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BILL OF QUANTITIES**SECTION 1 Preliminary and General****PART AA PRELIMINARIES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC 2015	GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA	sum	1		
		Fixed Charge obligations				
2	GCC 2015	Time Related obligations	sum	1		
3	SANS 1921-1	SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS	sum	1		
		Fixed Charge Items				
4	SANS 1921-1	Time Related Items	sum	1		
5	PS.13	COMMUNITY LIAISON OFFICER	PC Sum	310000	1.00	310,000.00
		Allow for a CLO to be appointed.				
6		Handling Fee for the above item	%	310000		
7	PS.12	LOCAL LABOUR	sum	1		
		Allow for the weekly submission of proof of employment of local labour				
8		Contractor fixed obligations	sum	1		
9		Site Meetings with Project Steering Committee	PC Sum	0	1.00	0.00
10		Handling fee for above item	%	0		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General**R**

Construction of Mfume low level crossing over Lovu River - Ward 105

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AB.2	FIXED CHARGES	sum	1		
		Offices for Engineer and Staff NOT REQUIRED				
2	AB.4 / PS.AB.1.2	Contractor's Camp Site / Store Yard	sum	1		
3	AB.5 / PS.AB.3	Notice Board	sum	1		
4	AB.7 / PS.AB.4	Road Deviations	sum	1		
5	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
6		Survey coordination of existing valves, manholes, catchpits, and cable duct markers	sum	1		
7		Allow for the following Additional Items which the tenderer requires to be priced separately :-	sum	1		
		a)				
8		b)	sum	1		
9		c)	sum	1		
10	AB.6	Cost of Samples and Contractor's Preliminary and Site Control Testing	sum	1		
11	AB.7 / PS.AB.4	Maintenance of Pedestrian and Traffic Facilities	sum	1		
12	AB.7 / PS.AB.4	Maintenance of all signs, barricades and delineators	sum	1		
13		Maintenance of Pedestrian and Traffic Facilities	sum	1		
14		Allow for Progress Photographs (Provisional Sum)	PC Sum	50000	1.00	50,000.00
15		Provision of Site Security	sum	1		
16		Insurance of Work	sum	1		
17		Appointment of Environmental Officer	PC Sum	108000	1.00	108,000.00
18		Handling fee for above item	%	108000		
19		Provide toilet facilities	sum	1		
20		Empowerment Initiative Programme - In-service/vacation work training	PC Sum	200000	1.00	200,000.00
21		Handling fee for above item	%	200000		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General**R**

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PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3	Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General R

Construction of Mfume low level crossing over Lovu River - Ward 105

SECTION 2 Bridgeworks

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2 / PS.B.1	General clearance and grubbing in river bed and track	m2	2720		

TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks R

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PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Foundations</u>				
1	C.8.1	Grade 15/19 concrete in soft spots (provisional)	m3	30.42		
2	C.8.1	Grade 15/19 concrete blinding of thickness 50 mm	m2	118.6		
3	C.8.1	Grade 30/19 concrete in footings	m3	76.1		
4	PS.C.14	Supply and install Y32 rock anchors to footings in 50 dia holes drilled 3m into sound rock	no.	20		
5	C.8.3 / PS.C.2	Class 1 shuttering to footings	m2	90		
6	C.8.2 / PS.C.1	High tensile steel reinforcement to bridge foundations	t	12		
		<u>Substructure</u>				
7	C.8.1	Grade 30/19 concrete in walls	m3	51.7		
8	C.8.3 / PS.C.2	Class 1 shuttering to back of abutment walls	m2	43.7		
9	C.8.3 / PS.C.2	Class 3a shuttering to front and sides of abutment & Pier walls	m2	184.8		
10	C.8.2 / PS.C.1	High tensile steel reinforcement to bridge substructure	t	9		
		<u>Bridge Superstructure</u>				
11	C.8.1	Grade 30/19 concrete in bridge superstructure	m3	280		
12	C.8.3 / PS.C.2	Class 3a shuttering to soffit of bridge superstructure	m2	390.5		
13	C.8.3 / PS.C.2	Class 3a shuttering to vertical and sloping sides of bridge superstructure	m2	96.7		
14	C.8.2 / PS.C.1	High tensile steel reinforcement	t	40		
15	C.8.2 / PS.C.1	Mild steel reinforcement	t	3		
16	C.8.1	Grade 30/19 concrete of 100mm thickness in footpath slabs	m3	10		
17	C.8.3 / PS.C.2	Class 1 shuttering to footpath slabs	m2	10		
18	C.8.2 / PS.C.1	High tensile steel fabric reinforcement ref : 193	t	0.25		
19		65 mm Ø perforated drainage pipes wrapped in Geotextile placed on a 200 mm x 75 mm concrete screed.(as per drawing detail)	m	15		

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Part Continued **PART C CONCRETE WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
20		Construct 50mm dia. P.V.C weepholes inclusive of filter elements, temporary plugs to abutment walls (as per drawing detail)	no.	14		
21		Build in 75mm dia P.V.C stormwater drainholes pipes into position	no.	11		
22		Survey and Setting Out for positioning of all abutment and piers footing including all checks required by an Engineer on existing structure	sum	1		
23		Proffesional Design for falsework for deck	sum	1		

TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks **R**

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PART DD EARTHWORKS FOR STRUCTURES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2 / PS.DD.1 / 2.2 / 4 / 5	Excavate in all material for footings to stockpile	m3	85.2		
2	DD.8.2 / PS.DD.1 / PS.DD.2.2	Extra over item 1 for hard material	m3	10		
3	DD.8.3/ PS.DD.4	Backfill and compact using material from stockpile	m3	50		
4	DD.8.3/ PS.DD.5	Backfill and compact using imported material from contractor's own source. Rate to include all haulage and royalties	m3	90		
5	PS.DD.2	Design, installation and removal of cofferdamming and lateral support to the foundation excavations	sum	1		
6	PS.DD.2	Design, installation and removal of causeway through the river for construction	sum	1		

TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks**R**

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<u>PART</u>		EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS				
Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EH 8.1	Supply and install straight steel Guard rails, including precast concrete post	m	80		
2	EH 8.1	End wings SANS 1350	no.	8		
3		Reflective Plastic plates - v-shape	no.	20		
4	EH 8.1	Curved steel guardrails	m	20		
TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks					R	

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PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1/ PS.F.1	Topsoiling and grassing as specified in the Environmental Management Plan	m2	200		
2	F.8.6/ PS.F.3	Gabion boxes : 2000x1000x1000 mm depth	m3	120		
3	F.8.6/ PS.F.3	Gabion boxes : 1500x1000x1000 mm depth	m3	30		
4	F.8.6/PS.F.3	Gabion boxes : 1000x1000x1000 mm depth	m3	50		
5		Supply and install approved geofabric to underside and back of Gabion walls	m2	150		
6	PS.C.5	Supply and install polycrete handrail system	m	40		

TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks**R**

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<div><div><div>PART</div><div>PB</div><div>PAVEMENT LAYERS OF GRAVEL MATERIAL</div></div></div>						
Item	Clause	Description	Unit	Quantity	Rate	Amount
1		In-place treatment of roadbed in hard material: by ripping	m3	172		
2		Road formation construction and compaction to 95 % of MDD	m3	344		
3		Construction of layers: Upper selected subgrade layer (G7) compacted to 95 % of MDD	m3	480		
TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks					R	

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<u>PART</u>		PG	NON PRESSURE PIPELINES and PC CULVERTS			
Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	Supply and lay 1200 mm diameter concrete Class 100D for temporary crossing	m	40		
TOTAL CARRIED TO SECTION 2 SUMMARY: Bridgeworks					R	

BILL OF QUANTITIES SECTION SUMMARY**SECTION 1 Preliminary and General**

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TOTAL CARRIED TO FINAL SUMMARY			

SECTION 2 Bridgeworks

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TOTAL CARRIED TO FINAL SUMMARY			

SUMMARY OF BILL OF QUANTITIES

Section

1	Preliminary and General		R	
AA	PRELIMINARIES	R		
AB	GENERAL SPECIFICATIONS	R		
AH	OCCUPATIONAL HEALTH and SAFETY	R		
2	Bridgeworks		R	
B	SITE CLEARANCE	R		
C	CONCRETE WORK	R		
DD	EARTHWORKS FOR STRUCTURES	R		
EH	STEEL GUARDRAILS & CONC. MEDIAN BARRIERS	R		
F	PROTECTION WORKS	R		
PB	PAVEMENT LAYERS OF GRAVEL MATERIAL	R		
PG	NON PRESSURE PIPELINES and PC CULVERTS	R		
SUB TOTAL				R
ADD VAT (15%) - (only if a registered VAT Vendor)				R
TOTAL CARRIED TO FORM OF TENDER				R