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Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

BILL OF QUANTITIES

SECTION 1 Preliminary and General

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA</u>				
1	GCC 2015	Fixed Charge obligations	sum	1		
2	GCC 2015	Time Related obligations	sum	1		
		<u>SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS</u>				
3	SANS 1921-1	Fixed Charge Items	sum	1		
4	SANS 1921-1	Time Related Items	sum	1		
5	C1.2.3.1	COMMUNITY LIAISON OFFICER Allow for a CLO to be appointed.	PC Sum	440000	1.00	440,000.00
6	C1.2.3.1	Allow for mark up on item 5	%	440000		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>FIXED CHARGES</u>				
1	AB.2 PS.AB.2	Offices for Employer's Agent and Staff	sum	1		
2	AB.2	Services Connection Fee (electrical / water / telephone) (Provisional)	sum	1		
3	AB.4 PS.AB.4	Contractor's Camp Site / Store Yard	sum	1		
4	AB.5 PS.AB.5	Notice Board	no.	2		
5	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
6	PS.15	Survey coordination of existing valves, manholes, catchpits, and cable duct markers	sum	1		
7	PS.15	Additional survey required by the Engineer during the course of the contract	PC Sum	20000	1.00	20,000.00
8	PS.15	Overheads, charges and profit on item 8 above	%	20000		
9	PS.1.3	Allow for Additional Traffic Control Measures Ordered by the Engineer	sum	1		

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

Part Continued PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
10		Allow for the following Additional Items which the tenderer requires to be priced separately :-	sum	1		
		a)				
11		b)	sum	1		
12		c)	sum	1		
		<u>TIME RELATED</u>				
13	AB.7	Maintenance of Pedestrian and Traffic Facilities	sum	1		
14	AB.7	Maintenance of all signs, barricades and delineators	sum	1		
15	PS.AB.10	Allow for Progress Photographs including aerial pictures(e.g Mini Drone)	PC Sum	10000	1.00	10,000.00
16	PS.15	Overheads, charges and profit on item 15 above	%	10000		
17	AB.4	Attendance on and Maintenance of Contractor's camp site	sum	1		
18	AB.2	Attendance on and Maintenance of Office for Engineer and Staff	sum	1		
19	PS.15.2	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
20	AB.6	Cost of Samples and Contractor's Preliminary and Site Control Testing	sum	1		
21	PS.1.3.7	Fixed Penalty for non-compliance with requirements of SANS 1921-2: 2004 and PS.2.3 of the project specifications with respect to Accommodation of Traffic (- R2000 per occurrence)	set	-R2000/set		
22	PS.16	Deduction for re-tests requested when density of layer is not to specification as determined by Acceptance Testing (- R1000/set)	set	-R1000/set		
23	PS.1.3.7	Time Related Penalty for non-compliance with the requirements of SANS 1921-2: 2004 and PS.2.3 of the project specifications with respect to Accommodation of Traffic. (-R500 per hour)	hr	-R500/hr		
24	PS.11	Site Security	sum	1		
25	C.1.2.3.6	De-establishment	sum	1		
26	C.1.2.3.6	Re-establishment	sum	1		

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
27	C3.1.5.1	Contractor's Compliance with the requirements of the CIDB B.U.I.L.D Programme for Indirect Targeting for Enterprise Development Through Construction Works Contracts	PC Sum	180000	1.00	180,000.00
28	C3.1.5.1	Mark-up and Profit on item 27 above	%	180000		
29	C3.1.5.1	Contractor's Compliance with the requirements of the CIDB B.U.I.L.D Programme for the Standard for Developing Skills through Infrastructure Contracts	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1 PS.10	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2 PS.10	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3 PS.10	Submission of the Health and Safety File	sum	1		
4	PS.10.4	Application for Work Permit to DOEL (Once off Fee R450) per Regulation Gazette 11465 Volume 685 No 47109	PC Sum	450	1.00	450.00
5	PS.10.4	Overhead Charges and profit for item 4 above	%	450		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

SECTION 2 Site Clearance

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2 PS.B.8.2	General clearance and grubbing in road reserve	m2	6000		
2	B.8.7	Removal of bollards and spoil at tip. Rate to include all haulage	no.	86		
3	B.8.16	Removal of kerb and channel/fillet to tip. Rate to include all haulage	m3	180		
4	B.8.14	Removal of roadways to tip. Rate to include all haulage	m3	380		
5	B.8.15	Removal of concrete/paved sidewalks to tip. Rate to include all haulage	m3	80		
6	B.8.5	Removal of concrete pavers at ICC precinct and store on site for re-use.	m2	200		
7	B.8.11	Removal of reinforced concrete	m3	50		
8	B.8.10	Removal of unreinforced concrete	m3	50		
9	B.8.15	Removal of brickwork to tip. Rate to include all haulage	m3	50		
10	PS.B.8.25	Removal of heavy duty cast iron covers and store on site for re-use. Rate to include stockpile	no.	55		
11	PS.B.8.7	Removal of street/traffic signs and posts. Rate to include all haulage to a Municipal depot within a 20km distance.	no.	12		
12	PS.B.8.28	Removal of 10 meter lightmast at the corner of Monty Naicker Road and Soldiers Way. Rate shall include all haulage to a Municipal depot within a 20km distance..	no.	1		
13	PS.B.8.26	Cleaning blocked stormwater manhole:- - Depth 0 m up to 1.5m (Provisional)	no.	15		
14	PS.B.8.26	Cleaning blocked stormwater manhole:- - Depth 1.5m up to 3.0m (Provisional)	no.	10		
15	PS.B.8.26	Cleaning blocked stormwater manhole:- - Depth 3.0m up to 5.0m (Provisional)	no.	4		
16	PS.B.8.27	Cleaning blocked stormwater pipeline (0mm to 450mm diameter) (Provisional)	m	260		
17	PS.B.8.27	Cleaning blocked stormwater pipeline (450mm to 600mm diameter) (Provisional)	m	180		

Part Continued

PART

B

SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
18	PS.B.8.29	Relocation of stainless-steel horizontal poles at bus shelter	no.	2		

TOTAL CARRIED TO SECTION 2 SUMMARY: Site Clearance

R

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)
SECTION 3 Roadworks
PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.3	Excavate soft material to spoil. Rate to include haulage	m3	300		
2	DA.8.3	Extra over item 1 for the excavation of intermediate material to spoil (Provisional)	m3	40		
3	DA.8.3	Extra over item 1 for excavation of hard material to spoil (Provisional)	m3	20		
4	DA.8.3	Excavate unsuitable material below embankments or formation and spoil at tip	m3	60		
5	DA.8.5	Import G7 material from contractor's off-site source inclusive of haulage and royalties	m3	360		
6	DA.8.5	Compact imported G7 fill material to 95% Mod. A.A.S.H.T.O.	m3	360		
7	DA.8.9	Formation	m2	1200		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks
R
PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	160		
2	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 1,5 m and not exceeding 2,0 m	m3	80		
3	DB.8.5	Excavate in all material for services to be laid by others where depth is:- - Over 0,0 m and not exceeding 1,5 m	m3	150		
4	DB.8.5	Excavate in all material for services to be laid by others where depth is:- - Over 1,5 m and not exceeding 2,0 m	m3	100		
5	DB.8.7	Extra over item 3 to 4 for intermediate material to spoil	m3	60		
6	DB.8.6	Extra over item 3 to 4 for hard material	m3	40		
7	DB.8.7	Extra over item 3 to 4 for road hardening	m3	30		
8	DB.8.8	Excavation of unsuitable material from trench bottom and spoil at tip (Provisional)	m3	150		
9	PS.DB.8.24	Backfilling and compaction of service trenches	m3	250		

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

Part Continued PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
10	DB.8.5	Excavate and backfill in all material for 110mm and 160mm cable ducts where depth to a minimum depth of 1,75m as directed by the Employer's Agent	m3	1450		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART EB GRADED CRUSHED STONE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8.1	Graded crushed stone, 100 mm thick G4	m3	630		
2	EB.8.2	Prime coat	m2	400		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART EC CEMENT TREATED GRADED CRUSHED STONE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EC.8.1 PS.EC.8	300mm thick C3 cement treated sub-base, (2x150mm lifts)	m3	140		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.3	Transverse joints	m	700		
2	ED.8.3	Longitudinal joints	m	980		
3	ED.8.3	Feathered transverse joints	m	740		
4	PS.ED.8.3	Saw Cut existing road edge	m	4000		
5	PS.ED.8.6.2	Planning/Milling of existing asphalt surface..Rate to include all haulage to the Municipal Asphalt Manufacturing Plant in Umhlathuzana Road, Sea View): Depth 0 - 40 mm	m3	570		
6	PS.ED.8.6.2	Recompacting of road bases	m2	5600		
7	ED.8.4	Tack coat	m2	12900		
8	ED.8.2	120mm thick Wearing Course Asphalt Sa-V14 (in 2 lifts) . Bitumen content % as per mix design entered at time of use.	t	3970		
9	ED.8.2	50mm thick Wearing Course Asphalt Sa-V14: Bitumen content % as per mix design entered at time of use.	t	60		
10	ED.8.1	110mm thick base Course Asphalt Sa-V14. Bitumen content % as per mix design entered at time of use.	t	420		
11	PS.ED.8.5	Patching of existing road surface, 100mm Asphalt (Provisional)	m2	400		
12	PS.ED.8.7	Crack sealing : supply of sealant	kg	100		

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)
Part Continued PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
13	PS.ED.8.7	Crack sealing : Sealing of cracks	m	1000		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks
R
PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1	Type A barrier kerb and channel	m	2300		
2	EF.8.1	Extra over item 1 for curves of radius less than 25 m	m	400		
3	EF.8.1	Extra over item 1 for curves of radius less than 2 m	m	120		
4	PS.EF.8.4	Additional concrete to kerb foundation	m3	200		
5	PS.EF.8.5	Excavation for kerb and channel/ fillet in existing asphalt layers	m3	350		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks
R
PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EG.8.4 PS.EG.8.4.1	Placing of concrete paving to ICC sidewalks. (Pavers to be supplied by the Employer)	m2	200		
2	EG.8.4 PS.EG.8.4.1	Placing of concrete paving to ICC sidewalks. (Pavers from stockpile/storage)	m2	300		
3	EG.8.4 PS.EG.8.4.2	220 x 108.5 X 50 Cederburg (or Similar Approved) clay paver in herringbone pattern in sidewalks.	m2	2000		
4	EG.8.4 PS.EG.8.4.2	220 x 108.5 X 50 Burgandy (or Similar Approved) clay paver in header course in sidewalks and centre median.	m2	2000		
5	EG.8.2	Supply and lay precast concrete sidewalk/median using 450x450 slabs	m2	4000		
6	EG.8.3	Expansion joints to concrete paving	m	1000		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks
R
PART EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.EH.8.3	280 Diameter and 325 Base Diameter x 900mm high (157kg) Captain Bollard exposed aggregate concrete bollards (grey colour) @ 1500mm centers.	no.	685		
2	EH.8.2	Graded channel	m	800		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks
R

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

PART EL DUMPROCK SUBGRADE IMPROVEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EL.8	Dumprock subgrade improvement, 150 mm thick	m3	300		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.11	110 mm diameter U.P.V.C. cable ducts	m	8000		
2	PG.8.11	160 mm diameter U.P.V.C. cable ducts	m	4000		
3	PG.8.11	Grade 20/26 concrete encasement to ducts	m3	460		
4	PS.PG.8.13	Sand/cement mix backfill to ducts	m3	850		
5	PG.8.11	Cable duct markers	no.	34		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART TA ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TA.8.8	Re-erecting road signs stored on site, area not exceeding 2m2 (Provisional)	no.	4		
2	TA.8.8	Re-erecting road signs stored on site, area exceeding 2m2 but not exceeding 10m2 (Provisional)	no.	4		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.TB.8.5	Remove existing lane, edge and painted island lines by sand blasting	m2	8600		
2	TB.8.1.1	RETRO-REFLECTIVE ROAD MARKING MATERIAL Painted road lines 100mm wide (white), including setting out and premarking	km	8		
3	TB.8.1.1	Painted road lines 100mm wide (white), including setting out and premarking	km	6.5		
4	TB.8.1.1	Painted road lines 100mm wide (yellow), including setting out and premarking	km	3		
5	TB.8.1.1	Painted road lines 150mm wide (yellow), including setting out and premarking	km	2		
6	TB.8.1.1	Painted road lines 100mm wide (red), including setting out and premarking	km	1		
7	TB.8.1.1	Painted road lines 200mm wide (white), including setting out and premarking	km	2		

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

Part Continued PART TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
8	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings.	m2	800		
9	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (yellow), including setting out lettering, symbols and traffic island markings.	m2	600		
10	PS.TB.8.4	PVA ROAD PAINT Painted road lines 100mm wide (white), including setting out and premarking	km	8		
11	PS.TB.8.4	Painted road lines 100mm wide (yellow), including setting out and premarking for temporary road marking	km	8		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

SECTION 4 Stormwater

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.5	Excavate and backfill in all material for 375 mm diameter pipe where depth is :- - Over 0,0 m and not exceeding 1,5 m	m3	95		
2	DB.8.5	Excavate and backfill in all material for 375 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m	m3	130		
3	DB.8.6	Extra over item 1 and 2 for hard material	m3	50		
4	DB.8.7	Extra over item 1 and 2 for road hardening	m3	30		
5	DB.8.14	Extra over item 1 and 2 for cement stabilised backfill	m3	20		
6	DB.8.8	Excavation of unsuitable material from trench bottom and spoil at tip (Provisional)	m3	40		
7	DB.8.9	Provision of selected fill for Class B bedding for 375mm diameter pipe from scheduled excavation in excess of the free haul distance.	m3	30		
8	DB.8.9	Provision of clean coarse sand for pipe bedding from scheduled excavation in excess of freehaul distance	m3	60		
9	DB.8.9	Provision of 19 mm stone material for pipe bedding from commercial or off-site source	m3	30		
10	PS.DB.8.25	Provision of drainage grade geofabric	m2	120		
11	DB.8.10	Placing and compacting of Class B for 375mm diameter pipe.	m	140		
12	DB.8.12	Encasing of pipes in concrete grade 20/26	m3	30		
13	DB.8.15	Disposal of unsuitable or surplus material from trench excavation	m3	30		
14	DB.8.20	Trench shoring to remain in excavation	m2	360		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater

R

PART PG — NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	375 mm diameter concrete Class 100D	m	220		
2	PG.8.13	Grade 20/26 concrete protection to shallow pipes. (Provisional)	m2	60		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater

R

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.2	Manhole type A with heavy duty polymer cover and frame. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	12		
2	PH.8.2	Manhole type A with inlet type cover S1 with heavy duty polymer cover and frame. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	8		
3	PH.8.2	Manhole type A with inlet type cover S2 with heavy duty polymer cover and frame. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	27		
4	PH.8.2	Manhole type A with inlet type cover V2 with heavy duty polymer cover and frame. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	1		
5	PS.PH.8.10	Construct Type A manhole with heavy duty polymer cover and frame over an existing 375 mm diameter pipe. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	4		
6	PS.PH.8.10	Construct Type A manhole with heavy duty polymer cover and frame over an existing 375 mm diameter pipe. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	3		
7	PS.PH.8.10	Construct Type S1 inlet with heavy duty polymer cover and frame over an existing 375 mm diameter pipe. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	2		
8	PS.PH.8.10	Construct Type S1 inlet with heavy duty polymer cover and frame over an existing 375 mm diameter pipe. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	3		
9	PS.PH.8.10	Construct Type S2 inlet with heavy duty polymer cover and frame over an existing 375 mm diameter pipe. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	4		
10	PS.PH.8.10	Construct Type S2 inlet with heavy duty polymer cover and frame over an existing 375 mm diameter pipe. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	5		
11	PH.8.7	Raise/lower existing stormwater manhole with heavy duty polymer cover and frame in paved area by :- - 0 to 250 mm (Provisional)	no.	12		
12	PH.8.7	Raise/lower existing sewer manhole with heavy duty polymer cover and frame in paved area by :- - 0 to 250 mm (Provisional)	no.	10		

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

Part Continued PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
13	PH.8.7	Raise/lower existing stormwater manhole with cast iron cover and frame in roadway by :- - 0 to 250 mm	no.	82		
14	PH.8.7	Raise/lower existing sewer manhole with cast iron cover and frame in roadway by :- - 0 to 250 mm	no.	68		
15	PH.8.7	Raise/lower cast iron valve cover in paved area by :- - 0 to 250 mm (Provisional)	no.	22		
16	PH.8.7	Raise/lower cast iron valve cover in roadway by :- - 0 to 250 mm	no.	86		
17	PS.PH.8.12	Converting a type S1 inlet to a manhole with heavy duty polymer cover and frame	no.	6		
18	PS.PH.8.12	Converting a type S2 inlet to a manhole with heavy duty polymer cover and frame	no.	12		
19	PS.PH.8.12	Converting a type D3 inlet to a manhole with heavy duty polymer cover and frame	no.	12		
20	PS.PH.8.11	Break into existing brick/concrete manhole/inlet wall for 375 mm diameter pipe and make good	no.	18		
21	PH.8.7	Raise/lower existing Telkom/Services manhole with heavy duty polymer cover and frame in paved area by :- - 0 to 250 mm	no.	65		
22	PH.8.7	Raise/lower existing Telkom/Services manhole with heavy duty cast iron cover and frame in roadway :- - 0 to 250 mm	no.	25		
23	PS.PH.8.15	Reinforced Concrete Slab for blind Manholes (Provisional)	no.	5		
24	PS.PH.8.17	Standard 2,75 Telkom Manholes (Provisional)	no.	5		
25	PS.PH.8.18	Standard polymer grid inlet cover and frame to manhole as per standard drawing no. 43120. (Provisional)	no.	8		
26	PS.PH.8.19	Selecta 500-gully-unit cover and frame inlet (or similar approved) to ICC.	no.	6		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater

R

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

PART	AA	PRELIMINARIES	
PART	AB	GENERAL SPECIFICATIONS	
PART	AH	OCCUPATIONAL HEALTH and SAFETY	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 2 Site Clearance

PART B	SITE CLEARANCE	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 3 Roadworks**

PART	DA	EARTHWORKS : BULK	
PART	DB	EARTHWORKS FOR PIPE TRENCHES	
PART	EB	GRADED CRUSHED STONE	
PART	EC	CEMENT TREATED GRADED CRUSHED STONE	
PART	ED	ROAD ASPHALT	
PART	EF	KERBS AND HAUNCHES	
PART	EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	
PART	EH	STEEL GUARDRAILS & CONC. MEDIAN BARRIERS	
PART	EL	DUMPROCK SUBGRADE IMPROVEMENT	
PART	PG	NON PRESSURE PIPELINES and PC CULVERTS	
PART	TA	ROAD SIGNS	
PART	TB	ROAD MARKINGS	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 4 Stormwater**

PART	DB	EARTHWORKS FOR PIPE TRENCHES	
PART	PG	NON PRESSURE PIPELINES and PC CULVERTS	
PART	PH	MANHOLES and APPURTENANT DRAINAGE WORKS	
TOTAL CARRIED TO FINAL SUMMARY			

Traffic Safety Improvement: Road Intersections and Pedestrian Crossings Upgrade to Monty Naiker Road and Dr AB Xuma Street (Ward 28)

SUMMARY OF BILL OF QUANTITIES

1	Preliminary and General		R	
	AA PRELIMINARIES	R		
	AB GENERAL SPECIFICATIONS	R		
	AH OCCUPATIONAL HEALTH and SAFETY	R		
2	Site Clearance		R	
	B SITE CLEARANCE	R		
3	Roadworks		R	
	DA EARTHWORKS : BULK	R		
	DB EARTHWORKS FOR PIPE TRENCHES	R		
	EB GRADED CRUSHED STONE	R		
	EC CEMENT TREATED GRADED CRUSHED STONE	R		
	ED ROAD ASPHALT	R		
	EF KERBS AND HAUNCHES	R		
	EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R		
	EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS	R		
	EL DUMPROCK SUBGRADE IMPROVEMENT	R		
	PG NON PRESSURE PIPELINES and PC CULVERTS	R		
	TA ROAD SIGNS	R		
	TB ROAD MARKINGS	R		
4	Stormwater		R	
	DB EARTHWORKS FOR PIPE TRENCHES	R		
	PG NON PRESSURE PIPELINES and PC CULVERTS	R		
	PH MANHOLES and APPURTENANT DRAINAGE WORKS	R		
SUB TOTAL			R	
ADD VAT (15%) - (only if a registered VAT Vendor)			R	
TOTAL CARRIED TO FORM OF TENDER			R	