

ROLELEYATHUNYA/ROUXVILLE: UPGRADING OF THE WASTEWATER TREATMENT WORKS

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
						R
	SANS 1200 A	SECTION A: PRELIMINARY AND GENERAL				
1	8,3	SCHEDULED FIXED-CHARGE AND VALUE RELATED ITEMS				
1.1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establish of Facilities on the Site :				
	8.3.2.1	Facilities for Engineer:				
1.2		a) Furnished office	Sum	1		
1.3		b) Telephone	Sum	1		
1.4		c) Nameboards	Sum	1		
	8.3.2.2	Facilities for Contractor:				
1.5		a) Offices and storage sheds	Sum	1		
1.6		b) Telephone	Sum	1		
1.7		c) Nameboards	Sum	1		
1.8		d) Living accommodation	Sum	1		
1.9		e) Ablution and latrine facilities	Sum	1		
1.10		f) Tools and equipment	Sum	1		
1.11		g) Water supplies, electrical power and communications	Sum	1		
1.12		h) Dealing with water	Sum	1		
1.13		i) Access	Sum	1		
1.14		j) First aid and Medical Services	Sum	1		
1.15		k) Inductions	Sum	1		
1.16	8.3.4	Removal of Site Establishment	Sum	1		
	8,4	SCHEDULED TIME-RELATED ITEMS				
1.17	8.4.1	Contractual Requirements				
	8.4.2	Operate and maintain facilities on the Site:				
	8.4.2.1	Facilities for Engineer				
1.18		a) Furnished offices	Month	4		
1.19		b) Telephone	Month	4		
1.20		c) Nameboards	Month	4		
1.21		d) Survey assistants and materials	Month	4		
	8.4.2.2	Facilities for Contractor				
1.22		a) Offices and storage sheds	Month	4		
1.23		b) Workshops	Month	4		
1.24		c) Laboratories	Month	4		
1.25		d) Living accommodation	Month	4		
1.26		e) Ablution and latrine facilities	Month	4		
1.27		f) Tools and equipment	Month	4		
1.28		g) Water supplies, electrical power and communications	Month	4		
TOTAL CARRIED FORWARD						

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
1.29		h) Dealing with water	Month	4		
1.30		i) Access		4		
1.31		j) First aid and Medical Services	Month	4		
1.32		k) Inductions	Month	4		
1.33	8.4.3	Supervision for Duration of Construction	Month	4		
1.34	8.4.4	Company and head office overhead costs for the Duration of the Contract	Month	4		
1.35		Remuneration of CLO	Prov. Sum			42 000,00
1.36	8.4.5	Other Time-related Obligations	Sum	1		
	8.8	TEMPORARY WORKS AND PROVISIONAL SUMS				
1.37		Materials on Dayworks	Prov sum			10 000,00
1.38		Allowance for profit and handling	%	R 10 000,00		
1.39		Cleaning and Disinfection of the pump station sump, bar screens including odour control measures and disposing sewage to the nearest wastewater treatment plant	Prov sum			50 000,00
1.40		Allowance for profit and handling	%	R50 000,00		
1.41		Fixed Sum for working with Live Sewers	Sum	1		
1.42		Provisional Sum for attendance at site meetings	Prov sum	1	R25 000,00	25 000,00
1.43		Allowance for profit and handling	%	R25 000,00		
	8.8.5	Provisional Items				
1.44		a) Material testing	Sum	1		15 000,00
		b) Surveying	Sum	1		65 000,00
1.45	PSA 8.9.1	Compliance with the Occupational Health and Safety Act and applicable regulations				
		a) Provision of a health and safety plan	Sum	1		
		b) Provision of a health and safety file	Sum	1		
		c) Provision of a safety officer (full time)	Sum	1		
		d) Health and safety training	Sum	1		
		e) Provision of personal protective clothing and equipment	Sum	1		
		f) Implementation of Environment Management Plan	Sum			
		g) Monitoring and audit of OHS	Prov. Sum			160 000,00
		Allowance for profit and handling	%	R 160 000,00		
		h) Environmental Compliance Monitoring	Prov. Sum	1	R 160 000,00	160 000,00
		Allowance for profit and handling	%	R 160 000,00		
1.51		i) Vaccination for workers	Sum			rate only
TOTALS CARRIED FORWARD TO SUMMARY						

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
						R
	PSA 8.6	SECTION B: DAYWORKS				
		Note: Executed on Instruction of the Engineer Only				
B.1	8.6.1	Labour				
B.1.1		(i) Un-skilled	hr	5		RATE ONLY
B.1.2		(ii) Semi-skilled	hr	2		RATE ONLY
B.1.3		(iii) Skilled (artisan - welder plumber etc)	hr	1		RATE ONLY
B.1.4		(iv) Engineer	hr	1		RATE ONLY
B.1.5		(v) Technician	hr	3		RATE ONLY
B.1.6		(vi) Foreman	hr	10		RATE ONLY
B.1.7		(vii) Driver (LDV, machine, trucks, etc)	hr	20		RATE ONLY
B.1.8		(viii) Certified Blaster	hr	7		RATE ONLY
B.1.9		(ix) Steelfixer	hr	5		RATE ONLY
B.1.10		(x) Concretor	hr	5		RATE ONLY
B.1.11		(xi) Chargehand	hr	5		RATE ONLY
B.1.12		(xii) Security guard	hr	25		RATE ONLY
	8.6.2	Plant and equipment				
		(a) Tractor loader backhoe (TLB)				
B.1.13		(i) Tractor Loader Backhoe (Bigger than	hr	10		RATE ONLY
		(b) Tipper Trucks				
B.1.14		(i) Tipper trucks (3m³) Small	hr	40		RATE ONLY
B.1.15		(ii) Tipper trucks (5m³) Medium	hr	40		RATE ONLY
B.1.16		(iii) Tipper trucks (10m³) Large	hr	20		RATE ONLY
		(c) Flat Bed Trucks				
B.1.17		(i) Flat bed 5t capacity	hr	8		RATE ONLY
		(d) LDV				
B.1.18		(i) 1t Pick-up	hr	8		RATE ONLY
		(e) Walk behind vibrating rollers				
B.1.19		(i) Model - Bomag 60 or similar	hr	8		RATE ONLY
B.1.20		(ii) Model - Bomag 76 or similar	hr	8		RATE ONLY
		(f) Plate compactors				
B.1.21		(i) Vipac or similar	hr	8		RATE ONLY
		(g) Rammers				
B.1.22		(i) Model - Wacker or similar	hr	8		RATE ONLY
		(h) Concrete mixers				
B.1.23		(i) Volume 100 litre wet (small,	hr	8		RATE ONLY
		(i) Waterpump				
B.1.24		(i) Capacity smaller than 400	hr	8		RATE ONLY
B.1.25		(ii) Capacity bigger than 400 but smaller than 600 litre/min (medium)	hr	8		RATE ONLY
TOTAL CARRIED TO SUMMARY						0,00

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
						R
C	SANS 1200 C	SECTION C: SITE CLEARANCE				
C.1	8.3	SCHEDULED ITEMS				
	8.3.1	Clear and grub				
C.1.1	8.3.1(a)	Clear and grub site including trees up to 1.0m girth	m ²	5 000,0		
C.1.2		Remove 150mm top soil and set aside for re-use	m ³	1 000,0		
C.1.3		Break into existing concrete slab for new openings	m ³	5,0		
		Break and remove existing concrete lining for anaerobic ponds and remove paving blocks	m ³	5,0		
C.1.4		Transport materials and debris to dumping sites within 5km of site	m ³ km	15,0		
	8.3.2	Restricted Excavation a) Excavate for restricted foundations & footings in all materials and use for backfill of embankment or dispose				
		Wet well opening	m ³	10		
	8.3.3	Overhaul a) Limited overhaul (1km)	m ³	2		
	8.3.4	Import, place and compact the following material from commercial source. 150mm Imported selected fill, compacted to 98% Mod AASHTO density to manhole	m ³	5		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	SANS 1200 D	SECTION D: PUMPSTATION				
D.1	8.4.3	Concrete Works				
D.1.1		Class 25/19 to generator platform	m³	5		
D.1.2		Class 25/19 to 150 thick apron around sump	m³	5		
D.2	8.2.1-2	Sewer Pumps				
D.2.1		Supply and install of 2 sewer surface pumping unit with VSD control panel, motor cables similar on site or approved by the Engineer.	Prov Sum	1	820 000,00	820 000,00
D.2.2		Repair the existing sewer pumping units and keep them as standby pumps	Prov Sum	1	120 000,00	120 000,00
D.2.3		Supply and install of a Agitator pumping unit with VSD control panel, motor cables similar on site or approved by the Engineer.	Prov Sum	1	220 000,00	220 000,00
D.2.4		Repair the existing agitator pumping unit and keep them as standby pumps	Prov Sum	1	80 000,00	80 000,00
D.2.5		Allowance for profit and handling	%	R1 240 000,00		
D.3		Steelwork				
D.3.1		Remove existing steel pipe and fittings and deliver salvagable material to client	Sum	1		
D.3.2		Supply and Install Discharge Pipe Work Powder Coated as per drawing E01	Sum	1		
D.3.3		Supply and install 50mm Guide Bar Set Stainless Steel 304 for pump	No.	1		
D.3.4		Stainless Steel Lifting Chain	Sum	1		
D.3.5		Supply and install crawl beam as specified	No.	1		
D.3.6		200mm Ball check valve	No.	2		
D.3.7		RSV Gate Valve-200mm	No.	2		
D.3.8		Install measuring flow meter- 200mm	No.	1		
D.3.9		Supply and install stainless steel wet well ladder as specified	Sum	1		Rate only
D.3.10		1000kg chainblock and winch assembly	Sum	1		
D.3.11		Supply and install 16mm HT rebars as specified	t	0,4		
D.3.12		Mesh Ref 193	m²	80,0		
D.3.13		250 micron polyethylene underfloor plastic	m²	80,0		
D.4		Electrical Equipment				
D.4.1		Supply, Install, Test and Commission by qualified and approved Electrician. Rates to include attendance to approved installers				
D.4.2		Electrical Installation	Prov Sum	1	40 000,00	40 000,00
D.4.3		Allowance for Profit & Handling on item D.4.2	%	R 40 000,00		
D.4.4		Supply, installation & calibration of 100kva standby Generator for autostart and cutoff. Rate to include vandal proof cage and roof covering	No.	1		
D.4.5		Supply and install solar flood lights with motion sensors. Price include wooden steel poles- 6m	No.	3		
TOTAL CARRIED FORWARD						

ROUXVILL WWTW

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
D.5		Miscellaneous				
D.5.1		Provisional Sum for By-passing pumpstation for duration of pumpstation refurbishment	Prov. Sum	1	80 000,00	80 000,00
D.5.2		Allowance for Profit & Handling on item D.5.1	%	R80 000,00		
D.5.3		Paintwork and finishing	Sum			
D.5.4		Allow a provisional sum for additional work as instructed by the Engineer	Prov Sum	1	50 000,00	50 000,00
D.5.5		Allowance for Profit & Handling on item D.5.4	%	R50 000,00		
D.5.6		Chemical anchor	kg	10		
D.5.7		High adhesive epoxy concrete sealant	kg	10		
D.5.8		1.5mm HDPE dam lining to the leaking overflow dam (Rate to include weed removal, and patching of existing surfaces)	m2	400		
D.5.9		Replace damaged double transformer door at the pumphouse	No.	1		
D.5.10		Install telemetry system	No.	1		
D.6		Building Works				
D.6.1		Construction of a 5m x 3.5m operator facility at the pumpstation including power supply and connection of abluion to nearest manhole	Sum	1		
D.6.2		Equip operator facility with - Storage Cabinet - Fire Extinguisher - Fridge - Microwave - 4 seater table and chairs	Sum	1		
D.6.3		Construction of a 3.5 x 3.5 Guardhouse facility at the pumpstation including power supply and connection of abluion to nearest manhole	Sum	1		
D.6.4		Supply and install assembled shower room and fix close to the abluion facility	Sum	1		
D.6.5		Renovate existing buildings- Pumphouse and abluion facility	Sum	1		
D.6.6		Provisional Sum for Operator Tools & Equipment	PC Sum	1	50 000,00	50 000,00
D.6.7		Allow for Profit & Handling	%	R50 000,00		
D.7		Security Fence and Paving				
D.7.1		Remove and deliver to client Existing fencing	m	150		
D.7.2		Remove existing gate and reinstall at specified location	Sum	1		
D.7.3		Supply and Install Steel Palisade Fence 2.4m high	m	200		
D.7.4		Installation of a new Gate - 4.5m wide x 2.4m high	Sum	1		
D.7.5		Supply and install 200mm x 100mm x 50mm Grey Bond Pavers	m ²	500		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E	SANS 1200 DA	SECTION E: OXIDATION PONDS				
	8,3 8.3.2	SCHEDULED ITEMS Restricted Excavation a) Excavate in all materials to use for backfill or dispose				
E.1		Sludge drying pond to take geotextile membrane bags	m ³	6 000		
E.1.1		Anchor trench for dam lining	m ³	800		
E.1.2		Drainage trench from geotextile dewatering tubes to ponds	m ³	50		
E.1.3						
E.2	8.3.3	Overhaul a) Limited overhaul (1km)	m ³	8 000		
E.2.1		b) Provisional Sum for sludge haulage to disposal site	Prov. Sum	1	250 000,00	250 000,00
E.3	8.3.4	Import, place and compact the following Import selected G5 material for fill to specified slope, compacted to 98% Mod AASHTO density to eroded embankments or as ordered by the Engineer	m ³	4 000		
E.3.1.		Remove and reinstall concrete panels on portions of embankments that require G5 fill material to align	m	300		
E.3.2.						
E.4	8,2 8.2.4	SCHEDULED ITEMS Geotextiles or Geomembrane Supply and install approved geotextile. Rate to include cutting, placing, joining, overlapping and fastening of:				
E.4.1		1.2mm HDPE lining for geotextile bags	m ²	6 000		
E.4.2		ZebraTube® Dewatering Bag High Flow, 9m circum x 30m length or similar approved	No.	50		
E.4.3						
E.5		De-Sludging Coagulation polymer for solids densification	Sum			
E.5.1		Pumping of effluent from all ponds into de-sludging bags (Rate to include all temporary pipe work)	sum	1		
E.5.2						
E.6		Chlorination Unit Provisional sum for Dosing System	Prov. Sum	1	120 000,00	120 000,00
E.6.1		Provisional sum for refurbishment of chlorination building	Prov. Sum	1	25 000,00	25 000,00
E.6.2						
E.6		BIOFILTER SEWER PUMPS Supply and install of 2 sewer surface pumping unit with VSD control panel, motor cables similar on site or approved by the Engineer.	Prov Sum	1	500 000,00	500 000,00
E.6.1		Provide for handling and profit	%	R645 000,00		
E.7		Building Works Provisional Sum for Refurbishment of buildings (Toilet, Store room, Office)	Prov Sum	1	110 000,00	110 000,00
E.7.1		Construction of a 3.5 x 3.5 guardhouse at the WWTW including power supply and connection of ablation to nearest manhole	Sum	1		
E.7.3						
E.8		Miscellaneous Provisional Sum for Operator Tools & Equipment	PC Sum	1	50 000,00	50 000,00
E.8.1		Supply, installation & calibration of 100kva standby Generator for autostart and cutoff.	No.	1		
E.8.2		Rate to include vandal proof cage and roof covering				
TOTAL CARRIED FORWARD						

ROUXVILLE WWTW

ITEM No.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
E.8.2		Remove reed plants in the ponds	Sum	1		
E.8.3		Replace hotdip galvenised bar screens as specified	Sum	1		
E.8.4		Allow a provisional sum for connection of new manhole to bar screen chamber	Prov Sum	1	25 000,00	25 000,00
E.8.5		Allowance for Profit & Handling on item D.8.4	%	R25 000,00		
E.8.6		Replace all the 200mm gate valves with spindle at water fountain and taps	no.	4		
E.8.7		Install 200mm new magnetic flow meters, will be used to measure the treated wastewater prior to disinfection 200mm size	No.	2		
E.8.8		Allow a provisional sum for additional work as instructed by the Engineer	Prov Sum	1	100 000,00	100 000,00
E.8.9		Allowance for Profit & Handling on item D.8.8	%	R100 000,00		
E.8.10		Allow a provisional sum for pipework to re-orient sequence at secondary ponds	Prov Sum	1	60 000,00	60 000,00
E.8.11		Allowance for Profit & Handling on item D.8.10	%	R 60 000,00		
E.8.12		Repair eroded pond earth embankments	Sum	1		
E.8.13		Fabricate and install sluice gates at anaerobic ponds as specified including concrete works to ensure the gate is watertight	No.	8		
E.8.14		Supply and install solar flood lights with motion sensors. Price to include steel poles	No.	8		
E.8.15		Install telemetry system	No.	1		
E.8.16		Refurbishment of chlorine contact channels	Sum	1		
E.8.17		Refurbishment of grit chamber	Sum	1		
E.8.18		Safety signs at ponds and pump station	Sum	1		
E.8.19		Construct or extend the headwalls or install gabions at maturation outlet point (2500mm long each side by 2m height	m2	40		
E.9		Security Fence				
E.9.1		Refurbishment of existing fencing	m	100		
TOTAL CARRIED TO SUMMARY						

ROLELEYATHUNYA/ROUXVILLE: UPGRADING OF THE WASTEWATER TREATMENT WORKS

MOHOKARE LOCAL MUNICIPALITY

Summary to Schedule of Quantities

No.	DESCRIPTION	AMOUNT R
A	SECTION A: PRELIMINARY AND GENERAL	
B	SECTION B: DAYWORKS	
C	SECTION C: SITE CLEARANCE	
D	SECTION D: PUMPSTATION	
E	SECTION E: OXIDATION PONDS	
	TOTAL SCHEDULED ITEMS	
	ADD 10% CONTINGENCIES	
	SUBTOTAL	
	ADD 15% VAT	
	TOTAL	