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BILL OF QUANTITIES**SECTION 1 Preliminaries 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 Fixed Charge obligations	sum	1		
2	GCC 2015	Time Related obligations	sum	1		
3	SANS 1921-1 & SABS 1200 A	SANS 1921-1 & SABS 1200 A: GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS Fixed Charge Items	sum	1		
4	SANS 1921-1	Time Related Items	sum	1		
5	C.1.2.3.1	COMMUNITY LIAISON OFFICER Allow for a CLO to be appointed.	PC Sum	114240	1.00	114,240.00
6	C.1.2.3.1	% Mark-up for item 5 above	%	114240		
7	C.1.2.3.4	LOCAL LABOUR Allow for the weekly submission of proof of employment of local labour	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminaries and General**R****PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.AB.14	Setting out	sum	1		
2	PS.AB.14	Additions to setting out (fixing of control points)	sum	1		
3	AB.4	Contractor's Camp Site / Store Yard	sum	1		
4	AB.5	Notice Board	sum	1		
5	PS.AB.6	Cost of Samples and Contractor's Preliminary and Site Control Testing	sum	1		
6	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
7	AB.7	Maintenance of all signs, barricades and delineators	sum	1		
8	PS.AB.8	Road Deviations (Temporary by-pass of Type B category)	sum	1		

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
9	PS.AB.9	Survey coordination of existing valves, manholes, catchpits, and cable duct markers	sum	1		
10	PS.AB.15	Temporary stream diversion and removal of stream diversion	sum	1		
11	PS.AB.10	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
12	C1.2.3.7	Excepted Risks: Establishment	sum	1		
13	C1.2.3.7	Excepted Risks: De-establishment	sum	1		
14	PS.11	Site Security	PC Sum	369478.9	1.00	369,478.90

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminaries and General

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PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.AH.10	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	PS.AH.10	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	PS.AH.10	Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminaries and General

R

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46
SECTION 2 Stormwater Upgrade
PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance of the site area and remove all debris such as gabbage and the existing concrete structures and brickwork from the site and spoil at tip. Rate to include all haulage	m2	120		
2	B.8.2	General clearance and grubbing in contractor's camp site	m2	40		
3	B.8.2	General clearance and grubbing in temporary stockpile area	m2	50		
4	B.8.2	General clearance and grubbing in private property	m2	50		
5	B.8.3	General clearance and grubbing for pipelines in road reserve	m2	348		
6	B.8.5	Removal of 1.8 m high wire mesh fence and store on site for re-use	m	25		
7	PS.B.9	Demolition of manholes and inlets	no.	9		
8	B.8.10	Removal of unreinforced concrete	m3	5		
9	B.8.11	Removal of reinforced concrete	m3	56.9		
10	B.8.15	Removal of asphalt sidewalks/medians to tip	m	10		
11	B.8.16	Removal of kerb and channel/fillet to tip	m	36		
12	B.8.19	Removal of disused pipes, 300 - 500 mm diameter and spoil at tip. Rate to include all haulage	m	37		
13	B.8.19	Removal of disused pipes, 500 - 800 mm diameter and spoil at tip. Rate to include all haulage	m	52		
14	B.8.19	Removal of disused pipes, greater than 800 mm diameter and spoil at tip. Rate to include all haulage	m	50		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade
R
PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 15/26 concrete blinding of thickness 75 mm	m2	219		
2	C.8.1	Grade 30/26 concrete in base slab of culvert	m3	49.2		
3	C.8.1	Grade 30/26 concrete in walls of culvert	m3	98.1		
4	C.8.1	Grade 30/26 concrete in deck slab of culvert	m3	49.2		

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46

Part Continued **PART C CONCRETE WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	C.8.1	Grade 30/26 concrete in apron slab of culvert	m3	0.5		
6	C.8.1	Grade 30/26 concrete in wing walls of culvert	m3	2		
7	C.8.2	High tensile steel reinforcement	t	25		
8	C.8.3	Class 3a shuttering to base slab of culvert	m2	198		
9	C.8.3	Class 3a shuttering to walls of culvert	m2	660		
10	C.8.3	Class 3a shuttering to deck slab of culvert	m2	140		
11	C.8.3	Class 3a shuttering to apron slab of culvert	m2	2		
12	C.8.3	Class 3a shuttering to wing walls of culvert	m2	9		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.3	Excavate unsuitable material below embankments or formation and spoil at tip	m3	70		
2	PS.DA.5	Import suitable fill material from contractor's off-site source inclusive of all haulage and royalties	m3	70		
3	DA.8.5	Compact imported fill material to 93% Mod. A.A.S.H.T.O. Rate to include all haulage and royalties	m3	70		
4	DA.8.9	Formation	m2	220		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade

R

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.5	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m	m3	40		
2	DB.8.5	Excavate and backfill in all material for 600 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m	m3	80		
3	DB.8.5	Excavate and backfill in all material for 900 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m	m3	140		
4	DB.8.9	Provision of selected fill for pipe bedding from a commercial or off-site source	m3	70		

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46

Part Continued **PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	DB.8.10	Placing and compacting of Class C bedding for 450 mm diameter pipe	m3	25		
6	DB.8.10	Placing and compacting of Class C bedding for 600 mm diameter pipe	m3	17		
7	DB.8.10	Placing and compacting of Class C bedding for 900 mm diameter pipe	m3	25		
8	DB.8.15	Disposal of unsuitable or surplus material from trench excavation	m3	260		
9	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 1,5 m and not exceeding 2,0 m	m3	260		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade

R

PART DD EARTHWORKS FOR STRUCTURES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate in all unsuitable material for culvert to spoil at an approve tip. Rate to include all haulage)	m3	500		
2	PS.DD.5	Prove existing services by hand excavation (provisional) where depth is: - - Over 0,0 m and not exceeding 0,5 m	m3	500		
3	DD.8.3	Backfill and compact using imported material from contractor's own source to 93 % Mod. A.S.S.H.T.O. Rate to include all haulage and royalties	m3	170		
4	PS.DD.2	Design, installation and removal of a ground lateral support system to secure the excavated surfaces	sum	1		
5	DD.8.5	Culvert bedding ([19] mm stone mat)	m3	7		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade

R

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.ED.2	Saw Cut existing road	m	105		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade

R

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	450 mm diameter concrete Class 100D	m	37		

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46

Part Continued PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	PG.8.2	600 mm diameter concrete Class 100D	m	52		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade R

PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.2	Manhole type A with inlet type cover S1. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	8		

TOTAL CARRIED TO SECTION 2 SUMMARY: Stormwater Upgrade R

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46

SECTION 3 Gabion Protection Works**PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance of the site area and remove all debris such as gabbage and all debris	m2	140		
2	B.8.2	General clearance and grubbing in temporary stockpile area	m2	48		
3	B.8.2	General clearance and grubbing along the stream	m2	280		
4	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	4		

TOTAL CARRIED TO SECTION 3 SUMMARY: Gabion Protection Works

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 15/26 concrete blinding of thickness 50 mm	m2	20		
2	C.8.1	Grade 20/26 concrete in base slabs	m3	6		
3	C.8.3	Class 3a shuttering to base slabs	m2	4.2		
4	PS.C.8	Dowel bars installation	no.	10		

TOTAL CARRIED TO SECTION 3 SUMMARY: Gabion Protection Works

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.3	Excavate unsuitable material and spoil at tip	m3	260		
2	PS.DA.5	Import suitable fill material from contractor's off-site source inclusive of haulage and royalties	m3	260		
3	DA.8.5	Compact imported fill material to 95% Mod. A.A.S.H.T.O.	m3	260		
4	DA.8.6	Trimming of embankments	m2	210		
5	DA.8.9	Formation	m2	420		

TOTAL CARRIED TO SECTION 3 SUMMARY: Gabion Protection Works

R

PART DC EARTHWORKS FOR CONCRETE LINED CANALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DC.8.2	Excavate in all unsuitable material for gabions to spoil at an approved tip. Rate to include stockpile handling	m3	510		
2	DC.8.3	Backfilling and compaction using material from contractor's own source to 93% Mod. A.S.S.H.T.O. Rate to include all haulage and royalties.	m3	510		

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46

PART DC EARTHWORKS FOR CONCRETE LINED CANALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
TOTAL CARRIED TO SECTION 3 SUMMARY: Gabion Protection Works						R

PART EL DUMPROCK SUBGRADE IMPROVEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EL.8	Dumprock subgrade improvement, 300 mm thick	m3	300		
TOTAL CARRIED TO SECTION 3 SUMMARY: Gabion Protection Works						R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Imported topsoil: thickness 100 mm	m2	210		
2	F.8.3	Grass planting	m2	210		
3	F.8.6	Supply and placement of Galvanised PVC Coated Gabion mattresses, 300 mm thick	m3	90		
4	F.8.6	Supply and placement of Galvanised PVC Coated Gabion boxes : 1000 mm depth	m3	300		
5	PS.F.3	Supply and place general grade geofabric	m2	890		
TOTAL CARRIED TO SECTION 3 SUMMARY: Gabion Protection Works						R

Stormwater Upgrade and Gabion Protection Works along Mnyayiza Road KwaMashu E - Ward 46
SECTION 4 Reinstatement
PART S REINSTATEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	S.8.1	Reinstatement of ground surface along private property and culvert section adjacent private property	m2	110		
2	S.8.1	Reinstatement of ground surface on temporary stockpile site	m2	46		
3	S.8.2	Road Category C-Permanent road reinstatement 80 mm Mix D, 150mm Crusher run, Trench backfill with CBr 4 or more	m2	374		
4	S.8.2	Reinstatement of asphalt sidewalk 25mm- Asphalt Private Plant	m2	72		
5	S.8.3	Reinstatement of type C kerb and channel/fillet	m	36		
6	S.8.4	Reinstatement of wire or plastic coated mesh fence, 1,8 m high	m	25		

TOTAL CARRIED TO SECTION 4 SUMMARY: Reinstatement
R

BILL OF QUANTITIES SECTION SUMMARY

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TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 2 Stormwater Upgrade**

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TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 3 Gabion Protection Works**

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TOTAL CARRIED TO FINAL SUMMARY		

SUMMARY OF BILL OF QUANTITIES

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C	CONCRETE WORK	R		
DA	EARTHWORKS : BULK	R		
DB	EARTHWORKS FOR PIPE TRENCHES	R		
DD	EARTHWORKS FOR STRUCTURES	R		
ED	ROAD ASPHALT	R		
PG	NON PRESSURE PIPELINES and PC CULVERTS	R		
PH	MANHOLES and APPURTENANT DRAINAGE WORKS	R		
3	Gabion Protection Works		R	
B	SITE CLEARANCE	R		
C	CONCRETE WORK	R		
DA	EARTHWORKS : BULK	R		
DC	EARTHWORKS FOR CONCRETE LINED CANALS	R		
EL	DUMPROCK SUBGRADE IMPROVEMENT	R		
F	PROTECTION WORKS	R		
4	Reinstatement		R	
S	REINSTATEMENT	R		
SUB TOTAL			R	
ADD VAT (15%) - (only if a registered VAT Vendor)			R	
TOTAL CARRIED TO FORM OF TENDER			R	