

Payment Reference	LIC	Description	Unit	Quantity	Rate	Amount
		<b>SECTION B1000 - MECHANICAL AND ELECTRICAL WORKS: PUMP STATION</b>				
<b>B1001</b>		<b>Supply, delivery, installation, commissioning and testing of a new sewer pump set.</b>				
B1001.1		<b>Inlets Works</b>				
B1001.2		Manual bar screen with bar spacing 14-20 mm. Screen shall be mounted at a 45° angle from horizontal. Manual bar screen dimension to be as per tender drawing and shall be completed with Drip tray, top rib section, Horizontal bar rib, bracket pieces. Material to be 304 s/s.	item	2		
B1001.3		Mechanical Screen with bar spacing 10mm. Screen shall be mounted at a 75° angle from horizontal. Screen dimension to be as per tender drawing and shall be completed with 0,75Kw motor, Chain link, Scraper arm, Blade assembly, Gearbox SEW, inspection plate, Front cover plate, Discharge chute plate, Mechanical overload, top discharge chute cover, Taper bar, Screen support gusset, Screen support, and Screen channel support plate.	item	2		
<b>B1002</b>		<b>Flow Measurements</b>				
B1002.1		Supply and install flow sensor DN200, PN16 c/w 1130m <sup>3</sup> /hr, durathane polyurethane liner - 10° to 70°, 316 S/S electrodes. Flanges to comply with SABS 1123.1600/3 and IP67	item	2		
B1002.2		Supply and install remote mount signal converter/display easily programmable with DC pulsed coil, rate & total displayed, isolated 4-20ma, 3 x digital pulse outputs. Enclosure with IP67, -10° to 70°.	item	2		
B1002.3		Supply and install beta signal cable (single cable), signal converter to flow sensor connection cable	m	20		
		Supply and install earthing/protection ring on a plastic or lined pipes or abrasive slurry applications.	item	1		

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<b>B1003</b>		<b>Supply, delivery, installation, commissioning and testing of a new sewer pump set.</b>				
B1003.1		Raw Sewage immersible dry well pumps, c/w Z-stand, Service lifting handle, Cooling jacket and pump house with guide pin. Pumps shall be selected at 75.0 l/s Flow, 46.0 m head, patented self cleaning channel impeller, and 45kw/50hz/3PH/ 380-415V : 2 pole ( 1470rpm)	No	4		
B1003.2		Pump suction end pressure gauges Dia.150mm	No	4		
B1003.3		Pump discharge end pressure gauges Dia.80mm	No	4		
B1003.4		Pump discharge end isolation valves Dia.150mm	No	4		
B1003.5		Pump suction end isolation valves Dia.150mm	No	4		
B1003.6		Check valves at pump discharge end. Dia.150mm	No	4		
B1003.7		Pump discharge end discharge manifold pipework Dia.200mm	m	8		
B1003.8		Pump suction end connecting pipework.	No	6		
B1003.9		Pump discharge end pipework	m	6		
B1003.10		IP54 Control Panel, Complete with wiring alarm	No	1		
B1003.11		Supply and install 45 KVA generator c/w self contained fuel tank.	No	1		
B1003.12		Supply and install level sensor to control 3 pumps ( 1 standby and 2 running in a flip flop configuration). The depth of the sump is 4m deep as per tender drawing and starting level to be 3.4m with a cut-off level of 0.5m. Level sensor c/w 110/220 v AC or 18 to 30 v DC, 4 to 20 ma isolated output, 5 x programmable relays, STD 10 day logger, transducer range of 0.3 to 6m and mounting bracket 150mm reach.	No	1		
B1003.13		Supply and install pepper spray 2 kg kit c/w remote controller, remote panic spray, pepper spray arming, siren only arming, status LED output, selectable spray times, maximum spray times 6 - 10 sec, selectable entry delay, times, 2kg s/s can, 2 nozzles, 18AH backup battery. The pepper spray shall be controlled by remote or cell communication.	No	1		
B1003.14		Frame assembly	No	4		
		<b>Electrical Installations</b>				
<b>B1004</b>		<b>Transformers and Generator Units</b>				
B1004.1		Inspect, test existing Transformers & RMU and issue report for further recommendation	sum	1		
B1004.2		Provide sum of replacing 500kVA existing transformers OPTIONAL depending on report recommendation	sum	2		
B1004.3		Inspect, test, service existing 300kVA Generator Set and issue report for further recommendation	sum	1		
B1004.4		Provide sum of replacing 300kVA existing Generator OPTIONAL depending on report recommendation	sum	1		
<b>B1005</b>		<b>Pump Station Installations</b>				
B1005.1		Decommissioning of MCC Panel and other Electrical installations	sum	1		

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B1005.2		Supply and install new 6tier MCC Panel Worksincluding controls,PLC and indicators etc for thEPumps and Motors	sum	1		
B1005.3		Refurbish existing Distribution Boards,Local DBs & Gen Room	No	3		
B1005.4		Cable tracing , pressure test on 1000v mega test for the existing MV and LV cabling	sum	1		
B1005.5		Supply and install 70mm 4 core ECC cabling for the pumps	m	100		
B1005.6		Supply and install 6 mm 4 core ECC cabling for the Submissible Pump	m	80		
B1005.7		Supply and install 4 mm 3 core ECC cabling for the start stop buttons	m	30		
B1005.8		Terination and cable joints for above cabling	sum	1		
<b>B1006</b>		<b>Lighting and Small Power</b>				
B1006.1		Supply and install 2 x 28W LED Vapourline 1200mm Light fitting	No	16		
B1006.2		Supply and install 2 x 14W LED Bulkhead Light fitting	No	8		
B1006.3		Supply and install 60W LED Industrial Flood Light fitting	No	9		
B1006.4		Replace with new existing Industrial Sokets outlets	sum	14		
B1006.5		Replace with new existing Welding Sokets outlets		8		
B1006.6		Testing and Commissioning issuance of COCs	sum	1		
<b>B1007</b>		<b>Testing and Commissioning</b>				
B1007.1		Testing and Commissioning of all Wet Services Installations	Sum	1		

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		<b>SECTION B1100 - PUMP ROOM VENTILATION</b>				
<b>B1101</b>		<b>Supply, delivery, installation, commissioning and testing of a fresh air supply fan/ extraction fan</b>				
B1101.1		Supply, delivery, installation, commissioning and testing of a 1,6kW (3~/50Hz/380V) 481L/s extraction fan	No	4		
B1101.2		Supply, delivery, installation, commissioning and testing of a 0,65kW (3~/50Hz/380V) 241L/s extraction fan	No	4		
B1101.3		Supply, delivery, installation of 750 x 750 (neck) weather louver for pump area extract fan	No	4		
B1101.4		Supply, delivery, installation of 600 x 600 (neck) weather louver for pump area extract fan	No	4		
<b>B1102</b>		<b>Fan electrical connection - Supply and Install</b>				
B1102.1		Electrical starter/isolator with overload protection, wired to fan and to isolator	No	8		
B1102.2		Electrical cabling and wiring of fans (all cabling and wiring measured as one item per fan)	Sum	8		
<b>B1103</b>		<b>Supply, delivery, installation, commissioning and testing of a fresh air supply fan/ extraction Ducting</b>				
		<u>Category 3 - (Longest side 750 to 1350 mm) - Supply and Install</u>				
B1103.1		700 x 700 Duct - Uninsulated	m	24		
		<u>Extra Over for duct fittings including brackets supported from roof trusses .</u>				
		<u>90° Bends - Supply and Install</u>				
B1103.2		700 x 700 Duct - Uninsulated	No	4		
<b>B1104</b>	<b>TC</b>	<b>Testing and Commissioning</b>				
B1104.1		Testing and Commissioning of all Wet Services Installations	Sum	1		
<b>SECTION B1100: Pump Room Ventilation - Carried over to Summary</b>						