



EAST LOWER LEVEL PLAN

Notes:

This drawing is not to be used as a construction/installation drawing. Routes and zones have been allocated to this service, location dimensions are indicative of these.

To prepare the construction/installation drawing, the subcontractor must adhere to the co-ordination principle and must respect service co-ordination drawings pertaining to the works shall acquire consent with the general contractor of a wider review and ensure that in taking his work it will not obstruct the fixing of future installation of other services.

The subcontractor is responsible for correct field dimensions, clearances and heights, quantities, installation processes and techniques of construction co-ordination of his work with that of all other trades, providing all services necessary for safe and satisfactory operation. Detailed drawings, typical sections, typical weight (including all typical details as well as the legend can be read off drawing number MA-1100.

All installation should be carried out as per Part IV of the tender specification.

Duct sizes shown are sheet metal sizes.

All ducting to be manufactured & installed in accordance with the SANS standards.

All A/C duct to be fitted with metal grid platform on floors with access door.

All exposed ducting to be painted to an approved colour.

All take-offs from supply & exhaust air ducting to be 45° ducts.

AC equipment to be fitted with anti-vibration mountings as per specification.

HVAC contractor to ensure that all condensate drains are trapped and slope adequately. All drains to be tested for leaks and operation.

All ducting to be fit on top and installed hand-up to the underside of the slab above.

1. HVAC Contractor is responsible for connecting the condensate drains to the drain stack or the nearest drain. The connection must be a solid connection to prevent leakage.

2. Terminal positions are provided. Final positions shall be determined on site in consultation with Client/Engineer. Where full height penetration is required for connecting the termination, it must be mounted on the brick wall.

3. All refrigerant piping, electrical and control wiring between indoor and outdoor units must run in trays/for cable trays with cover plate, securely sealed against wall.

4. Condenser must be mounted on galvanised cantilever frame.

5. All supply air ducting must be externally insulated.

6. All BMS wiring must be installed in PVC conduit by BMS contractor.

DIVISION OF WORK

Work by Main Contractor

- Openings in slabs for door grilles.
- Openings in ceiling for air terminals and/or fans.
- Openings in structure complete with timber frames (in non-fire rating) and mounting gull after installation of HVAC equipment.
- Concrete bases for fan sets, etc.
- Enclosure around cable openings.
- Mounting grid platform in AC shafts.
- Building and weathering of air dampers.

Work by Electrical Subcontractor

- Power supply terminating in Distribution boards.
- Heater interlocking solenoid with the air pressure switch.
- Stop/Start interlocking of isolat exhaust fans.
- Fire interlocking signal to each Air-Unit.

Work by Plumbing Subcontractor

- Fulbore outlets on roof.
- Water outlet points for Chiller Units.

Legend

- Externally insulated supply ducting
- Externally insulated return ducting
- Uninsulated extract ducting
- Cladded extract ducting
- Fresh Air Duct
- 600x600 Constant Volume Supply Air diffuser with flow rate
- AS2 optional condensate/drain piping
- Refrigerant piping
- Duct stop end
- Single phase isolator by electrician
- Three phase isolator by electrician
- Ceiling cassette with Cooling capacity
- Fire damper with fusible link
- Under Cut door (25mm)
- Door Grille with size and flow rate
- Disc valve with flow rate
- Return Air Grille (600x600) with flow rate
- Variable refrigerant Volume Condensers
- Mid wall unit
- Hide Away (Connected) Unit
- Axial Fan
- Sound Attenuator (1.50)
- Weather Louvre with size and flow rate
- Condenser
- Supply Air diffuser with
- Extract Air Grille

REVISIONS		
TD	03.10.25	ISSUED FOR TENDER
A	25.03.25	ISSUED FOR INFORMATION
Rev No.	DATE	DESCRIPTION



Project:		
REFURBISHMENT & UPGRADE OF NHLS BLOCK 14		
Master plan reference:		
BLOCK 14 E		
Drawing:		
EAST LOWER LEVEL PLAN HVAC LAYOUT		
Status:		
TENDER		
Drawn by:	J.M.	
Designed by:	J.M.	
Checked by:	M.M.	
Signature	2025-02-07	Pr No: 2019030448
Scale:	1:100	Revision No.:
Date:	FEB-2025	TD
Drawing No:	P2407-MA-110	