

	SECTION 3				
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 1300				
13.00	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
B13.01	Contractor's general obligations				
	(a) Fixed Obligations for Heavy Rehabilitation only for the following road categories : once off payment per project order/purchase order				
	(i) Category A or B	%	800000.00		
	(ii) Category C or D	%	800000.00		
	(c) Time Related Obligations for the following road categories :				
	(i) Category A or B				
	(a) Light Rehabilitation	month	12.00		
	(b) Heavy Rehabilitation	month	12.00		
	(ii) Categories C or D				
	(a) Light Rehabilitation	month	12.00		
	(b) Heavy Rehabilitation	month	12.00		
B13.02	Health and Safety				
	(a) Fixed obligation for preparation of risk assessment, H&S, etc. (once off payment per contract paid on the first project)	Sum	1.00		
	(b) Time related obligation for updating risk assessment, safe work procedures, etc.				
	(i) Light Rehabilitation	Month	12.00		
	(ii) Heavy Rehabilitation	Month	12.00		
B13.03	(a) Project sign boards	No.	2.00		
	(b) Reusing of existing signboards. Rate to include amending the relevant text	No	2.00		
13/B12.02	Remuneration for Community Liaison Officer:				
	(a) Monthly payment	Prov.Sum	100.00	60.00	
	(b) Handling costs and profit in respect of sub-item 13/B12.02	%			
13/B12.03	Testing/investigations of materials (DCP, TEST PITS, FWDs)				
	monthly payment	Prov.Sum	1000.00	50.00	
	handling cost	%			
	TOTAL CARRIED TO SUMMARY				
	SECTION 1500				
15.00	ACCOMODATION OF TRAFFIC				
B15.01	The provision of temporary traffic control facilities (except traffic lights and amber flicker lights for the supervisory staff) for the following road categories :				
	(a) Light Rehabilitation or Heavy Rehabilitation				
	(1) Category A : Major Arterials or Freeways	month	12.00		
	(i) Extra-over for Night Work	month	12.00		
	(2) Category B : Urban Arterials, Major Bus Routes, CBD and Industrial Roads	month	12.00		
	(i) Extra-over for Night Work	month	12.00		
	(3) Category C : Minor Bus Routes and Collectors	month	12.00		
	(4) Category D : Residential Streets	month	12.00		
	TOTAL CARRIED TO SUMMARY				
	SECTION 1700				
17.00	CLEARING AND GRUBBING				
	Road edge definition and cleaning				
	(i) Light cleaning	m ²	20.00		
	(ii) Heavy cleaning	m ²	20.00		
	TOTAL CARRIED TO SUMMARY				

	SECTION 3				
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 2100				
21.00	DRAINS				
21.02	Clearing and shaping existing open drains	m ³	1000.00		
21.03	Excavation for subsoil drainage systems:				
	(a) Excavating soft material situated within the following depth ranges below the surface				
	(i) 0 m up to 1,5 m	m ³	15.00		
	(b) Extra over subitem 21.03(a) for excavation in hard material irrespective of depth	m ³	15.00		
21.04	Impermeable backfilling to subsoil drainage systems	m ³	15.00		
21.06	Natural permeable material in subsoil drainage systems (crushed stone):				
	(b) Crushed stone obtained from commercial sources				
	(i) Coarse-Grade	m ³	15.00		
21.07	Natural permeable material in subsoil drainage systems :				
	(b) Sand from commercial sources				
	(i) Coarse Grade	m ³	15.00		
21.08	Pipes in subsoil drainage systems:				
	(b) Unplasticised PVC pipes and fittings, normal duty complete with couplings				
	(i) 100 mm internal dia. perforated or slotted	m	20.00		
	(ii) 100 mm internal dia. unperforated	m	20.00		
21.10	Synthetic-fibre filter fabric				
	(a) Grade A	m ²	10.00		
21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems :				
	(a) Outlet structures	No	2.00		
	(d) Cleaning eyes	No	2.00		
21.13	Concrete caps for subsoil drain pipes	No	2.00		
21.14	Repairing or replacing existing drainage systems	No	10.00		
21.15	Overhaul for material hauled in excess of 15,0 km free-haul (normal overhaul)	m ³ .km	1.00		
21.17	Test flushing of pipe subsoil drains	No	1.00		
	TOTAL CARRIED TO SUMMARY				

	SECTION 3				
ITFM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 2200				
22.00	PREFABRICATED CULVERTS				
22.01	Excavation				
	(a) Excavating soft material situated within the following depth ranges below the surface				
	(i) 0 m up to 1.5 m	m ³	50.00		
	(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m ³	50.00		
22.02	Backfilling:				
	(a) Using the excavated material	m ³	50.00		
	(b) Using imported selected material	m ³	50.00		
	(c) Extra over subitems 22.02(a) and (b) for soil cement backfilling				
	(i) with 3% cement	m ³	50.00		
	(ii) with 5% Cement	m ³	20.00		
B22.03	Concrete pipe culverts (Class 75D)		20.00		
	(c) On class C bedding				
	(i) 450mm diameter	m	5.00		
	(ii) 600mm diameter	m	5.00		
	(iii) 900mm diameter	m	5.00		
	(iv) 1200mm diameter	m	5.00		
	(d) On sand bedding				
	(i) 450mm diameter	m	5.00		
	(ii) 600mm diameter	m	5.00		
	(iii) 900mm diameter	m	5.00		
	(iv) 1200mm diameter	m	5.00		
	(e) On 19 mm crushed stone bedding				
	(i) 450mm diameter	m	5.00		
	(ii) 600mm diameter	m	5.00		
	(iii) 900mm diameter	m	5.00		
	(iv) 1200mm diameter	m	5.00		
22.07	Cast in situ concrete and formwork				
	(a) In class A bedding, screeds and the encasing for pipes, including formwork with 12mm expansion joints formed at each pipe joint/collar and surface finishing				
	(i) Class 30/19	m ³	20.00		
	(b) In floor slabs for portal rectangular culverts, including formwork with 12mm expansion joints formed at each pipe joint/collar and surface finishing				
	(i) Class 30/19	m ³	20.00		
	(c) In inlet and outlet structures, skewed ends, catchpits, manholes, thrust and anchor blocks, including formwork and surface finish				
	(i) Class 30/19	m ³	20.00		
22.10	Steel reinforcement				
	(a) Mild steel bars	t	2500.00		
	(b) High-tensile steel bars	t	2500.00		
	(c) Welded steel fabric	kg	150.00		
22.12	Removing existing concrete				
	(a) Plain concrete	m ³	1500.00		
	(b) Reinforced concrete	m ³	1500.00		
22.14	Removing and stacking existing prefabricated culverts (type and size indicated)	m	500.00		
22.18	Brickwork				
	(a) 115 mm thick	m ²	10.00		
	(b) 230 mm thick	m ²	10.00		
	(c) 345 mm thick	m ²	10.00		
22.19	Plaster	m ²	10.00		
22.20	Benching	m ²	10.00		
22.21	Accessories				
	(a) Concrete Manhole cover including frame				
	(i) Light Duty left/right hand splay	No	1.00		
	(ii) Heavy Duty left/right hand splay	No	1.00		
	(iii) Light Duty Inlet Slab including cover	No	1.00		
	(v) Heavy Duty Inlet Slab including cover	No	1.00		
	(vi) Light Duty Support Beam	No	1.00		
	(vii) Heavy Duty Support Beam	No	1.00		
22.23	Service ducts:				
	(a) Ordinary pipes				
	(iii) Unplasticised PVC pipes				
	(1) 110mm dia.	m	1.00		
	(2) 150 mm dia.	m	1.00		
22.24	Duct marker blocks incl. 230mm head wall				
	(a) Concrete marker incl. 230mm head wall	No	1.00		
22.25	Overhaul for material hauled in excess of 15,0 km free-haul (normal overhaul)	m ³ .km	200000.00		
22.26	Hand excavation to determine the positions of existing services	m ³	4.00		
B22.30	Repairs to drainage structures	Prov Sum	20000.00	1.00	
B22.31	Raising or lowering of the following services' structures:				
	(a) Existing manhole with concrete cover and frame in paved areas: (0 mm to 50 mm)	No.	5.00		
	(ii) Extra over item B22.31(a) for manhole fitted with concrete cover (50mm to 130 mm)	No.	5.00		
	(b) Existing manhole with cast-iron cover and frame in paved areas: (0 mm to 50 mm)	No.	5.00		
	(i) Extra over item B22.31(b) for supply of new heavy duty cast iron covers and frames	No.	5.00		
	(ii) Extra over item B22.31(b) for manhole fitted with cast-iron cover (50 mm to 130 mm)	No.	5.00		
	(c) Existing chamber with cast-iron water valve cover in paved areas (0 mm to 50 mm)	No.	5.00		
	(i) Extra over item B22.31(c) for cast-iron water valve cover: (50 mm to 130 mm)	No.	5.00		
	(d) Existing cast-iron T.S.M. cover in paved areas: (0 mm to 50 mm)	No.	5.00		
	(i) Extra over item B22.31(d) for cast-iron water valve cover: (50 mm to 130 mm)	No.	5.00		
	(e) Existing stormwater Type 1 inlets (depths between 0 mm to 130 mm)	No.	5.00		
	(f) Existing stormwater Type 2 inlets (depth between 0 mm to 130 mm)	No.	5.00		
	(g) Existing stormwater Type 3 inlets (depths between 0 mm to 130 mm)	No.	5.00		
	(h) Existing stormwater Type 1 inlets (depths between 0 mm to 250 mm)	No.	5.00		
	(j) Existing stormwater Type 2 inlets (depths between 0 mm to 250 mm)	No.	5.00		
	(k) Existing stormwater Type 3 inlets (depths between 0 mm to 250 mm)	No.	5.00		
	(l) Existing stormwater Type 1 inlets (depths between 0 mm to 500 mm)	No.	5.00		
	(m) Existing stormwater Type 2 inlets (depths between 0 mm to 500 mm)	No.	5.00		
	(n) Existing stormwater Type 3 inlets (depths between 0 mm to 500 mm)	No.	5.00		
TOTAL CARRIED TO SUMMARY					

SECTION 3					
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SECTION 2300					
23.00	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE				
23.01	Concrete kerbing				
	(a) Precast kerbing to SABS 927				
	(iv) Figure 4 kerb	m	1200.00		
	(vi) Figure 6 kerb	m	500.00		
	(v) figure 12 kerb	m	600.00		
	(b) Extra-over item 23.01 (a) for :				
	(i) Radius of 1 m to 4 m	m	50.00		
	(ii) Radius of 4 m to 20 m	m	50.00		
23.02	Concrete kerbing-channelling combination				
	(a) Precast kerb to SABS 927 and cast in situ channel 300 mm concrete class 20/13)				
	(iv) Figure 4 kerb	m	50.00		
	(vi) Figure 6 kerb	m	50.00		
23.05	Inlet, outlet, transition and similar structures (typical designs):	No	4.00		
23.06	Inlet, outlet, transition and similar structures (measured by components)				
	(a) Concrete class 20/13 including finishing.	m ³	25.00		
23.08	Concrete lining for open drains				
	(a) Cast in situ concrete lining class 20/13 for:				
	(i) Open Drains including finishing	m ³	25.00		
	(ii) Other concrete work (Pedestrian, vehicular scoops, bullnosing, driveways etc.) including	m ³	25.00		
23.10	Sealed joints in concrete linings				
	(c) Polysulphide-based sealant	m	5.00		
23.13	Polyethylene sheeting (0,15 mm thick)	m ²	5.00		
B23.17	Repairs to damaged kerbs	Prov Sum	50000.00	1.00	
B23.18	Break-out and remove the following roadway elements and cart to spoil :				
	(a) Kerbs	m	50.00		
	(b) Kerb and channel	m	50.00		
	(c) Medians	m ²	50.00		
	(d) Sidewalks	m ²	50.00		
	(e) Driveways	m ²	50.00		
	(f) Extra-over item B23.18 (a), (b), (c), (d) and (e) for selection of concrete suitable for recycling and stockpile as directed	m ³	50.00		
	(g) Extra-over item B23.18 (a) and (b) for selection of Kerbs suitable for re-use and stockpile as directed	m	25000.00		
23.14	Saw Cutting Bituminous surfacing and pavement layers for concrete lined drains	m	100.00		
TOTAL CARRIED TO SUMMARY					
SECTION 2400					
24.00	ASPHALT AND CONCRETE BERMS				
B24.01	Asphalt berms				
	(c) Placed where specified by the Engineer				
	(i) SS10 hot mix asphalt	m	1300.00		
24.03	Prime and tack coats				
	(b) Tack coat (Grade 60 anionic bitumen emulsion)	m ²	20.00		
B24.05	Removal of asphalt haunch to spoil/stockpile	m	1500.00		
TOTAL CARRIED TO SUMMARY					
SECTION 3300					
33.00	MASS EARTHWORKS				
33.01	Cut and borrow to fill, including free-haul up to 0,5 km (backfill to undercut)				
	(a) Gravel material in compacted layer thickness of 200 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m ³	5.00		
	(ii) Compacted to 93% of modified AASHTO density	m ³	5.00		
	(e) Pioneer layer	m ³	5.00		
	Cut and borrow to fill, including free-haul up to 0,5 km (backfill to undercut)				
	(a) Gravel material in compacted layer thickness of 200 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m ³	5.00		
	(ii) Compacted to 93% of modified AASHTO density	m ³	5.00		
	(e) Pioneer layer	m ³	5.00		
33.04	Cut to spoil, including free-haul up to 0,5 km. Material obtained from:				
	(b) Intermediate excavation	m ³	5.00		
	(c) Hard excavation	m ³	5.00		
33.07	Removal of unsuitable material (including free-haul of 5 km):				
	(a) In layer thicknesses of 200 mm and less:				
	(i) Stable material	m ³	5.00		
	(ii) Unstable material	m ³	5.00		
B33.20	Fill constructed with material obtained from commercial sources or sources				
	(a) Gravel material in compacted layer thicknesses of 200 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m ³	5.00		
	(ii) Compacted to 93% of modified AASHTO density	m ³	5.00		
	(iii) Eight-roller-passes compaction	m ³	5.00		
	(b) Rock fill	m ³	5.00		
	(c) Rock protection at the toes of fills	m ³	5.00		
	(d) Pioneer layer				
B33.21	Fill constructed with material from temporary (not designated) stockpiles or directly				
	(a) Gravel material in compacted layer thicknesses of 200 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m ³	5.00		
	(ii) Compacted to 93% of modified AASHTO density	m ³	5.00		
	(iii) Eight-roller-passes compaction	m ³	5.00		
B33.22	Fill constructed with gravel hauled from designated borrow pits or from designated				
	(a) Gravel material in compacted layer thicknesses of 200 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m ³	5.00		
	(ii) Compacted to 93% of modified AASHTO density	m ³	5.00		
	(iii) Eight-roller-passes compaction	m ³	5.00		
33/16.02	Overhaul on material hauled in excess of 5,0 km (ordinary overhaul)	m ³ -km	1,000.00		
33/32.06	Stockpiling of material	m ³	1,000.00		

	SECTION 3				
ITFM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TOTAL CARRIED TO SUMMARY				
	SECTION 3400				
34.00	PAVEMENT LAYERS OF GRANULAR MATERIAL				
B34.01	Pavement layers constructed from granular material taken from commercial sources (rate				
	(a) Gravel selected layer compacted to:				
	(i) 95% of modified AASHTO density				
	(1) Lower selected layer (G9) 150mm thick	m ³	5000		
	(2) Upper selected layer (G7) 150mm thick	m ³	150		
	(c) Gravel subbase (unstabilized gravel) compacted to:				
	(i) 97% of modified AASHTO density				
	(1) G5 150mm thick	m ³	5000		
	(2) G4 150mm thick	m ³	150		
	(3) G5 200mm thick	m ³	150		
	(4) G5 300mm thick	m ³	150		
	(5) G4 200mm thick	m ³	150		
	(6) G4 300mm thick	m ³	150		
34.10	Compacting the floors of pavement excavations (>5 roller passes) with:				
	(a) Vibratory rollers	m ²	2000		
	TOTAL CARRIED TO SUMMARY (Page 2)				
	SECTION 3600				
36.00	CRUSHED STONE BASE				
36.01	Crushed-stone base				
	(c) Constructed from type G2 material obtained from commercial sources and compacted	m ³	150.00		
	(i) 37,5 mm nominal maximum size stone				
B36.01	(g) Crushed dump rock subbase (-150 mm maximum size stone) obtained from commercial	m ³	150.00		
	TOTAL CARRIED TO SUMMARY (Page 2)				
	SECTION 3800				
38.00	BREAKING UP EXISTING PAVEMENT LAYERS				
B38.02	Milling out existing bituminous material with an average milling depth:				
	(a) Not Exceeding 30mm	m ³	120.00		
	(b) Exceeding 30 mm but not exceeding 60 mm	m ³	100.00		
	(c) Exceeding 60 mm but not exceeding 120 mm	m ³	100.00		
	(d) Exceeding 120 mm	m ³	1500.00		
38.04	Excavating and stockpiling material from an existing pavement and/or the underlying fill:				
	(a) Non-cemented material	m ³	120.00		
B38/16.02	Hauling of matreial in excess of 15.0km (ordinary overhaul)	m ³ -km	50000.00		
B38.14	Provide the following machines on site :				
	(a) Milling machine :				
	(i) 0,0 m to 1,0 m	No.	1.00		
	(ii) 1,0 m to 1,5 m	No.	1.00		
	(iii) greater than 1,5 m	No.	1.00		
	(b) Recycling machine				
	(iii) greater than 1,5 m	No.	1.00		
B38.15	Moving the milling or recycling machine from site to site by lowbed as agreed with the				
	(i) 0,0 m to 1,0 m	No.	1.00		
	(ii) 1,0 m to 1,5 m	No.	1.00		
	(iii) greater than 1,5 m	No.	1.00		
	TOTAL CARRIED TO SUMMARY (Page 2)				
	SECTION 3900				
39.00	PATCHING AND REPAIRING EDGE BREAKS				
39.01	Sawing asphalt or cemented pavement layers for patching:				
	(a) Sawing asphalt				
	(i) Not exceeding 50 mm	m ²	1.00		
	(ii) Exceeding 50 mm but not exceeding 100 mm	m ²	1.00		
	(iii) Exceeding 100 mm	m ²	1.00		
	TOTAL CARRIED TO SUMMARY				
	SECTION 4400				
	SINGLE SEALS				
44.01	Single seals (70/100 penetration grade bitumen)				
	(b) Using 7.1 mm aggregate	m ²	500.00		
	(c) Using 10 mm aggregate	m ²	500.00		
	(d) Using 14 mm aggregate	m ²	500.00		
	Single seals (SE-1 Binder)				
	(b) Using 7.1 mm aggregate	m ²	500.00		

SECTION 3					
ITFM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	(c) Using 10 mm aggregate	m ²	500.00		
	(d) Using 14 mm aggregate	m ²	500.00		
44.02	Bituminous binder variations:				
	(b) Road grade B8 bitumen (70/100 penetration grade)	l	2.00		
	(h) Homogeneous modified binder (hot applied):				
	(i) S-E1 binder	l	5.00		
	(ii) S-E2 binder	l	5.00		
	(iii) S-R1 binder	l	5.00		
	(j) Precoating fluid	l	5.00		
	(k) Power Paraffin Cutter	l	5.00		
44.03	Aggregate variations (Grade 1)				
	(b) 7.1mm aggregate	m ³	50.00		
	(c) 10.0mm aggregate	m ³	50.00		
	(d) 14.0mm aggregate	m ³	50.00		
44.04	Application of a fog spray:				
	(b) 30% spray-grade emulsion:				
	(i) Cationic	l	5.00		
B44.05	Precoating the aggregate at a rate specified using Colcote S or similar and approved:				
	(a) Precoating the 14.0mm aggregate at a rate of 16 l/m ³	m ³	50.00		
	(b) Precoating the 10.0mm aggregate at a rate of 19 l/m ³	m ³	50.00		
	(c) Precoating the 7.1mm aggregate at a rate of 22 l/m ³	m ³	50.00		
44.07	Aggregate for blinding:				
	(b) Crusher sand	m ³	50.00		
44.08	Extra over 44.01 for work in areas inaccessible to Mechanical Equipment	m ²	50.00		
B44.10	Establishment of Seal paving Equipment (Single seal).	No	1.00		
B44.11	Moving of the Single or Double Seal paving team in access of a 10km radius (subject to the Engineer's approval)	No	1.00		
TOTAL CARRIED TO SUMMARY					
SECTION 4500					
DOUBLE SEALS					
45.01	Double seals using:				
	(a) 20.0mm and 10.0mm aggregate (Grade 1 aggregate and 70/100 penetration grade bitumen)	m ²	1000.00		
	(c) 14.0mm and 7.1mm aggregate (Grade 1 aggregate and 70/100 penetration grade bitumen)	m ²	1000.00		
	Double seals using:				
	(a) 20.0mm and 10.0mm aggregate (Grade 1 aggregate and SE-1 Binder)	m ²	1000.00		
	(c) 14.0mm and 7.1mm aggregate (Grade 1 aggregate and SE-1 Binder)	m ²	1000.00		
45.02	Bituminous binder variation				
	(b) 70/100 penetration grade bitumen	l	10.00		
	(j) Homogeneous modified binder (hot applied)				
	(i) S-E1 binder	l	5.00		
	(ii) S-E2 binder	l	5.00		
	(iii) S-R1 binder	l	5.00		
B45.03	Aggregate variation (Grade 1)				
	(a) 20.0mm aggregate	m ³	50.00		
	(b) 14.0mm aggregate	m ³	50.00		
	(c) 10.0mm aggregate	m ³	50.00		
	(d) 7.1mm aggregate	m ³	50.00		
45.04	Application of fog spray consisting of:				
	(b) 30% spray-grade bitumen emulsion				
	(i) Cationic	l	5.00		
B45.05	Precoating the aggregate at a rate specified using Colcote S or similar and approved:				
	(a) Precoating the 20.0mm aggregate at a rate of 12 l/m ³	m ³	50.00		
	(b) Precoating the 14.0mm aggregate at a rate of 16 l/m ³	m ³	50.00		
	(c) Precoating the 10.0mm aggregate at a rate of 19 l/m ³	m ³	50.00		
	(d) Precoating the 7.1mm aggregate at a rate of 22 l/m ³	m ³	50.00		
B45.08	Establishment of Seal paving Equipment (Double Seal).	No	1.00		
TOTAL CARRIED TO SUMMARY					
SECTION 4800					
TREATMENT OF AN EXISTING SURFACE EXHIBITING CERTAIN DEFECTS					
48.01	Treatment with diluted bituminous emulsion (fog spray)				
	(a) 30% bitumen emulsion				
	(i) Cationic	l	5.00		
	(d) 60% bitumen emulsion				
	(i) Cationic	l	5.00		
B48.03	Slurry seal:				
	(a) Tack Coat using 60% bitumen emulsion (applied at 0.6l/m ²)	l	5.00		
	(b) Slurry applied by hand	m ³	20.00		
	(c) Slurry applied by spreader box	m ³	20.00		
	(f) For texture improvement with natural or crusher sand applied by hand	m ³	20.00		
48.04	Screed of asphalt or coarse slurry:				
	(c) Coarse grade slurry				
	(i) type 1 aggregate with 60% stable grade emulsion and cement filler	m ³	20.00		

SECTION 3					
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	(ii) type 1 aggregate with 60% stable grade emulsion,3% latex and cement filler	m ³	20.00		
B48.14	(a) Cleaning cracks with compressed air, and Sealing of cracks using CH-E1 Sealant	m	20.00		
B48.15	Establishment of Slurry seal paving Equipment (incl. plant and materials).	no	1.00		
B48.16	Emulsion variation (slurry):				
	(i) Emulsion variation to slurry mix design (Cationic or Anionic)	l	5.00		
	(ii) AC -E1 emulsion	l	5.00		
46.05	Variation in the Rate of application of the slurry	m ³	20.00		
46.06	Slurry application rate variations	t	5.00		
46.07	Variation in active filler content (Portland cement)	t	5.00		
B46.08	Extra over items 48.03 and 46.04 for work in areas inaccessible to mechanical equipment	m ²	20.00		
TOTAL CARRIED TO SUMMARY					
SECTION 5100					
51.00	PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION				
51.04	Concrete pitching and block paving				
	(b) Segmental block paving				
	(i) 100 mm thick interlocking	m ²	20.00		
	(ii) 100 mm thick rectangular	m ²	20.00		
	(d) Prefabricated concrete paving blocks for sidewalk pavement				
	(i) 60 mm thick	m ²	10.00		
	(ii) 80 mm thick	m ²	10.00		
	(iii) 100 mm thick	m ²	10.00		
51.06	Provision of vegetation destroyer and ant poison:				
	(a) Provision of materials	PC Sum	100.00	1.00	
	(b) Contractor's charges and profit added to the prime cost sum	%			
TOTAL CARRIED TO SUMMARY					
SECTION 5200					
52.00	GABIONS				
52.01	Foundation trench excavation and backfilling:				
	(a) In solid rock (material which requires blasting)				
	(b) In all other classes of materials				
52.02	Surface preparation for bedding the gabions				
52.03	Gabions:				
	(a) Galvanized gabion boxes				
	(i) 1,0 m wide by 0,3 m deep				
	(1) by 1,0 m long mesh 100 x 120	No	1.00		
	(2) by 2,0 m long mesh 100 x 120	No	1.00		
	(3) by 3,0 m long mesh 100 x 120	No	1.00		
	(4) by 4,0 m long mesh 100 x 120	No	1.00		
	(ii) 1,0 m wide by 0,5 m deep				
	(1) by 1,0 m long mesh 100 x 120	No	1.00		
	(2) by 2,0 m long mesh 100 x 120	No	1.00		
	(3) by 3,0 m long mesh 100 x 120	No	1.00		
	(4) by 4,0 m long mesh 100 x 120	No	1.00		
	(iii) 1,0 m wide by 1,0 m wide				
	(1) by 1,0 m long mesh 100 x 120	No	1.00		
	(2) by 2,0 m long mesh 100 x 120	No	1.00		
	(3) by 3,0 m long mesh 100 x 120	No	1.00		
	(4) by 4,0 m long mesh 100 x 120	No	1.00		
	(b) PVC-coated gabion boxes (dimensions of box, nominal diameter of mesh wire				
	(c) Galvanized gabion mattresses				
	(i) 1,0 m diaphragm spacing, 6,0 m long by 2,0 m wide				
	(1) by 0,2 m deep mesh 100 x 120	No	1.00		
	(2) by 0,3 m deep mesh 100 x 120	No	1.00		
	(3) by 0,5 m deep mesh 100 x 120	No	1.00		
	(ii) 0,6 m diaphragm spacing, 6,0 m long by 2,0 m wide				
	(1) by 0,2 m deep mesh 100 x 120	No	1.00		
	(2) by 0,3 m deep mesh 100 x 120	No	1.00		
	(3) by 0,5 m deep mesh 100 x 120	No	1.00		
	(d) PVC-coated gabion mattresses (dimensions of mattress, mesh size, nominal				
52.04	Filter fabric				
	(a) Grade A	m ²	1.00		
	(b) Grade B	m ²	1.00		
	(c) Grade C	m ²	1.00		
	(d) Grade D	m ²	1.00		
	(e) Grade E	m ²	1.00		
total carried to Summary					
SECTION 10100					
COLD INSITU RECYCLING WORK					
B38/16.02	Hauling of matreial in excess of 15.0km (ordinary overhaul)	m ³ -km	10000.00		
	Levelling, compacting and preparing rap material	m3	5.00		
B10111.1	Preperations for pavement rehabilitation	km	5.00		
B10111.2	Pre-pulverising material in the existing pavement using a milling machine				
	(i) Milling to breakdown asphalt layers exceeding 40mm but not 60mm	m ²	186.00		
	(ii) Milling to breakdown asphalt layers exceeding 61mm but not 100mm	m ²	186.00		
	(iii) Milling to breakdown asphalt layers exceedign 101mm but not 16000mm	m ²	186.00		
	(iv) Milling to breakdown asphalt layers exceedign 161mm	m ²	186.00		
B10111.3	New material imported for modification of existing pavement layers:				
	(a) Crushed stone (G2) from commercial sources	t	50.00		

SECTION 3					
ITFM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	(b) Crusher dust from commercial sources	t	50.00		
B10111.4	New pavement layers constructed by insitu recycling with chemical or bitumen stabilising agents				
	(a) Subbase layers (all material) Insitu recycled, and compacted to 97% of modified AASHTO density for layers up to:				
	(i) 150mm to 200mm	m ³	20.00		
	(ii) 201mm to 250mm	m ³	20.00		
	(iii) 251mm to 300mm	m ³	20.00		
	New pavement layers constructed by insitu recycling reclaimed asphalt from Municipal stockpile with chemical or bitumen stabilising agents				
	(a) Subbase layers (all material) Insitu recycled, and compacted to 97% of modified AASHTO density for layers up to:				
	(i) 150mm to 200mm	m ³	25.00		
	(ii) 201mm to 250mm	m ³	25.00		
	(iii) 251mm to 300mm	m ³	25.00		
	(b) Base layers (all material) Insitu recycled, either chemical or bituminous stabilized and				
	(i) 150mm to 200mm	m ³	20.00		
	(ii) 201mm to 300mm	m ³	20.00		
	(b) Base layers Insitu recycled, reclaimed asphalt from municipal stockpile either chemical				
	(i) 150mm to 200mm	m ³	20.00		
	(ii) 201mm to 300mm	m ³	20.00		
B10111.5	Stabilizing agent:				
	(a) Cementitious stabilising agents and active fillers				
	(i) Ordinary portland cement	t	10.00		
	(ii) Slaked road lime	t	10.00		
	(b) Bituminous stabilizing agents				
	(i) Bitumen Emulsion - Anionic stable grade bituminous emulsion (60% net bitumen)	t	10.00		
	(ii) Foam bitumen using 70/100 penetration grade bitumen	t	10.00		
B10111.6	Trial sections where ordered by the Engineer	m ³	5.00		
10111.7 / 48.0	Application of a fog spray of diluted emulsion				
	(a) 65% Cationic spray grade emulsion	l	1.00		
	(b) 32.5% Cationic spray grade emulsion	l	1.00		
	(c) 16% Cationic spray grade emulsion	l	1.00		
B10111.8	Establishment of (approved) insitu recycler	No	1.00		
TOTAL CARRIED TO SUMMARY (Page 2)					
SECTION 10200					
STATIC PLANT RECYCLING WORK					
B10212.02	Processing/Mixing Bitumen Stabilised Reclaimed Asphalt in a Static Plant recycler - KMA or	m ³	5000.00		
	Processing/Mixing Bitumen Stabilised Reclaimed Asphalt in a Static Plant recycler - KMA or	m ³	5000.00		
	Processing and Compacting KMA material on site	m ³	5000.00		
B10212.03	Processing/Mixing Bitumen Stabilised Reclaimed Asphalt in a Static Plant recycler - KMA or				
	(a) Subbase - Bitumen stabilised in a Static Plant Recycler, paver layed and compacted to				
	(i) Exceeding 151mm and not 200mm	m ³	5000.00		
	(ii) Exceeding 201mm and not 300mm	m ³	5000.00		
	(b) Base - Bitumen stabilised in a Static Plant Recycler, paver layed and compacted to 102%				
	(i) Exceeding 150mm and not 200mm	m ³	5000.00		
	Processing/Mixing Bitumen Stabilised Reclaimed Asphalt From municipal stockpile in a				
	(a) Subbase - Bitumen stabilised in a Static Plant Recycler, paver layed and compacted to				
	(i) Exceeding 151mm and not 200mm	m ³	5000.00		
	(ii) Exceeding 201mm and not 300mm	m ³	5000.00		
	(b) Base - Bitumen stabilised in a Static Plant Recycler, paver layed and compacted to 102%				
	(i) Exceeding 150mm and not 200mm	m ³	5000.00		
	(c) Extra over item (a) and (b) for crushing the Reclaimed asphalt prior to	m ³	5000.00		
	(d) Extra over item (a) and (b) for screening the raw/crushed Reclaimed Asphalt prior to	m ³	5000.00		
	(e) Extra over item (a) and (b) for mechanically modifying the reclaimed asphalt by blending	m ³	5000.00		
B38/16.02	Hauling of matreial in excess of 15.0km (ordinary overhaul)	m ³ -km	25000.00		
B10212.04	Trial sections where ordered by the Engineer	m ³	10000.00		
B10212.07	Establishment of:				
	(a) Static Plant recycler - KMA or similar	No	1.00		
	(b) Crusher	No	1.00		
	© Screen (26.5/19mm screen) as specified by the Engineer	No	1.00		
	Spread,level/shape, water and Final compaction of BSM (RAP)				
	Base / Sub-Base > 150mm < 200mm	m ³	5000.00		
	Subbase > 200mm < 300mm	m ³	5000.00		
TOTAL CARRIED TO SUMMARY					
SECTION 7100					
CONCRETE PAVEMENT					
B71.02	supply and laying concrete pavement as follow:rate includes supply of concrete, process control testing, expansion joints, construction joints, formwork, all types of finishing, teturing and curing concrete pavement etc				
B71.02	(i). supply and lay 25Mpa Concrete pavement	m ²	100		
	(ii).supply and lay 30Mpa Concrete pavement	m ²	45		
	(iii)supply and lay 40Mpa Concrete pavement	m ²	45		
	(a) Mild steel bars	t	1300.00		
	(b) High-tensile steel bars	t	1300.00		
	(c) Welded steel fabric	kg	25.00		
TOTAL CARRIED TO SUMMARY					
PART SA					

	SECTION 3				
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	DAYWORKS				
	Section C100				
C10.01	Personnel during normal working hours:				
	(a) Unskilled labour	hr	50.00		
	(b) Semi-skilled labour	hr	50.00		
	(c) Skilled labour	hr	50.00		
	(e) Flag-person	hr	50.00		
C10.03	Plant: (Working)				
	(a) Tipper trucks:	hr	50.00		
	(i) 6 m ³ capacity	hr	50.00		
	(ii) 10 m ³ capacity	hr	50.00		
	(b) TLB	hr	50.00		
	(c) Front end loader				
	(d) Grader CAT (Cat 140G or similar)	hr	50.00		
	(e) Water truck (7 000 litre)	hr	50.00		
	(f) Vibratory roller (Bomag 212 or similar)	hr	50.00		
	(g) Pneumatic tyred roller (14 t)	hr	50.00		
	(h) Milling machine (2,0 m)	hr	50.00		
	(i) Recycling machine (2,0 m)	hr	50.00		
	(j) Screening Plant	hr	50.00		
	(k) Skidstear loader	hr	50.00		
	(l) 1 tonne Pick-up truck, single-cab withour canopy (Bakkie)	hr	50.00		
	(m) 2 tonne Pick-up truck, single-cab withour canopy (Bakkie)	hr	50.00		
C10.04	Materials:				
	(a) Procurement of materials	Prov.Sum	1,000.00	1.00	
	B18.04(a)	%			
	Materials				
C10.04	(a) Procurement of materials BSM:	sum	2300.00	1.00	
	(b) Contractor's handling costs, profit and all other charges in respect of item B18.04(a)	%			
	Materials				
C10.04	(a) Procurement of materials	sum	2300.00	1.00	
	(b) Contractor's handling costs, profit and all other charges in respect of item B18.04(a)	%			
TOTAL CARRIED TO SUMMARY (Page 2)					