ITEM NO	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION A : PRELIMINARY AND GENERAL				
	SABS 1200 A	**GENERAL**				
A1	8.3 & PSA 8.3	**FIXED-CHARGE AND VALUE-RELATED ITEMS**				
A1.1	PSA 8.3.1	Contractual requirements	Sum	1		
	8.3.1	**Insurance provided by the Contractor**				
A1.2		Contract Works Insurance	Sum	1		
A1.3		Occupational Injuries Insurance	Sum	1		
A1.4		Liability Insurance	Sum	1		
A1.5		All Risks Insurance	Sum	1		
A1.6		Motor Vehicle Liability Insurance	Sum	1		
A1.7		Any other insurance required	Sum	1		
	8.3.2	**Establishment of facilities on site**				
	8.3.2.1	***Facilities for the Engineer***				
A1.8	8.3.2.1 (a)	Furnished office and carport	Sum	1		
A1.9	8.3.2.1 (c)	Name board	No	1		
A1.10		Survey equipment as described in PSAB 4.3	Sum	1		
	8.3.2.2	***Facilities for the Contractor***				
A1.11	8.3.2.2 (a)	Site office and storage area	Sum	1		
A1.12	8.3.2.2 (b)	Workshops	Sum	1		
A1.13	8.3.2.2 (d)	Living acomodation	Sum	1		
A1.14	8.3.2.2 (e)	Ablution Facilities	Sum	1		
A1.15	8.3.2.2 (f)	Tools and equipment	Sum	1		
A1.16	8.3.2.2 (g)	Water supplies, electrical power and communications	Sum	1		
A1.7	8.3.2.2 (h)	Dealing with water	Sum	1		
A1.18	8.3.2.2 (i)	Access	Sum	1		
	PSA 8.3.3	**Other fixed charge obligations**				
A1.19		Quality Control and Quality Assurance System for duration of Contract	Sum	1		
	PSA 8.3.3	Other fixed charge obligations (Specify)				
A1.21	8.3.4	Remove Site establishment on completion	Sum	1		
		Carried forward / …				

		Brought forward / …				
	PSA 8.11	**Health and Safety**				
A1.22	8.11.1	General safety obligations	Sum	1		
A1.23	8.11.2	Risk assessments	Sum	1		
A1.24	8.11.3	Health and safety plan	Sum	1		
A1.25	8.11.4	Health and safety file	Sum	1		
A1.26	8.11.6	Training	Sum	1		
A1.27	8.11.7	Medical assessment of employees	Sum	1		
A2	8.4	**SCHEDULED TIME-RELATED ITEMS**				
A2.1	PSA 8.4.1	Contractual Requirements	Sum	1		
	PSA 8.4.1	**Insurance provided by the Contractor**				
A2.2		Contract Works Insurance	Sum	1		
A2.3		Occupational Injuries Insurance	Sum	1		
A2.4		Liability Insurance	Sum	1		
A2.5		All Risks Insurance	Sum	1		
A2.6		Motor Vehicle Liability Insurance	Sum	1		
A2.7		Any other insurance required	Sum	1		
	8.4.2	**Operation and maintenance of facilities on the Site for the duration of construction**				
	8.4.2.1	***Facilities for Engineer***				
A2.8	8.4.2.1 (a)	Furnished office and carport	Sum	1		
A2.9	8.4.2.1 (b)	Telephone - refer to PSAB 4.1	Sum	1		
A2.10	8.4.2.1 (c)	Name board (until end of Defects Liability Period)	No	1		
	8.4.2.2	***Facilities for the Contractor***				
A2.11	8.4.2.2 (a)	Site Office and Storage Area	Sum	1		
A2.12	8.4.2.2 (b)	Workshops	Sum	1		
A2.13	8.4.2.2 (d)	Living accomodation	Sum	1		
A2.14	8.4.2.2 (e)	Ablution facilities	Sum	1		
A2.15	8.4.2.2 (f)	Tools and equipment	Sum	1		
A2.16	8.4.2.2 (g)	Water supplies, electrical power and communications	Sum	1		
A2.17	8.4.2.2 (h)	Dealing with water	Sum	1		
A2.18	8.4.2.2 (i)	Access	Sum	1		
A2.19	8.4.3	Supervision for the duration of construction	Sum	1		
A2.20	8.4.4	Company and head office overheads for the duration of the Contract	Sum	1		
		Carried forward / …				

		Brought forward / …				
	8.4.5	**Other time-related obligations**				
A2.21	PSA 8.4.5	Provision of security personnel	Sum	1		
A2.22	8.4.5	Other time-related obligations (Specify)	Sum	1		
	PSA 8.11	**Health and Safety**				
A2.23	8.11.1	General safety obligations	Sum	1		
A2.24	8.11.3	Health and safety plan	Sum	1		
A2.25	8.11.5	Construction safety officer and other appointments	Sum	1		
A3	8.5	**SUMS STATED PROVISIONALLY BY ENGINEER**				
A3.1	PSA 8.5.1	Additional testing required by the Engineer	Prov Sum	1		25,000.00
A3.2	PSA 8.5.2	Overhead, charges, profit, etc on item PSA 8.5.1	%	25,000		
A3.3	PSA 8.5.3	Relocation of municipal services	Prov Sum	1		75,000.00
A3.4	PSA 8.5.4	Overhead, charges, profit, etc on item PSA 8.5.3	%	75,000		
A3.5	PSA 8.5.5	Community Liaison Officer for duration of contract	Prov Sum	1		50,000.00
A3.6	PSA 8.5.6	Overhead, charges, profit, etc on item PSA 8.5.5	%	50,000		
A4	PSA 8.7	**DAYWORK (Provisional)**				
	PSA 8.7 (a)	**Labour : Normal Time**				
A4.1		Labourers	hr	100		
A4.2		Operatives (semi-skilled)	hr	60		
A4.3		Artisans (skilled)	hr	40		
	PSA 8.7 (a)	**Labour : Overtime**				
A4.4		Labourers	hr	100		
A4.5		Operatives (semi-skilled)	hr	60		
A4.6		Artisans (skilled)	hr	40		
	PSA 8.7 (b)	**Material**				
A4.7		Allowance for materials	Prov Sum			50,000.00
A4.8		Percentage mark-up to materials	%	50,000		
	PSA 8.7 (c)	**Own Plant**				
A4.9		Tractor Loader Backhoe (TLB)	hr	20		
A4.10		Tracked excavator (20T)	hr	20		
A4.11		Compactor (vibrating plate)	hr	20		
		Carried forward / …				

		Brought forward / …				
A4.12		Truck (8 ton)	hr	20		
A4.13		Tip truck (10m^3)	hr	20		
A4.14		Crane truck (10 ton)	hr	20		
A4.15		Dewatering pump	hr	20		
A4.16		Compressor 250 CFM complete with hand tools and attachments	hr	20		
A417	PSA 8.7 (d)	Hired plant	Prov Sum	1		50,000.00
A4.18	PSA 8.7 (d)	Percentage mark-up on hired plant	%	50,000		
A5	8.8	**TEMPORARY WORKS**				
A5.1	PSA 8.8.2	Accommodation of traffic	Sum	1		
	8.8.4	**Existing Services**				
A5.2	PSA 8.8.4 (c)	Excavate by hand in all material to expose existing services where ordered by the Engineer	m^3	15		
A5.3	PSA 8.12	Liaison and cooperation with the other contractors	Sum	1		
A5.4	PSA 8.13	Compliance with requirements of the EMP	Sum	1		
A6		**OTHER ITEMS**				
A6.1	PMA 11.4.1	Equipment to allow WWTW to remain in operation	Sum	1		
		Carried Forward to Summary: SECTION A			**R**	

ITEM NO	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION B : VERULAM WWTW				
B1		**REINSTATE PERIMETER SECURITY FENCE**				
B1.1		Remove damaged existing 1.8m high barbed fence over short sections between posts and dispose of dismantled fence materials	m	150		
B1.2		Supply and install 1.8m high barbed galvanised security fence together with excavation for footings and concrete foundations for concrete posts at 2m centres over short sections over 150m	m	150		
B2		**EARTH EMBANKMENT REINSTATEMENT**				
B2.1		Site Clearance	ha	12		
B2.2		Excavation in all materials for foundation and reinstatement embankment	m^3	1800		
B2.3		Extra-over for hard rock	m^3	200		
B2.4		25MPa/19mm concrete to foundation	m^3	200		
B2.5		Approved compacted backfill material behind walls	m^3	120		
B2.6		Temporary Diversion of River and Protection of Construction Area	Sum	1.00		
B2.7		Provide access across River during Construction	Sum	1.00		
B2.8		Geotechnical Investigation	Prov Sun	1.00		100,000.00
B2.9		Design Confirmation Geotechnical Engineer	Prov Sun	1.00		100,000.00
B2.10		Topographical Survey	Prov Sun	1.00		35,000.00
B2.11		Hard Rock Fill	m3	360		
B2.12		**Surface preparation for bedding the gabions**	m²	1000		
		Gabions : **Supply and Install Galvanised Gabion boxes (including gabion rocks).**				
B2.13		1,0m wide by 1,0m wide (i) by 1,0m long mesh 80mm	m³	900		
B2.14		1,0m wide by 0,5m wide (ii) by 1,0m long mesh 80mm	m³	900		
		Supply & Install Galvanised Mattresses Galvanised gabion mattresses				
B2.15		0,6m diaphragm spacing, 6,0m long by 1,0m wide by 0,3m deep mesh 80mm	m³	360.00		
		Filter fabric				
B2.16		Bidim Grade A4 or similar approved for Gabions	m²	1200.00		
B2.17		Construct G7 fill constructed in layers of 150mm compacted to 95% of modified ASHTO	m³	1800.00		
		Carried forward / …				

		Brought forward / …				
		HEAD OF WORKS				
		BLOWER ROOM				
B3		**BLOWER ROOM FOUNDATIONS UNDERPINNING**				
B3.1		Excavation in all materials for retaining wall footings	m^3	15		
B3.2		Construct G7 fill constructed in layers of 150mm compacted to 95% of modified ASHTO	m3	10		
B3.3		20MPa/19mm concrete to foundations	m^3	7		
		STONE SCREEN				
B3.4		Supply and Install Inclined Front Rake Screen, completed as specified by Engineer as per PSA 10	No	1		
		Screenings Waste Compactor Washer				
B3.5		Supply and Install Screenings Waste Compactor Washer, complete as per specified by Engineer as per PSA10	No	1		
		Spiral Conveyor Stone/Grit Trap				
B3.6		Supply and Install Spiral Conveyor Stone/Grit Trap Unit, complete as specified by Engineer as per PSA10				
B3.7		Manufacture and Install Stainless Steel Diversion Plate into existing channel, for diversion of effluent for coarse screen	Prov Sum	1		R25,000.00
B4		**DEGRITTER**				
B4.1		Uninstall & Remove existing faulty motor and gearbox, deliver to Municipal Store	No	2		
B4.2		Supply and install new motor and gearbox, complete as specified as per PSA10	No	2		
B5		**PRIMARY SETTLING TANKS**				
B5.1		Remove sand and sludge to empty the tank of all materials, and dispose to registered hazardous solid waste facility	No	5		
B5.2		Remove existing asbestos cement inlet pipes including brackets, and dispose of dismantled pipes and brackets to registered hazardous solid waste facility	No	5		
B5.3		Supply and install 150mm dia mPVC Class 6 pipe short lengths of 5m long, including fixing of pipe to wall of PST with galvanized steel brackets	No	5		
B5.4		Central Shaft and Inlet Pipework Corrosion Protection, complete as specified as per PSA10	No	5		
B6		**4MI CLARIFIER**				
B6.1		Dismantle and remove existing faulty centre bearing including loading, offloading and transport to Municipal Workshop	No	1		
		Carried forward / …				

		Brought forward / …				
B6.2		Clarifier Mechanism consisting Lektratek Water Technology, Tank Diameter 32.7m, Echelon Scraper formation, 7No Scrapers, 310mm dia x 125mm wide wheel, UCPX10 wheel bearings, 1.85m/min peripheral speed, slew bearing - Jost 850N centre pivot bearing	No	1		
B6.3		Clarifier Geared Drive Motor consisting of Flender Himmel Type, Model FZA 81 Z30 - MIC 4, 0.37kW rated output, Output Speed 1.9RPM, Serial Number 0002- MI 3454/1-2, Operating Voltage 400V, Rated Current 1.2A	No	1		
B6.4		Central Shaft and Inlet Pipework Corrosion Protection, complete as specified as per PSA10	No	1		
B7		**8MI CLARIFIER**				
B7.1		Clarifier Mechanism consisting Lektratek Water Technology, Manufacture 2000, Tank Diameter 10.5m, Maximum flow 8.5ml/s, Maximum Sludge Return 4.25l/s, 4No Scrapers, 310mm dia x 125mm wide wheel, UCPX10 wheel bearings, 1.85m/min peripheral speed,centre pivot bearings 1 x UCP 212 1 x UCF x 17, Serial No CFC 0107. 4	No	2		
B7.2		Clarifier Geared Drive Motor consisting of Flender Himmel Type, Model FZA 81 Z30 - MIC 4, 0.37kW rated output, Output Speed 1.9RPM, Serial Number 0002- MI 3454/1-2, Operating Voltage 400V, Rated Current 1.2A	No	2		
B7.3		Deliver all equipment supplied under this Section to	Sum	1		
B7.4		Installation of all equipment supplied under this Section	Sum	1		
B7.5		Test and Commission all equipment supplied in this Section	Sum	1		
B7.6		Servicing all equipment supplied in this Section	Sum	1		
		Interim storage of goods ordered by the Engineer, including insurance(Prov)	month	3		
B8		PRIMARY DIGESTER				
B8.1		Remove sludge to empty the tank of all sludge, and dispose to registered hazardous solid waste facility, including dealing with health and safety measures such as forced ventilation to render tank safe from gasses, prior to entering the tank	No	1		
B9		SECONDARY DIGESTER				
B9.1		Remove sludge to empty the tank of all sludge, and dispose to registered hazardous solid waste facility, including dealing with health and safety measures such as forced ventilation to render tank safe from gasses, prior to entering the tank	No	1		
		Carried forward / …				

		Brought forward / …				
B10		SECONDARY SEDIMENTATION TANKS				
B10.1		Remove existing faulty center bearing, electrical slipring, motor and gearbox, and deliver to Municipal	No	2		
B10.2		Supply and install new center bearing, electrical slipring, motor and gearbox	No	2		
B11	PDD	**PUMPS** **RAW SLUDGE PUMPS** Hidrostal 11KW Pumps **Pump and Motor Sets**				
B11.1	PDD6.1	Supply and Delivery	No	2		
B11.2	PDD6.2	Installation	No	2.00		
	PDH, PDC	**Pipework and Valves**				
B11.3	PDD6.1 PDH10 PDC14.2.1	Supply and Delivery	Sum	1		
B11.4	PDD6.2 PDH 10 PDC14.2.1	Installation	Sum	1		
		Electrical work including float switches and cabling				
B11.5	PDD6.1 PDN 18	Supply and Delivery	Sum	1		
B11.6	PDD6.2 PDN 18	Installation	Sum	1		
B11.7	PDD6.1	Deliver all equipment to Site	Sum	1		
B11.8	PDD6.3	Test and Commission all equipment	Sum	1		
B11.9	PDD6.5	Servicing all equipment	Sum	1		
B11.10	PDD6.5	Interim storage of goods ordered by the Engineer, including insurance(Prov)	month	3		
B12		**SUPERNATANT LIQUID PUMPS** Hidrostal 11KW Pumps **Pump and Motor Sets**				
B12.1	PDD6.1	Supply and Delivery	No	2		
B12.2	PDD6.2	Installation	No	2.00		
		Pipework and Valves				
B12.3	PDD6.1 PDH10 PDC14.2.1	Supply and Delivery	Sum	1		
B12.4	PDD6.2 PDH 10	Installation	Sum	1		
		Electrical work including float switches and cabling				
B12.5	PDD6.1 PDN 18	Supply and Delivery	Sum	1		
B12.6	PDD6.2 PDN 18	Installation	Sum	1		
B12.7	PDD6.1	Deliver all equipment to Site	Sum	1		
B12.8	PDD6.3	Test and Commission all equipment	Sum	1		
B12.9	PDD6.5	Servicing all equipment	Sum	1		
B12.10	PDD6.5	Interim storage of goods ordered by the Engineer, including insurance(Prov)	month	3		
		Carried forward / …				

		Brought forward / …				
B13		**DIGESTER RECIRCULATION PUMP** T10 Self-Priming Centrifugal Gorman Rupp **Pump and Motor Sets**				
B13.1	PDD6.1	Supply and Delivery	No	1		
B13.2	PDD6.2	Installation	No	1.00		
		Pipework and Valves				
B13.3	PDD6.1 PDH10 PDC14.2.1	Supply and Delivery	Sum	1		
B13.4	PDD6.2 PDN 18	Installation	Sum	1		
		Electrical work including cabling				
B13.5	PDD6.1 PDN 18	Supply and Delivery	Sum	1		
B13.6	PDD6.2 PDN 18	Installation	Sum	1		
B13.7	PDD6.1	Deliver all equipment to Site	Sum	1		
B13.8	PDD6.3	Test and Commission all equipment	Sum	1		
B13.9	PDD6.5	Servicing all equipment	Sum	1		
B13.10	PDD6.5	Interim storage of goods ordered by the Engineer, including insurance(Prov)	month	3		
B14		**SLUDGE BEDS: Storage Slabs**				
	SABS 1200DM	**EARTHWORKS (SURFACE BED, SUBGRADE)**				
	8.3.3	Treatment of Surface bed:				
B14.1		Rip, Shape In situ Ground Materials to a depth of 150mm and compact to 90% Mod AASHTO density.	m3	100		
B14.2		Construct 150mm selected subgrade from commercial sources compacted to 93% Mod AASHTO density with G7 material	m³	250		
	SANS 1200 G	**CONCRETE (STRUCTURAL)**				
	8.2	**Formwork**				
		Narrow widths (up to 350mm wide)				
B14.3	8.2.1	Sides of concrete slab	m	620.00		
	8.3	**Reinforcement**				
	8.3.2	***High-Tensile Welded Mesh***				
B14.4		Mesh Ref. 395(for sludge beds and slab)	m²	1,560.00		
	8.4	**Concrete**				
	8.4.3	***Strength concrete, Grade 25MPa/19mm***				
B14.5		Slabs	m³	250.00		
	8.4.4	**Unformed Surface Finishes**				
		Carried forward / …				

		Brought forward / …				
	8.4.4 (a)	***Wood-floated finish***				
B14.6		Slabs	m²	1,560.00		
	8.4.4 (b)	***Steel-floated finish***				
B14.7		Strip Footing	m²	100.00		
	8.5	***Joints***				
B14.8		10mm Jointex between existing sludge bed wall and	m	300		
B14.9		Saw cut joints at 4.5x4.5m panels.	m	50		
		BUILDING WORK				
		Brick Work				
B14.10		Non face brick, galvanised brickforce every 3rd course, galvanised wall ties spaced at 450 c/c; 220mm walls.	m^2	150		
		Waterproofing				
B14.11		DPC under Slab and Wall, 250 Micron polyethylene sheeting in accordance with SABS 952.	m^2	1,000		
B15		**STORMWATER(Channel & Pipework)** Pipework				
	SANS 1200 DB	**TRENCHES**				
B15.1	8.3.1	Site clearance	ha	1		
B15.2	8.3.1 (c)	Remove topsoil to a nominal depth of 150mm	m3	300		
	8.3.2 (a)	Excavate in all materials for trenches, backfill, compact and dispose of surplus material, including for compulsory shoring of trenches over 1,5 m in depth.				
		For pipes up to 600mm dia				
B15.3	8.3.2 (a)	Depth from 1.0m to 2.0m	m	100		
B15.4	8.3.2 (b)(2)	Extra-over hard rock excavation	m^3	2		
	SABS 1200 LB	**BEDDING**				
	8.2.2.3	Provision of bedding obtained from commercial sources				
B15.5	8.2.2.3 (a)	Selected granular material	m^3	10		
B15.6	8.2.2.3 (b)	Selected fill material	m^3	10		
	8.2.2.3	Provision of bedding obtained from excacations on site				
B15.7	8.2.2.3 (a)	Selected granular material	m^3	5		
B15.8	8.2.2.3 (b)	Selected fill material	m^3	5		
		Carried forward / …				

		Brought forward / …				
	SABS 1200 LE	**PIPES**				
	8.2.1	Supply, lay in Class B bedding and joint for the following:				
		R.C. Class 100-D Ogee pipes:				
B15.9	8.2.1	600mm dia	m	30		
	SANS 1200 DB	**CONCRETE STORMWATER CHANNEL**				
B15.10	8.3.1	Site clearance	ha	2		
B15.11	8.3.1 (c)	Remove topsoil to a nominal depth of 150mm	m3	100		
B15.12	8.3.2 (a)	Excavate in all materials, backfill, compact and dispose of surplus material	m3	350		
B15.13	8.3.1	Construct 150mm selected subgrade from commercial sources compacted to 93% Mod AASHTO density with G7 material	m³	100		
	8.2	**Formwork**				
		Narrow widths (up to 350mm wide)				
B15.14	8.2.1	Sides of concrete channel	m	200.00		
	8.3	**Reinforcement**				
	8.3.2	***High-Tensile Welded Mesh***				
B15.15		Mesh Ref. 395	m²	600.00		
	8.4	**Concrete**				
	8.4.3	***Strength concrete, Grade 25MPa/19mm***				
B15.16		Channel	m³	120.00		
	8.4.4	**Unformed Surface Finishes**				
	8.4.4 (a)	***Wood-floated finish***				
B15.17		Slabs	m²	1,560.00		
		Headwalls				
B15.18		Construct inlet and outlet headwalls completed as per Drawings AFR2309-01	No	6		
B16		**CLARIFIED EFFLUENT DIVERSION**				
B16.1		Supply and Install 600dia Knife Gate Valves	No	2		
B16.2		Chlorination of Clarified Effluent at Existing Diversion Chamber	Prov Sum	1		25000.00
		SUB -TOTAL: SECTION B				

ITEM NO	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION C: MHLOTI WWTW Roadworks and Stormwater				
C1		**STORMWATER CONTROL**				
	SANS 1200 DB	**TRENCHES**				
C1.1	8.3.1	Site clearance	ha	3		
C1.2	8.3.1 (c)	Remove topsoil to a nominal depth of 150mm	m3	30		
	8.3.2 (a)	Excavate in all materials for trenches, backfill, compact and dispose of surplus material, including for compulsory shoring of trenches over 1,5 m in depth.				
		For pipes up to 600mm dia				
C1.3	8.3.2 (a)	Depth from 1.0m to 2.0m	m	100		
C1.4	8.3.2 (a)	Depth from 2.0m to 3.0m	m	55		
C1.5	8.3.2 (b)(2)	Extra-over Item hard rock excavation	m^3	20		
	SABS 1200 LB	**BEDDING**				
	8.2.2.3	Provision of bedding obtained from commercial sources				
C1.6	8.2.2.3 (a)	Selected granular material	m^3	50		
C1.7	8.2.2.3 (b)	Selected fill material	m^3	50		
	8.2.2.3	Provision of bedding obtained from excavations on site				
C1.8	8.2.2.3 (a)	Selected granular material	m^3	30		
C1.9	8.2.2.3 (b)	Selected fill material	m^3	30		
	SABS 1200 LE	**PIPES**				
	8.2.1	Supply, lay in Class B bedding and to include wrapping of joints for the following:				
		R.C. Class 100-D Ogee pipes:				
C1.10	8.2.1	650mm dia	m	100		
		Headwalls				
C1.11		Construct Headwall Inlet & Outlets complete as shown on Drawing AFR2309-01	No	6		
		STORMWATER CHANNEL				
C1.12	8.3.1	Site clearance	ha	2		
C1.13	8.3.1 (c)	Remove topsoil to a nominal depth of 150mm	m3	100		
C1.14	8.3.2 (a)	Excavate in all materials, backfill, compact and dispose of surplus material	m3	350		
C1.15		G7 to 93% Mod AASHTO density in 150 mm layer from commercial sources as foundation to channel	m^3	200		
		Carried forward / …				

		Brought forward / …				
		Supply and Install Galvanised Gabion boxes (including gabion rocks).				
		1,0m wide by 1,0m wide				
C1.16		(i) by 1,0m long mesh 80mm	m³	4000		
		1,0m wide by 0,5m wide				
C1.17		(ii) by 1,0m long mesh 80mm	m³	2000		
		Supply & Install Galvanised Mattresses				
		Galvanised gabion mattresses				
		0,6m diaphragm spacing, 6,0m long by 1,0m wide.				
C1.18		by 0,3m deep mesh 80mm	m³	1200.00		
		Filter fabric				
C1.19		Bidim Grade A4 or similar approved for Gabions	m²	8000.00		
C2		**ROADWORKS**				
	SABS 1200DM	**EARTHWORKS (ROADS, SUBGRADE)** As specified in SABS 1200 DM and the project specification				
		Preparation of Site				
C2.1	8.3.1	Clearing and grubbing	ha	1		
C2.2	8.3.2	Strip 150 mm topsoil to stockpile and maintain.	m³	25		
	8.3.3	**Treatment of roadbed**				
		a) Roadbed preparation and compaction of materials to:				
C2.3		Minimum of 90% Mod. AASHTO density to a depth of 150mm.	m³	600		
	8.3.5	**Import G7 material for Fill**				
		a) Fill compacted to 95% Mod AASHTO density in 150 mm layers from:				
C2.4		i) Commercial sources	m³	600		
	8.3.7	**Cut to spoil or stockpile from:**				
C2.5		Soft and Intermediate Excavation	m³	300		
C2.6		Removal of unsuitable material in roadbed.	m³	100		
	8.3.12	**Overhaul**				
C2.7		Extra-over Item for hauling material in excess of a freehaul distance of 1.0km	m³.km	100		
	PSDM 8.3.13	**Surface Finishes**				
C2.8		150mm Topsoiling, from stockpile.	m³	300		
C2.9		Trim, shape and roll verges	m²	2000		
C2.10	PSDM 8.3.17 , PSM 8.2	Construct 150mm selected gravel wearing course from commercial sources compacted to 93% Mod AASHTO density with G7 material	m³	600		
		Carried forward / …				

		Brought forward / …				
C2.11	MF8.3.3	**WEARING COURSE** Construct 150mm thick subbase with natural gravel from commercial sources (G5 quality material, min CBR 45%, PI <10,max. stone size 63 mm), compacted to 97% Mod. AASHTO density	m^3	600		
		SUB-TOTAL: SECTION C				

NORTHERN CATCHMENT STORM DAMAGE REPAIRS Wastewater Treatment Works	
BILL OF QUANTITIES - SUMMARY	**AMOUNT**
A : PRELIMINARY & GENERAL **B : VERULAM WWTW** **C : MHLOTI WWTW**	
SUB TOTAL	
Add 10 % Contingencies	
SUB TOTAL	
Add VAT @ 15%	
GROSS TOTAL	

Signed ……. Dated ……..

Name ……. Position ……..

Tenderer ……..