

**SCHEDULE A: ROADWORKS**

## SECTION 1.2

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C1.2</b>	<b>GENERAL REQUIREMENTS AND PROVISIONS</b>						
<b>C1.2.1</b>	<b>Environmental Management</b>						
C1.2.1.1	Monitoring of compliance with and reporting on the EMP	month	10				
C1.2.1.2	Dedicated environmental officer (if specified in the Contract Documentation)						
<b>C1.2.2</b>	<b>Programming and Reporting</b>						
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum	1				
C1.2.2.2	Reviewing and updating a Scheme 1 Programme	month	3				
C1.2.2.3	Submission of a Scheme 2 Initial Programme	Lump Sum	1				
C1.2.2.4	Submission of a Scheme 2 Full Programme	Lumps Sum	1				
C1.2.2.5	Reviewing and updating a Scheme 2 programme every month	Lump Sum	1				
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	Lump Sum	1				
<b>C1.2.4</b>	<b>Stakeholder liaison</b>	month					
<b>C1.2.5</b>	<b>Safety</b>						
C1.2.5.1	Health and safety plan	lump sum	1				
C1.2.5.2	Implementation of health and safety plan	month	10				
<b>C1.2.6</b>	<b>Work adjacent to properties</b>						
C1.2.6.1	Survey of adjacent properties	No	32				
C1.2.6.2	Preventive and/or mitigation measures	Prov Sum	1		100 000.00		100 000.00
C1.2.6.3	Handling cost, profit and all other charges in respect of item C1.2.6.2	%	R100 000.00				
<b>C1.2.7</b>	<b>Road safety audits</b>						
C1.2.7.1	Stage 4 work zone traffic management audit	Prov Sum	1		150 000.00		150 000.00
C1.2.7.2	Handling cost, profit and all other charges in respect of item C1.2.6.1	%	R150 000.00				
C1.2.7.3	Stage 5 pre-opening stage traffic safety audit	Prov Sum	1		20 000.00		20 000.00
C1.2.7.4	Handling cost, profit and all other charges in respect of item C1.2.6.3	%	R 20 000.00				
<b>C1.2.8</b>	<b>Dayworks</b>						
C1.2.8.1	Personnel						
(a)	Unskilled labourer	hour	40				
(b)	Semi-skilled labourer	hour	40				
(c)	Skilled labourer	hour	40				
(d)	Gang leader	hour	40				
(e)	Foreman	hour	48				
(f)	Skilled Artisan	hour	48				
C1.2.8.2	Construction equipment (specify size and/or model number)						
(a)	Motor grader	hour	24				
(b)	Vibratory roller	hour	24				
(c)	Pneumatic roller	hour	24				
(d)	Front end loader	hour	24				
(e)	Tractor loader backhoe	hour	24				
(f)	Excavator	hour	24				
(g)	Compressor	hour	24				
(h)	Other equipment (specify)	hour	24				
C1.2.8.3	Vehicles (specify size)						
(a)	Light delivery vehicle	km	50				
(b)	Flatbed truck	km	50				
(c)	Dump truck	km	50				
(d)	Other vehicles (specify)	km	50				
<b>TOTAL CARRIED FORWARD</b>							

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE R c	AMOUNT R c
<b>BROUGHT FORWARD</b>					
C1.2.8.4 (a)	Materials Procurement of materials	Prov Sum	1		
(b)	Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	%	R -		
<b>C1.2.9</b>	<b>Disposal of non-useable assets</b>				
C1.2.9.2 (a)	Disposal of non-useable assets identified in the Contract Documentation at time of tender Contract sign boards	No	2		
(b)	Any Materials, tools and equipments in the site camp to be disposed at the end of the contract	No	1		
C1.2.9.2	Disposal of non-useable assets not identified at time of tender	Prov Sum	1		
C1.2.9.3	Handling cost, profit and all other charges in respect of item C1.2.9.2	%	R -		
<b>C1.2.10</b>	<b>Provision of training for local students</b>				
(a)	Provisional sum for the payment of two (2) students from Tafelkop (R5000/student/ month)	Prov. Sum	1	100 000.00	100 000.00
(b)	Handling costs and profit in respect to sub-item C1.2.10	%	R100 000.00		
<b>C1.2.11</b>	<b>Contractor's obligation in respect of Training of Local Labourers</b>				
(a)	Technical skills	PC Sum	1	40 000.00	40 000.00
(b)	Generic and Entrepreneurial skills	PC Sum	1	40 000.00	40 000.00
(c)	Remuneration of workers and other Labourers including wages during training	PC Sum	1	30 000.00	30 000.00
(d)	Provision for accredited and approved training courses for selected Local labourers including wages during training	PC Sum	1	8 000.00	8 000.00
(d)	Contractor's handling costs, profit and all other charges in respect of Sub-item C1.2.11 (a), (b), (c) and (d)	%	118 000	0.10	11 800.00
<b>C1.2.12</b>	<b>Employer's Agent obligations in respect of Training Local SMME Contractors</b>				
(a)	Employer's Agent's mentoring and supervision of SMME contractors.	Month	10	25 000.00	250 000.00
(b)	SMME Training and development	No.	1	100 000.00	100 000.00
(c)	Compliance Workshop	No.	1	20 000.00	20 000.00
(d)	Risk management	No.	1	30 000.00	30 000.00
(d)	SMME Growth Support	No.	1	40 000.00	40 000.00
(e)	Contractor's handling costs, profit and all other charges in respect of Sub-item C1.2.12 (a), (b), (c), (d) and (e)	%	R440 000.00	0.10	44 000.00
(f)	Measurement and Evaluation	No.	1		
<b>C1.2.13</b>	<b>Contractor's obligations in respect of Training Local SMME Contractors</b>				
(a)	Contractor's Full-time mentoring and supervision of SMME contractors.	Month	10		
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>					

SECTION 1.3

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS						
C1.3.1	The Contractor's general obligations						
C1.3.1.1	Fixed obligations	Lump Sum	1				
C1.3.1.2	Value-related obligations	Lump Sum	1				
C1.3.1.3	Value-related obligations Time-related obligations	month	10				
C1.3.2	Contract sign boards (The rate shall include provision of 2 contract sign boards excluding erection)	m <sup>2</sup>	30				
C1.3.3	Contractor's obligations in respect of Local Emerging Contractors						
(a)	Provisional Sum for local SMME's Contractor (The rate shall include P&Gs and Works package for local SMMEs as per the BoQ approved by the Employer's Agent)	PC Sum	1	2 300 000.00		2 300 000.00	
(b)	Contractor's charge to allow for handling costs and profit in respect of subitem B12.03 (a)	%	R 2 300 000.00				
TOTAL CARRIED FORWARD TO SUMMARY A							

## SECTION 1.4

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE R c	AMOUNT R c
<b>C1.4</b>	<b>FACILITIES FOR THE ENGINEER</b>				
<b>C1.4.1</b>	<b>Site accommodation</b>				
C1.4.1.1	Offices and conference room	m <sup>2</sup>	68		
C1.4.1.2	Laboratories	m <sup>2</sup>	42		
C1.4.1.3	Open concrete working floors 150mm and verandas	m <sup>2</sup>	10		
C1.4.1.4	Roofs over open concrete working floors and verandas	m <sup>2</sup>	10		
C1.4.1.5	Store rooms inside the laboratory	m <sup>2</sup>	10		
C1.4.1.6	Car ports	No	2		
C1.4.1.7	Ablution unit	No	6		
C1.4.1.9	Kitchen unit (s specified under A1.4.7.1.g)	No	1		
C1.4.1.13	Rented housing paid for by the Contractor (Type C)	Prov Sum	1	60 000.00	60 000.00
C1.4.1.14	Contractor's handling costs, profit and all other charges in respect of item C1.4.1.13	%	R 60 000.00		
<b>C1.4.2</b>	<b>Items measured by area</b>				
C1.4.2.1	Shelving heavy duty	m <sup>2</sup>	1		
C1.4.2.3	Work-benches with a wooden top	m <sup>2</sup>	1		
C1.4.2.4	Constant-temperature baths of concrete and/or plastered brick	m <sup>2</sup>	2		
C1.4.2.5	Concrete footings and pedestals for laboratory equipment	m <sup>2</sup>	6		
C1.4.2.6	Roller blinds, opaque type	m <sup>2</sup>	6		
C1.4.2.7	Venetian blinds	m <sup>2</sup>	4		
C1.4.2.8	Notice boards	m <sup>2</sup>	2		
C1.4.2.9	White boards	m <sup>2</sup>	1		
C1.4.2.10	Galvanised wire mesh fencing for store rooms	m <sup>2</sup>	12		
C1.4.2.11	Galvanised wire mesh store room gate with a padlock	m <sup>2</sup>	4		
<b>C1.4.3</b>	<b>Items measured by number</b>				
C1.4.3.1	Office swivel chair	No	3		
C1.4.3.2	Office chair	No	15		
C1.4.3.3	Draughtsman's stool	No	1		
C1.4.3.4	Laboratory high chair	No	2		
C1.4.3.5	Office desk with 3 drawers (at least one lockable drawer)	No	3		
C1.4.3.7	Drawing table	No	1		
C1.4.3.8	Conference table	No	1		
C1.4.3.9	Bookcase	No	1		
C1.4.3.10	Filing cabinet	No	1		
C1.4.3.11	General purpose steel cabinet with shelves	No	1		
C1.4.3.12	Wall mounted pivot plan filing system	No	1		
C1.4.3.13	220/250 volt power outlet plug point	No	2		
C1.4.3.14	400/231 volt 3-phase power outlet plug point	No	2		
C1.4.3.15	Single 1 500 m, 58 watt fluorescent tube ceiling light	No	1		
C1.4.3.16	Single 1 500 mm, 22 watt LED tube ceiling light	No	1		
<b>TOTAL CARRIED FORWARD</b>					

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE R c	AMOUNT R c
BROUGHT FORWARD					
C1.4.3.18	7 watt LED bulb ceiling light	No	6		
C1.4.3.19	Wash-hand basin	No	1		
C1.4.3.20	Laboratory basin	No	2		
C1.4.3.21	Extractor fan	No	1		
C1.4.3.22	Fume cupboard	No	2		
C1.4.3.23	Fire extinguisher 9,0 kg, dry powder type	No	2		
C1.4.3.24	Air-conditioning unit	No	2		
C1.4.3.25	Heater	No	2		
C1.4.3.26	Concrete specimen curing bath	No	1		
C1.4.3.27	Waste paper basket	No	3		
C1.4.3.28	UPS / Voltage stabiliser	No	2		
C1.4.3.29	A3 / A4 colour printer, copier, scanner	No	1		
C1.4.3.30	A4 colour printer, copier, scanner	No	1		
C1.4.3.31	Rain gauge	No	1		
C1.4.3.32	Minimum/maximum atmospheric temperature gauge	No	1		
C1.4.3.33	Digital thermometer	No	1		
C1.4.3.34	Mobile outdoor weather station	No	1		
C1.4.3.35	3,0 m aluminium straight edge complete with two measuring wedges	No	1		
C1.4.3.36	Measuring wheel	No	1		
C1.4.3.37	First aid kit	No	1		
C1.4.3.38	Standpipe complete with 30 m of 19 mm dia. heavy duty hose pipe	No	1		
<b>C1.4.4</b>	<b>Prime cost items</b>				
C1.4.4.1	Cell phones costs, including pro-rata rentals, for calls made in connection with contract administration	PC Sum	1	42 000.00	42 000.00
C1.4.4.2	Handling costs and profit in respect of item C1.4.4.1	%	R 42 000.00		
C1.4.4.5	The provision of internet connectivity and WiFi data for Engineer's site staff	PC Sum	1	10 000.00	10 000.00
C1.4.4.6	Handling costs and profit in respect of item C1.4.4.5	%	R 10 000.00		
C1.4.4.7	The provision of paper and ink for a combination colour printer/copier/scanner	PC Sum	1	10 000.00	10 000.00
C1.4.4.8	Handling costs and profit in respect of item C1.4.4.7	%	R 10 000.00		
C1.4.4.9	The provision of a complete 220/250 volt single phase electrical power installation, including all poles, insulators, wiring, switchboards, mains connections, meters etc.	PC Sum	1	20 000.00	20 000.00
C1.4.4.10	Handling costs and profit in respect of item C1.4.4.9	%	R 20 000.00		
C1.4.4.11	The provision of a complete 440/231 volt three phase electrical power installation, including all poles, insulators, wiring, switchboards, mains connections, meters etc.	PC Sum	1	20 000.00	20 000.00
C1.4.4.12	Handling costs and profit in respect of item C1.4.4.11	%	R 20 000.00		
C1.4.4.13	Provision of a 440/231 volt three phase electricity generator if electricity from a power supply authority is not available on site	PC Sum	1	55 000.00	55 000.00
C1.4.4.14	Handling costs and profit in respect of item C1.4.4.13	%	R 55 000.00		
<b>C1.4.5</b>	<b>Services at site offices, laboratories and site accommodation</b>				
C1.4.5.1	Fixed costs	lump sum	1	25 000.00	25 000.00
C1.4.5.2	Running costs	month	10		
TOTAL CARRIED FORWARD					

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE R c	AMOUNT R c
BROUGHT FORWARD					
<b>C1.4.6</b>	<b>Office staff</b>				
C1.4.6.1	Secretary / receptionist	month	10		
C1.4.6.2	Technical assistant	month	10		
<b>C1.4.7</b>	<b>Site inspection transport</b>				
C1.4.7.1	Provision of a bus, mini-bus or combi van for site inspection purposes (11 seaters)	per day	85		
C1.4.7.2	Travel on site	km	2500		
<b>C1.4.8</b>	<b>Site security measures for the Engineer's facilities</b>				
C1.4.8.1	Supply and installation of all required security measures at the Engineer's site offices and laboratories	lump sum	1		
C1.4.8.2	Provision of security guards / watchmen and an armed response service at the Engineer's site offices and laboratories	month	10		
C1.4.8.3	Supply and installation of all required security measures at the Engineer's site accommodation	lump sum	1		
C1.4.8.4	Provision of security guards / watchmen and an armed response service at the Engineer's site accommodation	month	10		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 1.5

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C1.5</b>	<b>ACCOMMODATION OF TRAFFIC</b>				
<b>C1.5.1</b>	<b>Accommodation of pedestrian and non-motorised traffic</b>				
C1.5.1.1	Accommodation of pedestrian and non-motorised traffic	Month	10		
C1.5.1.2	Construction of temporary pedestrian walkways and cycle paths (a) Gravel surfaced pedestrian walkways / cycle paths	m <sup>2</sup>	1500.00		
<b>C1.5.2</b>	<b>Accommodation of vehicular traffic</b>	Month	10		
<b>C1.5.3</b>	<b>Liaison with traffic authorities</b>	Month	10		
<b>C1.5.4</b>	<b>Construction of temporary deviations</b>				
1.5.4/C2.1	Existing Services location, detection and verification				
1.5.4/C2.1.1	Using hand excavation to locate, expose and verify services	m <sup>3</sup>	25.00		
<b>C1.5.5</b>	<b>Maintenance of temporary deviations</b> (as ordered by the Employer's Agent in writing)				
C1.5.5.1	Grass cutting	ha	1.40		
C1.5.5.4	Collection of rubbish / litter	km	2.00		
C1.5.5.9	Grading of temporary deviations and existing roads used as detours	km	2.00		
C1.5.5.10	Watering of temporary deviations and existing roads used as detours	kl	7500.00		
C1.5.5.11	Other road maintenance work ordered by the Engineer	Prov Sum	1.00	100 000.00	100 000.00
C1.5.5.12	Handling cost, profit and all other charges in respect of item C1.5.5.11	%	R100 000.00		
<b>C1.5.6</b>	<b>Removal of temporary deviations</b>	km	2.00		
<b>C1.5.7</b>	<b>Temporary traffic control facilities</b>				
C1.5.7.1	Delineators including mounting bases and ballast:				
(a)	Single sided, reversible left or right ((DTG50J) 250 x 1000)	No	60.00		
(b)	Double sided, reversible left or right ((DTG50J) 250 x 1000)	No	30.00		
C1.5.7.2	Traffic cones, minimum height 750 mm	No	40.00		
C1.5.7.3	Flagmen	man-shift	5760.00		
C1.5.7.4	Traffic controllers	man-shift	2380.00		
C1.5.7.5	Provision of illuminated traffic signs:				
(a)	Sign mounted flashing amber lights (2 lights with the specified power supply) mounted on a backing board which is:				
(i)	900 mm wide x 150 mm high	No	4.00		
(b)	Flashing LED illuminated arrow board	No	4.00		
(c)	Illuminated road sign – R & TR series (1200mm)	No	4.00		
(d)	Illuminated road sign – TW series (1500mm sides)	No	4.00		
C1.5.7.6	Maintenance of illuminated traffic signs:				
(a)	Sign mounted flashing amber lights (a pair of two lights mounted on a separate backing board)				
(b)	Flashing LED illuminated arrow board	Month	10.00		
(c)	Illuminated road sign – R & TR series (1200mm)	Month	10.00		
(d)	Illuminated road sign – TW series (1500mm sides)	Month	10.00		
<b>C1.5.8</b>	<b>Traffic safety officer</b>	Man-month	10.00		
<b>C1.5.9</b>	<b>Traffic safety vehicle</b>	month	10.00		
<b>TOTAL CARRIED FORWARD</b>					



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
BROUGHT FORWARD					
C1.5.11	Provision of safety equipment for visitors				
C1.5.11.1	Provision of reflective safety vests for visitors	No	20.00		
C1.5.11.2	Provision of hard hats for visitors	No	20.00		
C1.5.12	Additional traffic accommodation facilities ordered by the Engineer:				
C1.5.12.1	Provision of additional traffic accommodation facilities	Prov Sum	1.00	50 000.00	50 000.00
C1.5.12.2	Handling cost, profit and all other charges in respect of item C1.5.12.1	%	R 50 000.00		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 1.6

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C1.6</b>	<b>CLEARING AND GRUBBING</b> (This activities shall be done by SMME Subcontractors under the contractor's supervision except where the use of special plants is required)				
<b>C1.6.1</b>	<b>Clearing</b>				
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	9.2		
C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	1		
C1.6.1.3	Clearing for new fence lines (over a width of 2,0 m)	km	1		
C1.6.1.4	Clearing for service trenches (max 600mm width)	m <sup>2</sup>	600		
<b>C1.6.2</b>	<b>Grubbing</b>				
C1.6.2.1	Grubbing with machines and some hand labour where necessary	ha	9.2		
C1.6.2.2	Grubbing with hand labour only when labour enhanced work is specified	ha	1		
C1.6.2.3	Grubbing for new fence lines (over a width of 2,0 m)	km	1		
C1.6.2.4	Grubbing for service trenches (max 600mm width)	m <sup>2</sup>	600		
<b>C1.6.3</b>	<b>Removal and grubbing of large trees and tree stumps:</b>				
C1.6.3.1	Girth equal to or exceeding 1,0 m up to and including 2,0 m	No	10		
C1.6.3.2	Girth exceeding 2,0 m up to and including 3,0 m	No	2		
C1.6.3.4	Removal of trees in forests and plantations	ha	0.5		
<b>C1.6.7</b>	<b>Re-clearing of previously cleared areas</b>	ha			Rate only
<b>C1.6.10</b>	<b>Disposal of hazardous waste material:</b>				
C1.6.10.1	Disposal of hazardous waste material at an approved hazardous waste material facility	Prov Sum	1		
C1.6.10.2	Handling cost, profit and all other charges in respect of item C1.6.10.1	%	R -		
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>					

SECTION 1.7

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C1.7</b>	<b>CLEARING AND GRUBBING</b>				
C1.7.1	Loading from stockpile using machines and some hand labour where necessary	m <sup>2</sup>	5 000.00		
C1.7.2	Loading from heaps or windrows using machines and/some hand labour where necessary	m <sup>2</sup>	2 000.00		
C1.7.3	Loading by hand only from stockpile or heaps when labour enhancement work is specified or it is not possible to use machines	m <sup>2</sup>	2 000.00		
<b>C1.7.2</b>	<b>Hauling</b>				
C1.7.2.1	Hauling material for use in the Works and off-loading it on the site of the Works:				
(a)	Soil, gravel, crushed stone and pavement layer material	m <sup>3</sup> - km	35 000.00		
(b)	Boulders and hard material	m <sup>3</sup> - km	4 500.00		
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil or stockpile area:				
(a)	Cleared and grubbed material (organic matter and all other unsuitable or waste material	m <sup>3</sup> - km	48 000.00		
(b)	Soil and gravel material	m <sup>3</sup> - km	12 000.00		
(c)	Boulders, hard material and concrete	m <sup>3</sup> - km	8 500.00		
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>					

## SECTION 2.1

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C2.1</b>	<b>GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES</b>				
<b>C2.1.1</b>	<b>Location, identification, protection and relocation of existing services</b>				
C2.1.1.1	Contractor's obligations	Lump Sum	1		
C2.1.1.2	Permanent services relocation or protection work by others	PC Sum	1	30 000.00	30 000.00
C2.1.1.3	Handling costs and profit in respect of item C2.1.1.2 above	%	R 30 000.00		
C2.1.1.4	Permanent services relocation or protection work by the Contractor	Prov Sum	1		
<b>C2.1.2</b>	<b>Existing Services location, detection and verification</b>				
C2.1.2.5	Using hand excavation to locate, expose and verify services	m <sup>3</sup>	150		
<b>C2.1.3</b>	<b>Obtaining construction or work permits</b>				
<b>C2.1.4</b>	<b>Provision of guarantees or deposits for services</b>				
C2.1.4.1	Providing guarantees and deposits	PC Sum	1	15 000.00	15 000.00
C2.1.4.2	Handling costs and profit in respect of item C2.1.4.1 above	%	R 15 000.00		
<b>C2.1.5</b>	<b>Provision of record drawings and applicable data</b>				
<b>C2.1.6</b>	<b>Trench excavation (in soft material)</b>				
C2.1.6.1	Trenches up to 1,0 m wide				
(a)	Up to 1,0 m deep	m <sup>3</sup>	5250		
(b)	Over 1,0 m and up to 2,0 m deep	m <sup>3</sup>	30		
(c)	Over 2,0 m deep etc. to be inserted, increased by additional 1,0 m depths as required	m <sup>3</sup>			Rate Only
C2.1.6.2	Trenches over 1,0 m and up to 2,0 m wide				
(a)	Up to 1,0 m deep	m <sup>3</sup>			Rate Only
(b)	Over 1,0 m and up to 2,0 m deep	m <sup>3</sup>			Rate Only
(c)	Over 2,0 m deep etc., increased by additional 1,0 m depths as required	m <sup>3</sup>			Rate Only
<b>C2.1.7</b>	<b>Extra over items C2.1.6, C2.1.8 and C2.1.16 for excavating in:</b>				
C2.1.7.1	Hard material irrespective of depth	m <sup>3</sup>	450		
C2.1.7.2	Stabilised material irrespective of depth	m <sup>3</sup>			Rate only
<b>C2.1.9</b>	<b>Trench excavation using labour enhanced construction methods</b>				
C2.1.9.1	Trenches up to 1,0 m wide (in soft material)				
(a)	Up to 1,0 m deep	m <sup>3</sup>	150		
(b)	Over 1,0 m and up to 1,5 m deep	m <sup>3</sup>	20		
C2.1.9.2	Trenches over 1,0 m and up to 2,0 m wide (in soft material)				
(a)	Up to 1,0 m deep	m <sup>3</sup>	120		
(b)	Over 1,0 m and up to 1,5 m deep	m <sup>3</sup>	30		
C2.1.9.3	Trenches up to 1,0 m wide (in intermediate material)				
(a)	Up to 1,0 m deep	m <sup>3</sup>	52		
(b)	Over 1,0 m and up to 1,5 m deep	m <sup>3</sup>	36		
C2.1.9.4	Trenches over 1,0 m and up to 2,0 m wide (in intermediate material)				
(a)	Up to 1,0 m deep	m <sup>3</sup>	46		
(b)	Over 1,0 m and up to 1,5 m deep	m <sup>3</sup>	31		
<b>TOTAL CARRIED FORWARD</b>					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>BROUGHT FORWARD</b>					
<b>C2.1.11</b>	<b>Backfilling of trenches</b>				
C2.1.11.1	Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material:				
(a)	From the excavated trench material	m <sup>3</sup>	125		
(b)	From other excavations on site	m <sup>3</sup>			Rate only
(c)	From approved borrow areas	m <sup>3</sup>	85		
(d)	From sources provided by the Contractor	m <sup>3</sup>			Rate only
(e)	From commercial sources (G2)	m <sup>3</sup>	84		
C2.1.11.2	Backfill compacted to 90 % (100 % for sand) of MDD or complying with the DCP requirements of Clause A2.1.8.2c) (areas not subject to traffic loads) using material:				
(a)	From the excavated trench material	m <sup>3</sup>	6300		
(b)	From other excavations on site	m <sup>3</sup>			Rate only
(c)	From approved borrow areas	m <sup>3</sup>	2430		
(d)	From sources provided by the Contractor	m <sup>3</sup>			Rate only
(e)	From commercial sources (state material type)	m <sup>3</sup>	520		
<b>C2.1.17</b>	<b>Removal and disposal of spoil material from trench excavations:</b>				
C2.1.17.1	To spoil sites provided by the Employer as indicated in the Contract Documentation or as instructed by the Engineer	m <sup>3</sup>			Rate only
C2.1.17.2	To spoil sites or dumping areas provided by the Contractor	m <sup>3</sup>	130		
<b>C2.1.19</b>	<b>Dealing with water during services work</b>				
C2.1.19.1	Dealing with surface water	Lump Sum	1		
C2.1.19.2	Dealing with subsurface water	Lump Sum	1		
<b>C2.1.20</b>	<b>Specified temporary works to control water inflow</b>				
C2.1.20.1	Provide equipment	Lump Sum	1		
C2.1.20.2	Operate and maintain	day	60		
C2.1.20.3	Remove equipment	Lump Sum	1		
<b>C2.1.25</b>	<b>Removal of existing services:</b>				
C2.1.25.1	water PVC pipe 110mm	m	50		
<b>C2.1.26</b>	<b>Disposal of existing services materials:</b>				
C2.1.25.1	water PVC pipe 110mm	m	20		
<b>C2.1.27</b>	<b>Demolition of existing manholes, access chambers and other service structures consisting of:</b>				
C2.1.27.1	Unreinforced concrete	m <sup>3</sup>	80		
C2.1.27.2	Reinforced concrete	m <sup>3</sup>	120		
C2.1.27.3	Masonry	m <sup>3</sup>	40		
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>					

SECTION 2.3

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
C2.3	WET SERVICES				
C2.3.36	Relocation of existing water and sewerline The rate include relocation of any wet services not include in the drawings	PC Sum	1	350 000.00	350 000.00
C2.4.5	Handling costs and profit in respect of item C2.4.4 above if work done by other contractors	%	R 350 000.00		
TOTAL CARRIED FORWARD TO SUMMARY A					

SECTION 2.4

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
C2.4	ENERGY AND OTHER SERVICES				
C2.4.4	Relocation of existing Eskom powerline The rate include relocation of 5 Eskom powerline pole including one transformer	PC Sum	1	500 000.00	500 000.00
C2.4.5	Handling costs and profit in respect of item C2.4.4 above	%	R 500 000.00		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 3.1

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C3.1</b>	<b>DRAINS</b>				
<b>C3.1.1</b>	<b>Excavation for open drain:</b>				
<b>C3.1.1/1.6.1</b>	<b>Clearing</b>				
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	1		
C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.1		
<b>C3.1.1/4.2.5</b>	<b>Excavating of materials in designated excavations, material obtained from</b>				
C4.2.5.1	Soft excavation	m <sup>3</sup>	3240		
C4.2.5.2	Boulder excavation class A	m <sup>3</sup>	1620		
C4.2.5.3	Boulder excavation class B	m <sup>3</sup>			Rate only
C4.2.5.4	Hard excavation (other than by blasting)	m <sup>3</sup>	350		
C4.2.5.5	Hard excavation (by blasting)	m <sup>3</sup>	894		
C3.1.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods:				
(a)	0 m to 1,5 m	m <sup>3</sup>	350		
C3.1.1.2	Extra over sub-item C3.1.1.1 for excavation in hard and boulder material, irrespective of depth	m <sup>3</sup>	150		
C3.1.1.4	Excavating soft material situated 0 m to 1,5 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	250		
C3.1.1.5	Excavating intermediate material situated 0 m to 1,5 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	120		
<b>C3.1.1/5.2.9</b>	<b>Removal of oversize material</b>	m <sup>3</sup>	530		
<b>C3.1.1/4.2.12</b>	<b>Finishing the side slopes</b>				
C4.2.12.1	Cuttings:				
(a)	In soft material	m <sup>2</sup>	5200		
(b)	In boulder material class A and B	m <sup>2</sup>	340		
(c)	In hard material	m <sup>2</sup>	260		
(d)	In soft material using labour enhanced methods of construction	m <sup>2</sup>	1200		
C4.2.12.2	Designated excavations	m <sup>3</sup>	600		
C4.2.12.3	Designated excavations using labour enhanced methods of construction	m <sup>3</sup>	210		
<b>C3.1.2</b>	<b>Clearing, shaping and disposal of accumulated sediment in existing unlined open drains</b>				
C3.1.2.1	Using conventional methods	m <sup>3</sup>	319		
C3.1.2.2	Using labour enhanced construction methods	m <sup>3</sup>	213		
<b>C3.1.3</b>	<b>Excavation, clearing and disposal of accumulated sediment in existing lined drains and drainage systems</b>				
C3.1.3.1	Using conventional methods (up to 1,5 m):				
(a)	Manholes and inlet and outlet structures	m <sup>3</sup>	186		
(b)	Culvert barrels	m <sup>3</sup>	85		
(c)	Concrete or other lined side drains	m <sup>3</sup>	46		
<b>TOTAL CARRIED FORWARD</b>					



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>BROUGHT FORWARD</b>					
C3.1.3.2	Using conventional methods (in excess of 1,5 m):				
(a)	Manholes and inlet and outlet structures	m <sup>3</sup>	12		
(b)	Culvert barrels	m <sup>3</sup>	12		
(c)	Concrete or other lined side drains	m <sup>3</sup>	15		
C3.1.3.3	Using labour enhanced construction methods:				
(a)	Manholes and inlet and outlet structures	m <sup>3</sup>	23		
(b)	Culvert barrels	m <sup>3</sup>	12		
(c)	Concrete or other lined side drains	m <sup>3</sup>	12		
<b>C3.1.4</b>	<b>Excavation and disposal of material for subsoil drainage systems:</b>				
C3.1.4.1	Excavating in all material situated within the following depth ranges below the surface:				
(a)	0 m to 1,5 m	m <sup>3</sup>	830		
C3.1.4.2	Excavating soft material situated within 0 m to 1,5 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	132		
C3.1.4.3	Excavating intermediate material situated within 0 m to 1,5 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	85		
C3.1.4.4	Extra over sub-item C3.1.4.1 for excavation in hard and boulder material, irrespective of depth	m <sup>3</sup>	390		
<b>C3.1.5</b>	<b>Impermeable backfilling to subsoil drainage systems</b>				
C3.1.5.1	Un-stabilised natural gravel obtained from approved sources on the site	m <sup>3</sup>	580		
C3.1.5.2	G5 material obtained from commercial sources	m <sup>3</sup>			Rate only
C3.1.5.3	Extra over items C3.1.5.1 and C3.1.5.2 for stabilisation with 4,0 % CEM II (32.5) cement	m <sup>3</sup>	340		
<b>C3.1.6</b>	<b>Construction of banks and dykes:</b>				
C3.1.6.1	Banks and dykes using conventional methods	m <sup>3</sup>	162		
C3.1.6.2	Banks and dykes using labour enhanced construction methods	m <sup>3</sup>	270		
<b>C3.1.7</b>	<b>Natural permeable material in subsoil drainage systems (approved crushed stone):</b>				
C3.1.7.1	Crushed stone obtained from approved sources on the site (19mm)	m <sup>3</sup>			Rate only
C3.1.7.2	Crushed stone obtained from commercial sources (19mm)	m <sup>3</sup>	485		
<b>C3.1.8</b>	<b>Natural permeable material in subsoil drainage systems (approved natural sand):</b>				
C3.1.8.1	Natural sand obtained from approved sources	m <sup>3</sup>			Rate only
C3.1.8.2	Natural sand from commercial sources	m <sup>3</sup>	235		
<b>C3.1.9</b>	<b>Pipes in subsoil drainage systems:</b>				
C3.1.9.1	U-PVC pipes and fittings, normal duty, complete with couplings (state size and whether or not perforated or slotted)	m	600		
<b>C3.1.10</b>	<b>Polymer film sheeting or similar approved material, for lining subsoil drainage systems:</b>				
C3.1.10.1	0,15 mm thick	m <sup>2</sup>	1150		
<b>C3.1.11</b>	<b>Geotextiles (grade A5)</b>	m <sup>2</sup>	1150		
<b>TOTAL CARRIED FORWARD</b>					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
BROUGHT FORWARD					
C3.1.13	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:				
C3.1.13.1	Outlet structures	No	6		
C3.1.13.2	Inspection boxes	No	10		
C3.1.13.3	Junction boxes	No	21		
C3.1.13.4	Cleaning eyes	No	10		
C3.1.14	Caps for subsoil drain pipes:				
C3.1.14.1	Concrete caps	No	15		
C3.1.22	Test flushing of subsoil drain pipe systems	No	6		
C3.1.23	Subsoil drain outlet marker	No	6		
C3.1.24	Submission of as built drawings by the Contractor	Prov Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 3.2

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C3.2</b>	<b>CULVERTS</b>				
<b>C3.2.1</b>	<b>Excavation for culvert structures:</b>				
<b>C3.2.1/C1.6</b>	<b>Clearing</b>				
C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	0.05		
C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.08		
<b>C3.2.1/C4.2</b>	<b>Excavating of materials in designated excavations, material obtained from</b>				
C4.2.5.1	Soft excavation	m <sup>3</sup>	450		
C4.2.5.2	Boulder excavation class A	m <sup>3</sup>	150		
C4.2.5.3	Boulder excavation class B	m <sup>3</sup>	150		
C4.2.5.4	Hard excavation (other than by blasting)	m <sup>3</sup>	100		
C4.2.5.5	Hard excavation (by blasting)	m <sup>3</sup>	40		
C3.2.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods:				
(a)	0 m to 1,5 m	m <sup>3</sup>	20		
C3.2.1.2	Excavating soft material 0 m to 1,5 m below the surface level using labour enhanced construction methods, or instructed by hand under Clause A3.2.7.2d):	m <sup>3</sup>	20		
C3.2.1.3	Excavating intermediate material 0 m to 1,5 m below the surface level using labour enhanced construction methods, or instructed by hand under Clause A3.2.7.2d):	m <sup>3</sup>	35		
C3.2.1.4	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	m <sup>3</sup>	30		
C3.2.1.5	Extra over sub-item C3.2.1.1 for excavation in stabilised existing road layers, irrespective of depth	m <sup>3</sup>	10		
<b>C3.2.2</b>	<b>Backfilling:</b>				
C3.2.2.1	Using the excavated material	m <sup>3</sup>	150		
C3.2.2.2	Using imported selected material:				
(a)	From commercial sources (G5)	m <sup>3</sup>			Rate only
(b)	From sources on site (G5)	m <sup>3</sup>	250		
C3.2.2.3	Extra over sub-items C3.2.2.1 and C3.2.2.2 for soil cement backfilling				
(b)	With dry mixture of 3 % cement	m <sup>3</sup>	50		
(c)	Variation in cement	kg	1500		
C3.2.2.4	Extra over sub-items C3.2.2.1 and C3.2.2.2 for screed layers (class of concrete indicated)	m <sup>3</sup>	12		
<b>C3.2.3</b>	<b>Concrete pipe culverts:</b>				
C3.2.3.1	On Class A bedding (type and diameter indicated)				
i)	450mm dia pipe (Class 100D)	m	400		
ii)	525mm dia pipe (Class 100D)	m			Rate only
iii)	600mm dia pipe (Class 100D)	m	3500		
iv)	675mm dia pipe (class 100D)	m			Rate only
v)	750mm dia. (Class 100D)	m			Rate only
vi)	1050mm dia. (Class 100D)	m	200		
vii)	1500mm dia. (Class 100D)	m			Rate only
<b>TOTAL CARRIED FORWARD</b>					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
BROUGHT FORWARD					
C3.2.5	Rectangular culverts with prefabricated elements:				
C3.2.5.1	Prefabricated portal culverts; wall and roof combination (size and type indicated)	m	30		
C3.2.6	Extra over items C3.2.3, C3.2.4 and C3.2.5 for constructing inclined culverts	m	10		
C3.2.7	Cast in situ concrete and formwork:				
C3.2.7.1	In Class A bedding, screeds, concrete backfill and the encasing for pipes, including formwork, (class 25/19)	m <sup>3</sup>	20		
C3.2.7.2	In complete in situ floor slabs for rectangular culverts, manholes and catchpits including formwork, joints and Class U2 surface finish (class 25/19) (installed at a standard depth of 1,0 m)	m <sup>3</sup>	70		
C3.2.7.3	In walls, excluding formwork but including Class U2 surface finish (class 25/19)	m <sup>3</sup>	65		
C3.2.7.4	In roof slabs for rectangular culverts, excluding formwork but including Class U2 surfacing finish and joints (class 25/19)	m <sup>3</sup>	85		
C3.2.7.5	In inlet and outlet structures including kerbs, chutes and downpipes, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including Class U2 surfacing finish (class 25/19)	m <sup>3</sup>			Rate only
C3.2.7.6	Formwork of concrete under items C3.2.7.3 to 5 above (smooth)	m <sup>2</sup>	240		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 3.3

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C3.3</b>	<b>CONCRETE KERBING AND CHANNELLING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS</b>				
<b>C3.3.1</b>	<b>Concrete kerbing:</b>				
C3.3.1.1	Prefabricated kerbing SABS approved (class 25/19)				
(a)	(i) 300 x 150 x 50 Mountable kerb (fig 8a)	m	10550		
(b)	(ii) 100 x 250 Rectangular kerb (fig. 10)	m	200		
C3.3.1.2	Cast in situ kerbing				
(a)	(i) 300 x 200 x 50 Mountable kerb (class 25/19)	m	120		
(b)	(ii) 100 x 250 Rectangular kerb (class 25/19)	m	55		
<b>C3.3.3</b>	<b>Extra over items C3.3.1 for concrete kerbing or concrete kerbing and channeling on curves</b>				
C3.3.3.1	On curves of radii more than or equal to 5,0 m but less than 20 m	m	20		
C3.3.3.2	On curves with radii more than or equal to 1,0 m but less than 5,0 m	m	20		
C3.3.3.3	On curves with radii less than 1,0 m	m	20		
<b>C3.3.6</b>	<b>Concrete chutes (typical designs):</b>				
C3.3.6.1	Prefabricated concrete chutes (Class 25/19)	m			Rate only
C3.3.6.2	Cast in situ concrete chutes (Class 25/19)	m			Rate only
C3.3.6.3	Stone pitched chutes	m			Rate only
<b>C3.3.7</b>	<b>Cast in situ concrete chutes:</b>				
C3.3.7.1	Concrete (Class 25/19)	m <sup>3</sup>	350		
C3.3.7.2	Formwork				
	Class F1 surface finish	m <sup>2</sup>	70		
	Class U2 surface finish	m <sup>2</sup>	150		
C3.3.7.3	Stone pitched chutes				
(a)	Grouted stone pitching	m <sup>2</sup>	50		
(b)	Grouted stone pitching on a concrete bed (class 15/19)	m <sup>2</sup>	45		
<b>C3.3.8</b>	<b>Linings for open drains:</b>				
C3.3.8.1	Cast in situ concrete lining (Class 25/19)	m <sup>3</sup>	490		
C3.3.8.2	Class U2 surface finish to cast in situ concrete (trapezoidal drain)	m <sup>2</sup>	2840		
C3.3.8.3	Stone pitched lining (200 mm thickness)				
(a)	Grouted stone pitching (type of open drain indicated)	m <sup>2</sup>	540		
(b)	Grouted stone pitching on a concrete bed (class of concrete and type of open drain indicated)	m <sup>2</sup>	140		
<b>C3.3.9</b>	<b>Formwork to cast in situ concrete lining for open drains (Class F2 surface finish):</b>				
C3.3.9.1	To sides with formwork on the internal face only	m <sup>2</sup>			Rate only
C3.3.9.2	To sides with formwork on both internal and external faces	m <sup>2</sup>	540		
C3.3.9.3	To ends of slabs	m <sup>2</sup>	45		
<b>C3.3.10</b>	<b>Sealed joints in concrete and stone pitched linings of open drains (polysulphide drain)</b>	m	200		
<b>C3.3.11</b>	<b>Concrete screed or backfill below chutes (100mm, class 15/19)</b>	m <sup>3</sup>	80		
<b>C3.3.12</b>	<b>Reinforcement:</b>				
C3.3.12.3	(c.) Welded steel fabric	kg	3500		
<b>C3.3.13</b>	<b>Polymer film sheeting (thickness specified) for concrete-lined open drains</b>	m <sup>2</sup>	1200		
<b>TOTAL CARRIED FORWARD</b>					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
BROUGHT FORWARD					
C3.3.15	Energy dissipaters in outlet structures				
C3.3.15.1	Precast concrete blocks in outlet structures	No	6		
C3.3.15.2	Stones set in outlet structures	m <sup>2</sup>	350		
C3.3.16	Demolition and removal of existing kerbs and/or channel (specify maximum size)	m <sup>3</sup>	85		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 4.1

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C4.1</b>	<b>BORROW MATERIALS</b>				
<b>C4.1.1</b>	<b>Compiling and implementing M&amp;U plans</b>				
C4.1.1.1	For borrow pits (ref to geotechnical investigation report)	No	3		
C4.1.1.2	For quarries	No			Rate only
<b>C4.1.2</b>	<b>Additional material investigations during the supplementary exploration</b>				
C4.1.2.1	Cost of additional trial pits and/or drilling and laboratory testing	Prov Sum	1	50 000.00	50 000.00
C4.1.2.2	Handling costs and profit in respect of item C4.1.2.1	%	R 50 000.00		
<b>C4.1.3</b>	<b>Construction and maintenance of temporary haul and access roads</b>				
C4.1.3.1	Temporary unsealed roads	km	12		
C4.1.3.2	Cost to repair existing public roads or streets	Prov Sum	1		
C4.1.3.3	Handling cost and profit in respect of item C4.1.3.2	%	R -		
<b>C4.1.4</b>	<b>Removing of the overburden</b>				
C4.1.4.1	In borrow pits	m <sup>3</sup>	1200		
C4.1.4.2	In quarries:				
(a)	Soft material	m <sup>3</sup>			Rate only
(b)	Hard material (by blasting)	m <sup>3</sup>			Rate only
<b>C4.1.5</b>	<b>Excavating of materials in the borrow pits and quarries, material obtained from</b>				
C4.1.5.1	Soft excavation	m <sup>3</sup>	21400		
C4.1.5.2	Boulder excavation class A	m <sup>3</sup>	1200		
C4.1.5.3	Boulder excavation class B	m <sup>3</sup>	2200		
C4.1.5.4	Hard excavation (other than by blasting)	m <sup>3</sup>	2540		
C4.1.5.5	Hard excavation (by blasting)	m <sup>3</sup>	300		
<b>C4.1.6</b>	<b>Providing crushing, screening and related plants</b>				
C4.1.6.1	Single-stage crushing plant	No	1		
C4.1.6.2	Two-stage crushing plant	No			Rate only
C4.1.6.3	Multiple-stage crushing and screening plant	No	1		
C4.1.6.4	Screening plant	No			Rate only
<b>C4.1.7</b>	<b>Producing the material by</b>				
C4.1.7.1	Single-stage crushing	m <sup>3</sup>	500		
C4.1.7.2	Two-stage crushing	m <sup>3</sup>			Rate only
C4.1.7.3	Multiple-stage crushing including screening	m <sup>3</sup>	25400		
C4.1.7.4	Screening only	m <sup>3</sup>			Rate only
<b>C4.1.8</b>	<b>Moving and re-erecting the crushing, screening and related plants on the site</b>				
C4.1.8.1	Single-stage crushing plant	No	1		
C4.1.8.2	Two-stage crushing plant	No			Rate only
C4.1.8.3	Multiple-stage crushing and screening plant	No	1		
C4.1.8.4	Screening plant	No			Rate only
<b>C4.1.9</b>	<b>Breaking down oversize material</b>	m <sup>3</sup>	230		
<b>C4.1.10</b>	<b>Compacting the floor of the stockpile sites</b>				
<b>TOTAL CARRIED FORWARD</b>					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
BROUGHT FORWARD					
<b>C4.1.12</b>	<b>Stockpiling the material</b>				
C4.1.12.1	Material from a producing plant	m <sup>3</sup>	26000		
C4.1.12.2	Material directly from the excavation	m <sup>3</sup>	11000		
<b>C4.1.13</b>	<b>Removing surplus material from the stockpile</b>	m <sup>3</sup>	1200		
<b>C4.1.14</b>	<b>Removing the fill platform and temporary banks at the stockpile sites upon completion</b>				
C4.1.14.1	Fill platform	m <sup>3</sup>	50		
C4.1.14.2	Temporary banks	m <sup>3</sup>	30		
<b>C4.1.15</b>	<b>Shaping and finishing the borrow pit and quarry areas, and the stockpile sites</b>				
C4.1.15.1	Shaping and finishing the borrow pit and quarry areas, and the stockpile sites:				
(a)	Borrow pits (ref to geotechnical investigation report)	ha	1		Rate only
(b)	Quarries	ha			
(c)	Stockpile sites	ha	1		
C4.1.15.2	Finishing of the borrow pit and quarry areas, and the stockpile sites using labour enhanced methods of construction:				
(a)	Borrow pits (ref to geotechnical investigation report)	ha	0.01		Rate only
(b)	Quarries (list all quarries separately)	ha			
(c)	Stockpile sites	ha	0.01		
<b>C4.1.16</b>	<b>Personnel</b>				
C4.1.16.1	Materials manager	month	10		
C4.1.16.2	Excavation controller	month	10		
C4.1.16.3	Stockpile controller	month	10		
<b>C4.1.18</b>	<b>Compensation to landowners or legal occupants in respect of land acquisition, royalties and/or loss of crops</b>				
C4.1.18.1	Amount allowed, expenditure to be approved or instructed by the Employer	Prov Sum	1	100 000.00	
C4.1.18.2	Handling costs and profit in respect of item C4.1.18.1	%	R 100 000.00		
TOTAL CARRIED FORWARD TO SUMMARY A					



## SECTION 4.2

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C4.2</b>	<b>CUT MATERIALS</b>				
<b>C4.2.1</b>	<b>Compiling and implementing M&amp;U plans for the cuttings</b>				
C4.2.1.1	Cuttings exceeding 5 000 m <sup>3</sup> up to 10 000 m <sup>3</sup>	No			Rate only
<b>C4.2.2</b>	<b>Additional material investigations during the supplementary exploration</b>				
C4.2.2.1	Cost of additional trial pits and/or drilling and laboratory testing	Prov Sum	1	50 000.00	50 000.00
C4.2.2.2	Handling costs and profit in respect of item C4.2.2.1	%	R 50 000.00		
<b>C4.2.4</b>	<b>Excavating of materials in box cuts, material obtained from</b>				
C4.2.4.1	Soft excavation	m <sup>3</sup>	29000		
C4.2.4.2	Boulder excavation class A	m <sup>3</sup>	8000		
C4.2.4.3	Boulder excavation class B	m <sup>3</sup>			Rate only
C4.2.4.4	Hard excavation (other than by blasting)	m <sup>3</sup>	6600		
C4.2.4.5	Hard excavation (by blasting)	m <sup>3</sup>	2400		
<b>C4.2.7</b>	<b>Removal of unsuitable stable cut material to spoil</b>				
C4.2.7.1	In layer thicknesses of 200 mm and less	m <sup>3</sup>	14500		
C4.2.7.2	In layer thicknesses exceeding 200 mm	m <sup>3</sup>			Rate only
<b>C4.2.8</b>	<b>Excavate material to spoil in sites designated by the Contractor, material obtained from</b>				
C4.2.8.1	Soft excavation, overburden and unsuitable material	m <sup>3</sup>	12000		
C4.2.8.2	Boulder excavation class A	m <sup>3</sup>	3000		
C4.2.8.3	Boulder excavation class B	m <sup>3</sup>			
C4.2.8.4	Hard excavation (other than by blasting)	m <sup>3</sup>	2000		
<b>C4.2.12</b>	<b>Finishing the side slopes</b>				
C4.2.12.1	Cuttings:				
(a)	In soft material	m <sup>2</sup>	3200		
(b)	In boulder material class A and B	m <sup>2</sup>	1750		
(c)	In hard material	m <sup>2</sup>	530		
(d)	In soft material using labour enhanced methods of construction	m <sup>2</sup>	490		
TOTAL CARRIED FORWARD TO SUMMARY A					

SECTION 4.4

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
C4.4	COMMERCIAL MATERIALS				
C4.4.2	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers				
C4.4.2.1	Pavement layer material:				
(a)	Type G1 material	m <sup>3</sup>	7000		Rate only
(b)	Type G2 material	m <sup>3</sup>			
(c)	G7 materials	m <sup>3</sup>			Rate only
C4.4.2.3	Drainage blanket layer material	m <sup>3</sup>			Rate only
TOTAL CARRIED FORWARD TO SUMMARY A					

## SECTION 5.1

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C5.1</b>	<b>ROADBED</b>				
<b>C5.1.1</b>	<b>Roadbed construction and compaction</b>				
C5.1.1.1	Compaction of in-situ material to 90 % of MDD	m <sup>3</sup>	5600		
<b>C5.1.3</b>	<b>Excavate material to spoil sites designated by the Contractor</b>				
C5.1.3.1	Excavate material to spoil from roadbed construction, material obtained from:				
(a)	Soft excavation	m <sup>3</sup>	17500		
(b)	Boulder excavation Class A	m <sup>3</sup>	2500		
(c)	Boulder excavation Class B	m <sup>3</sup>			Rate only
(d)	Hard excavation (other than by blasting)	m <sup>3</sup>	1450		
(e)	Hard excavation (by blasting)	m <sup>3</sup>			Rate only
C5.1.3.2	Excavate material to spoil from roadbed construction, using labour enhancement, material obtained from:				
(a)	Soft excavation	m <sup>3</sup>	500		
(b)	Intermediate excavation	m <sup>3</sup>	200		
<b>C5.1.4</b>	<b>Removal of unsuitable material to spoil</b>				
C5.1.4.1	In layer thicknesses of 200 mm and less				
(a)	Stable material	m <sup>3</sup>	11800		
(b)	Unstable material	m <sup>3</sup>	1300		
C5.1.4.2	In layer thicknesses exceeding 200 mm				
(a)	Stable material	m <sup>3</sup>	340		
(b)	Unstable material	m <sup>3</sup>	135		
<b>C5.1.5</b>	<b>In-situ treatment of roadbed in hard material</b>				
C5.1.5.1	In-situ treatment by ripping	m <sup>3</sup>	4540		
C5.1.5.2	In-situ treatment by drilling and blasting	m <sup>3</sup>	2530		
C5.1.5.3	In-situ treatment by drilling and splitting the material using non-explosive, rock-breaking products	m <sup>3</sup>			Rate only
<b>C5.1.6</b>	<b>Roller-pass compaction</b>				
C5.1.6.1	Grid rollers	m <sup>2</sup>			Rate only
C5.1.6.2	Pad foot vibratory rollers	m <sup>2</sup>	56000		
C5.1.6.3	Smooth drum vibratory rollers	m <sup>2</sup>	1500		
C5.1.6.5	Impact rollers	m <sup>2</sup>	56000		
C5.1.6.6	Pneumatic rollers	m <sup>2</sup>			Rate only
C5.1.6.7	High energy impact compactor/roller (HEIC)	m <sup>2</sup>			Rate only
<b>C5.1.7</b>	<b>Construction of a roadbed trial section</b>				
C5.1.7.1	Non wetting-up collapsing soil trial section at in-situ moisture content using conventional rollers and/or HEIC	m <sup>3</sup>	300		
C5.1.7.2	Non wetting-up collapsing soil trial section by excavating the soil to stockpile and then importing the soil from the stockpile to controlled compacted layers	m <sup>3</sup>	300		
C5.1.7.3	Wetting-up collapsing soil trial section	m <sup>3</sup>	300		
C5.1.7.6	Roller-pass compaction.	m <sup>3</sup>	300		
<b>C5.1.13</b>	<b>Construction of a levelling layer</b>				
C5.1.13.1	Over roadbed treatment in hard material compacted to 90 % MDD	m <sup>3</sup>	150		
C5.1.13.2	Over a constructed pioneer layer compacted to 90 % MDD	m <sup>3</sup>	125		
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>					

## SECTION 5.2

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C5.2</b>	<b>FILL</b>						
<b>C5.2.1</b>	<b>Compiling and implementing M&amp;U plans</b>						
C5.2.1.2	For fills 1,0 km in length when less than 10 000 m <sup>3</sup>	No	2				
<b>C5.2.2</b>	<b>Fill construction</b>						
C5.2.2.1	Normal fill material in compacted layer thicknesses of 200 mm and less:						
(b)	Compacted to 93 % of MDD	m <sup>3</sup>	32500				
(c)	Roller-pass compaction	m <sup>2</sup>	14000				
C5.2.2.2	Coarse fill material in compacted layer thicknesses exceeding 200 mm: but less than 500 mm						
(b)	Compacted to 93 % of MDD	m <sup>3</sup>	5600				
(c)	Roller-pass compaction	m <sup>2</sup>	2870				
C5.2.2.5	Rock fill embankment toe	m <sup>3</sup>					Rate only
C5.2.2.6	Sand filter layer	m <sup>3</sup>	130				
C5.2.2.7	Drainage blanket layer	m <sup>3</sup>	600				
<b>C5.2.3</b>	<b>Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less</b>	m <sup>3</sup>	350				
<b>C5.2.5</b>	<b>Fill in sidewalk</b>						
C5.2.5.1	Fill material in sidewalk compacted to 93 % of MDD	m <sup>3</sup>	130				
C5.2.5.2	Fill material in sidewalk compacted to 93 % of MDD using labour enhanced methods of construction and light hand equipment.	m <sup>3</sup>	300				
<b>C5.2.7</b>	<b>Construction of a trial section</b>						
C5.2.7.1	Normal fill	m <sup>3</sup>	600				
C5.2.7.5	Roller-pass compaction	m <sup>3</sup>	600				
<b>C5.2.8</b>	<b>Breaking down oversize fill material on the road</b>						
C5.2.8.1	By normal grid rolling as per clause A5.3.7.3b) (i) to (vii)	m <sup>2</sup> -pass					Rate only
C5.2.8.3	By pad foot vibratory roller	m <sup>2</sup> -pass					Rate only
C5.2.8.4	By vibratory roller	m <sup>2</sup> -pass	45000				
<b>C5.2.9</b>	<b>Removal of oversize material</b>	m <sup>3</sup>	160				
<b>C5.2.10</b>	<b>Finishing off rock fill slopes</b>						
C5.2.10.1	Finishing off rock fill slopes with soft material	m <sup>3</sup>	150				
C5.2.10.2	Finishing off rock fill slopes with soft material using labour enhancement and light, hand equipment.	m <sup>3</sup>	380				
<b>C5.2.11</b>	<b>Finishing-off fill slopes, medians and interchange areas</b>						
C5.2.11.1	Fill slopes	m <sup>2</sup>	8200				
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>							

## SECTION 5.3

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C5.3</b>	<b>ROAD PAVEMENT LAYERS</b>						
<b>C5.3.1</b>	<b>Compiling and implementing M&amp;U plans for the construction of all the pavement layers</b>	No	1				
<b>C5.3.2</b>	<b>Construction of pavement layers</b>						
C5.3.2.1	Construction of layers using conventional construction methods:						
(a)	Lower selected subgrade layer (150mm G9) compacted to 93 % of MDD	m <sup>3</sup>	8400				
(e)	Sand layer (100mm) compacted to 97 % of MDD	m <sup>3</sup>	150				
(h)	Gravel shoulder layer (layer thickness indicated) compacted to 95 % of MDD	m <sup>3</sup>	1680				
(i)	Lower subbase gravel layer (unstabilised) (150mm G7) compacted to 95 % of MDD	m <sup>3</sup>	8100				
(l)	Upper subbase gravel layer (150mm C4) compacted to 97 % of MDD	m <sup>3</sup>	7200				
(y)	G2 crushed stone base layer (layer thickness indicated) compacted to 88 % of AD	m <sup>3</sup>	6100				
(aa)	G1 crushed stone base layer (layer thickness indicated) compacted to 88 % of AD	m <sup>3</sup>					Rate only
C5.3.2.2	Construction of layers using labour enhancement:						
(a)	Lower selected subgrade layer (layer thickness indicated) compacted to 93 % of MDD	m <sup>3</sup>					Rate only
(c)	Sand layer (layer thickness indicated) compacted to 97 % of MDD	m <sup>3</sup>	160				
<b>C5.3.9</b>	<b>Construction of a trial section</b>						
C5.3.9.1	Construction of a trial section using conventional methods of construction						
(a)	Stabilised gravel layer (150mm) trial section	m <sup>3</sup>	300				
(c)	Crushed stone base layer (layer thickness indicated) trial section	m <sup>3</sup>	300				
C5.3.9.2	Construction of a trial section using labour enhancement methods						
(a)	Stabilised gravel layer (layer thickness indicated) trial section	m <sup>3</sup>					Rate only
<b>C5.3.10</b>	<b>Removal of a completed trial section</b>						
C5.3.10.1	Stabilised layer	m <sup>3</sup>	300				
C5.3.10.3	Crushed stone layer	m <sup>3</sup>	300				
<b>C5.3.11</b>	<b>Riding quality measurements</b>						
C5.3.11.1	Using a 3,0 m straight edge	km	1500				
C5.3.11.2	Using a rolling straight edge	km	5600				
C5.3.11.3	Using an inertial profilometer	km					Rate only
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>							

SECTION 5.4

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C5.4	STABILISATION						
C5.4.1	Pretreatment of gravel layers						
C5.4.1.1	Pre-treatment of 125mm base gravel layer	m³	5800				
C5.4.1.2	Pre-treatment of (insert layer thickness) gravel layer using labour enhanced methods of construction	m³	1550				
C5.4.5	Cementitious stabilisation agents for pavement layers						
C5.4.5.1	Addition of cementitious stabilisation agents (specify agent separately) for pavement layers						
(a)	Cement CEM II (B-V) (V-S) 32.5N	t	90				
(b)	CEM V (A-V) 32.5N	t	80				
C5.4.5.2	Addition of cementitious stabilisation agents (specify agent separately) for pavement layers and spreading the agent using bags and labour enhancement methods.						
(a)	Cement CEM II (B-V) (V-S) 32.5N	t	315				
(b)	CEM V (A-V) 32.5N	t	10				
C5.4.14	Trial section for a chemically stabilised layer	m³	60				
TOTAL CARRIED FORWARD TO SUMMARY A							

SECTION 6.2

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C6.2	SEGMENTAL BLOCK PAVING LAYERS						
C6.2.1	Segmental block paving						
C6.2.1.1	Concrete block paving for side walk (SABS 1058 Class 35, type S-A, 80mm)	m <sup>2</sup>	2750				
C6.2.2	Cast in-situ concrete edge and intermediate beams	m <sup>3</sup>	110				
C6.2.3	Provision and application of approved herbicide and ant poison.						
C6.2.3.1	Provision of materials	PC Sum	1	10 000.00		10 000.00	
C6.2.3.2	Contractor's charges and profit added to the prime cost sum	%	R 10 000.00				
C6.2.4	Re sanding of joints in segmental block paving						
C6.2.4.1	Concrete block paving for side walk (SABS 1058 Class 35, type S-A, 80mm)	m <sup>2</sup>	2750				
TOTAL CARRIED FORWARD TO SUMMARY A							

SECTION 8.1

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C8.1	PRIME COAT						
C8.1.2	Aggregate for blinding:						
C8.1.2.1	Natural sand	m³	640				
C8.1.2.2	Crusher sand	m³	950				
C8.1.3	Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment	ℓ	37520				
TOTAL CARRIED FORWARD TO SUMMARY A							



## SECTION 9.1

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
					R	c
<b>C9.1</b>	<b>ASPHALT LAYERS</b>					
<b>C9.1.1</b>	<b>Asphalt mix designs</b>					
C9.1.1.1	Stone skeletal mixes:					
(a)	Continuously graded base or surfacing (13.2mm aggregate).	Lump Sum	1			
C9.1.1.2	Sand skeletal mixes:					
(a)	Continuously graded base or surfacing.	Lump Sum	1			
<b>C9.1.2</b>	<b>Construction of trial sections</b>					
C9.1.2.1	Asphalt layers (state mix type, layer thickness and placing technique (hand/paver))	m <sup>2</sup>	200			
C9.1.2.2	Removal of trial section where so instructed by the Engineer.	m <sup>2</sup>	200			
<b>C9.1.3</b>	<b>Application of bond coat</b>					
C9.1.3.1	Stable –grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributor	ℓ	37520			
C9.1.3.2	Applied in restricted areas using a portable pressure sprayer	ℓ	230			
C9.1.3.3	Applied by hand using brushes on all exposed transverse and longitudinal construction joints	ℓ	120			
<b>C9.1.5</b>	<b>Asphalt surfacing</b>					
C9.1.5.1	New construction					
(a)	Stone skeletal mix – continuously graded as defined (30mm, 13.2mm)	m <sup>2</sup>	48160			
<b>C9.1.6</b>	<b>Extra over pay item C.9.1.5.1 for placing small quantities of asphalt of less than 10 tons specially produced as specified in terms of Clause A9.1.7.1d)</b>	t	3			
<b>C9.1.7</b>	<b>Placing and compacting asphalt in restricted areas</b>					
C9.1.7.1	Extra over payment items C9.1.5.1 (30mm, hand)	m <sup>2</sup>	150			
<b>C9.1.8</b>	<b>Surfacing of bridge decks</b>					
C9.1.8.2	Surfacing (30mm layer thickness, stone skeletal, 13.2mm paver placing	t	42			
<b>C9.1.13</b>	<b>Coring of asphalt layers</b>					
C9.1.13.1	100 mm diameter	No	20			
C9.1.13.2	150 mm diameter	No				Rate only
<b>C9.1.14</b>	<b>Surface regularity testing as described in Clause A9.1.8.4</b>					
C9.1.14.1	Establishment of equipment: rolling straight-edge & three meter straight edge	No	2			
C9.1.14.2	Profiler Surveys utilising equipment as specified - Base layers and surfacing layers	km	11.2			
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>						

SECTION 11.1

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C11.1	PITCHING, STONEWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION						
C11.1.2	Stone pitching						
C11.1.2.2	Grouted stone pitching with mortar	m <sup>2</sup>	480				
C11.1.2.3	Grouted stone pitching on a concrete bed (100mm thickness)	m <sup>2</sup>	395				
C11.1.6	Concrete edge beams (Class 15/19)	m <sup>3</sup>	70				
C11.1.7	Provision of approved herbicide and ant poison:						
C11.1.7.1	Provision of materials	PC Sum	1	10 000.00		10 000.00	
C11.1.7.2	Contractor's charges and profit added to the prime cost sum	%	R 10 000.00				
TOTAL CARRIED FORWARD TO SUMMARY A							

SECTION 11.2

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Rc	Rc
C11.2	NON-STRUCTURAL GABIONS				
C11.2.1	Foundation trench excavation:				
C11.2.1.1	Excavating all material situated within the following depth ranges below the surface level				
(a)	0 m to 1,5 m	m³	54		Rate only
(b)	Exceeding 1,5 m and up to 3,0 m	m³			
C11.2.1.2	Extra over sub-item C11.2.1.1 for excavation in hard material, irrespective of depth	m³	32		
C11.2.1.3	Excavating soft material within 1,5 m below the surface level using labour enhanced construction methods:	m³	32		
C11.2.2	Surface preparation for bedding the gabion boxes and mattresses	m²	540		
C11.2.3	Gabion boxes and mattresses:				
C11.2.3.1	Galvanized gabion boxes (Mesh Type 80 to SANS 1580:2005, having 3,4mm o/d frame wire and 2,7mm o/d mesh wire:)				
	2,0m x 0,5m x 0,5m	m³	840		
C11.2.3.3	Galvanized gabion mattresses (Mesh Type 80 to SANS 1580:2005, having 3,4mm o/d frame wire and 2,7mm o/d mesh wire:)				
	4,0m x 1,0m x 0,3m	m³	75		
C11.2.4	Geotextile	m²	350		
TOTAL CARRIED FORWARD TO SUMMARY A					

SECTION 11.4

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C11.4	ROAD RESTRAINT SYSTEMS						
C11.4.1	Erecting of guardrails at 3,81 m spacing						
C11.4.1.1	Complete galvanized system compliant to SANS 1350:						
(a)	On timber posts (Drawing reference)	m	530				
(d)	Extra over C11.4.1.1(a) for excavating holes of posts using labour enhanced methods (soft and intermediate)	m	100				
C11.4.1.2	Terminal sections for 3,81 guardrails comprising of:						
(a)	End wings to SANS 1350	No	10				
(c)	Bridge adapters to SANS 1350	No	4				
C11.4.3	Project specific concrete barrier systems						
C11.4.3.2	Precast concrete barriers	m	450				
C11.4.6	Reflective plates						
C11.4.6.2	Plastic plates	number (No)	160				
TOTAL CARRIED FORWARD TO SUMMARY A							

## SECTION 11.5

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C11.5</b>	<b>FENCING</b>						
<b>C11.5.1</b>	<b>Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:</b>						
C11.5.1.1	Zinc-coated barbed wire (high tensile grade, 3,15mm x 2,50mm oval shape)	km	1.2				
C11.5.1.7	Standards (2,5kg/m, Y-shaped steel, 1850mm long)	No	10				
C11.5.1.8	Droppers (0,56kg/m ridgeback pattern steel, 1400mm long)	No	35				
C11.5.1.9	Straining posts, stays and anchors:						
(a)	Vertical						
(i)	Steel straining posts (101.6mm outside diameter, 2.95mm wall thickness fully galvanized with base plate and p	No	20				
(b)	Inclined						
(i)	Steel stays and anchors (60.33mm outside diameter, 2.95mm wall thickness, fully galvanised with base plate: 2	No	10				
(c)	Horizontal						
(i)	Steel stays and anchors (60mm diameter, 3,0mm wall thickness, fully galvanized 2 400mm long	No	10				
<b>C11.5.2</b>	<b>New gates (size and type indicated)</b>						
(a)	Single leaf, Government pattern farm gate (heavy) to CKS 146:						
(i)	4,2m wide; 1,4m high	No.	10				
(b)	Double leaf, 1 400mm high Government pattern farm gate (heavy) to CKS 146:						
(i)	2 x 4,2m wide	No.	5				
<b>C11.5.3</b>	<b>Moving existing fences and gates:</b>						
C11.5.3.1	Fences:						
(d)	Security fences	km					Rate only
C11.5.3.2	Gates (all types)	No					Rate only
<b>C11.5.4</b>	<b>Dismantling existing fences and gates:</b>						
C11.5.4.1	Fences:						
(d)	Security fences	km					Rate only
C11.5.4.2	Gates (all types)	No					Rate only
<b>C11.5.9</b>	<b>Repairing existing fences (all Types)</b>	km					Rate only
<b>C11.5.10</b>	<b>Disposal of existing fencing materials</b>						
C11.5.10.1	Type indicated (all types)	km	0.1				
C11.5.10.6	Gates (type indicated)	No	10				
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>							

## SECTION 11.6

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C11.6</b>	<b>ROADS SIGNS</b>						
<b>C11.6.1</b>	<b>Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from:</b>						
C11.6.1.3	Prepainted galvanized steel plate:						
(a)	Area 0 to 0,5 m <sup>2</sup>	m <sup>2</sup>	45				
(b)	Area exceeding 0,5 m <sup>2</sup> but not 2,0 m <sup>2</sup>	m <sup>2</sup>	20				
(c)	Area exceeding 2,0 m <sup>2</sup> but not 10 m <sup>2</sup>	m <sup>2</sup>					Rate only
C11.6.1.4	Prepainted galvanized steel profiles (200 mm high panels):						
(b)	Area exceeding 0,5 m <sup>2</sup> but not 2,0 m <sup>2</sup>	m <sup>2</sup>	10				
(c)	Area exceeding 2,0 m <sup>2</sup> but not 10 m <sup>2</sup>	m <sup>2</sup>	20				
(d)	Area exceeding 10 m <sup>2</sup>	m <sup>2</sup>					Rate only
C11.6.1.7	Regulatory signs, permanent						
(a)	600 mm diameter (signboard material, background and symbol retro-reflective class indicated)	No	32				
(b)	900 mm diameter (signboard material, background and symbol retro-reflective class indicated)	No					Rate only
(c)	1200 mm diameter (signboard material, background and symbol retro-reflective class indicated)	No					Rate only
C11.6.1.9	Warning signs, permanent						
(a)	600 mm size (signboard material, background and symbol retro-reflective class indicated)	No	22				
(b)	900 mm size (signboard material, background and symbol retro-reflective class indicated)	No					Rate only
(c)	1200 mm size (signboard material, background and symbol retro-reflective class I indicated)	No					Rate only
C11.6.1.11	Supplementary plates to permanent regulatory or warning signs (signboard material, background and symbol retro-reflective class indicated)	m <sup>2</sup>					
C11.6.1.12	Supplementary plates to temporary regulatory or warning signs (signboard material, background and symbol retro-reflective class indicated)	m <sup>2</sup>					
C11.6.2.1	Background of retro-reflective material:						
(a)	Class I	m <sup>2</sup>	60				
C11.6.2.2	Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material:						
(a)	Class III	m <sup>2</sup>	60				
<b>C11.6.5</b>	<b>Excavation and backfilling for road sign supports (not applicable to kilometre posts)</b>						
C11.6.5.1	Excavating soft material and backfilling	m <sup>3</sup>	60				
C11.6.5.2	Excavating soft or intermediate material and backfilling using labour enhanced construction methods	m <sup>3</sup>	30				
C11.6.5.4	Extra over item C11.6.5.1 for hard material excavation	m <sup>3</sup>	15				
C11.6.5.5	Imported backfill material from commercial sources	m <sup>3</sup>	25				
<b>C11.6.8</b>	<b>Danger plates at culverts/structures</b>						
C11.6.8.1	Size 150 x 600 mm (state post type and reflective material)	No	16				
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>							

## SECTION 11.7

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C11.7</b>	<b>ROAD MARKINGS AND ROAD STUDS</b>						
<b>C11.7.1</b>	<b>Road marking:</b>						
C11.7.1.1	White lines broken or unbroken (a) 100mm wide	km	5.6				
	(b) 150mm wide	km	5				
	(c) 500mm wide	km	0.2				
C11.7.1.2	Yellow lines broken or unbroken (a) 150mm wide	km	3				
	(b) 1200mm wide	km	1				
C11.7.1.3	Red lines broken or unbroken	km	0.2				
C11.7.1.4	White lettering and symbols	m <sup>2</sup>	20				
C11.7.1.5	Yellow lettering and symbols	m <sup>2</sup>	15				
C11.7.1.6	Red lettering and symbols	m <sup>2</sup>					Rate only
C11.7.1.14	Labour enhanced hand painted kerb markings	m <sup>2</sup>	120				
C11.7.1.15	Labour enhanced hand operated pressure applied machine white lines broken or unbroken	km	80				
C11.7.1.16	Labour enhanced hand operated pressure applied machine yellow lines broken or unbroken	km	20				
C11.7.1.18	Labour enhanced hand operated pressure applied machine white lettering and symbols	m <sup>2</sup>	120				
C11.7.1.19	Labour enhanced hand operated pressure applied machine yellow lettering and symbols	m <sup>2</sup>	35				
<b>C11.7.5</b>	<b>Variations in rate of application:</b>						
C11.7.5.1	White paint	litre (ℓ)					Rate only
C11.7.5.2	Yellow paint	litre (ℓ)					Rate only
C11.7.5.4	Retro-reflective beads	kg					Rate only
<b>C11.7.6</b>	<b>Pre formed road marking tape</b>						
C11.7.6.1	White (100 mm)	m	5.6				
C11.7.6.2	Yellow (150 mm)	m	3				
<b>C11.7.7</b>	<b>Road studs</b>						
C11.7.7.1	Permanent road studs compliant to SANS 1442 (type 3 white & yellow)	No	650				
C11.7.7.3	Temporary road studs compliant to SANS 1442 or 1463 (type/classification & colours stated)	No	30				
C11.7.7.5	Provision of temporary and permanent road studs	Prov Sum	1				
C11.7.7.6	Handling cost, profit and all other charges of sub item C11.7.7.5	%					
<b>C11.7.8</b>	<b>Setting out and premarking the lines (excluding traffic island markings, lettering and symbols)</b>	km	16				
<b>C11.7.9</b>	<b>Re-establishing the painting unit during the defects notification period and at other instances on instruction of the Engineer</b>	No	1				
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>							

## SECTION 11.8

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R c
<b>C11.8</b>	<b>LANDSCAPING AND PLANTING PLANTS</b>				
<b>C11.8.1</b>	<b>Trimming:</b>				
C11.8.1.1	Machine trimming	m <sup>2</sup>	500		
C11.8.1.2	Hand trimming	m <sup>2</sup>	2000		
<b>C11.8.2</b>	<b>Trimming using machines for trimming or shaping (alternative to subitem C11.8.1.1):</b>				
C11.8.2.1	Bulldozer	h	16		
C11.8.2.2	Motor grader	h	16		
C11.9.2.2	By hand only	km			Rate only
<b>C11.8.3</b>	<b>Preparing the areas for grassing:</b>				
C11.8.3.1	Ripping	ha	1.2		
C11.8.3.2	Scarifying for loosening topsoil	ha	1		
C11.8.3.3	Topsoiling within the road reserve where the following materials are used:				
(a)	Topsoil obtained from within the road reserve or borrow areas	m <sup>3</sup>	150		
(b)	Topsoil obtained from commercial sources by the Contractor	m <sup>3</sup>			Rate only
C11.8.3.4	Topsoiling of borrowpits by using topsoil obtained from borrow areas or from the road reserve	m <sup>3</sup>	250		
C11.8.3.5	Providing and applying chemical fertilisers and/or soil-improvement material:				
(a)	Lime	t			Rate only
(b)	Superphosphate	t	4.2		
(c)	Limestone ammonium nitrate	t	1.5		
(d)	2:3:2 (22)	t	2		
(e)	3:2:1 (25)	t	1.5		
(f)	Other fertilisers and / or soil-improvement materials if required	t			Rate only
<b>C11.8.4</b>	<b>Grassing</b>				
C11.8.4.3	Hydroseeding:				
(a)	Providing an approved seed mixture for hydroseeding	kg	115		
(b)	Providing an approved mulch	kg			
(c)	Hydroseeding	ha	1		
<b>C11.8.5</b>	<b>Watering the grass when established by topsoiling only</b>	kℓ	250		
<b>C11.8.6</b>	<b>Watering the already planted grass, trees and shrubs during the growing season</b>	kℓ	1500		
<b>C11.8.7</b>	<b>Mowing the grass</b>	ha	1		
<b>C11.8.8</b>	<b>Anti-erosion compound or hydraulic mulches (specify type)</b>	kg	1560		
<b>C11.8.10</b>	<b>Unspecified work for landscaping</b>	Prov Sum	1		
<b>C11.8.12</b>	<b>Removal of undesirable vegetation</b>	m <sup>2</sup>	120		
<b>TOTAL CARRIED FORWARD TO SUMMARY A</b>					



SECTION 11.9

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
C11.9	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
C11.9.1	Finishing road and road reserve:				
C11.9.1.2	Single carriageway road	km	5.4		
C11.9.2	Treatment of old roads and temporary deviations				
C11.9.2.1	Conventional construction methods	km	1		
C11.9.2.2	By hand only	km	1.2		
TOTAL CARRIED FORWARD TO SUMMARY A					

SECTION 12.10

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Rc	AMOUNT Rc
C12.10	HARD EXCAVATION BY BLASTING				
C12.10.1	Excavation in hard rock using controlled blasting techniques	m <sup>3</sup>	530		
TOTAL CARRIED FORWARD TO SUMMARY A					

SECTION 20.1

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT Rc
C20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP				
C20.1.5	Financial contribution for an independent site/commercial laboratory	month	10		
TOTAL CARRIED FORWARD TO SUMMARY A					

## SUMMARY A

Item	Description	Amount
1.2	GENERAL REQUIREMENTS AND PROVISIONS	R -
1.2	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	R -
1.4	FACILITIES FOR THE ENGINEER	R -
1.5	ACCOMMODATION OF TRAFFIC	R -
1.6	CLEARING AND GRUBBING	R -
1.7	CLEARING AND GRUBBING	R -
2.1	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES	R -
2.3	WET SERVICES	R -
2.4	ENERGY AND OTHER SERVICES	R -
3.1	DRAINS	R -
3.2	CULVERTS	R -
3.3	CONCRETE KERBING AND CHANNELLING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS	R -
4.1	BORROW MATERIALS	R -
4.2	CUT MATERIALS	R -
4.4	COMMERCIAL MATERIALS	R -
5.1	ROADBED	R -
5.2	FILL	R -
5.3	ROAD PAVEMENT LAYERS	R -
5.4	STABILISATION	R -
6.2	SEGMENTAL BLOCK PAVING LAYERS	R -
8.1	PRIME COAT	R -
9.1	ASPHALT LAYERS	R -
11.1	PITCHING, STONework, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION	R -
11.2	NON-STRUCTURAL GABIONS	R -
11.4	ROAD RESTRAINT SYSTEMS	R -
11.5	FENCING	R -
11.6	ROADS SIGNS	R -
11.7	ROAD MARKINGS AND ROAD STUDS	R -
11.8	LANDSCAPING AND PLANTING PLANTS	R -

Item	Description	Amount	
11.9	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	R	-
12.10	HARD EXCAVATION BY BLASTING	R	-
20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP	R	-
TOTAL SCHEDULE A: ROADWORKS		R	-

**SCHEDULE B: STRUCTURES**

SECTION 11.1

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C11. 1	PITCHING, STONework, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION						
C11.1.2	Stone pitching						
C11.1.2.1	Plain stone pitching						
(a)	(i) Method 1 to River banks to excess 20m beyond each wign walls	m <sup>2</sup>	520				
C11.1.2.3	(ii) Method 1 to Approach embankment areas	m <sup>2</sup>	135				
	Guardrails on timber posts:						
(a)	Galvanised	m	50				
	End treatments						
(a)	End wings	No	4				
(c)	Bridge adaptors	No	4				
	Reflective plates	No	20				
	Extra over items 52.01 for drilling and blasting holes for guardrails posts	No	20				
TOTAL CARRIED FORWARD TO SUMMARY B							

## SECTION 11.2

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
<b>C11.2</b>	<b>NON-STRUCTURAL GABIONS</b>						
<b>C11.2.1</b>	<b>Foundation trench excavation:</b>						
C11.2.1.1	Excavating all material situated within the following depth ranges below the surface level						
(a)	0 m to 1,5 m	m <sup>3</sup>	50				
(b)	Exceeding 1,5 m and up to 3,0 m	m <sup>3</sup>					
C11.2.1.2	Extra over sub-item C11.2.1.1 for excavation in hard material, irrespective of depth	m <sup>3</sup>	32				
C11.2.1.3	Excavating soft material within 1,5 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	32				
<b>C11.2.2</b>	<b>Surface preparation for bedding the gabion boxes and mattresses</b>	m <sup>2</sup>	50				
<b>C11.2.3</b>	<b>Gabion boxes and mattresses:</b>						
C11.2.3.1	Galvanized gabion boxes (Mesh Type 80 to SANS 1580:2005, having 3,4mm o/d frame wire and 2,7mm o/d mesh wire:)						
	2,0m x 0,5m x 0,5m	m <sup>3</sup>	60				
C11.2.3.3	Galvanized gabion mattresses (Mesh Type 80 to SANS 1580:2005, having 3,4mm o/d frame wire and 2,7mm o/d mesh wire:)						
	4,0m x 1,0m x 0,3m	m <sup>3</sup>	75				
<b>C11.2.4</b>	<b>Geotextile</b>	m <sup>2</sup>	120				
	Foundation trench excavation and backfilling:						
	(b) In all other classes of materials	m <sup>3</sup>	50				
	Surface preparation for bedding the gabions	m <sup>2</sup>	40				
	Gabions:						
	(a) Galvanized gabion boxes:						
	(i) 1,0 x 1,0 x 1,0m dia. galvanized wire mesh	m <sup>3</sup>	60				
	Filter fabric:						
	(a) Grade 3:						
	(i) Non Woven	m <sup>2</sup>	100				
<b>TOTAL CARRIED FORWARD TO SUMMARY B</b>							



SECTION 11.4

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Rc	AMOUNT Rc
C11. 4	ROAD RESTRAINT SYSTEMS				
C11.4.1	Erecting of guardrails at 3,81 m spacing				
C11.4.1.1	Complete galvanized system compliant to SANS 1350:				
(a)	On timber posts (Drawing reference)	m	55		
(d)	Extra over C11.4.1.1(a) for excavating holes of posts using labour enhanced methods (soft and intermediate)	m	15		
C11.4.1.2	Terminal sections for 3,81 guardrails comprising of:				
(a)	End wings to SANS 1350	No	10		
(c)	Bridge adapters to SANS 1350	No	4		
C11.4.11	New material required for the re-erection guardrails with recovered materials:				
C11.4.11.4	Reflective plates	No	30		
TOTAL CARRIED FORWARD TO SUMMARY B					

## SECTION 13.1

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE R c	AMOUNT R c
<b>C13.1</b>	<b>FOUNDATIONS</b>				
<b>C13.1.3</b>	<b>Excavation:</b>				
C13.1.3.1	Excavating soft material situated within the following successive depth ranges:  (a) 0 m up to 2 m	m <sup>3</sup>	500		
C13.1.3.2	Extra over subitem (a) for excavation in hard material irrespective of depth	m <sup>3</sup>	50		
C13.1.3.3	Extra over subitem (a) for additional excavation required by engineer after the excavation has been completed	m <sup>3</sup>	50		
C13.1.6	Access and drainage				
C13.1.6.1	(a) Access	Lump Sum	1		
	(b) Drainage where no access has been provided	Lump Sum	1		
<b>C13.1.7</b>	<b>Backfill to excavations utilising:</b>				
C13.1.7.1	Material from the excavation	m <sup>3</sup>	20		
C13.1.7.2	Imported material	m <sup>3</sup>	200		
<b>C13.1.9</b>	<b>Fill within restricted area</b>	m <sup>3</sup>	100		
C13.1.10	Overhaul in excess of 1.0 km on excavated material and on material imported for backfill, foundation fill and fill for working platform	m <sup>3</sup> -km	1500		
C13.1.12	Overbreak in excavation in hard material	m <sup>2</sup>	125		
<b>C13.1.14</b>	<b>Foundation fill consisting of:</b>				
C13.1.14.1	Rock fill	m <sup>3</sup>	400		
C13.1.14.2	Crushed stone fill	m <sup>3</sup>	40		
C13.1.14.4	(d) Mass concrete Class 15/38	m <sup>3</sup>	55		
<b>C13.1.20</b>	<b>Dowel bars</b>				
C13.1.20.1	High tensile bars  (a) 25mm dia 2,0m length (Provisional)	kg	2000		
<b>C13.1.22</b>	<b>Foundation lining:</b>				
C13.1.22	Geo-fabric Kaymat -U19 (Provisional)	m <sup>2</sup>	200		
<b>TOTAL CARRIED FORWARD TO SUMMARY B</b>					

SECTION 13.2

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C13.2	FALSEWORK, FORMWORK AND CONCRETE FINISH						
C13.2.1	Formwork to provide:						
	(a) Class F2 surface finish to:						
	(i) Vertical side of foundations	m²	70				
C13.2.2	Vertical formwork						
	(a) Class F2 surface finish to:						
	(i) Portal Frames and Wing-walls	m²	145				
	(ii) Edges of approach slabs	m²	20				
	(b) Class F3 surface finish to:						
	(i) Exposed surfaces to bridge deck and concrete Guard posts	m²	65				
C13.2.3	Horizontal formwork						
	(a) Class F3 surface finish to soffit of bridge deck:	m²	15				
TOTAL CARRIED FORWARD TO SUMMARY B							

SECTION 13.3

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
				R	c	R	c
C13.3	STEEL REINFORCEMENT						
C13.3.1	Reinforcement for:						
C13.3.1.1	Steel reinforcement for:						
(c)	Welded Steel Fabric						
1.1	Foundation raft and Wing-walls						
	(c) Welded Steel Mesh-746	kg	5150				
1.2	Bridge walls						
	(c) Welded Steel Mesh-746	kg	1450				
1.3	Bridge deck						
	(c) Welded Steel Mesh-746	kg	1980				
1.4	Approach Slabs						
	(c) Welded Steel Mesh-746	kg	1830				
1.5	Concrete Guard Posts						
	(a) Mild steel bars	t	0.1				
	(b) High-yield-stress steel bars	t	1				
TOTAL CARRIED FORWARD TO SUMMARY B							

SECTION 13.4

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Rc	AMOUNT Rc
C13.4	CONCRETE				
C13.4.1	Cast in situ concrete (Class of concrete and use or position in structure stated):				
C13.4.1.1	Strength concrete (class 25/30MPa):				
(a)	For Blinding	m³	30		
(b)	Class (30/19MPa)				
(a)	Foundation Raft/Wing walls	m³	120		
(b)	Concrete infill to walls	m³	30		
(c)	Bridge deck Slab	m³	20		
(d)	Approach Slabs	m³	45		
(e)	Concrete Guard Posts	m³	2		
C13.4.11	Transporting and erecting precast concrete members (3600 x 3000 x 1200 Frames)	No	24		
C13.4.13	Complete demolition and disposal of existing structural concrete elements or parts existing structures:				
C13.4.13.1	Existing Bridge culvert	m³	65		
TOTAL CARRIED FORWARD TO SUMMARY B					

SECTION 13.7

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Rc	Rc
C13.7	JOINTS				
C13.7.9	Specialist proprietary expansion joints:				
C13.7.9.1	Prime cost sum allowed for purchasing and taking delivery of expansion joints	PC Sum	1		
C13.7.9.2	Percentage on prime cost sum for charges and profit	%	R-		
C13.7.10	Installation of specialist proprietary expansion joints:				
C13.7.10.1	Thermo Expansion Joint or similar approved between deck slabs, and approach slab	m	16		
TOTAL CARRIED FORWARD TO SUMMARY B					

SECTION 13.8

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Rc	AMOUNT Rc
C13.8	ANCILLARY STRUCTURAL ELEMENTS				
C13.8.6	Service ducts in structures				
C13.8.6.1	Type and size (diameter)	m	20		
C13.8.6.2	Joint in ducts at bridge deck expansion joints	No	6		
C13.8.7	Numbers for structures				
C13.8.7.3	Numbers formed in concrete	No	2		
C13.8.10	Drainage pipes and weep holes:				
C13.8.10.1	Drainage pipes:				
(a)	Drain pipes (110mm dia. uPVC)-bridge deck	m	5		
C13.8.10.2	Weep holes:				
(a)	Weepholes (75mm dia. uPVC) wing-walls	m	6		
TOTAL CARRIED FORWARD TO SUMMARY B					

SUMMARY B

Item	Description	Amount	
11.1-B	PITCHING, STONWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION	R	-
11.2-B	NON-STRUCTURAL GABIONS	R	-
11.4-B	ROAD RESTRAINT SYSTEMS	R	-
13.1-B	FOUNDATIONS	R	-
13.2-B	FALSEWORK, FORMWORK AND CONCRETE FINISH	R	-
13.3-B	STEEL REINFORCEMENT	R	-
13.4-B	CONCRETE	R	-
13.7-B	JOINTS	R	-
13.8-B	ANCILLARY STRUCTURAL ELEMENTS	R	-
TOTAL SCHEDULE B: STRUCTURE		R	-



## ENVIRONMENTAL MANAGEMENT PLAN &amp; PENALTIES

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT ( R )
<b>E</b>	<b>ENVIROMENTAL MANAGEMENT PLAN &amp; PENALTIES</b>				
<b>E1</b>	Penalty for unnecessary removal or damage to trees				
	(a) 2600mm girth or less	No		(8 000.00)	
	(b) Greater than 2600mm, but less than 6180mm girth	No		(12 000.00)	
	(c) Greater than 61800mm girth	No		(40 000.00)	
<b>E2</b>	<b>Penalty for serious violations</b>				
	(a) Hazardous chemical/oil spill and/or dumping in non-approved sites	No		(12 000.00)	
	(b) General damage to sensitive environments	No		(7 000.00)	
	(c) Damage to cultural and historical sites	No		(7 000.00)	
	(d) Pollution of water sources	No		(15 000.00)	
	(e) Unauthorised blasting activities	No		(20 000.00)	
	(f) Uncontrolled/unmanaged erosion per incident, depending on environment impacts (over and above rehabilitation at contractor's cost)	No		(5 000.00)	
<b>E3</b>	<b>Penalty for less serious violations</b>				
	(a) Littering on site	No		(1 200.00)	
	(b) Lighting of illegal fires on site	No		(1 200.00)	
	(c ) Persistent or un-repaired fuel and oil leaks	No		(1 200.00)	
	(f) Excess dust or excess noise emanating from site	No		(1 200.00)	
	(g) Dumping of milled material in side drains or on grassed areas	No		(1 200.00)	
	(h) Possession or use of intoxicating substances on site	No		(800.00)	
	(i) Any vehicles being driven in excess of designated speed limits	No		(500.00)	
	(j) Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife	No		(2 500.00)	
	(k) Illegal hunting	No		(2 500.00)	
	(l) Urination and defecation anywhere except in designated areas	No		(500.00)	
<b>E4</b>	<b>Penalty to be deducted for non-compliance with requirements for traffic accommodation</b>				
	(a) Fixed penalty per occurrence	No.		(5 000.00)	
	(b) Time-related penalty if remedial action not taken within the timeframe agreed with the Employer's Agent or his representative	day		(500.00)	
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>					

CALCULATION OF TENDER SUM

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Item	Description	Amount
1	TOTAL SCHEDULE A: ROADWORKS	R -
2	TOTAL SCHEDULE B: STRUCTURE	R -
3	ENVIRONMENTAL MANAGEMENT PLAN AND PENALTIES	R -
4	SUBTOTAL (A)	R -
5	ADD CONTINGENCIES @ 10% SUBTOTAL (A)	R -
6	ADD CONSTRUCT PRICE ADJUSTMENT @ 10% OF SUBTOTAL (A)	R -
7	SUBTOTAL (B)	R -
8	ADD VALUE ADDED TAX @ 15% OF SUBTOTAL ( B)	R -
9	TOTAL TO FORM OF OFFER	R -

For the Tenderer:

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Signed

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Name

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Position

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Date

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Tendered