

SARS ALBERTON ENFORCEMENT CENTRE
BILL of QUANTITY - HVAC COST OF WORKS

Total Cost	
	Carried to Summary

SARS ALBERTON ENFORCEMENT CENTRE
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Item	QTY	Unit	Description	Rate	Cost
			Ground Floor - HVAC Upgrade - Bill Of Quantities - Bill No 3 - VAV System		
3.1			<u>Ducting</u>		
3.1.1	34	m	150 dia circular ducting externally insulated		
3.1.2	120	m	200 dia circular ducting externally insulated		
3.1.3	82	m	250 dia circular ducting externally insulated		
3.1.4	118	m	300 dia circular ducting externally insulated		
3.1.5	17	No	150 dia insulated flexible ducting 2 m long with clamps		
3.1.6	60	No	200 dia insulated flexible ducting 2 m long with clamps		
3.1.7	41	No	250 dia insulated flexible ducting 2 m long with clamps		
3.1.8	59	No	300 dia insulated flexible ducting 2 m long with clamps		
3.1.9	17	No	150 dia spigot insulated		
3.1.10	60	No	200 dia spigot insulated		
3.1.11	41	No	250 dia spigot insulated		
3.1.12	59	No	300 dia spigot insulated		
3.2			<u>Air Terminals & Dampers</u>		
3.2.1	17	No	VV01a, 600x600 VAV swirl diff, 80l/s, 40 Pa, 150 dia, 0.25 kW heat		
3.2.2	9	No	VV02a, 600x600 VAV swirl diff, 130l/s, 40 Pa, 200 dia, 0.25 kW heat		
3.2.3	50	No	VV02b, 600x600 VAV swirl diff, 130l/s, 40 Pa, 200 dia, 0.5 kW heat		
3.2.4	1	No	VV02d, 600x600 VAV swirl diff, 130l/s, 40 Pa, 200 dia, 1 kW heat		
3.2.5	23	No	VV03a, 600x600 VAV swirl diff, 184l/s, 40 Pa, 250 dia, 0.5 kW heat		
3.2.6	3	No	VV03b, 600x600 VAV swirl diff, 184l/s, 40 Pa, 250 dia, 0.75 kW heat		
3.2.7	10	No	VV03c, 600x600 VAV swirl diff, 184l/s, 40 Pa, 250 dia, 1 kW heat		
3.2.8	5	No	VV03d, 600x600 VAV swirl diff, 184l/s, 40 Pa, 250 dia, 1.25 kW heat		
3.2.9	12	No	VV04b, 600x600 VAV swirl diff, 225l/s, 40 Pa, 300 dia, 1 kW heat		
3.2.10	38	No	VV04c, 600x600 VAV swirl diff, 225l/s, 40 Pa, 300 dia, 1.25 kW heat		
3.2.11	9	No	VV04d, 600x600 VAV swirl diff, 225l/s, 40 Pa, 300 dia, 1.5 kW heat		
3.2.12	90	No	RG01, 600 x 600 45 degree aluminium return air grilles		
3.3			<u>Terminal Controls as per SICO DWG 110</u>		
3.3.1	68	No	Thermostat, cable, master controller with heater as per SICO DWG 110 complete with plugs, electrics, etc.		
3.3.2	109	No	Slave controller with heater as per SICO DWG 110 complete with plugs, electrics, cabling, etc.		
3.3.3	68	No	Installation of thermostat and cabling		
3.3.4	109	No	Installation of slave controller cabling		
3.4			<u>Controls for AHU as per SICO DWG 105</u>		
3.4.1	1	No	Danfoss or equal approved variable speed drive for AHU 2 - 4.4 kW		
3.4.2	1	No	Danfoss or equal approved variable speed drive for AHU 5 - 2.2 kW		
3.4.3	6	No	Controls, controllers, cabling, static pressure sensor, control wiring from static pressure sensor to controller inside plantroom installed in conduits as per SICO DWG 105 complete		
3.4.4	6	No	Pressure switch installed with 40 m of control cabling installed in conduit to the electrical board feeding the new VAV diffusers for the safety interlock to the heater circuits		

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Item	QTY	Unit	Description	Rate	Cost
			Ground Floor - HVAC Upgrade - Bill Of Quantities - Bill No 3 - VAV System - Continued		
3.5			<u>Electrics</u>		
3.5.1	1	Lot	Alterations to existing electrical system for the existing CAV AHU # 2 to change it to a VAV system to accommodate the new VSD, complete with cabling, protection, etc.		
3.5.2	1	Lot	Alterations to existing electrical system for the existing CAV AHU # 5 to change it to a VAV system to accommodate the new VSD, complete with cabling, protection, etc.		
3.5.3	1	No	New electrical distribution board, MCC 1 inside plantroom # 1, supplying power for the new VAV diffusers of AHU 1,2 & 3 complete with all safeties, controls, protection, etc		
3.5.4	1	No	New electrical distribution board, MCC 2 inside plantroom # 2, supplying power for the new VAV diffusers of AHU 4,5 & 6 complete with all safeties, controls, protection, etc		
3.5.5	1	No	Connection of incoming electrics to New MCC 1 for plantroom # 1		
3.5.6	1	No	Connection of incoming electrics to New MCC 2 for plantroom # 2		
3.5.7	-	Lot	New electrical reticulation to new VAV diffusers from MCC 1 in plantroom # 1 terminating in black, shaved earth pin switched plug for each VAV diffuser as per SICO DWG NO 110 fed from new electrical distribution board MCC 1		
3.5.8	-	Lot	New electrical reticulation to new VAV diffusers from MCC 2 in plantroom # 2 terminating in black, shaved earth pin switched plug for each VAV diffuser as per SICO DWG NO 110 fed from new electrical distribution board MCC 2		
3.6			<u>BMS</u>		
3.6.1	-	Lot	Repairs to existing BMS system to ensure it complies with original design philosophy by using the original BMS contractor to ensure continuity of guarantees and workmanship Company: Landis & Staefa Contact Person: Mr Richard Waddington Contact No: 083 228 2524		
6.2	-	Lot	Recommissioning of existing BMS		
3.7			<u>REPAIRS</u>		
3.7.1	-	Lot	Repairs to damaged external insulation to ensure compliance with specification and continuity of vapour barriers		
3.7.2	-	Lot	Repairs to ducting changes, spigots		
3.8			<u>STRIPPING</u>		
3.8.1	-	Lot	Decommission existing terminal controls and VAV diffuser controls		
3.8.2	-	Lot	Strip existing TROX TVR Easy VAV units complete as per DWG No 4GF-EX		
3.8.3	-	Lot	Strip existing heater banks and PRD control units complete as per DWG No 4GF-EX		
3.8.4	-	Lot	Strip existing VAV diffuser and terminal controls system complete as per DWG No 4GF-EX including supplies inside existing electrical distribution boards, complete and make safe		
3.9			<u>BUILDERSWORK - CEILINGS</u>		
3.9.1	1400	m²	Remove and protect ceiling tiles and store in a clean environment to be re-instated once HVAC work is complete, all damages will be for account of HVAC		
3.9.2	1400	m²	Re-instate ceiling tiles once HVAC work is complete		
3.10			<u>BUILDERSWORK - CLEANING AND PROTECTION</u>		
3.10.1	-	Lot	Cleaning of all the carpets in the office area where work was done after completion - Allowance only	Lot	R 60 000.00
3.10.2	-	Lot	Protection of all the furniture during construction - Allowance only	Lot	R 50 000.00
				Total Cost	
					Carried to Summary

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Cost Estimates Summary of Mechancial Works

Item	Description	Cost Amount
1	Ground Floor - HVAC Upgrade - Bill Of Quantities - Bill No 1 - P&G	R
2	Ground Floor - HVAC Upgrade - Bill Of Quantities - Bill No 2 - Split Units	R
3	Ground Floor - HVAC Upgrade - Bill Of Quantities - Bill No 3 - VAV System	R
4	Subtotal 01	R
5	Contingencies @ 15% of Subtotal 01	R
6	Subtotal 02	R
7	Value Added Tax @ 15%	R
8	GRAND TOTAL ESTIMATE	R