
- Details are for design purposes only and shall be verified on site by the Engineering Contractor where accuracy is critical. The exact location of all plant items/equipment and the route of all services shall be determined on site.
- All plant, equipment, distribution system components and ancillaries shall be installed in strict accordance with the manufacturer's guidelines.
- The installation personnel shall allow for changes in distribution system(s) invert levels (including any sets up and down etc.) as necessary to coordinate fully with the building structure and other M&E Services.

Notes

- This drawing shall be read in conjunction with the relevant Marketaylor Ltd specification(s) and all relevant Architect's and other Engineer's drawing(s).
- Details are for tender purposes only and shall be verified on site by the Engineering Contractor where accuracy is critical. The exact location of all plant items/equipment and the route of all services shall be determined on site.
- All plant, equipment, distribution system components and ancillaries shall be installed in strict accordance with the manufacturer's guidelines.
- The installation personnel shall allow for changes in distribution system(s) invert levels (including any sets up and down etc.) as necessary to coordinate fully with the building structure and other M&E Services.
- All general sheet-metal ductwork shall be hot-dipped galvanised mild steel, installed in accordance with HVCA Code DW/144 Class A (low pressure). All kitchen extract sheet-metal ductwork shall also comply to HVCA Code DW/172.
- Duct mounted access doors shall be installed in accordance with HVCA Code DW/144 Appendix M Table 25 Level 1.
- All duct flexible connections shall be no more than 600mm in total length and shall be fully extended to minimise pressure drops. Each flexible connection shall not have an offset angle greater than 45°. For offset angles greater than 45°, sheet metal ductwork shall be used. Flexible ductwork shall be PVC / polyester laminate with an encapsulated steel wire helix, insulated on untempered supply systems.
- Volume control dampers shall be installed as necessary to allow full and proper balancing of each ventilation system. The MEC shall consult with his commissioning specialist at tender stage and shall allow for all dampers to suit. As a minimum, dampers shall be fitted to each air terminal, fan and main branches. All balancing dampers of size 250mm diameter and below shall be single-blade type with locking quadrant mechanism; all dampers above 250mm diameter shall be opposed-blade.
- Fusible link-operated fire dampers shall be installed wherever the ductwork passes through a fire-rated structure (wall, partition, floor slab, ceiling void barrier etc.). The MEC shall consult with the Architect / Main Contractor / Project Manager at tender stage to ascertain the location of all fire rated structures and shall allow for all fire dampers to suit.
- All duct tapers shall be concentric with an angle of no more than 22.5° wherever possible. The Consulting Engineer's written approval shall be sought in all instances where alternative installation methods are required.
- All air terminal plenum boxes (diffusers, grilles, louvres etc.) shall be site-measured and manufactured by the ductwork sub-contractor.
- Each air terminal shall be independently supported from the building structure - no weight shall be borne by the suspended ceiling.
- All ceiling-mounted air terminal pattresses to be provided by the Main Contractor.
- All wall louvre sizes are indicative. All louvres shall be measured on site prior to procurement and manufacture. Refer to the Architect's elevation drawings for further details.
- Each duct-mounted plant item, i.e. HRV units, fans, attenuators etc., shall be independently supported from the building structure. No weight shall be borne by the ceiling.
- All ductwork shall be thermally insulated in accordance with the specification, Building Regulations Part L2: 2013, TMSA Guide 2006 and BS 5422: 2001, unless otherwise noted. All insulated ductwork shall be identified with colour bands to BS 1710.
- All tempered fresh air supply ductwork and heat recovery return air ductwork shall be thermally insulated with 25mm thick glass mineral wool with a density of 80kg/m³ and a Class 0 reinforced aluminium bright foil cover. The thermal conductivity shall be no more than 0.035W/mk at 50°C.
- All untempered fresh air supply ductwork and return air ductwork shall be thermally insulated and vapour-proofed with 50mm thick glass mineral wool with a density of 80kg/m³ and a Class 0 reinforced aluminium bright foil cover. The thermal conductivity shall be no more than 0.035W/mk at 50°C.
- All extract and exhaust ductwork shall not be insulated.

FINAL LIGHTING DESIGN SUBJECT TO ADDITIONAL MANUFACTURERS CALCULATIONS

The Contractor shall allow for a temporary fire alarm installation which shall be present and active for the duration of the construction period.

This drawing is indicative of a design. The contractor shall be responsible for the production of design calculations and drawings to the satisfaction of the client and engineer. This drawing has been provided for information purposes only and does not necessarily identify all elements of the works.

P4	REVISED GENERAL ARRANGEMENT.	25.03.20	J5	JN
P3	REVISED GENERAL ARRANGEMENT.	16.03.20	J5	JN
P2	REVISED VRF INSTALLATION ARRANGEMENT.	20.02.20	J5	JN
P1	PRELIMINARY ISSUE FOR CLIENT REVIEW.	04.02.20	J5	JN
ISSUE	DESCRIPTION	DATE	DRN	CHD



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STATUS

PLANNING

CLIENT

Helical Plc

CONTRACT **Broadhurst
Manchester**

TITLE **Basement Level
Reflective Ceiling Plan**

DATE	04.02.20	SCALE	1:100	
DRAWN	J5	JOB No.	DRG No.	REV
CHECKED	JN	579(O)	BL-M-571-2	P4
APPROVED	JN			
EXTERNAL REF.	Churchgate Basement x-ref [200204]			

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