## **BILL OF QUANTITIES**

DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
GENERAL				
001: GENERAL MENTS AND CHARGES				
and general charges				
rges (R250 000 Max)	-	Lump Sum	-	
sting services evation)	900	m³		
e with the Occupational Safety Act and applicable s				
of a Health and safety	-	Lump Sum		
of a Health and safety	36	Per Month		
of a safety officer	36	Per Month		
Safety training	36	Per Month		
of personal protective d equipment	540	Per worker/ Month		
of safety devices, signs ades	36	Per site/ Month		
ations				
tion of a Health and safety plan	-	Lump Sum	-	
ade	ons	ons .	Month ons	ons Month

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUG	GHT FORWARD				
B001.05	Community liaison officer				
B001.05.01	Monthly Wage	-	month	CoT's first	notch Task -T5
B001.05.02	Percentage on item B001.05.01 for charges and profit (10% max.)	Rate only	%		
B001.06	Essential and Unforeseen				
B001.06.01	Invoice for service or material	-	Prov Sum	R 6 000 000,00	R 6 000 000,00
B001.06.02	Percentage on item B001.06.01 for charges and profit (10% max.)	Rate only	%		
TOTAL CARRIE	ED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
SERIES 1	ANCILLARY WORK				
Section 101	Site Clearing and Grubbing				
101.01.01	Areas	1000	m²		
101.01.02	Strips (2m wide)	400	m		
101,02	Cutting down and removing of trees				
101.02.01	Girth of 1 – 2 meters	15	No		
101.02.02	Girth of 2 – 3 meters	15	No		
101.02.03	Girth of 3 – 4 meters	10	No		
101,03	Grubbing and removal of the stumps And roots on larger trees with a girth:				
101.03.01	Girth of 1 – 2 meters	20	No		
101.03.02	Girth of 2 – 3 meters	15	No		
101.03.03	Girth of 3 – 4 meters	15	No		
101.05	Removal and disposal of specific elements				
101.05.01	Concrete kerbing/ kerbing combination	150	m		
101.05.02	Concrete or brick elements (reinforced or un-reinforced)				
101.05.02.01	Plain concrete	90	m³		
101.05.02.02	Reinforced concrete	90	m³		
101.05.02.03	(LI) 230 mm brick work	90	m²		
101.05.02.04	(LI) 115 mm brick work	90	m²		
101.05.02.05	(LI) Pre-cast walls	140	m²		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( ExI.VAT)
TOTAL BROUGH	IT FORWARD				
101.05.03	Asphalt surfacing	2000	m²		
B101.05.04	(LI) Interlocking / non-interlocking paving blocks	900	m²		
B101.05.05	(LI) Wire fencing	190	m²		
B101.06	DISMANTLE AND REMOVE PIPELINES AND CULVERTS				
B101.06.01	Pipelines of diameter				
B101.06.01.01	Up to 150mm	240	m		
B101.06.01.02	Over 150mm up to 300mm	240	m		
B101.06.01.03	Over 300mm up to 750mm	240	m		
B101.06.01.04	Over 750mm up to 1 650mm	240	m		
B101.06.02	Culverts in height				
B101.06.02.01	600 - 900 height	190	m		
B101.06.02.02	900 – 1 200 height	190	m		
B101.06.02.03	1 200 – 1 500 height	190	m		
B101.07	Cleaning of kerb inlets, junction boxes, grids, outlet structures and concrete channels. The rate will include the Removal of spoil material (within the free-haul distance of 3 km)				
B101.07.01	Kerb inlets	8000	No		
B101.07.02	Junction boxes	350	No		
B101.07.03	Grids	80	No		
B101.07.04	Outlet structures	50	No		
B101.07.05	Concrete channels	3000	m³		
TOTAL CARRIED	FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( ExI.VAT)
TOTAL BROUG	HT FORWARD				
Section 102	Accommodation of traffic				
102,12	Provision of temporary bridges for maintaining access to properties				
102.12.01	Temporary pedestrian bridges	6	No		
102.12.02	Temporary vehicular bridges	6	No		
102,13	Moving of temporary bridges to and their re- erection in entirely new position				
102.13.01	Temporary pedestrian bridges	6	No		
102.13.02	Temporary vehicular bridges	20	No		
102.14	Temporary traffic-control facilities				
B102.14.01	Flagmen	2	per site/day		
102.14.02	Portable Stop and Go signs	4	no		
102.14.04	Road signs, TR-series, 1200mm in diameter or 900mm x 675mm if rectangular	6	no		
102.14.05	Road signs, TW-series, 1524mm sides	4	no		
102.14.06	Road signs, TG-series	20	m²		
102.14.07	Danger plates and delineators	150	no		
102.14.08	Moveable barricade / road sign combination	10	no		
B102.14.09	Traffic cones	100	no		
B102.14.10	Plastic New Jersey barrier	60	no		
TOTAL CARRIE	D FORWARD	•			

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUG	HT FORWARD				
Section 103	Overhaul				
B103.01	Overhaul on material hauled outside	10000	m³ - km		
	the defined free-haul boundaries				
	(Free-haul boundaries will be defined				
	as 3km outside the indicated site				
	boundaries)				
B103.06	TRANSPORT OF HEAVY				
2.00.00	MACHINERY				
	(Moving of equipment with caterpillar tracks to other work sites in the municipal area)	12	Per event		
	SECTION 104:				
	LANDSCAPING AND GRASSING				
104,01	Trimming				
104.01.01	Machine trimming	1500	m²		
104.01.02	(LI) Hand trimming	1000	m²		
104,03	Preparation of areas for the establishment of				
	grass and ground covers				
104.03.01	Scarifying	2	ha		
104.03.02	Top soiling on the Site with:				
104.03.02.02	Topsoil provided by the Contractor From other sources	1500	m³		
104.03.04	Delivery and application of chemical fertilizer				
104.03.04.01	Lime	2	t		
104.03.04.02	Super phosphate	2	t		
104.03.04.03	Limestone ammonium phosphate	2	t		
104.03.04.04	2:3:3 (22)	2	t		
104,04	Establishment of grass				
	.02 (LI) Placing of sods (Kikuyu)	1500	m²		
TOTAL CARRIE	D FORWARD	•			

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
	SERIES 2: EARTHWORKS				
201,02	Temporary stockpiling of material (The unit of measurement shall be the cubic metre of material stockpiled on the written instructions of the Engineer, measured in its final position after	600	m³		
	placing and compaction.)				
202.01.01	Trench excavation				
	Up to 1m wide				
202.01.01.01	Up to 1,0m deep	900	m³		
202.01.01.02	More than 1,0m and up to 1,5m deep	900	m³		
202.01.01.03	More than 1,5m and up to 2,0m deep	80	m³		
202.01.01.04	More than 2,0m and up to 2,5 m deep	900	m³		
202.01.01.05	More than 2,5m and up to 3,0 m deep	120	m³		
202.01.01.06	More than 3,0m deep	120	m³		
202.01.02	Trench excavation 1m – 2m wide				
202.01.02.01	Up to 1,0m deep	900	m³		
202.01.02.02	More than 1,0m and up to 1,5m deep	900	m³		
202.01.02.03	More than 1,5m and up to 2,0m deep	900	m³		
202.01.02.04	More than 2,0m and up to 2,5 m deep	900	m³		
202.01.02.05	More than 2,5m and up to 3,0 m deep	120	m³		
202.01.02.06	More than 3,0m deep	120	m³		
TOTAL CARRIE	D FORWARD	1	1		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUG	HT FORWARD				
202.01.01	Trench excavation 2m – 3m wide				
202.01.03.01	Up to 1,0m deep	900	m³		
202.01.03.02	More than 1,0m and up to 1,5m deep	900	m³		
202.01.03.03	More than 1,5m and up to 2,0m deep	900	m³		
202.01.03.04	More than 2,0m and up to 2,5 m deep	900	m³		
202.01.03.05	More than 2,5m and up to 3,0 m deep	900	m³		
202.01.03.06	More than 3,0m deep	120	m³		
202,02	Extra in addition to Item 202.01 for excavation in:				
202.02.01	Intermediate material	120	m³		
202.02.02	Hard material	80	m³		
202,03	Excavation outside the normal trench profile	90	m³		
202,04	(LI) Hand excavation (Extra over Item 202.01)	600	m³		
202,06	The backfilling of trenches with material obtained from excavations	600	m³		
TOTAL CARRIE	D FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exi. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUG					
202,08	Backfilling of additional excavations in trench floor using:				
202.08.01	Class 15/19 concrete	800	m³		
202.08.02	Class 15/38 concrete	800	m³		
B202.10	Removal of spoil material (within the free-haul distance of 3 km)				
B202.10.01	To positions on site on written instruction of the engineer	600	m³		
B202.10.02	To the Municipal or other dumping area to be Provided by the Engineer	600	m³		
202,11	Timbering and shoring left in excavation	600	m²		
202,12	Extra over item 202.06 for additional compaction of backfill to 93% of modified AASHTO density	90	m³		
202,13	Backfilling of trenches with soil crete	250	m³		
B202.15	Repair of roads (4% cement stab)	250	m³		
B202.16	Cutting of road surfacing and paved side roads with diamond cutting wheel	900	m		
TOTAL CARRIE	TO FORWARD	<u> </u>			

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)		
TOTAL BROUGHT							
B202.17.01	Cleaning of silted up stormwater pipes (after cleaning, the pipe must be completely clean)						
B202.17.01.01	300mm	800	m				
B202.17.01.02	450mm	800	m				
B202.17.01.03	525mm	800	m				
B202.17.01.04	600mm	600	m				
B202.17.01.05	675mm	600	m				
B202.17.01.06	750mm	600	m				
B202.17.01.07	825mm	600	m				
B202.17.01.08	900mm	600	m				
B202.17.01.09	1 050mm	600	m				
B202.17.01.10	1 200mm	600	m				
B202.17.01.11	1 350mm	600	m				
B202.17.01.12	1 500mm	600	m				
B202.17.01.13	1 650mm	600	m				
B202.17.02	Cleaning of silted up stormwater culverts (after cleaning the culverts must be completely clean)						
B202.17.02.01	All culverts up to 0,5m high	300	m				
B202.17.02.02	All culverts up to 1,0m high	300	m				
B202.17.02.03	All culverts up to 1,5m high	300	m				
B202.18	Pumping of water out of trenches						
B202.18.01	Pumping of water with (100mm Inlet dia pipe) sludge pump	700	hr				
TOTAL CARRIED FORWARD							

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)			
TOTAL BROUG	TOTAL BROUGHT FORWARD							
	SECTION 203: MASS EARTHWORKS							
203,01	Excavation and borrow to fill							
203.01.01	Compaction to 90% of modified AASHTO density	150	m³					
203.01.02	Rock-fill processing and compaction	70	m³					
203,03	Excavation and the side finishing of excavations, as well as the disposal of material to the dumping site							
203.03.01	Soft material	3000	m³					
203.03.02	Intermediate material	600	m³					
203.03.03	Hard material	400	m³					
203.03.04	Bolder material class A	100	m³					
203.03.05	Bolder material class B	100	m³					
B203.16	(LI) Hand excavation	150	m³					
TOTAL CARRI	OTAL CARRIED TO SUMMARY							

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
SERIES 5	DRAINAGE AND EROSION PROTECTION				
Section 501	Subsurface Drains and Drainage Blankets				
501.01	Crushed stone				
501.01.01	Graded crushed stone	80	m³		
501.01.02	Single-sized crushed stone:				
501.01.02.01	26.5mm nominal aggregate size	80	m³		
501.01.02.02	19mm nominal aggregate size	80	m³		
501.01.02.03	13.2mm nominal aggregate size	80	m³		
501.01.02.04	9.5mm nominal aggregate size	80	m³		
501,03	Placing of filter sand	80	m³		
501.04	Geotextiles				
501.04.01	Bidim grade A1 (1.3mm thick)	150	m²		
501.04.02	Bidim grade A2 (1.6mm thick)	150	m²		
501.04.03	Bidim grade A3 (1.8mm thick)	150	m²		
501.04.04	Bidim grade A4 (2.1mm tick)	150	m²		
501.05	Pipes in subsurface drains				
501.05.01.01	Drainex DN75 (or similar approved)	300	m		
501.05.01.02	Drainex DN110 (or similar approved)	300	m		
501.05.01.03	Drainex DN160 (or similar approved)	300	m		
TOTAL CARRIE	D FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)			
TOTAL BROUGH	HT FORWARD							
501.05.02	Drainex DN75 fittings (or similar approved)							
501.05.02.01	22½° Long radius bend	30	no					
501.05.02.02	45° Long radius bend	30	no					
501.05.02.03	90° Long radius bend	30	no					
501.05.02.04	221/2º Segmented bend	30	no					
501.05.02.05	45° Segmented bend	30	no					
501.05.02.06	90° Segmented bend	30	no					
501.05.02.07	T-junction	30	no					
501.05.02.08	Cross junction	30	no					
501.05.02.09	DN110/75 offset reducer	30	no					
501.05.02.10	221/2º Y-junction	30	no					
501.05.02.11	45° Y-junction	30	no					
501.05.02.12	221/2° Double Y-junction	30	no					
501.05.02.13	45° Double Y-junction	30	no					
501.05.02.14	End cap	30	no					
501.05.03	Drainex DN110 fittings (or similar approved)							
501.05.03.01	22½° Long radius bend	30	no					
501.05.03.02	45° Long radius bend	30	no					
501.05.03.03	90° Long radius bend	30	no					
501.05.03.04	221/2° Segmented bend	30	no					
501.05.03.05	45° Segmented bend	30	no					
TOTAL CARRIED FORWARD								

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUGHT	FORWARD				
501.05.03.06	90° Segmented bend	30	no		
501.05.03.07	T-junction	30	no		
501.05.03.08	Cross junction	30	no		
501.05.03.09	DN160/110 offset reducer	30	no		
501.05.03.10	22½° Y-junction	30	no		
501.05.03.11	45° Y-junction	30	no		
501.05.03.12	22½° Double Y-junction	30	no		
501.05.03.13	45° Double Y-junction	30	no		
501.05.03.14	End cap	30	no		
501.05.04	Drainex DN160 fittings (or similar approved)				
501.05.04.01	22½º Long radius bend	30	no		
501.05.04.02	45° Long radius bend	30	no		
501.05.04.03	90° Long radius bend	30	no		
501.05.04.04	22½° Segmented bend	30	no		
501.05.04.05	45° Segmented bend	30	no		
501.05.04.06	90° Segmented bend	30	no		
501.05.04.07	T-junction	30	no		
501.05.04.08	Cross junction	30	no		
501.05.04.09	DN160/110 offset reducer	30	no		
501.05.04.10	22½° Y-junction	30	no		
501.05.04.11	45° Y-junction	30	no		
TOTAL CARRIED	FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUGH	IT FORWARD				
501.05.04.12	22½° Double Y-junction	30	no		
501.05.04.13	45° Double Y-junction	30	no		
501.05.04.14	End cap	30	no		
501.06	Polyethylene sheeting 1.15mm thick or an equivalent approved material, for lining subsurface drains	300	m²		
501.08	Concrete caps for subsurface drain pipes	300	no		
TOTAL CARRIEI	D FORWARD	I	<u>I</u>		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUGHT	Γ FORWARD				
	SECTION 502: PREFABRICATED CULVERTS AND STORMWATER SEWERS				
502,01	Back filling with selected excavated material compacted to:				
502.01.01	90% of modified AASHTO density	150	m³		
502.01.02	93% of modified AASHTO density	150	m³		
502.01.03	95% of modified AASHTO density	150	m³		
502,10	Cast-in-situ concrete				
502.10.01	In class A bedding, blinding layers and encasing of pipes, including any form- work required				
502.10.01.01	Concrete (15 MPa) backfill to rectangular culvert and trench bottom	150	m³		
502.10.01.02	50mm blinding layer with 15 Mpa concrete	90	m²		
502.10.02	In invert slabs for portal or rectangular culverts, including formwork to provide class F1 surface finish and class U2 surface finish for unformed surfaces				
502.10.02.01	25 MPa in foundation and floor	300	m³		
502.10.02.02	30 MPa in decks to chambers and manhole surrounds, etc.	60	m³		
502.10.02.03	25 MPa in walls, headwalls, parapets, etc.	60	m³		
502.10.02.02.04	25 MPa in benching	20	m³		
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ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( ExI.VAT)
TOTAL BROUG	HT FORWARD				
502.10.03	In inlet and outlet structures, catchpits, manholes and junction boxes excluding form- work, but including class U2 surface finish				
502.10.03.01	Concrete (20 MPa)	300	m³		
502.10.03.01	50mm blinding layer with 15 Mpa concrete	90	m²		
502,11	Class 10/38 concrete backfill for culverts	150	m³		
502,13	Welded – steel fabric				
502.13.01	Ref 395 high tensile welded - steel	300	kg		
502.13.02	Ref 655 high tensile welded - steel	300	kg		
502.13.03	Ref 888 high tensile welded - steel	300	kg		
502,14	Reinforcement				
502.14.01	Mild steel				
502.14.01.01	Bars with 8mm diameter	1	t		
502.14.01.02	Bars with 10mm diameter	1	t		
502.14.01.03	Bars with 12mm diameter	1	t		
502.14.02	High yield stress steel				
502.14.02.01	10mm dia	1	t		
502.14.02.02	12mm dia	1	t		
502.14.02.03	16mm dia	1	t		
502.14.02.04	20mm dia	1	t		
TOTAL CARRIE	D FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUGH	T FORWARD				
502,16	Manhole, catch pits precast inlets and outlet structures and junction boxes complete				
502.16.02	Catchpits				
502.16.02.01	3m long	100	No		
502.16.02.02	4m long	100	No		
502.16.02.03	5m long	100	No		
502.16.04	Transitions before and after catchpits				
502.16.04.01	1m long	100	No		
502.16.04.02	2m long	100	No		
502.16.04.03	3m long	100	No		
502.16.04.04	4m long	100	No		
502.16.04.05	5m long	100	No		
502.16.04.06	6m long	100	No		
502.16.05	Junction Boxes				
502.16.05.01	450mm – 600mm pipe				
502.16.05.01.01	Type A and D	100	No		
502.16.05.01.02	Туре В	100	No		
502.16.05.01.03	Type C	100	No		
502.16.05.02	675mm – 1 350mm pipe				
502.16.05.02.01	Type A and D	100	No		
502.16.05.02.02	Туре В	100	No		
502.16.05.02.03	Type C	100	No		
TOTAL CARRIED	FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUGH	HT FORWARD				
B502.16.07	Placing only of concrete slabs (Slabs will be paid under item B001.07.01)	150	No		
502,17	Brickwork				
502.17.01	(LI) 115mm thick	80	m²		
502.17.02	(LI) 230mm thick	80	m²		
502.17.03	(LI) 345mm thick	80	m²		
502.18	(LI) Plaster	300	m²		
502.19	Benching	80	m²		
502.20	Accessories				
502.20.01	Manhole covers including frames				
502.20.01.01	Hinged ductile iron manhole cover and frame	80	no		
502.20.03	Step Irons	80	no		
502.21	Soilcrete	150	m³		
TOTAL CARRIE	D FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUG	HT FORWARD				
B502.24	Laying <u>ONLY</u> of concrete pipes, interlocking joint pipes				
B502.24.01	450mm	300	m		
B502.24.02	525mm	300	m		
B502.24.03	600mm	300	m		
B502.24.04	675mm	150	m		
B502.24.05	750mm	150	m		
B502.24.06	825mm	150	m		
B502.24.07	900mm	150	m		
B502.24.08	1 050mm	80	m		
B502.24.09	1 200mm	80	m		
B502.24.10	1 350mm	80	m		
B502.24.11	1 500mm	80	m		
B502.24.12	1 650mm	80	m		
B502.25	Laying <u>ONLY</u> of concrete pipes. Spigot and socket pipes				
B502.25.01	450mm	300	m		
B502.25.02	525mm	300	m		
B502.25.03	600mm	300	m		
B502.25.04	675mm	150	m		
B502.25.05	750mm	150	m		
B502.25.06	825mm	150	m		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUG	HT FORWARD	•			
B502.25.07	900mm	150	m		
B502.25.08	1 050mm	80	m		
B502.25.09	1 200mm	80	m		
B502.25.10	1 350mm	80	m		
B502.25.11	1 500mm	80	m		
B502.25.12	1 650mm	80	m		
B502.26	Laying <b>ONLY</b> of Ribbed HDPE pipes.				
B502.26.01	400mm	300	m		
B502.26.02	500mm	300	m		
B502.26.03	600mm	300	m		
B502.26.04	700mm	150	m		
B502.26.05	800mm	150	m		
B502.26.06	900mm	150	m		
B502.26.07	1000mm	150	m		
B502.26.08	1100mm	80	m		
B502.26.09	1200mm	80	m		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUG	HT FORWARD				
B502.27	Laying <u>ONLY</u> rectangular portal cu	ılverts			
	Complete without precast invert sla (Culverts will be paid under item B001.07.01)	ab			
ı	Span mm Height mm				
B502.27.01	450 300	30	m		
B502.27.02	450 375	30	m		
B502.27.03	450 450	30	m		
B502.27.04	600 300	30	m		
B502.27.05	600 450	30	m		
B502.27.06	600 600	30	m		
B502.27.07	750 300	30	m		
B502.27.08	750 450	30	m		
B502.27.09	750 600	30	m		
B502.27.10	750 750	30	m		
B502.27.11	900 300	30	m		
B502.27.12	900 450	30	m		
B502.27.13	900 600	30	m		
B502.27.14	900 750	30	m		
B502.27.15	900 900	30	m		
B502.27.16	1 200 300	30	m		
B502.27.17	1 200 450	30	m		
B502.27.18	1 200 600	30	m		
TOTAL CARRIE					

ITEM		DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( ExI.VAT)
TOTAL BROUGH	T FORWARD					
B502.27.19	1 200	900	30	m		
B502.27.20	1 200	1 200	30	m		
B502.27.21	1 500	300	30	m		
B502.27.22	1 500	450	30	m		
B502.27.23	1 500	600	30	m		
B502.27.24	1 500	900	30	m		
B502.27.25	1 500	1 200	30	m		
B502.27.26	1 500	1 500	30	m		
B502.27.27	1 800	600	30	m		
B502.27.28	1 800	900	30	m		
B502.27.29	1 800	1 200	30	m		
B502.27.30	1 800	1 500	30	m		
B502.27.31	1 800	1 800	30	m		
B502.27.32	2 100	600	30	m		
B502.27.33	2 100	900	30	m		
B502.27.34	2 100	1 200	30	m		
B502.27.35	2 100	1 500	30	m		
B502.27.36	2 100	1 800	30	m		
B502.27.37	2 100	2 100	30	m		
B502.27.38	2 400	600	30	m		
B502.27.39	2 400	900	30	m		
B502.27.40	2 400	1 200	30	m		
TOTAL CARRIED	FORWARD					

ITEM		DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUG	HT FORWARE	)				
B502.27.41	2 400	1 500	30	m		
B502.27.42	2 400	1 800	30	m		
B502.27.43	2 400	2 400	30	m		
B502.27.44	3 000	600	30	m		
B502.27.45	3 000	900	30	m		
B502.27.46	3 000	1 200	30	m		
B502.27.47	3 000	1 500	30	m		
B502.27.48	3 000	1 800	30	m		
B502.27.49	3 000	2 400	30	m		
B502.27.50	3 000	3 000	30	m		
B502.27.51	3 600	600	30	m		
B502.27.52	3 600	900	30	m		
B502.27.53	3 600	1 200	30	m		
B502.27.54	3 600	1 500	30	m		
B502.27.55	3 600	1 800	30	m		
B502.27.56	3 600	2 400	30	m		
B502.27.57	3 600	3 000	30	m		
TOTAL CARRIE	D FORWARD					

				AMOUNT( Exl.VAT)
TOTAL BROUGH	T FORWARD			
B502.28	Supply ONLY of concrete pipes. Interlocking joint pipes (50d)			
B502.28.01	450mm	80	m	
B502.28.02	525mm	80	m	
B502.28.03	600mm	80	m	
B502.28.04	675mm	80	m	
B502.28.05	750mm	80	m	
B502.28.06	825mm	80	m	
B502.28.07	900mm	80	m	
B502.28.08	1 050mm	90	m	
B502.28.09	1 200mm	90	m	
B502.28.10	1 350mm	90	m	
B502.28.11	1 500mm	90	m	
B502.28.12	1 650mm	90	m	
B502.29	Supply <u>ONLY</u> of concrete pipes. Spigot and socket pipes (50d)			
B502.29.01	450mm	150	m	
B502.29.02	525mm	150	m	
B502.29.03	600mm	150	m	
B502.29.04	675mm	150	m	
B502.29.05	750mm	150	m	
B502.29.06	825mm	150	m	

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( ExI.VAT)		
TOTAL BROUGH	IT FORWARD						
B502.29.07	900mm	150	m				
B502.29.08	1 050mm	90	m				
B502.29.09	1 200mm	90	m				
B502.29.10	1 350mm	90	m				
B502.29.11	1 500mm	90	m				
B502.29.12	1 650mm	90	m				
B502.30	Supply ONLY of 4kN Ribbed HDPE pipes.						
B502.30.01	400mm	150	m				
B502.30.02	500mm	150	m				
B502.30.03	600mm	150	m				
B502.30.04	700mm	150	m				
B502.30.05	800mm	150	m				
B502.30.06	900mm	150	m				
B502.30.07	1000mm	150	m				
B502.30.08	1100mm	150	m				
B502.30.09	1200mm	150	m				
TOTAL CARRIED	TOTAL CARRIED FORWARD						

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)			
TOTAL BROUG	TOTAL BROUGHT FORWARD							
	SECTION 503: Kerbing and Channelling							
503.01	Concrete kerbing Class 20/19 concrete (See drawing STD007 - Sheet 1)							
503.01.01	Edge beam	60	m					
503.01.02	300mm Sloping kerb	30	m					
502.01.03	400mm Sloping kerb	30	m					
503.01.04	500mm Sloping kerb	30	m					
503.02	Concrete kerbing-channelling combination (See drawing STD007 - Sheet 1)							
503.02.01	Semi-vertical kerb (Fig. 7) with concrete channel	60	m					
503.02.02	Barrier kerb (Fig. 3) with concrete channel	60	m					
	SECTION 505: EROSION PROTECTION							
505,01	Foundation trench excavation and backfilling							
505.01.02	In all other classes of material	600	m <sup>3</sup>					
505,02	Surface preparation for the bedding of gabions	3000	m²					
505.03.01	Gabions							
505.03.01.01	Gabions boxes (1m x 0.5m)	120	m³					
505.03.01.02	Gabions boxes (1m x 1m)	120	m³					

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUGHT	FORWARD				
505.03.02.01	Gabion mattresses 200mm depth	80	m³		
505.03.02.02	Gabion mattresses 300mm depth	80	m³		
505,05	Geotextile (kaytech U24 or similar)	60	m²		
505,06	Stone Pitching				
505.06.01	Plain pitching				
505.06.01,01	Method 1 (200mm thickness)	90	m²		
505.06.02	Grouted pitching (250mm thickness)	90	m²		
505.09.02	Interlocking precast concrete block pitching: Armourflex 180 or similar (See Drawing STD 012)	250	m²		
505,10	Concrete in edge beams and foundation trenches (Class 25/13 concrete)	15	m³		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
SERIES 6	ROADS AND PARKING AREAS				
Section 608	ROAD AND SURFACING REHABILITATION AND OVERLAY CONSTRUCTION				
B608.01	Replacing of failed layers				
B608.01.03	Backfilling of excavations with:				
B608.01.03.03.01	Placing foundation layers with continiously graded asphalt base (4.5%) (Less than 10t per day)	30	t		
B608.01.03.03.02	Placing foundation layers with continiously graded asphalt base (4.5%) (Greater than 10t per day)	20	t		
B608.01.03.04.01	Replacing surfacing layers with continuously medium graded asphalt (5%)				
	(Less than 10t per day)	30	t		
B608.01.03.04.02	Replacing surfacing layers with continuously medium graded asphalt (5%) (Greater than 10t per day)	20	t		
	(Create, than 100 per day)				
TOTAL CARRIED	FORWARD				

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exi.VAT)
TOTAL BROUG	HT FORWARD				
606.05	Tack coat of 30% stable grade emulsion	100	1		
609.06	Construction of pedestrian ramps for the disabled (See drawing STD009)	10	no		
Section 610	Concrete Pavements				
610.01	Concrete pavement				
610.01.01	Class 30/19, 150mm - 180mm thick in bus bays and roads	50	m³		
610.01.02	Class 25/19, 100mm - 125mm thick in walkways and cycle tracks (including Class U2 concrete finish)	50	m³		
610.02	Texturing and curing of concrete pavement				
610.02.01	Wire-brush texturing	100	m²		
610.02.02	Curing	100	m²		
610.04	Joints				
610.04.01	Expansion joints complete (excluding dowels)	20	m		
610.04.03	Transverse contraction joints				
610.04.03.01	Sawn contraction joints (sealed) completed in a single operation (width as shown on drawing STD010)	20	m		
610.04.03.02	Sawn contraction joints (sealed) completed in two separate operations (width as shown on drawing STD010)	20	m		
610.04.03.03	Sawn contraction joints (unsealed)	20	m		
TOTAL CARRIE	D FORWARD				

Section 6600	SPECIFIC WORKS  NO-FINES CONCRETE, JOINTS, BEARINGS AND PARAPETS				
Section 6600	NO-FINES CONCRETE, JOINTS,				
				1	
1/65.01					
	Fixed charges for bridges (R50 000 Max) (Charges per bridge / per event)	9	Per bridge / Per event		
1/66.01	Removal of debris from expansion joints	56	m		
1/66.02	Expansion joints (Incl. removal of existing)				
	(a) Plug Type Joint (Incl. non ferrous cover plates ) (i) Asphaltic plug joint 500 x 100 mm (ii) Asphaltic plug joint 600 x 100 mm (b) Steel Claw Joints (Incl. non retrous cover plates ) (i) Single element - accommodating up to 80mm movement (ii) Multi element - accommodating up to 160mm movement	56 56 14	m m m		
	Sealing of joints with:  (a) Silicone sealant (approved for purpose) in NJ balustrades				
	(i) Up to 25mm wide	30	m		
	(ii) 25 - 40mm wide (iii) 40 - 60mm wide	30 30	m		
1/66.04	Numbers for structures (c) Numbers Plates (Non Ferrous & UV Resistant ) (i) Endblocks	8	m No		
C12100	ACCESS FOR BRIDGE REHABILITATION				
1/C121.01	Temporary access structures and work platforms				
	Access and platform from 0 m up to 5,0m height  (i) Design, supply and erect at the following structural elements and height ranges inclusive of dismantling and moving to the next structural element	2	No		
	(ii) Dismantle and remove from location or structure	2	No		
	Access and platform from 5,0 m up to 10,0m height (i) Design, supply and erect at the following structural elements and height ranges inclusive of dismantling and moving to the next structural element (ii) Dismantle and remove from location or structure	2	No No		
1/C121.03	Access at end of maintenance period for inspection	2	No		

ITEM	DESCRIPTION	QTY	UNIT	RATE (Exl. VAT)	AMOUNT( Exl.VAT)
TOTAL BROUGH	HT FORWARD				
C12300	SURFACE AND STRUCTURAL REPAIR OF CONCRETE				
1/C123.01	Cementitious Repair mortar (i) Concrete spalling - Piers (ii) Concrete spalling - Balustrades	100 100	litre litre		
	(iii) Concrete spalling - Bridge deck	100	litre		
1/C123.04	Curing of repair surfaces (a) By coating the surface with a water based low viscosity clear wax emulsion curing compound	150	m²		
C12400	GROUTING AND CRACK INJECTION				
1/C124.01	Preparation of contact surfaces for grouting and crack filling	20	No		
1/C124.05	Crack injection with epoxy resin to: (i) Balustrades (ii) Wing walls (iii) Hood Wolls	50 50	m m		
	(iii) Head Walls (iv) Piers	50 50	m m		
C12600	PROTECTIVE COATINGS AND TREATMENTS FOR				
1/C126.01	Cleaning and preparation of concrete surfaces (Parapets, endblocks, piers and headwalls) (i) With high pressure water jetting	400	m²		
1/C126.02	Application of protective coatings (i) Balustrades	200	m²		
	(ii) Head walls (iii) Wing walls (iv) Piers & Columns	200 100 200	m² m² m²		
TOTAL CARRIE	D TO SUMMARY				

# **SUMMARY OF THE BILL OF QUANTITIES**

SECTION	DESCRIPTION	AMOUNT (Exl.VAT)
SERIES 0	GENERAL	
SERIES 1	ANCILLARY WORK	
SERIES 2	EARTHWORKS	
SERIES 5	DRAINAGE AND EROSION PROTECTION	
SERIES 6	ROADS AND PARKING AREAS	
SERIES 8	SPECIFIC WORKS	
	SUB TOTAL AMOUNT (Excluding VAT)	
	VAT	
TOTAL SCHEDULE OF PRICE	ES (Including VAT)	