

KZN HEALTH
THULASIZWE CLINIC - ZNB 5766/2024-H
BILL OF QUANTITIES
AIR CONDITIONING AND VENTILATION INSTALLATION

PARSONS AND LUMSDEN
D0741/HVAC

Item	Description	Unit	Qty	Rate	Amount
1.00	<u>BILL 01 - PRELIMINARY AND GENERAL</u>				
1.01	Comply with the requirements of the contract in terms of the programme and the completion and hand-over dates.	Lot	1		
1.02	Comply with the contract in terms of the safety requirements for the project.	Lot	1		
1.03	Provision of the safety file for the project in terms of the contract requirements and the requirements of the client	Lot	1		
1.04	Provision of a detailed MS project programme in terms of the contract requirements	Lot	1		
1.05	Contract engineering and detailed engineering required for all equipment and installation requirements.	Lot	1		
1.06	All site measurements and co-ordination with the engineers requirements of the project.	Lot	1		
1.07	Co-ordination of all equipment and systems with the engineer and also with all other sub- contractors on the site, and for the duration of the project.	Lot	1		
1.08	Contract management	Lot	1		
1.09	Safety management on the site, and safety supervision at all times while working on the site.	Lot	1		
1.10	Supervision of the installation and supervision of all workers on site to ensure an efficient and well-managed contract.	Lot	1		
1.11	Site establishment including site accommodation, safety signage & requirements, fencing , storage racks and everything necessary for a well planned and managed contract.	Lot	1		
1.12	Rigging and handling requirements for all equipment and services required for the complete and efficient installation. Include for the hire of cranes and fork lift trucks as necessary for all equipment.	Lot	1		
1.13	Scaffolding for the installation of ducting and all other equipment	Lot	1		
1.14	Equipment & design submissions to the consultant for approval prior to ordering or manufacturing .	Lot	1		
1.15	All wiring diagrams and electrical layout drawings in CAD format.	Lot	1		
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Item	Description	Unit	Qty	Rate	Amount
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1.16	Provision of a performance guarantee as required by the Main Contractor and / or the Client, and in terms of the main contract	Lot	1		
1.17	Contract insurance costs to cover all equipment and services for the duration of the contract	Lot	1		
1.18	Provision of O&M manuals (3 hard copies and 1 electronic copy) after completion and commissioning. Initial submission is to be a draft which is to be checked and approved by the Consulting Engineer. Final payment will be withheld until after the approved O&M Manuals are submitted to the client	Lot	1		
1.19	De-establishment of the site including removal of all excess materials, tools and rubbish. The site must be 100% clean and tidy after completion	Lot	1		
1.20	Service and maintenance of the new AC and ventilation equipment for a period of 12 months after practical completion as per the manufacturers maintenance requirements is required on all equipment installed	Lot	1		
1.21	General commissioning of all other HVAC equipment in accordance with the specification	Lot	1		
1.22	Any other "Preliminary & General" items deemed necessary by the Tenderer / Contractor	Lot	1		
TOTAL BILL NO 1 - CARRIED FORWARD TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate	Amount
2.00	<u>BILL NO. 02 - DX SPLIT TYPE UNITS</u>				
	Supply and install a heat pump, fixed speed split unit. Complete with outdoor unit, Hard-wired remote controller and hot dipped galvanized condenser wall mounting brackets.				
2.01	AC-01 - 2.7 kW	No	10		
2.02	AC-02 - 3.5 kW	No	13		
2.03	AC-03 - 5.3 kW	No	3		
	uPVC Condensate drain pipe insulated with 13mm armaflex incl support brackets, U-trap for each unit, bends, sufficient rodding eyes, etc.				
2.04	Ø 32mm uPVC	Lot	1		
	Refrigeration class copper piping pair, liquid and suction line to suit unit with 13mm armaflex insulation c/w bends, connectors, etc.				
2.05	AC-01 - 2.7 kW	No	10		
2.06	AC-02 - 3.5 kW	No	13		
2.07	AC-03 - 5.3 kW	No	3		
2.08	Cable Basket and hangers for supporting refrigerant piping	m	94		
2.09	Galvanized P9000 Trunking for externally mounted refrigeration piping with removable lids, including bracketing, bends, etc.	m	18		
	<u>Electrical Installation</u>				
	Electrical connection between isolator and condenser unit as required for:				
2.10	AC-01 - 2.7 kW	No	10		
2.11	AC-02 - 3.5 kW	No	13		
2.12	AC-03 - 5.3 kW	No	3		
TOTAL BILL NO 2 - CARRIED FORWARD TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate	Amount
3.00	<u>BILL NO. 03 - AIR TERMINALS</u>				
	<u>Supply air disk valve as per specification including spigot and 1.5m flexible duct connection</u>				
3.01	SDV-01 - Ø150 Trox Z-LVS or similar and approved	No	3		
	<u>Door Grilles</u>				
3.02	DG-01 - 400 x 400	No	6		
	<u>Exhaust Disk Valves including spigot and 1.5m flexible connection</u>				
3.03	DV-01 Ø150 - Trox LVS or similar and approved	No	13		
	<u>Weather Louvers including bird mesh screen</u>				
3.04	WL-01 200 x 200 Trox WL or similar and approved	No	7		
3.05	WL-02 400 x 400 Trox WL or similar and approved	No	8		
TOTAL BILL NO 3 - CARRIED FORWARD TO SUMMARY PAGE					

Item	Description	Unit	Qty	Rate	Amount
4.00	<u>BILL NO. 04 - VENTILATION SYSTEMS</u>				
	<u>Ventilation Fans</u>				
	Supply and install fans including hangers, brackets etc. as per specification and drawings				
	Luft TT Silent-M In-line fans or similar and approved				
4.01	SAF-01 - Ø100	No	3		
4.02	EAF-01 - Ø200	No	2		
4.03	EAF-02 - Ø315	No	1		
4.04	EAF-03 - Ø150	No	1		
	Electrical connection between isolator and equipment incl control & accessories requirements as specified on drawings for:				
4.05	SAF-01 - Ø100	No	3		
4.06	EAF-01 - Ø200	No	1		
4.07	EAF-02 - Ø315	No	1		
	<u>Ductwork - AS PER SANS 1238:2005 For ventilation fans</u>				
	Straight ductwork including hangers, supports and mezz flanges				
4.08	Round ducting 150ø	m	29		
4.09	Round ducting 200ø	m	19		
4.10	Round ducting 300ø	m	17		
	<u>Extra Over for duct fittings including hangers and supports - Category 1</u>				
4.11	60-90° Bends	No	8		
4.12	Transformation pieces	No	10		
4.13	Tee piece	No	1		
4.14	Stop ends	No	5		
4.15	Shoe Piece	No	0		
	<u>Air Filters</u>				
	50mm pleated filter in galvanized steel box with slide out frame for easy removal				
4.16	FB-01 200 x 200	No	3		
TOTAL BILL NO 4 - CARRIED FORWARD TO SUMMARY PAGE					

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