

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.00	SANS 1200 A 1200 AB	SECTION 1 : PRELIMINARY AND GENERAL				
	1200 A 8.2.1	FIXED-CHARGE ITEMS				
1.01	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establishment of Facilities on the Site:				
	PSAB 3.2	Facilities for Engineer (SABS 1200AB)				
1.02		Engineer's Site office: 1 furnished office and 1 furnished conference room with specified multi function printer, specified laptop and cellular phone and wifi mobile data connection as specified	Sum	1		
		Provision of safety equipment for the use by the engineer:				
1.03		4 x Sets of steel pointed safety shoes	Sum	1		
1.04		4 x Sets of safety jackets and vests	Sum	1		
1.05		4 x Sets of hard hats	Sum	1		
1.06	PSAB 4-1	Survey equipment	Prov. Sum	1	R 30,000.00	R 30,000.
1.07		Overheads, charges and profit on item A1.4	%	R 30,000.00		
1.08	PSAB 1	One Contract Notice Board	Sum	1		
	8.3.2.2	Facilities for Contractor (SABS 1200A)				
1.09		Offices and storage sheds	Sum	1		
1.10		Living accommodation	Sum	1		
1.11		Ablution and latrine facilities	Sum	1		
1.12		Tools and equipment	Sum	1		
1.13		Water supplies, electric power and communications	Sum	1		
1.14	PSA 8.9	Compliance with OHS act and construction regulations of 2014	Sum	1		
1.15	PSA 8.10	Compilation and implementation of environmental management plan (EMP)	Sum	1		
1.16	PSA 8.11	Dealing with water	Sum	1		
1.17	8.3.3	Other Fixed Charge Obligations incl. programming of control systems (particulars to be supplied)	Sum	1		
1.18	PSA 8.8.7	Dealing with sewer water and waste from wastewater treatment plant	Sum	1		
1.19	8.3.4	Remove Engineer's and Contractor's Site facilities on completion	Sum	1		
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ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY		RATE		AMOUNT
Brought Fo	orward							
	8.40	TIME-RELATED ITEMS						
1.20	PSA 8.4.1	Contractual Requirements	Sum	1				
	8.4.2	Operate and maintain facilities on the Site:						
	8.4.2.1	Facilities for Engineer for duration of construction (SANS 1200 AB)						
1.21		Site office, conference room, car ports, toilet facilities and office furniture	Sum	1				
1.22	PSAB 8.2.3	Survey equipment and survey assistant	Sum	1				
1.23		One Contract Notice Board	Sum	1				
1.24		Engineer's Cell phone and mobile wifi data and internet	Sum	1				
	8.4.2.2	Facilities for Contractor for duration of construction,						
1.25		Offices and storage sheds	Sum	1				
1.26		Living accommodation	Sum	1				
1.27		Ablution and latrine facilities	Sum	1				
1.28		Tools and equipment	Sum	1				
1.29		Water supplies, electric power and communications	Sum	1				
1.30		Dealing with water	Sum	1				
1.31	8.4.3	Construction Supervision for the duration of the contract	Sum	1				
1.32	PSA 8.6.8	Company and head office overhead costs	Sum	1				
1.33	8.4.5	Other time-related obligations:	Sum	1				
1.34	PSA 8.9	Compliance with OHS act and construction regulations of 2014 & Environmental Management	Sum	1				
1.35	PSA 8.13	Provision of Security Personnel at Site offices, buildings, works etc.	Sum	1				
1.36	PSA 8.14	Temporary protection of works, excavations, trenches etc.	Sum	1				
	PSA 8.5	SUMS STATED PROVISIONALLY BY ENGINEER						
1.37	PSA 8.5.1	Additional tests required by the Engineer	Prov. Sum	1	R	100,000.00	R	100,000.0
1.38		Overheads, charges and profit on item 1.36	%	R 100,000.00				
1.39	PSA 8.15	Engineer's accommodation and transportation charges	Prov. Sum	1	R	125,000.00	R	125,000.0
1.40		Overheads, charges and profit on item 1.38	%	R 125,000.00				
1.41	PSA 8.16	Engineer's additional Monitoring and Quality Control Charges	Prov. Sum	1	R	100,000.00	R	100,000.0
1.42		Overheads, charges and profit on item 1.40	%	R 100,000.00				
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Contra		Witness 1 Witness 2 Emp	oloyer	Witne				tness 2



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY		RATE		AMOUNT
Brought Fo	rward							
1.43		Work by the Employer or a nominated sub-contractor	Prov. Sum	1	R 1	50,000.00	R	150,000.0
1.44		Overheads, charges and profit over Item 1.42	%	R 150,000.00				
		SUMS STATED PROVISIONALLY BY EMPLOYER						
1.45		Training of health and safety personnel as nominated by the Employer.	Prov. Sum	1	R	60,000.00	R	60,000.0
1.46		Overheads, charges and profit on item 1.44	%	R 60,000.00				
1.47		Health and Safety Agent	Prov. Sum	1	R 1	00,000.00	R	100,000.0
1.48		Overheads, charges and profit on item 1.46	%	R 100,000.00				
1.49		Remuneration for Community Liaison Officer	Sum	1	R 1	00,000.00	R	100,000.0
1.50		Overheads, charges and profit on item 1.48	%	R 100,000.00				
1.51		Monthly Environmental Audits to be conducted by an approved Professional Service Provider and to comply with Environmental Act, to be approved by the Engineer.	Prov. Sum	1	R	60,000.00	R	60,000.0
1.52		Overheads, charges and profit on item 1.50	%	R 60,000.00				
1.53		Dayworks	Prov. Sum	1	R	65,000.00	R	65,000.0
1.54		Overheads, charges and profit on item 1.52	%	R 65,000.00				
	8.8.4 PSA 5.4.1	EXISTING SERVICES						
1.55		Locate and expose existing services in a careful manner and relocation of services	Prov. Sum	1	R	100,000.00	R	100,000.
1.56		Overheads, charges and profit on item 1.55	%	R 100,000.00				
Total Carrie	ed Forward to	 Summary						
Contra		Witness 1 Witness 2 Emp	oloyer	Witne				itness 2



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.00	SPEC PA3 1200 C 1200 D 1200 GA	SECTION 2: WATER RETAINING STRUCTURES				
		CLARIFIERS				
2.01	1200 C 8.2.1 PA 8.1.1	Water tighness testing of Clarifier No. 1	Sum	1		
2.02	8.2.5 PA 8.5	Water tighness testing of Clarifier No. 2	Sum	1		
2.03		Remove and repair tie rods	Each	6		
2.04	SPEC PA 3.1.2	Repair Core drilling holes for Filters	m³	1		
2.05	PA3.1.1	Repair Core drilling holes for High Lift Pumps	m³	2		
tal Carrie	ed Forward to S	ummary				
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ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUNT
3.000		SECTION 3: ELECTRICAL WORKS					
		ELECTRICAL CABLES : SUPPLY, INSTALL AND COMMISSION					
3.001		Power Cable (185mm² x 4 Core) - Main Supply Cable Generator	m	90			
3.002		Earth Wire (95mm² x 1 Core) - Main Supply Cable Generator	m	90			
3.003		Power Cable (185mm² x 4 Core) - Supply Cable Main LV MCC	m	120			
3.004		Earth Wire (95mm² x 1 Core) - Supply Cable Main LV MCC	m	120			
3.005		Supply Cable (35mm² x 3 Core XLPE 11KV) - Main Supply Transformer	m	50			
3.006		Power Cable (4mm <sup>2</sup> x 4 Core) - Supply Cable Filter Console No. 1	m	80			
3.007		Power Cable (4mm² x 4 Core) - Supply Cable Filter Console No. 2	m	80			
3.008		Power Cable (2.5mm² x 4 Core) - Supply Cable Desludge Control Box No. 1	m	50			
3.009		Power Cable (2.5mm² x 4 Core) - Supply Cable Desludge Control Box No. 2	m	50			
3.010		Power Cable (95mm² x 4 Core) - Supply Cable Clear Water MCC	m	80			
3.011		Power Cable (35mm² x 4 Core) - Supply Cable Raw Water MCC	m	28			
3.012		Power Cable (2.5mm² x 4 Core) - Supply Cable Extraction Fan 1	m	25			
3.013		Power Cable (2.5mm² x 4 Core) - Supply Cable Extraction Fan 2	m	25			Rate Only
3.014		Power Cable (2.5mm² x 4 Core) - Supply Cable Pre- Lime Feeder	m	22			
3.015		Power Cable (2.5mm² x 4 Core) - Supply Cable Post- Lime Feeder	m	22			Rate Only
3.016		Power Cable (2.5mm <sup>2</sup> x 4 Core) - Supply Cable Flock Dosing No. 1	m	10			
3.017		Power Cable (2.5mm² x 4 Core) - Supply Cable Flock Dosing No. 2	m	10			
rried Forw	vard						

## THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUN
ought For	ward	·	I				
3.018		Power Cable (2.5mm² x 4 Core) - Supply Cable Pre- Lime Slurry Mixer	m	22			
3.019		Power Cable (2.5mm² x 4 Core) - Supply Cable Lime Injection No. 1	m	22			
3.020		Power Cable (2.5mm² x 4 Core) - Supply Cable Lime Injection No. 2	m	22			
3.021		Power Cable (2.5mm² x 4 Core) - Supply Cable Lime Injection Low Level	m	22			
3.022		Power Cable (2.5mm² x 4 Core) - Supply Cable Post- Lime Slurry Mixer	m	22			
3.023		Power Cable (2.5mm² x 4 Core) - Supply Cable Gas Leak Analyser - AIT-01	m	22			
3.024		Power Cable (2.5mm <sup>2</sup> x 4 Core) - Supply Cable Chlorine Cylinder Scale 1 - WIT-01	m	22			
3.025		Power Cable (2.5mm² x 4 Core) - Supply Cable Strip Heater 1	m	22			
3.026		Power Cable (2.5mm² x 4 Core) - Supply Cable Strip Heater 2	m	22			
3.027		Power Cable (2.5mm <sup>2</sup> x 4 Core) - Supply Cable Chlorine Cylinder Scale 2 - WIT-02	m	22			
3.028		Power Cable (2.5mm² x 4 Core) - Supply Cable Streaming Current Detector - AIT-03	m	22			
3.029		Power Cable (2.5mm² x 4 Core) - Supply Cable Outlet PH - AIT-02	m	22			
3.030		Power Cable (2.5mm² x 4 Core) - Supply Cable Free Chlorine - AIT	m	22			
3.031		Power Cable (4mm <sup>2</sup> x 4 Core) - Supply Cable Blower No. 1	m	68			
3.032		Power Cable (2.5mm² x 4 Core) - Extraction Fan Blower No. 1	m	68			
3.033		Power Cable (2.5mm² x 4 Core) - Supply Cable Chlorination Booster No. 1	m	70			
3.034		Power Cable (2.5mm² x 4 Core) - Supply Cable Chlorination Booster No. 2	m	70			
3.035		Power Cable (4mm <sup>2</sup> x 4 Core) - Supply Cable Blower No. 2	m	66			
rried Forw	vard						

Contractor

Witness 1

Witness 2

Employer

Witness 1



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUN
rought For	rward				1	-	
3.036		Power Cable (2.5mm <sup>2</sup> x 4 Core) - Extraction Fan Blower No. 2	m	66			
3.037		Power Cable (70mm² x 4 Core) - Supply Cable Clear Water No.1	m	65			
3.038		Power Cable (2.5mm² x 4 Core) - Supply Cable Compressor No. 1	m	65			
3.039		Power Cable (2.5mm² x 4 Core) - Supply Cable Compressor No. 2	m	65			
3.040		Power Cable (70mm² x 4 Core) - Supply Cable Clear Water No. 2	m	65			
3.041		Power Cable (70mm² x 4 Core) - Supply Cable Clear Water No. 3	m	65			
3.042		Power Cable (4mm² x 4 Core) - Supply Cable Abstraction Pump No. 1	m	70			
3.043		Power Cable (4mm² x 4 Core) - Supply Cable Abstraction Pump No. 2	m	70			
3.044		Power Cable (4mm² x 4 Core) - Supply Cable Clarifier Bridge No. 1	m	30			
3.045		Power Cable (4mm² x 4 Core) - Supply Cable Clarifier Bridge No. 2	m	30			
3.046		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 1 Drive Motor	m	20			
3.047		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 1 Mixer	m	20			
3.048		Power Cable (2.5mm <sup>2</sup> x 4 Core) - Supply Cable Bridge No. 2 Drive Motor	m	25			
3.049		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 2 Mixer	m	25			
		SUPPLY, INSTALL AND COMMISSION					
3.050		Power Cable (185mm² x 4 Core) - Main Supply Cable Generator	No.	6			
3.051		Earth Wire (95mm² x 1 Core) - Main Supply Cable Generator	No.	6			
3.052		Power Cable (185mm² x 4 Core) - Supply Cable Main LV MCC	No.	6			
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ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUN
rought Fo	rward				1		
3.053		Earth Wire (95mm² x 1 Core) - Supply Cable Main LV MCC	No.	6			
3.054		Supply Cable (35mm² x 3 Core XLPE 11KV) - Main Supply Transformer	No.	6			
3.055		Power Cable (4mm² x 4 Core) - Supply Cable Filter Console No. 1	No.	2			
3.056		Power Cable (4mm² x 4 Core) - Supply Cable Filter Console No. 2	No.	2			
3.057		Power Cable (2.5mm² x 4 Core) - Supply Cable Desludge Control Box No. 1	No.	2			
3.058		Power Cable (2.5mm² x 4 Core) - Supply Cable Desludge Control Box No. 2	No.	2			
3.059		Power Cable (95mm² x 4 Core) - Supply Cable Clear Water MCC	No.	4			
3.060		Power Cable (35mm² x 4 Core) - Supply Cable Raw Water MCC	No.	2			
3.061		Power Cable (2.5mm² x 4 Core) - Supply Cable Extraction Fan 1	No.	2			
3.062		Power Cable (2.5mm² x 4 Core) - Supply Cable Extraction Fan 2	No.	2			
3.063		Power Cable (2.5mm² x 4 Core) - Supply Cable Pre- Lime Feeder	No.	2			
3.064		Power Cable (2.5mm² x 4 Core) - Supply Cable Post- Lime Feeder	No.	2			
3.065		Power Cable (2.5mm² x 4 Core) - Supply Cable Flock Dosing No. 1	No.	2			
3.066		Power Cable (2.5mm² x 4 Core) - Supply Cable flock Dosing No. 2	No.	2			
3.067		Power Cable (2.5mm² x 4 Core) - Supply Cable Pre- Lime Slurry Mixer	No.	2			
3.068		Power Cable (2.5mm² x 4 Core) - Supply Cable Lime Injection No. 1	No.	2			
3.069		Power Cable (2.5mm² x 4 Core) - Supply Cable Lime Injection No. 2	No.	2			
3.070		Power Cable (2.5mm² x 4 Core) - Supply Cable Lime Injection Low Level	No.	2			
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## THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)



NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUNT
Brought Fo	orward						
3.071		Power Cable (2.5mm² x 4 Core) - Supply Cable Post- Lime Slurry Mixer	No.	2			
3.072		Power Cable (2.5mm² x 4 Core) - Supply Cable Gas Leak Analyser - AIT-01	No.	2			
3.073		Power Cable (2.5mm² x 4 Core) - Supply Cable Chlorine Cylinder Scale 1 - WIT-01	No.	2			
3.074		Power Cable (2.5mm² x 4 Core) - Supply Cable Strip Heater 1	No.	2			
3.075		Power Cable (2.5mm² x 4 Core) - Supply Cable Strip Heater 2	No.	2			
3.076		Power Cable (2.5mm² x 4 Core) - Supply Cable Chlorine Cylinder Scale 2 - WIT-02	No.	2			
3.077		Power Cable (2.5mm² x 4 Core) - Supply Cable Streaming Current Detector - AIT-03	No.	2			
3.078		Power Cable (2.5mm² x 4 Core) - Supply Cable Outlet PH - AIT-02	No.	2			
3.079		Power Cable (2.5mm² x 4 Core) - Supply Cable Free Chlorine - AIT	No.	2			
3.080		Power Cable (4mm² x 4 Core) - Supply Cable Blower No. 1	No.	2			
3.081		Power Cable (2.5mm² x 4 Core) - Extraction Fan Blower No. 1	No.	2			
3.082		Power Cable (2.5mm² x 4 Core) - Supply Cable Chlorination Booster No. 1	No.	2			
3.083		Power Cable (2.5mm² x 4 Core) - Supply Cable Chlorination Booster No. 2	No.	2			
3.084		Power Cable (4mm² x 4 Core) - Supply Cable Blower No. 2	No.	2			
3.085		Power Cable (2.5mm² x 4 Core) - Extraction Fan Blower No. 2	No.	2			
3.086		Power Cable (70mm² x 4 Core) - Supply Cable Clear Water No.1	No.	2			
3.087		Power Cable (2.5mm² x 4 Core) - Supply Cable Compressor No. 1	No.	2			
3.088		Power Cable (2.5mm² x 4 Core) - Supply Cable Compressor No. 2	No.	2			
3.089		Power Cable (70mm² x 4 Core) - Supply Cable Clear Water No. 2	No.	2			
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Contractor

Witness 2

Employer

Witness 1



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUN
ought For	ward						
3.090		Power Cable (70mm² x 4 Core) - Supply Cable Clear Water No. 3	No.	2			
3.091		Power Cable (4mm² x 4 Core) - Supply Cable Abstraction Pump No. 1	No.	2			
3.092		Power Cable (4mm² x 4 Core) - Supply Cable Abstraction Pump No. 2	No.	2			
3.093		Power Cable (4mm² x 4 Core) - Supply Cable Clarifier Bridge No. 1	No.	2			
3.094		Power Cable (4mm² x 4 Core) - Supply Cable Clarifier Bridge No. 2	No.	2			
3.095		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 1 Drive Motor	No.	2			
3.096		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 1 Mixer	No.	2			
3.097		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 2 Drive Motor	No.	2			
3.098		Power Cable (2.5mm² x 4 Core) - Supply Cable Bridge No. 2 Mixer	No.	2			
		INSTRUMENTATION CABLES					
		SUPPLY, INSTALL AND COMMISSION					
3.099		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Raw Water MCC Pump Run Signals to Main LV MCC	m	28			
3.100		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Pressure Switch Service Water Controls	m	60			
3.101		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Flow Meter - FIT-01 Clear Water	m	80			
3.102		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Pressure Switch Compressors pressure call	m	65			
3.103		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Flow Switch - FS-03 Raw Water Pump Station	m	70			
3.104		Control Cable (1.5mm² x 3 Core) - Instruments Solenoid Valve 1	m	62			
3.105		Control Cable (1.5mm² x 3 Core) - Instruments Solenoid Valve 2	m	62			
3.106		Control Cable (1.5mm² x 3 Core) - Emergency Stop Extraction Fan No. 1	m	25			
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ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUNT
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3.107		Control Cable (1.5mm² x 3 Core) - Emergency Stop Extraction Fan No. 2	m	25			
3.108		Control Cable (1.5mm² x 3 Core) - Heater Pre-Lime Feeder	m	22			
3.109		Control Cable (1.5mm² x 3 Core) - Vibration Pre-Lime Feeder	m	22			
3.110		Control Cable (1.5mm² x 3 Core) - Emergency Stop Pre- Lime Feeder	m	22			
3.111		Control Cable (1.5mm² x 3 Core) - Heater Post-Lime Feeder	m	22			
3.112		Control Cable (1.5mm² x 3 Core) - Vibration Post-Lime Feeder	m	22			
3.113		Control Cable (1.5mm² x 3 Core) - Emergency Stop Post- Lime Feeder	m	22			
3.114		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Floc Dosing No. 1	m	10			
3.115		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Floc Dosing No. 2	m	10			
3.116		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Pre- Lime Slurry Mixer -	m	22			
3.117		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Lime Injection No. 1	m	22			
3.118		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Lime Injection No. 2	m	22			
3.119		Control Cable (1.5mm² x 3 Core) - Emergency Stop Post- Lime Slurry Mixer	m	22			
3.120		Control Cable (1.5mm² x 3 Core) - Emergency Stop Blower No. 1	m	68			
3.121		Control Cable (1.5mm² x 3 Core) - Emergency Stop Chlorination Booster No. 1	m	70			
3.122		Control Cable (1.5mm² x 3 Core) - Emergency Stop Chlorination Booster No. 2	m	70			
3.123		Control Cable (1.5mm² x 3 Core) - Emergency Stop Blower No. 2	m	66			
3.124		Control Cable (1.5mm² x 3 Core) - Heater Clear Water No. 1	m	65			
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ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUNT
rought Fo	rward						
3.125		Control Cable (1.5mm² x 3 Core) - Thermistor Clear Water No. 1	m	65			
3.126		Control Cable (1.5mm² x 3 Core) - Emergency Stop Clear Water No. 1	m	65			
3.127		Control Cable (1.5mm² x 3 Core) - Heater Clear Water No. 2	m	65			
3.128		Control Cable (1.5mm² x 3 Core) - Thermistor Clear Water No. 2	m	65			
3.129		Control Cable (1.5mm² x 3 Core) - Emergency Stop Clear Water No. 2	m	65			
3.130		Control Cable (1.5mm² x 3 Core) - Heater Clear Water No. 3	m	65			
3.131		Control Cable (1.5mm² x 3 Core) - Thermistor Clear Water No. 3	m	65			
3.132		Control Cable (1.5mm² x 3 Core) - Emergency Stop Clear Water No. 3	m	65			
3.133		Control Cable (1.5mm² x 3 Core) - Emergency Stop Abstraction Pump No. 1	m	70			
3.134		Control Cable (1.5mm² x 3 Core) - Emergency Stop Abstraction Pump No. 2	m	70			
arried For	ward						

## THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUN
ought Fo	rward						
		INSTRUMENTATION CABLES ENDS					
		SUPPLY, INSTALL AND COMMISSION					
3.135		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Raw Water MCC Pump Run Signals to Main LV MCC	No.	2			
3.136		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Pressure Switch Service Water Controls	No.	2			
3.137		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Flow Meter - FIT-01 Clear Water	No.	2			
3.138		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Pressure Switch Compressors pressure call	No.	2			
3.139		Instrument Cable (1.0mm² x 4 Pair Dekaron) - Flow Switch - FS-03 Raw Water Pump Station	No.	2			
3.140		Control Cable (1.5mm² x 3 Core) - Instruments Solenoid Valve 1	No.	2			
3.141		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Instruments Solenoid Valve 2	No.	2			
3.142		Control Cable (1.5mm² x 3 Core) - Emergency Stop Extraction Fan No. 1	No.	2			
3.143		Control Cable (1.5mm² x 3 Core) - Emergency Stop Extraction Fan No. 2	No.	2			
3.144		Control Cable (1.5mm² x 3 Core) - Heater Pre-Lime Feeder	No.	2			
3.145		Control Cable (1.5mm² x 3 Core) - Vibration Pre-Lime Feeder	No.	2			
3.146		Control Cable (1.5mm² x 3 Core) - Emergency Stop Pre- Lime Feeder	No.	2			
3.147		Control Cable (1.5mm² x 3 Core) - Heater Post-Lime Feeder	No.	2			
3.148		Control Cable (1.5mm² x 3 Core) - Vibration Post-Lime Feeder	No.	2			
3.149		Control Cable (1.5mm² x 3 Core) - Emergency Stop Post- Lime Feeder	No.	2			
3.150		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Floc Dosing No. 1	No.	2			
3.151		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Floc Dosing No. 2	No.	2			
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Witness 1

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Witness 2
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Employer

Witness 1

#### THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUNT
rought Fo	rward	· · · · · · · · · · · · · · · · · · ·			I		
3.152		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Pre- Lime Slurry Mixer	No.	2			
3.153		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Lime Injection No. 1	No.	2			
3.154		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Lime Injection No. 2	No.	2			
3.155		Control Cable (1.5mm² x 3 Core) - Emergency Stop Post- Lime Slurry Mixer	No.	2			
3.156		Control Cable (1.5mm² x 3 Core) - Emergency Stop Blower No. 1	No.	2			
3.157		Control Cable (1.5mm² x 3 Core) - Emergency Stop Chlorination Booster No. 1	No.	2			
3.158		Control Cable (1.5mm² x 3 Core) - Emergency Stop Chlorination Booster No. 2	No.	2			
3.159		Control Cable (1.5mm² x 3 Core) - Emergency Stop Blower No. 2	No.	2			
3.160		Control Cable (1.5mm² x 3 Core) - Heater Clear Water No. 1	No.	2			
3.161		Control Cable (1.5mm² x 3 Core) - Thermistor Clear Water No. 1 -	No.	2			
3.162		Control Cable (1.5mm² x 3 Core) - Emergency Stop Clear Water No. 1	No.	2			
3.163		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Heater Clear Water No. 2	No.	2			
3.164		Control Cable (1.5mm² x 3 Core) - Thermistor Clear Water No. 2	No.	2			
3.165		Control Cable (1.5mm² x 3 Core) - Emergency Stop Clear Water No. 2	No.	2			
3.166		Control Cable (1.5mm² x 3 Core) - Heater Clear Water No. 3	No.	2			
3.167		Control Cable (1.5mm² x 3 Core) - Thermistor Clear Water No. 3	No.	2			
3.168		Control Cable (1.5mm² x 3 Core) - Emergency Stop Clear Water No. 3	No.	2			
3.169		Control Cable (1.5mm <sup>2</sup> x 3 Core) - Emergency Stop Abstraction Pump No. 1	No.	2			
3.170		Control Cable (1.5mm² x 3 Core) - Emergency Stop Abstraction Pump No. 2	No.	2			
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Contractor

Witness 2 Employer Witness 1 Witness 2



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUN
rought Forwa	ard						
		ELECTRICAL EQUIPMENT					
		SUPPLY, INSTALL AND COMMISSION					
3.171		Motor Control Centre (Clear Water MCC)	Sum	1	R 150,000.00		
3.172		Motor Control Centre (Main LV MCC)	Sum	1	R 150,000.00		
3.173		Motor Control Centre (Raw Water MCC)	Sum	1	R 75,000.00		
3.174		Motor Control Centre (Bridge Mixer MCC)	Sum	2	R 75,000.00		
3.175		Transportation and Positioning of Standby Generator	Sum	1	R 100,000.00		
3.176		Transportation of MCC Panels (Including rigging into position)	Sum	1	R 100,000.00		
3.177		Pressure Switch (Welding of Threaded Fitting to be done by Mechanical Contractor)	No.	1			
3.178		Rewiring of Clear Water MCC Panel - To Stop Pumps on	Sum	1			
3.179		Addition of Feeder Breakers for Filter Consoles & De- Sludge Panels	Sum	1			
3.180		Ultrasonic Level Transmitter (Pulsar - 04-20mA)	No.	2			
3.181		Liaise with Eskom Transformer Connection	Sum	1			
3.182		Transformer - 11kV / 0.415kV (500kVA) - Estimated Sizing to be confirmed by Consultants	No.	1			
3.183		Lighting & Small Power (Refer to TAB 1)	Sum	1			
3.184		Cable Ladder (Refer to TAB 2)	Sum	1			
3.185		Emergency Stop Stands	No.	21			
3.186		Junction Boxes (Instrumentation)	No.	1			
3.187		CCG Junction Boxes	No.	10			
3.188		Float Switch with 3 Probes	No.	1			
otal Carried F	orward						
Contracto		Witness 1 Witness 2	Employ		Witness 1		/itness 2





## THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)

3.189 3.190 3.191 3.192 3.193 3.193 3.193 3.194 3.195 3.196 3.196 3.197 3.198 3.199		MISCELLANEOUS Fire Extingishers Signage Electrical Operation and Maintenance Manuals Commissioning of Electrical Installation Commissioning of Standby Generator	No. No. No. Sum	6 2 3		
3.190 3.191 3.192 3.193 3.194 3.195 3.195 3.196 3.197 3.198		Fire Extingishers Signage Electrical Operation and Maintenance Manuals Commissioning of Electrical Installation Commissioning of Standby Generator	No. No.	2		
3.190 3.191 3.192 3.193 3.194 3.195 3.195 3.196 3.197 3.198		Signage Electrical Operation and Maintenance Manuals Commissioning of Electrical Installation Commissioning of Standby Generator	No. No.	2		
3.191 3.192 3.193 3.194 3.195 3.195 3.196 3.197 3.198		Electrical Operation and Maintenance Manuals Commissioning of Electrical Installation Commissioning of Standby Generator	No.			
3.192 3.193 3.194 3.195 3.196 3.196 3.197 3.198		Commissioning of Electrical Installation Commissioning of Standby Generator		3		
3.193 3.194 3.195 3.196 3.197 3.198		Commissioning of Standby Generator	Sum			
3.194 3.195 3.196 3.197 3.198		с ,		1		
3.195 3.196 3.197 3.198			Sum	1		
3.196 3.197 3.198		Certificate of Compliance (MCC's)	No.	3		
3.196 3.197 3.198		WARRANTY				
3.197 3.198		Extended Warranty on Electrical MCC Equipment	Sum	1		
3.198		Extended Warranty on Standby Generator	Sum	1		
3.198		SECTION 5: SERVICES				
		Mechanical Service of Standby Generator	Sum	1		
		SECTION 4: WARRANTY				
3.199		Extended Warranty on Electrical MCC Equipment	Sum	1		
		Extended Warranty on Standby Generator	Sum	1		
		SERVICES				
3.200		Mechanical Service of Standby Generator	Sum	1		
•		RE-TESTING OF ELECTRICAL EQUIPMENT				
3.201		Electrical Design and Drawings for changes requires to "As Built MCC's"	Sum	1		
3.202		Testing of MCC Panels and Functionality	Sum	1		
3.203		Testing of Standby Generator	Sum	1		
		PRELIMINARY AND GENERAL				
3.204		Supervision	Sum	1		
3.205		Project Management	Sum	1		
3.206		Travel	Sum	1		
3.207		Company Overheads	Sum	1		
3.208		Accommodation / Living out Allowance	Sum	1		
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Witness 1

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Witness 2
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Employer

Witness 1

## THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	SUPPLY	INSTALL	AMOUNT
Brought Fo	rward				1		
		LIGHTING AND SMALL POWER					
3.209		Fluorescent light fittings including lamps	No.	51			
3.210		Round bulkheads for inside use	No.	6			
3.211		LED Bulkheads for outside use	No.	13			
3.212		Floodlights (LED 200W) - Mounted on Support Pillars in Field	No.	16			
3.213		Welding Sockets (32Amp 5 Pin)	No.	2			
3.214		Power Skirting (2 Compartment - PVC including all bends, covers and end caps)	m	20			
3.215		Conduit (Bosal)	m	150			
3.216		Channel Unistrut	m	50			
3.217		Single SSO	No.	18			
3.218		Double SSO	No.	11			
3.219		Power Cable for Field Lighting (2.5mm <sup>2</sup> x 4 Core)	m	250			
3.220		Cable Tray - 100mm Staight - HDG Medium Duty	m	100			
3.221		Cable Tray - 100mm Bend - HDG Medium Duty	No.	12			
3.222		Cable Tray - 300mm Staight - HDG Medium Duty	No.	50			
3.223		Cable Tray - 300mm Bend - HDG Medium Duty	No.	8			
3.224		Unistrut - 40 x 40 HDG	m	50			
otal Carried	d Forward to	Summary					
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## THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)

NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4.00		SECTION 4 : MECHANICAL WORKS				
		DESCRIPTION:				
		The Contractor will be responsible to strip and remove the existing equipment and quote to repair and service it. After repairs the contractor will be responsible to reinstall and commission the equipment.				
		EQUIPMENT SPECIFICATION				
4.01		TYPE: Submersible pumps				
4.02		QUANTITY: 3				
4.03		PIPE SIZE: 200mm Elephant Hoses				
4.04		LIQUID PROCESSED: Raw Dam water				
4.05		VALVE SIZES: 200mm				
		PRICING				
4.06		Remove, transport and strip and quote inlet pumps.	each	3		
4.07		Deliver, install and commision the inlet pumps	each	3		
4.08		Supply new 200mm Elephant hoses for delivery pipework	m	24		
4.09		Realign the floating pontoon	sum	1		
		DOSING EQUIPMENT				
		DESCRIPTION				
		The Contractor will be responsible to strip and remove the existing equipment and quote to repair and service it. After repairs the contractor will be responsible to reinstall and commission the equipment.				
		EQUIPMENT SPECIFICATION				
4.10		TYPE: Grundfos DDT				
4.11		QUANTITY: 2				
4.12		LIQUID PROCESSED: Poly				
4.13		TYPE: Ion Exchange				
4.14		QUANTITY: 1				
4.15		LIQUID PROCESSED: Poly				
		PRICING				
4.16		Test and refurbish the poly dosing pumps	each	2		
4.17		Test and refurbish the ion exchange	each	1		
4.18		Commission all inlet dosing equipment	sum	1		
	vard					

Contractor

Witness 1 Witness 2 Employer Witness 1



ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUN
ught Fo	rward		· · ·			
		CLARIFIERS				
		DESCRIPTION:				
		The Contractor will be responsible to strip and remove the existing equipment and quote to repair and service it. After repairs the contractor will be responsible to reinstall and commission the equipment.				
		EQUIPMENT SPECIFICATION				
4.19		TYPE: Bridge end carriages and mixers				
4.20		QUANTITY: 2				
4.21		BRIDGE MOTOR SIZE: 1,5kW				
4.22		MIXER MOTOR SIZE: 3 kW				
		PRICING				
4.23		Remove, transport, strip and Quote end carriage	each	2		
4.24		Remove, transport, strip and Quote mixers	each	2		
4.25		Deliver and reinstall clarifier end carriage	each	2		
4.26		Deliver and reinstall clarifier mixer	each	2		
4.27		Commission Clarifier bridge	each	2		
4.28		Commision Clarifier mixers	each	2		
4.29		Test and repair Sludge withdraw valves	each	2		
		SWAN SAND FILTERS				
		DESCRIPTION				
		The Contractor will be responsible to strip and remove the existing equipment and quote to repair and service it. After repairs the contractor will be responsible to reinstall and commission the equipment.				
		EQUIPMENT SPECIFICATION				
4.30		TYPE: Blower				
4.31		QUANTITY: 2				
4.32		Valves:				
4.33		Nozzles:				
4.34		Filter Media:				
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	r					



ITEM PAYMENT ought Forward	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PRICING				
4.35	Transport Blowers, strip and quote	each	2		
4.36	Remove all valves and quote to repair	sum	1		
4.37	Remove all nozzles and replace with new ones	each	800		
4.38	Supply and place single layer 0,3 $\mu$ m Silica filter media	m <sup>3</sup>	166		
4.39	Transport Blowers to site and install	each	2		
4.40	Install all valves	Sum	1		
4.41	Manufacture, supply and install blower pipework	Sum	1		
4.42	Commission filters complete	each	4		
	CHLORINATION				
	DESCRIPTION				
	The Contractor will be responsible to strip and remove the existing equipment and quote to repair and service it. After repairs the contractor will be responsible to reinstall and commission the equipment.				
	EQUIPMENT SPECIFICATION				
4.43	TYPE: Chlorine dosing equipment				
4.44	QUANTITY: 1				
4.45	HYDRAULIC LOAD: ADWF = 3,2MI/day				
4.46	LIQUID PROCESSED: Final potable water				
	PRICING				
4.47	Test and quote all chlorine dosing equipment	Sum	1		
4.48	Supply and install dosing line 35mm pvc	m	150		
4.49	Commission Chlorination system	Sum	1		
	HIGH LIFT PUMPS				
	DESCRIPTION				
	The Contractor will be responsible to strip and remove the existing equipment and quote to repair and service it. After repairs the contractor will be responsible to reinstall and commission the equipment.				
rried Forward	1				



ITEM Brought Forv	PAYMENT	DESCRIPTION	UNIT	QTY		RATE	AMOUNT
sought For	waru						
4.50							
4.50		TYPE: End Suction KSB Pumps					
4.51		QUANTITY: 4					
4.52		PUIVIP DUTY: AS ON SILE					
4.53		LIQUID PROCESSED: Chlorinated Potable Water					
4.54		SUCTION PIPE WORK: 350NB flanged pipe work, complete with an isolation valve.					
4.55		DELIVERY PIPE WORK: 300NB flanged pipe work, complete with isolation, air-release & Ozkan nozzle type non return valves.					
4.56		PRESSURE GAUGES: Wika					
		PRICING					
4.57		Strip, transport and quote High Lift pumps	each	4			
4.58		Transport and install High Lift Pumps	each	4			
4.59		Supply, manufacture, store and deliver on site the suction pump pipe work complete with isolation valves.	Sum	4			
4.60		Supply, manufacture, store and deliver on site the deivery pump pipe work complete with valves.	each	4			
4.61		Supply Pressure gauges	each	4			
4.62		Commission High Lift Pumps	each	4			
		MECHANICAL SUNDRIES					
		PRICING					
4.62			50		-	0 500 000 00	B 0 500 000
4.63		PC Sums for quotations to repairs Mechanical equipment	PC sum	1	ĸ	6,500,000.00	R 6,500,000.
4.64		JOJO Tanks 10 000 L	each	3			
4.65		Additional Pipe work Required	PC Sum	1	R	1,750,000.00	R 1,750,000.
4.66		Fixed Mark up on items under 4,63 and 4,65	%	R 8,250,000.00			
otal Carried	Forward To	Summary					
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# THE COMPLETION OF THE ROUXVILLE / ROLELEATHUNYA WATER TREATMENT WORKS (WTW)



## SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT R
1	PRELIMINARY AND GENERAL	
2	WATER RETAINING STRUCTURES	
3	ELECTRICAL WORKS	
4	MECHANICAL WORKS	
	SUBTOTAL A	
	Add 10% Contingonaica	
	Add 10% Contingencies	
	SUBTOTAL B	
	Add 15% VAT	
TOTAL CAR	RIED FORWARD TO C1.1 FORM OF OFFER AND ACCEPTAN	CE
Contracto	r Witness 1 Witness 2 Emplo	yer Witness 1 Witness 2