ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SANS 1200 A	**SCHEDULE 1: PRELIMINARY AND GENERAL**				
	8,3	**FIXED-CHARGE AND VALUE-RELATED ITEMS**				
1,1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establish facilities on the Site				
1,2	8.3.2.3	Facilities for Engineer:				
1.2.1	PSAB 3.2	(a) Furnished offices (1 No.)	Sum	1		
1.2.2		(b) Telephone	Sum	1		
1.2.3		(c) Nameboard (1 No.)	Sum	1		
1.2.4		(d) Provision of survey equipment	Sum	1		
1.2.5		(e) Engineers Equipment	Sum	1		
1.2.6		Supply and Delivery of Single Cab Bakkie 4x4 (Raised Body) with Canopy, Branding and Roof Rack for Pipes	Sum	1	R 750 000,00	R 750 000,00
1.2.7		Overheads, charges & profit on above provisional sum	%	R 750 000,00		
1,3		Facilities for Contractor for duration of construction except where otherwise stated				
1.3.1		(a) Offices, workshops and storage sheds	Sum	1		
1.3.2		(b) Ablution and latrine facilities	Sum	1		
1.3.3		(c) Laboratories	Sum	1		
1.3.4		(d) Living Accomodation	Sum	1		
1.3.5		(e) Tools and equipment	Sum	1		
1.3.6		(f) Water supplies, electric power and communications	Sum	1		
1.3.7		(g) Refuse bins at the site camp	Sum	1		
1.3.8		(h) Dealing with water (Subclause 5.5)	Sum	1		
1.3.9		(i) Access (see 5.8)	Sum	1		
1.3.10		(j) Plant	Sum	1		
1,4	8.3.3	Other Fixed-Charge Obligations	Sum	1		
1,5	8.3.4	Removal of Engineer's and Contractor's site establishment on completion	Sum	1		
1,6	PSA 8.4.6	Compliance with Occupational Health & Safety. The sum shall cover the fixed cost associated with the Contractor's Health & Safety Obligations	Sum	1		
1,7	PSHSS 6.1.2; CR 5(1)(l)	i) Preparation of the Contractor's site specific Health and Safety Plan	Sum	1		
1,8	CR 7(1)(b)	ii) Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Sum	1		
1,9	CR 7(1)(g)	iii) Cost of medical certificates and medical surveillance				
1.9.1	PSHSS 7.2	(a) Initial (baseline) medical examinations	No	20		
1.9.2		(b) Exit medical examinations	No	20		
1.9.3		iv) Allowance for Health and Safety Officer	Sum	1		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
1,10	GSR 2; PSHSS 7.7	v) Provision of EPWP Branded SABS Personal Protective Equipment				
1.10.1		(a) Hard Hats	No	20		
1.10.2		(b) Reflective vests	No	20		
1.10.3		(c) Protective foot wear	Pair	20		
1.10.4		(d) Dust masks FFP2	No	20		
1.10.5		(e) Gloves	Pair	20		
1,11	PSA 8.4.7	Compliance with Environmental Management Obligations. The sum shall cover the fixed cost associated with the Contractor's Environmental Management Obligations	Sum	1		
1,12		Compliance with As-Built Requirements	Sum	1		
	8,4	**SCHEDULED TIME-RELATED ITEMS**				
1,13	8.4.1	Contractual Requirements	Sum	1		
	8.4.2	Operation and Maintenance of Facilities on Site, for Duration of Construction, except where otherwise stated for engineer				
1,14	8.4.2.1	Facilities for the Engineer:				
1.14.1		(a) Furnished Office	Sum	1		
1.14.2		(c) Nameboard (1 No.)	Sum	1		
1,15	8.4.2.2	Facilities for Contractor:				
1.15.1		(a) Offices, workshops and storage sheds	Sum	1		
1.15.2	PS 7.2	(b) Ablution and latrine facilities	Sum	1		
1.15.3	PS 7.6	(c) Living Accomodation	Sum	1		
1.15.4		(d) Tools and equipment	Sum	1		
1.15.5	PS 7.1	(e) Water supplies, electric power and communications	Sum	1		
1.15.6		(f) Dealing with water (Subclause 5.5)	Sum	1		
1.15.7		(g) Access (see 5.8)	Sum	1		
1.15.8		(h) Plant	Sum	1		
1,16	8.4.3	Supervision for the Duration of Construction	Sum	1		
1,17	8.4.5	Other Time-Related Obligations:	Sum	1		
1,18	PD	Compliance with Occupational Health & Safety. The sum shall cover the fixed cost associated with the Contractor's Health & Safety Obligations	Sum	1		
1,19	PE	Compliance with Environmental Management Obligations. The sum shall cover the fixed cost associated with the Contractor's Environmental Management Obligations	Sum	1		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
1,20	PSA 8.4.6.2	Security Services Costs	Month	11		
1,21	8.3.7	Compliance with As-Built Requirements	Sum	1		
1,22		External full-time SACPCMP registered Construction Health and Safety Officer supervision for the duration of the contract	Prov. Sum	1	R 176 000,00	R 176 000,00
1,23		Overheads, charges & profit on above provisional sum	%	R176 000,00		
1,24		Allowance for Social Facilitation (ISD) services for the duration of the contract	Prov. Sum	1	R 275 000,00	R 275 000,00
1,25		Overheads, charges & profit on above provisional sum	%	R275 000,00		
1,26		Allowance for ECO for the duration of the contract	Prov. Sum	1	R 220 000,00	R 220 000,00
1,27		Overheads, charges & profit on above provisional sum	%	R220 000,00		
1,28		Sums stated provisionally by Engineer:				
1.28.1	PS12	Employment of CLO for the duration of the Contract (R8500 pm plus R500 pm cellphone allowance)	Prov. Sum	1	R 99 000,00	R 99 000,00
1.28.2		Overheads, charges & profit on above provisional sum	%	R99 000,00		
1.28.3		Reimbursement of Project Steering Committee Members for attendance of meetings to the value of R500.00 per member per meeting. (5 PSC Members)	Prov. Sum	1	R 27 500,00	R 27 500,00
1.28.4		Overheads, charges & profit on above provisional sum	%	R27 500,00		
1.28.5		Allow for Civil Engineering, Environmental and Health & Safety trainee student or Young Graduates	Prov. Sum	1	R 313 500,00	R 313 500,00
1.28.6		Overheads, charges & profit on above provisional sum	%	R313 500,00		
1.28.7		Telephone for Employers Agent & Assistant	Prov. Sum	1	R 20 000,00	R 20 000,00
1.28.8		Overheads, charges & profit on above provisional sum	%	R20 000,00		
1.28.9		Allow for Additional Construction Monitoring - Level 3 for the full duration of the contract	Prov. Sum	1	R 385 000,00	R 385 000,00
1.28.10		Overheads, charges & profit on above provisional sum	%	R385 000,00		
1.28.11		Allow for the provision of the Engineer's Bakkie for the duration of the Contract. The amount allowed for is inclusive of fuel	Prov. Sum	1	R 135 000,00	R 135 000,00
1.28.12		Overheads, charges & profit on above provisional sum	%	R135 000,00		
1.28.13		Employer's Agent cost for Environmental Management Plan, Method Statement and Contractor Training	Prov. Sum	1	R 80 000,00	R 80 000,00
1.28.14		Overheads, charges & profit on above provisional sum	%	R80 000,00		
1.28.15		Allow provisional sum for the specialised testing of the works, either material or completed works as instructed by the Employers Agent	Prov. Sum	1	R 30 000,00	R 30 000,00
1.28.16		Overheads, charges & profit on above provisional sum	%	R30 000,00		
1.28.17		Allow provisional sum for the accredited training of selected potential local labourers	Prov. Sum	1	R 120 000,00	R 120 000,00
1.28.18		Overheads, charges & profit on above provisional sum	%	R120 000,00		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
1.28.19		Allow provisional sum for the non-accredited training of selected potential local labourers	Prov. Sum	1	R 50 000,00	R 50 000,00
1.28.20		Overheads, charges & profit on above provisional sum	%	R50 000,00		
	8,7	**Dayworks (Provisional)**				
1,29	PSA8-5	**a) Labour**				
1.29.1		i) Foreman	hrs	50		
1.29.2		ii) Skilled	hrs	50		
1.29.3		iii) Semi-skilled	hrs	50		
1.29.4		iv) Unskilled	hrs	50		
1,30		**b) Plant**				
1.30.1		i) 6m³ Tip Truck	hrs	50		
1.30.2		ii) 10m³ Tip Truck	hrs	50		
1.30.3		iii) Tractor-Loader-Backhoe	hrs	30		
1.30.4		iv) Compactors (Wacker or similar approved)	hrs	30		
1,31		**c) Materials**				
1.31.1		i) Allow for net cost of goods or materials actually used	Prov. Sum	1	R 50 000,00	R 50 000,00
1.31.2		ii) Overheads, charges & profit on above provisional sum	%	R50 000,00		
1,32		**Temporary Works**				
1.32.1		(a) Verification and protection of existing services	Sum	1		
TOTAL OF SCHEDULE 1 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SANS 1200 C	**SCHEDULE 2: SITE CLEARANCE**				
2,1		**Clear Site**				
2.1.1	8.2.1	Clear and grub for pipeline routes up to a width of 2m.	m	38172,3		
2.1.2	8.2.2	Remove and grub large trees and tree stumps of girth:				
2.1.3		a) Over 1.0m and up to 2.0m	No.	3		
2.1.4	PSC1	Remove topsoil in 600mm wide strip to depth of 150mm, stockpile, maintain and reinstate.	m^3	3435,5		
	8.2.5	Take down existing fences:				
2,2	PSC3	Remove and/or secure existing fences that intersect a trench				
2.2.1		Diamond mesh fencing up to 2m high	m			Rate Only
2,3	PSC3	Remove and secure existing fences that adjoin a trench				
2.3.1		Diamond mesh fencing up to 2m high	m	150		
2,4	PSC 8.2.13	Remove existing gravel layer works to stockpile and maintain (for use as selected layers) as instructed by the Engineer.				
2.4.1		Gravel layer works to District Roads.	m^3	126		
2.4.2		Fill material	m^3	80		
2,5		**MISCELLANEOUS**				
2.5.1		Diversion berm, to detail, across road inclusive of imported gravel, compaction and shaping	m^3	6		
2.5.2		Ungrouted stone pitching, to detail, to from shallow ditch drain at berm outlet	m^2	12		
2.5.3		Construct concrete V-drain, to detail, inclusive of excavation and re-inforcement	m^2	15		
2,6		Dealing with Water in River & Stream Crossings				
2.6.1		Dealing with water at river crossings	No	0		Rate Only
2.6.2		Dealing with water at stream crossings	No	2		
TOTAL OF SCHEDULE 2 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SABS 1200 DB	**SCHEDULE 3: EARTHWORKS (PIPE TRENCHES)**				
		Excavation (Provisional)				
3,1	8.3.2(a)	Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes up to 400mm dia for total trench depth: (ref. PSDB1, PSDB2, PSDB3 and PSDB5)				
3.1.1		0.0 m to 1.5 m	m^3	26833,2		
3.1.2		1.5 m to 3.5 m	m^3	52,9		
3,2	8.3.2(b)	Extra over items C.1.1 for excavation (provisional) in: (ref. PSDB3)				
3.2.1		Hard Rock Material	m^3	560,00		
3.2.2		Boulder excavation, class A	m^3			Rate Only
3.2.3	8.3.2(c)	Excavate unsuitable material from bottom of trench, incl. backfill compact and dispose of surplus material within freehaul distance of 1 km (Ref PSDB4)	m^3	927,43		
3,3	**8.3.3**	**Excavation ancillaries**				
3.3.1	8.3.3.1 (c)	Make up deficiency in backfill material, by importation from borrow pit selected by Contractor	m^3	1605,2		
3,4	8.3.3.3	Compaction in road reserves (ref. PSDB 3.5)				
3.4.1		Compact with material from commercial source to 95% Mod AASHTO	m^3	850		
3.4.2	PSDB1	Backfilling trenches using 13mm washed stone	m^3			Rate Only
3.4.3	8.3.3.4	Extra-over Items 8.3.3.1 (c) for overhaul, in excess of freehaul distance of 1 km	$m^3.km$	8026		
	8.3.5	**Existing Services that Intersect or Adjoin a Pipe Trench**				
3,5		(a) Services that intersect a trench a pipe trench				
3.5.1		i) ESKOM cables	No.	12		
3.5.2		iii) Watermains up to 300mm dia	No.	12		
3.5.3		(b) Services that adjoin a trench a pipe trench				
3.5.4		i) ESKOM cables	m	15		
3.5.5		iii) Watermains up to 300mm dia	m	8		
TOTAL OF SCHEDULE 3 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SABS 1200 DB	**SCHEDULE 3: EARTHWORKS (PIPE TRENCHES)**				
		Excavation (Provisional)				
3,1	8.3.2(a)	Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes up to 400mm dia for total trench depth: (ref. PSDB1, PSDB2, PSDB3 and PSDB5)				
3.1.1		0.0 m to 1.5 m	m^3	26833,2		
3.1.2		1.5 m to 3.5 m	m^3	52,9		
3,2	8.3.2(b)	Extra over items C.1.1 for excavation (provisional) in: (ref. PSDB3)				
3.2.1		Hard Rock Material	m^3	560,00		
3.2.2		Boulder excavation, class A	m^3			Rate Only
3.2.3	8.3.2(c)	Excavate unsuitable material from bottom of trench, incl. backfill compact and dispose of surplus material within freehaul distance of 1 km (Ref PSDB4)	m^3	927,43		
3,3	**8.3.3**	**Excavation ancillaries**				
3.3.1	8.3.3.1 (c)	Make up deficiency in backfill material, by importation from borrow pit selected by Contractor	m^3	1605,2		
3,4	8.3.3.3	Compaction in road reserves (ref. PSDB 3.5)				
3.4.1		Compact with material from commercial source to 95% Mod AASHTO	m^3	850		
3.4.2	PSDB1	Backfilling trenches using 13mm washed stone	m^3			Rate Only
3.4.3	8.3.3.4	Extra-over Items 8.3.3.1 (c) for overhaul, in excess of freehaul distance of 1 km	$m^3.km$	8026		
	8.3.5	**Existing Services that Intersect or Adjoin a Pipe Trench**				
3,5		(a) Services that intersect a trench a pipe trench				
3.5.1		i) ESKOM cables	No.	12		
3.5.2		iii) Watermains up to 300mm dia	No.	12		
3.5.3		(b) Services that adjoin a trench a pipe trench				
3.5.4		i) ESKOM cables	m	15		
3.5.5		iii) Watermains up to 300mm dia	m	8		
TOTAL OF SCHEDULE 3 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SANS 1200 L	**SCHEDULE 5: PIPE FITTINGS AND SPECIALS**				
	8.2.2 PSL 8.2.4 PSL 8.2.5	Extra-over 8.2.1 for the Supplying, Laying and Bedding of Specials complete with Couplings as follows:				
	8.2.4 PSL 8.2.6	Supply, lay, joint and bed including cutting pipes where required for the following:				
5,1		**uPVC Pipe Bends (Class 16)**				
5.1.1		90mm dia. x 11.25° bends.	No.	13		
5.1.2		90mm dia. x 22.5° bends.	No.	13		
5.1.3		90mm dia. x 45° bends.	No.	4		
5.1.4		90mm dia. x 90° bends.	No.	6		
5.1.5		110mm dia. x 11.25° bends.	No.	8		
5.1.6		110mm dia. x 22.5° bends.	No.	5		
5.1.7		110mm dia. x 45° bends.	No.	7		
5.1.8		110mm dia. x 90° bends.	No.	4		
5.1.9		160mm dia. x 11.25° bends.	No.	32		
5.1.10		160mm dia. x 22.5° bends.	No.	19		
5.1.11		160mm dia. x 45° bends.	No.	13		
5.1.12		160mm dia. x 90° bends.	No.	2		
5.1.13		200mm dia. x 11.25° bends.	No.	4		
5.1.14		200mm dia. x 22.5° bends.	No.	2		
5,2		**HDPE Reducers** HDPE PE100 reducer with a SDR of 11 and a pressure rating of 16 bar. The reducers must be suitable for butt welding on to PE100 HDPE pipe. All reducers must comply with SANS/ISO 4427				
5.2.1		63mm x 50 mm	No.			Rate Only
5.2.2		75mm x 50mm	No.			Rate Only
5.2.3		75mm x 63mm	No.	4		
5.2.4		90mm x 50mm	No.	1		
5.2.5		90mm x 63mm	No.	2		
5.2.6		90mm x 75mm	No.	7		
5.2.7		110mm x 50mm	No.	1		
5.2.8		110mm x 75mm	No.	4		
5.2.9		110mm x 90mm	No.	1		
5.2.10		160mm x 90mm	No.	3		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
5,3		**uPVC Reducers (Class 16)**				
5.3.1		90mm x 75mm	No.	4		
5.3.2		110mm x 90mm	No.	3		
5.3.3		160mm x 90mm	No.	3		
5.3.4		160mm x 110mm	No.	2		
5.3.5		200mm x 160mm	No.	3		
5,4		**Equal Tees (PN16)**				
5.4.1		50mm x 50mm	No.	7		
5.4.2		63mm x 63mm	No.	2		
5.4.3		75mm x 75mm	No.	8		
5.4.4		90mm x 90mm	No.	3		
5.4.5		110mm x 110mm	No.			Rate Only
5.4.6		160mm x 160mm	No.	1		
5.4.7		200mm x 200mm	No.	1		
5,5		**Reducing Tees (PN16)**				
5.5.1		63mm x 50 mm	No.	2		
5.5.2		75mm x 50mm	No.	9		
5.5.3		90mm x 63mm	No.	2		
5.5.4		90mm x 75mm	No.	4		
5.5.5		110mm x 63mm	No.	1		
5.5.6		110mm x 90mm	No.	1		
5.5.7		160mm x 63mm	No.	1		
5.5.8		160mm x 90mm	No.	2		
5.5.9		200mm x 110mm	No.	3		
5.5.10		200mm x 160mm	No.	3		
5,6		**Cross**				
5.6.1		63mm x 50mm	No.	1		
5.6.2		75mm x 50mm	No.	1		
5.6.3		110mm x 110mm	No.	1		
5.6.4		160mm x 160mm	No.	1		
5.6.5		200mm x 200mm	No.	1		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
5,7		**Concrete Encasing**				
5.7.1		(a) Pipe protection Concrete cover slab (25 MPa) accross roadways where indicated by engineer, inclusive of Ref 395 mesh	m^3	20		
		SUNDRY ITEMS				
5,8		Supply, lay, bed and install concrete pipe sleaves for road crossings, inclusive of all items (viz. skids etc.) necessary for pipe support through sleave as per drawing No. ORTDM/STD/10. Class 100D, Spigot and Socket type for:				
5.8.1		(i) 250 mm for ND Concrete Sleave for 75 mm ND HDPE pipe	m	10		
5.8.2		(ii) 250 mm for ND Concrete Sleave for 90 mm ND uPVC pipe	m	10		
5.8.3		(iii) 300 mm for ND Concrete Sleave for 160 mm ND uPVC pipe	m	30		
TOTAL OF SCHEDULE 5 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SANS 1200 LB	**SCHEDULE 6: BEDDING (PIPES)**				
6,1	**8.2.1 & PS LB 3.1**	**Provision of Bedding from Trench Excavation**				
6.1.1	8.2.1 (a)	Selected granular material	m³	5569,9		
6.1.2	8.2.1 (b)	Selected fill material	m³	3944,12		
6,2	**8.2.2.2**	**Bedding from Borrow Pits**				
6.2.1	8.2.2.2 (a)	Selected granular material	m³	1712,1		
6.2.2	8.2.2.2 (b)	Selected fill material	m³	1406,1		
6,3	**8.2.2.3**	**Imported from commercial source (including haul).**				
6.3.1	8.2.2.3 (a)	Selected granular material	m³	513,63		
6.3.2	8.2.2.3 (b)	Selected fill material	m³	421,83		
TOTAL OF SCHEDULE 6 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SCHEDULE 7: VALVES AND CHAMBERS				
	8.2.3	Extra-over 8.2.1 for the supplying, fixing and Bedding of Valves as indicated below:				
		Isolation Valves Complete				
7,1	PSL 3.13.2	Supply and install the following flanged Resilient seal Gate valves complete with valve chamber, PN 12 with non-rising spindle, Clockwise closing, including all gaskets, bolts, nuts and washers as per detailed drawings. All valve chambers will be installed by SMME contractors				
7.1.1		75mm	No.	8		
7.1.3		100mm	No.	5		
7.1.4		150mm	No.	4		
7.1.5		200mm	No.	2		
		Air Valves Complete				
7,2	8.2.5	Supply and install 50mm PN 12 Air Valve assemblies complete with valve chamber as per detailed drawings. Rate is inclusive of valve chamber and all specials required. All valve chambers will be installed by SMME contractors,				
7.2.1		50mm	No.	13		
7.2.2		80mm	No.	2		
		Scour Valves Complete				
7,3	8.2.5	Supply and install PN 12 Scour Valve assemblies complete with wedge gate valve and valve chamber as per detailed drawings. Rate is inclusive of valve chamber, scour pipework and headwall to scour pipe. All valve chambers will be installed by SMME contractors				
7.3.1		50mm	No.	2		
7.3.2		80mm	No.	12		
		Check / Non Return Valves Complete				
7,4	8.2.5	Supply and install Check / Non Return Valve assemblies complete with preacast chamber as per detailed drawings. Rate is inclusive of valve chamber and all specials. All valve chambers will be installed by SMME contractors				
7.4.1		100mm	No.	3		
		Bulk Water Meter Complete				
7,5	8.2.5	Supply and install Bulk Water Meter assemblies complete with protective meter chamber as per detailed drawings. Note: All valve chambers will be installed by SMME contractors				
7.5.1		80mm	No.	2		
7.5.2		100mm	No.	4		
7.5.3		150mm	No.	1		
7.5.4		200mm	No.	1		
7,6		Fire Hydrants				
7.6.1		(a) Supply and install cast iron fire hydrant, including T-piece complete as per dwg. 80mm Isolating valve and 100mm x 80mm dia. reducer measured elsewhere.	No.	10		
TOTAL OF SCHEDULE 7 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SCHEDULE 8: STORAGE TANKS				
		Upper Cezu Elevated Steel Tank				
	SABS 1200 C	Site Clearance:				
	8.2.1	Clear and grub elevated tank base area including removing of existing trees, shrubs, rocks and debris as directed by the Engineer	m^2	50		
		Remove topsoil to nominal depth of 150 mm and stockpile/spoil	m^3	25		
		Transport material and debris to unspecified sites and dump	m^3.km	800		
	SABS 1200 DB PSD	Bulk Excavations:				
	8.3.2	Excavate in all materials for structural steel tank stand base, and stockpile for later use and maintain for backfill and dispose of the remainder to an approved spoil site (including shaping to be free-draining and with embankment slopes shallower than 1:3 and compacting)				
		a) Over 0m up to 2.0m	m^3	180		
		b) Over 2m up to 3.5m	m^3	25		
		Extra over for:				
		Intermediate materials	m^3	56		
	8.3.4	Imported Geo-fill below floor slab as directed:				
		Backfill with material from stockpile below ground level and compact to 95% Mod. AASHTO from excavation to form new levels	m^3	350		
		Import, place and compact in individual layers G5 material to form Geo-fill below floor slab as directed by the engineer. Fill to be placed in layers typically 200 mm thick when loose and compacted to 97% Modified AASHTO dry density at O.M.C.	m^3	35		
		Import, place and compact in individual layers G2 material to form Geo-fill below floor slab as directed by the engineer. Fill to be placed in layers typically 200 mm thick when loose and compacted to 98% Modified AASHTO dry density at O.M.C.	m^3	35		
		Finishing:				
		Topsoil obtained from prescribed stockpile on site in grassed areas 100 mm thick	m^2	175		
		Grassing:				
		Grassing with sods including watering, maintaining etc for the duration of the contract	m^2	164		Rate Only
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
	SABS 1200GA & PSG	**UNREINFORCED CONCRETE**				
	PSG 7.2.6					
		15 MPa / 26mm Concrete:				
	8.4.2	Blinding layer minimum 75 mm thick	m^3	8		
	8.4.3	20 MPa / 19mm Concrete:				
		Mass concrete in encasing inlet, scour and outlet pipes	m^3	6		
	8.4.3 PSG 5.5.11	**REINFORCED CONCRETE**				
	PSG 7.2.6					
		30 MPa / 19mm Concrete:				
		Concrete base and concrete beams	m^3	80		
		Column stubs	m^3	5		
	8,2	**FORMWORK**				
		Rough Vertical to form:				
		(b) 1000mm high shutter for sides of concrete stubs	m^2	135		
	8.4.4	**UNFORMED SURFACE FINISHES**				
	8.4.4 (a)	Wood floated finish (to degree of accuracy II):				
		Top of concrete base	m^2	82		
	8.4.4 (b)	Steel float finish:				
		Top of concrete stubs	m^2	5		
	8.1.2	**REINFORCEMENT**				
		Mild steel bars:				
		(a) 8 mm	ton	0,5		
		(b) 10 mm	ton	1		
		High-tensile steel bars				
		(a) 12 mm	ton	15		
		(b) 16 mm	ton	10		
		(c) 20 mm	ton	6		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
	SABS 1200 HA	**SUNDRY STEELWORK**				
		Upper Cezu Elevated Steel Tank				
		Supply, delivery, erection and assembly of a 500 kl bolted galvanised sectional steel tank on a 5 m high galvanised structural steel tank support (tower). Rate to include internal and external ladders, hand rails and access platform. Lockable access hatch to prevent unauthorised access to the platform must also be provided. All Hot-dip galvanising to SANS 121 (ISO 1461).Rate to include water tightness testing, safety files & structural engineering certificates for the tank and tank support, etc.	No	1		
		Tafeni A Pump Station Sump				
		Supply, delivery, erection and assembly of a 100 kl ground located Steel tank including stand and associated pipework, Incl Float Control Valve. Rate includes site preparation, base slab, and finishes.	No	1		
TOTAL OF SCHEDULE 8 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SCHEDULE 9: SECURITY FENCING				
	PC 4.1	**Supply and erection of new Galvanised Hi-Tec security fencing material:**				
9,1	PC 4.1.1	Supply and installing ClearVu or similar hot dip galvanised coated security fencing high 76x12.7 Height: 2,4 gates, etc and setting out of fence system to be maintenance free and carry a minimum 10 year anti corrosion and functional guarantee.				
		Panels: Welded mesh panels, with rectangular apertures, made from ZincAlu super wire and hot dip galvanised coated.				
9.1.1		i) Pump Station	m	200		
9.1.2		ii) Reservoir	m	70		
	PC 4.2	<u>Supply and install Gate complete</u>				
9,2		Driveway / vehicular Gate size 3.0m x 2.4m high to match ClearVu fence specification				
9.2.1		i) Pump Station	No	1		
9.2.2		ii) Reservoir	No	1		
TOTAL OF SCHEDULE 9 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SCHEDULE 10: PUMP STATION				
10,1		Construct pump station building, including site preparation, foundations, superstructure, roofing, finishes, electrical installation, and all associated civil works. Rate includes supply and installation of new pumps with the following specifications. Size 15kW, Head 105m and Flow Rate 573 l/min. Rate to also include supply and installation of suction and delivery piping, valves, fittings, mechanical supports, performance testing, commissioning, and submission of handover documentation in accordance with the Engineer's requirements.	Prov. Sum	1	R 900 000,00	R 900 000,00
10,2		Overheads, charges & profit on above provisional sum	%	R 900 000,00		
		SUPPLY AND INSTALLATION OF GENERATOR				
10,3		(a) Supply and install diesel generator and accessories to run Booster pump system (Note: specification of Generator will be issued by Engineer)	Prov. Sum	1	R 800 000,00	R 800 000,00
10,4		(b) Overheads, charges & profit on above provisional sum	%	R800 000,00		
		ESKOM POWER CONNECTION				
10,5		(a) Connection of eskom power from the existing eskom powerline to the booster pump station	Prov. Sum	1	R 600 000,00	R 600 000,00
10,6		(b) Overheads, charges & profit on above provisional sum	%	R600 000,00		
TOTAL OF SCHEDULE 10 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SCHEDULE 11: SITING, DRILLING, TESTING AND EQUIPPING OF BOREHOLES				
11,1		**BOREHOLE INVESTIGATIONS**				
11.1.1		(a) Hydrogeological Investigations. Cost to include, inter alia, feasibility assessments, siting of production boreholes sites and WULA/Borehole Registration.	Prov. Sum	1	R 50 000,00	R 50 000,00
11.1.2		(b) Overheads, charges & profit on above provisional sum	%	R50 000,00		
11.1.3		(c) Topographical Surveys and As-built Drawings	Prov. Sum	1	R 50 000,00	R 50 000,00
11.1.4		(d) Overheads, charges & profit on above provisional sum	%	R50 000,00		
11.1.5		(e) Construct 3 No. Production Boreholes, costs to include borehole drilling, pump testing, water quality testing, installation of $5m^3/hr$	Prov. Sum	1	R 850 000,00	R 850 000,00
11.1.6		(f) Overheads, charges & profit on above provisional sum	%	R850 000,00		
11,2		**SUPPLY AND INSTALLATION OF GENERATOR**				
11.2.1		(a) Supply and install generator and accessories to run Borehole punp system (Note: specification of Generator will be issued by Engineer)	Prov. Sum	1	R 250 000,00	R 250 000,00
11.2.2		(b) Overheads, charges & profit on above provisional sum	%	R250 000,00		
11,3		**SUPPLY AND CONSTRUCTION OF PUMPING MAIN**				
11.3.1		(a) Design, supply and construct 90 mm diameter 16 bar class uPVC pipes for pumping main, air valves, scour valves and related appurtenances for the production borehole sites (Note: A Separate BoQ, itemising and quantifying items provided under this Sum shall be issued before construction is commenced with and shall form the final basis for payment)	Prov. Sum	1	R 1 000 000,00	R 1 000 000,00
11.3.2		(b) Overheads, charges & profit on above provisional sum	%	R1 000 000,00		
11,4		**SUPPLY AND CONSTRUCTION OF PIPELINES**				
11.4.1		(a) Design, supply and construct reticulation using 12 bar class uPVC pipes for the water reticulation network, communal standpipes, valves, meters and related appurtenances for the production borehole sites (Note: A Separate BoQ, itemising and quantifying items provided under this Sum shall be issued before construction is commenced with and shall form the final basis for payment)	Prov. Sum	1	R 1 000 000,00	R 1 000 000,00
11.4.2		(b) Overheads, charges & profit on above provisional sum	%	R1 000 000,00		
TOTAL OF SCHEDULE 11 CARRIED FORWARD TO SUMMARY						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SCHEDULE 12: GUARD HOUSE				
12,1	SANS 1200 C	**SITE CLEARANCE**				
12.1.1	8.2.10	Remove topsoil to nominal depth of 150 mm and stockpile	m^3	6		
12,2	SANS 1200 D	**EARTHWORKS**				
	8.3.2	Bulk excavation:				
12.2.1		Excavation in Earth not exceeding 2m deep				
12.2.1.1		01. Reduced level under floor (Platforms)	m^3	6		
12.2.1.2		02. Trenches for Building Foundations	m^3	12,42		
12.2.2		03. Extra over: Excavations other than bulk in earth for the excavations in:				
12.2.2.1		(a) Intermediate excavation	m^3	8,2		
12.2.2.2		(b) Hard rock excavation	m^3	4		
12.2.3		Keeping excavations free of water:				
12.2.3.1		Keeping excavations free of water	No.	1		
12,3		**SOIL POISONING**				
		Soil poisoning and insecticide:				
12.3.1		Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m^2	13,07		
12.3.2		Under aprons	m^2	8,3		
12.3.3		To bottoms and sides of trenches etc	m^2	18		
12,4		**SCHEDULED REINFORCEMENT ITEMS**				
	8.3.2	**Mild steel bars:**				
12.4.1		(a) Y10	kg			
	8.3.3	**High-tensile steel bars:**				
12.4.2		(a) Y12	kg	90		
12.4.3		(b) High tensile welded mesh ref. 193 - (sheet 3,3 x 3,9)	kg	39,5		
12,5		**SCHEDULED CONCRETE ITEMS**				
12.5.1	8.4.2	Blinding layer:				
		Class 10 MPa/19 mm concrete of:				
12.5.1.1		(a) In surface blinding and under footings	m^3	1,2		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
12.5.2	8.4.3	Strength concrete:				
		Class 25 MPa/19mm concrete in:				
12.5.2.1		(a) In strip footings	m^3	3		
12.5.2.2		(b) In surface beds cast on waterproofing	m^3	11,2		
12.5.2.3		(c) 3 x test cubes of 150x150x150mm for concrete strength	No.	3		
12.5.3		Finishing top surface of concrete:				
12.5.3.1		(a) Apply grout to level the slab foundation	m^2	7,5		
12.5.3.2		(b) Finishing top surfaces of concrete smooth with a wood float class U2 finish building surface beds	m^2	7,5		
12,6		**BUILDING WORK**				
		Masonry:				
12.6.1		Brickwork of NFX bricks (14 MPa nominal compressive strength) in cement mortar in foundations				
12.6.1.1		01. One brick walls	m^2	3,2		
12.6.1.2		02. High tensile steel fabric reinforcement 150mm wide to every second course of brick walls	m	72		
12.6.2		Brickwork of NFX bricks (14 MPa nominal compressive strength) in cement mortar in superstructure				
12.6.2.1		01. One brick walls in beam filling	m^2	6		
12.6.2.2		02. One brick walls	m^2	11,4		
12.6.2.3		03. 229x152mm Terra cotta verminproof air brick and building in	No.	6		
12.6.2.4		04. 2x38 Galvanised hoop iron roof truss anchor 1620mm girth with one end bent around timber truss and spiked to timber wall plate	No.	10		
12.6.2.5		05. High tensile steel fabric reinforcement 150mm wide to every second course of brick walls	m	185		
12.6.3		Plaster work:				
12.6.3.1		Plastering on internal, external and concrete paving inlcuding screed on floors for ceramic tiles	m^2	80		
12,7		**JOINERY**				
12.7.1		DOORS				
		EXTERIOR QUALITY FRAMED DOORS				
		40mm Meranti External Solid-core hardwood timber door, site-finished with 3 coats exterior grade sealer or polyurethane varnish. Door hung square and plumb, 3mm clearance to jambs, 5-8mm at threshold. All edges sealed prior to installation				
12.7.1.1		Door size 900 x 2125mm	No.	1		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
12.7.2		DOOR FRAME				
12.7.2.1		Hardwood frame with weather groove, rebated for door thickness. Threshold: Hardwood or aluminium weather bar. Seals: Weatherstrip seals to head and jamb; drip seal to bottom	No.	1		
12.7.3		WINDOWS				
		Supply and install new External Aluminium Framed Sliding Windows. (includes all required material, window glass panes, lock handles, etc.)				
12.7.3.1		(a) Window External Sliding - Type 1: Sliding (890 x 1090)	No.	1		
12.7.3.2		(b) Window External Top Hung - Type 2: Top Hung (900 x 1200)	No.	2		
12,8		**PRECAST CONCRETE LINTELS**				
12.8.1		Precast prestressed concrete lintel, 110mm x 75mm, in lengths not exceeding 3m	No.	4		
12,9		**EAVES, VERGES, ETC.**				
		Medium density plain fibre-cement fascial and barge boards:				
12.9.1		12 x 225mm Fascia boards, including galvanised steel profile joiners, etc.	m	15,8		
12.9.2		85 x 275mm Barge boards fixed to roof timbers including galvanised steel H-profile joiners, etc.	m	11		
12,10		**ROOF COVERINGS, ETC.**				
		Gable pitched roof of simple howe trusses with galvanized mild steel plates or well joined by nails or simila approved with pre-painted 0.5mm Chromadek IBR roofing sheeting on 75x55mm timber purlins @ 1000mm c/c's on 114x38mm trusses @ max 1200mm c/c's.				
12.12.1		(a) Roof covering with pitch not exceeding 30 degrees	m^2	23		
12.12.2		(b) Ridge capping including closing off and waterproofing along both edges including all polyclosers etc.	m	3,8		
12.12.3		ROOF AND WALL INSULATION				
		"Sisalation R420" heavy industrial grade aluminium foil with Blue Plastic side up, laid longitudinally over the rafters working from the eaves to ridge, and lapped 150mm joints				
12.12.3.1		Insulation laid over purlins and fixed concurently with roof covering including galvanised steel straining wires	m^2	23		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
12,11		**CEILINGS, PARTITIONS AND ACCESS FLOORING**				
		NAILED UP CEILING				
		6.4mm Thick " Rhino M-strip" fibre ceiling consisting of SABS approved SA Pine branders fixed at 400mm centres in one direction onto which 6.4mm Rhinoboard is fixed at right angle to the branders with printed side up using 32mm galvanised clout or semi-clout nails spaced at 150mm centres. Joints between boards to consist of Rhino M-strip fitted over board edges with the narrow flange facing down and boards fixed onto branders to within 25mm from Rhino M-strip. All nail or screw heads to be stopped and sanded level and dry.				
12.11.1		(a) Ceiling	m^2	7,2		
12.11.2		(b) Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wroght softwood rebated framing with one 38 x 114mm sawn softwood cross brander covered with ceiling board and fitted flush in opening.	No.	1		
		White polysterine " Everite Nutec Cement" cornices				
12.11.12		76mm Coved Gypsum FCO 06 cornice	m	12,84		
12,12		**TILING**				
		FLOOR TILES				
		330x330x7mm Granito light grey GN-573 Johnson ceramic floor tiles with a rough finish on standard adhensive to backing on 25mm screed (backing elsewhere measured).				
12.12.1		(a) To floors	m^2	6		
12,13		**PAINT WORK:**				
		On Floated Plaster Surfaces				
		Prepare surfaces and remove all loose material, apply one coat alkaline resistant pure acrylic filler coat and coat acrylic PVA paint on:				
12.13.1		(a) Interior plastered walls	m^2	35		
12.13.2		(b) External plastered walls	m^2	40		
12,14		**MISCELLANEOUS WORK FOR BUILDINGS**				
12.14.1		IRONMONGERY AND METALWORK				
12.14.1.1		(a) 40mm Brass padlock	No.	1		
12.14.1.2		(b) 150x150 plate with fire exstinguisher symbol	No.	1		
12.14.1.3		(c) 150x150 plate with fire exstinguisher indicator	No.	1		
TOTAL CARRIED FORWARD						

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
12.14.2		SECURITY GATES Hot dipped galvanised welded steel gates fixed to mild steel framing:				
12.14.2.1		A Security gate formed of 20 x 40 x 2,5mm thick hollow square section frame, with two 20 x 20 x 2.5mm horrizontal support and six 20 x 20 x 2.5mm vertical support, the whole gate fitted inside a 40 x 40 x 2.5mm gate surround with two bullet hinges welded on fixed to concrete block walls with lugs complete with 60 x 50 x 5mm padlock plates for locking and door hook all as indicated on typical gate detail to engineers details.	No	1		
TOTAL OF SCHEDULE 9 CARRIED FORWARD TO SUMMARY						