

**AIR CONDITIONING UNITS:
INVERTER HEAT PUMP UNITS**

UNIT No.	DS-01	DS-02	UC-1
QTY	2	3	3
TYPE OF UNIT	INVERTER HEAT PUMP DUCTED HIDE AWAY	INVERTER HEAT PUMP DUCTED HIDE AWAY	INVERTER HEAT PUMP UNDER CEILING UNIT
MAKE	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
MODEL	PEA-RP200GAQ	PEA-RP250GAQ	PCA-RP100KAQ
TOTAL COOLING (kW)	19.0	22.0	10.0
TOTAL HEATING (kW)	22.4	27.0	11.2
SUPPLY AIR (l/s)	867 - 1083	1067 - 1333	467
RETURN AIR (l/s)	801 - 822	870 - 905	392
OUTSIDE AIR (l/s)	180	210 - 240	75
STATIC PRESSURE (Pa)	TO SUPPLIER'S SPEC.	TO SUPPLIER'S SPEC.	TO SUPPLIER'S SPEC.
ELECTRICAL POWER SUPPLY	400/3φ/50 (19.0 Amps)	400/3φ/50 (21watts)	230/1φ/50 (26.5 Amps)
WEIGHT (Kg)	70	77	36

VENTILATION FANS:

FAN No.	FA-1	FW-1
FAN MODEL No.		
FAN TYPE	AXIAL FAN	WALL MOUNTED FAN
QTY	1	5
AREA SERVED	MALE & FEMALE TOILETS	KITCHEN & STAFF TOILETS
SWITCHING / CONTROL INTERLOCK	DIGITAL TIMER	DIGITAL TIMER
DIAMETER/SIZE (mm)	Ø500	--
AIR QUANTITY EACH (m³/s)	0.525	0.1
STATIC PRESSURE (Pa)	150	--
ROTATIONAL SPEED (rpm)	1440	--
MOTOR SIZE (kW)	0.37	--
SOUND ATTENUATORS - SUCTION	1.5D	--
- DISCHARGE	1.5D	--
POWER SUPPLY (VOLT/PHASE/Hz)	220/1φ/50	220/1φ/50 (0.15 Amps)

DIFFUSERS & GRILLES

ITEM	DESCRIPTION	QTY	SIZE
DV-1	EXTRACT AIR DISC VALVE	17	Ø150 neck
DG-1	DOOR GRILLE	3	300x300
DG-2	DOOR GRILLE	18	200x200
DG-3	DOOR GRILLE	4	250x250
DG-4	DOOR GRILLE	2	500x500
WL-1	FRESH AIR INTAKE WEATHER LOUVRE	2	300x300
WL-2	FRESH AIR INTAKE WEATHER LOUVRE	1	450x300
WL-3	FRESH AIR INTAKE WEATHER LOUVRE	2	400x300
WL-4	TOILET EXTRACT WEATHER LOUVRE	1	550x550
WL-5	FRESH AIR INTAKE WEATHER LOUVRE	3	200x200
CV-01	Ø600 CONSTANT VOLUME DIFFUSER	4	Ø250 neck
SG-01	ALUMINUM ANNOXIDISED SIDE BLOW GRILLE	28	300x300
RG-1	R.A.F.F. R/A GRILLE C/W PLENUM BOX	1	600x600
RG-2	R.A.F.F. R/A GRILLE C/W PLENUM BOX	8	350x350
RG-3	R.A.F.F. R/A GRILLE C/W PLENUM BOX	4	200x200
DA-1	AIR CONTROL DAMPER	8	350x300
FB-1	SIDE ACCESS FILTER BOX C/W 50mm PLEATED FILTER	2	300x300
FB-2	SIDE ACCESS FILTER BOX C/W 50mm PLEATED FILTER	1	450x300
FB-3	SIDE ACCESS FILTER BOX C/W 50mm PLEATED FILTER	2	400x300

NOTES

- (*) - DENOTES WORK TO BE PROVIDED BY OTHERS.
- ALL DUCT SIZES INDICATED ARE SHEETMETAL SIZES.
- ALL VENTILATION DUCTING SHALL BE UN-INSULATED AND BARE SHEETMETAL SIZES.
- ALL DUCTWORK SHALL BE MANUFACTURED IN ACCORDANCE WITH SABS LOW PRESSURE AND INSTALLED IN ACCORDANCE WITH SABS.
- UNLESS OTHERWISE STATED ALL CIRCULAR SUPPLY AND RETURN AIR CONDITIONING DUCTING IN THE BUILDING TO BE SPIRAL WOUND DUCTING.
- ALL OPENINGS THROUGH STRUCTURE AND BRICKWORK FOR AIR-CONDITIONING SERVICES SHALL BE PROVIDED BY THE BUILDER.
- CLOSING-UP AND RENDERING WATERPROOFING AFTER INSTALLATION TO BE BY BUILDER.
- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH SABS 0142-1993 (AS AMENDED).
- ALL EXTERNAL OPENINGS THROUGH SLABS AND WALLS GREATER THAN 400x350 TO HAVE 16mm BURGLAR BARS AT 150mm CENTRES INSTALLED.
- ALL CONDENSATE DRAIN PIPING SHALL BE 25Ø PVC AND TO BE TRAPPED AND TO HAVE A FALL OF min 1:100.
- ALL REFRIGERATION PIPING TO BE INSTALLED ON CABLE TRAYS.
- ALL EXPOSED REFRIGERATION PIPING TO BE INSTALLED IN GALVANIZED TRUNKING PAINTED TO ARCH'S COLOUR.
- ALL RETURN AIR & EXHAUST GRILLES TO BE EUROPAIR TYPE RA OR SIMILAR. NO EGG CRATES TO BE USED AS R/A GRILLES.
- ALL DIMENSIONS INDICATED IN MILLIMETERS UNLESS OTHERWISE INDICATED.

LEGEND

⊙ - CONTROLLER. POSITION TO BE CONFIRMED

No.	DATE	NOTES	DRAWN
1	19.06.15	HVAC LAYOUT REVISED TO NEW ARCH. LAYOUT	S.M
0	10.04.15	ISSUED FOR TENDER	S.M

REVISIONS

Client

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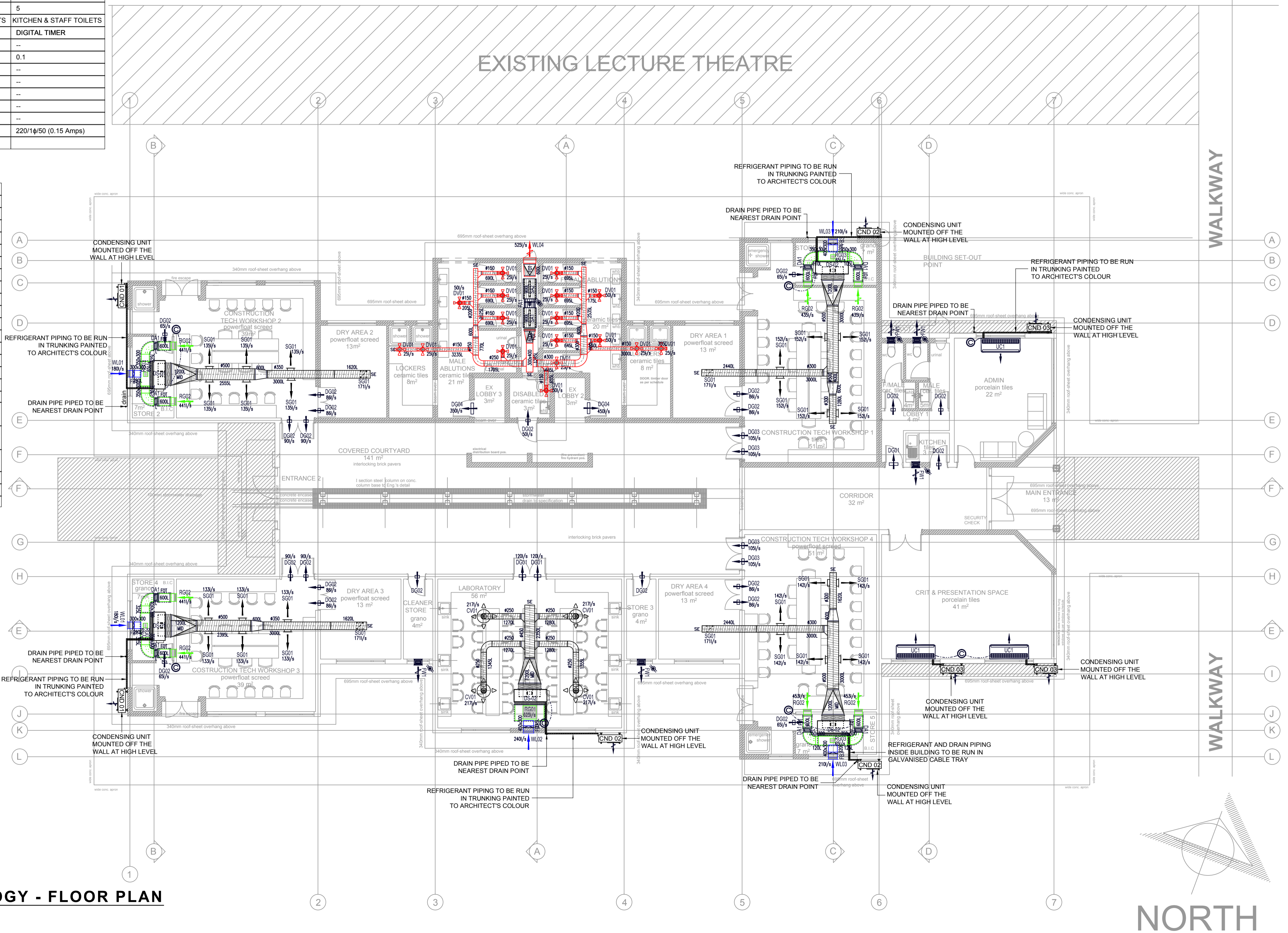
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CONSTRUCTION OF UNIVERSITY OF VENDA

CONSTRUCTION TECHNOLOGY WORKSHOP AIR CONDITIONING AND VENTILATION FLOOR PLAN

Ref No.	---	---	ITEM No.
DESIGN	D.D	S.M	DRAWN
SCALE	1:100	D.D	CHECKED
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	PR NUMBER
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DRAWING CO-ORDINATED			
DRAWING NUMBER			
SIZE	DRAWING NUMBER		REV
A1	CTW/1279/HVAC/01		1



CONSTRUCTION TECHNOLOGY - FLOOR PLAN
SCALE 1:100 @ A1

