

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
PRELIMINARY AND GENERAL							
AA			PRELIMINARIES				
	1	GCC 2015	GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA Fixed Charge obligations	sum	1		
	2	GCC 2015	Time Related obligations	sum	12		
	3	SANS 19211	SANS 19211 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS Fixed Charge Items	sum	1	included	
	4	SANS 19211	Time Related Items	sum	1	included	
	5	PS.12.1	COMMUNITY LIAISON OFFICER Allow for a CLO to be appointed.	PC Sum	1	R1,500,000.00	R1,500,000.00
	6	PS.12.1	EO to Item 5, Handling fee by main contractor	%	R1,500,000.00		
AB			GENERAL SPECIFICATIONS				
	7	AB.2 PS.AB.1, PS.15	FIXED CHARGES Offices for Engineer and Staff on site	sum	1		
	8	AB.2, PS.AB.2, PS.AB.1.4, PS.15, PS.14.3	Services Connection Fee (electrical / water / telephone) (Provisional)	sum	1		
	9	AB.3	Installation of Telephone / Internet	sum	1		
	10	AB.4 PS.AB.1.2, PS.AB.14	Contractor's Camp Site / Store Yard	sum	1		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	11	AB.5, PS.14, PS.AB.4	Notice Board/s	no.	2		
	12	AB.7 PS.2, PS.AB.3, PS.1.2(f)	Road Deviations, (excluding layerworks)	sum	1		
	13	AB.7, PS.TA.4 PS.AB.3	Supply and erect Temporary road sign boards, area not exceeding 2m2.	no.	50		
	14	AB.7, PS.AB.13	Initial supply of all barricades and delineators	sum	1		
AB			GENERAL SPECIFICATIONS				
	15	AB.7, PS.AB.13	Extra over for supply of delineators damaged during construction	PR Sum	1	R50,000.00	R50,000.00
	16	PS.AB.11	Temporary barriers for accommodation of traffic, concrete New Jersey type. Contractors own source.	m	80		
	17		Allow for the following Additional Items which the tenderer requires to be priced separately :				
	18		a)	sum	1		
	19		b)	sum	1		
	20		c)	sum	1		
	20	AB.2, PS.15, PS.AB.1.1	Attendance on and Maintenance of Offices for Engineer and Staff	sum	1		
	21	AB.3, PS.AB.1.4, PS.AB.2	Rental of Telephone / Fax for Engineer's Office Including Payment of Telephone / Service Accounts (Provisional)	sum	1		
	22	AB.7, PS.AB.13, PS.TA.7	Maintenance of all signs, barricades and delineators	sum	1		
	23	PS.AB.9	Survey for, and Preparation of, 'AsBuilt' Drawings	sum	1		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
			Allow the following additional items which the tenderer required to be priced separately :				
	24		a)	sum	1		
	25		b)	sum	1		
	26		CIDB B.U.I.L.D assessment fee	PC Sum	1	R500,000.00	R500,000.00
	27	PS.AB.12	Allowance for additional survey required by the Engineer	PC Sum	1	R200,000.00	R200,000.00
	28		Extra Over to Item 25, Handling fee by main Contractor	%	R200,000.00		
	29	PS.AB.19	Allowance for geotechnical investigations and testings.	PC Sum	1	R500,000.00	R500,000.00
	30		Extra Over to Item 29, Handling fee by main Contractor	%	R500,000.00		
	31	GCC 10.5, PS.AB.15	Adhoc Adjudicator Employers Contribution.	PC Sum	1	R350,000.00	R350,000.00
	32		Extra Over to Item 31, Handling fee by main Contractor	%	R350,000.00		
	33	PS.13, PS.2.1.7, PS.1.2	Allowance for interactions, sharing information and working with other contractors in the area.	PC Sum	1	R200,000.00	R200,000.00
	34	PS.16	Community and public relations	PC Sum	1	R300,000.00	R300,000.00
	35		Extra Over to Item 34, Handling fee by main Contractor	%	R300,000.00		
	36	PS.AB.16	EMPOWERMENT CHARTER COMPLIANCE Fixed cost for compliance with the requirements of Empowerment Charter	PC Sum	1	R800,000.00	R800,000.00
	37	PS.AB.16	Time related cost for compliance with the requirements of Empowerment Charter	PC Sum	1	R900,000.00	R900,000.00
	38	PS.AB.17	Employment of Mentor(s) to train and guide the Subcontractors	PC Sum	1	R1,500,000.00	R1,500,000.00
	39		Extra Over to Item 41, Handling fee by main contractor	%	R1,500,000.00		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	40		Social Economic Development (SED) (a) Handling costs with respect to the contribution paid by the contractor towards the SED fund.	sum	1		
	41	PS.AB.7	LABORATORY Laboratory Accommodation	PC Sum	1	R1,800,000.00	R1,800,000.00
	42		Extra Over to Item 47, Handling fee by main contractor.	%	R1,800,000.00		
	43	PS.18, PS.AB.8	ADDITIONAL SECURITY Provision of security on site to guard against any disruption of the works throughout the duration of the contract	sum	1		
	44	B81.02	ADDITIONAL TESTING Other special tests requested by the engineer (a) Additional durability tests requested by the engineer (i) tests for water absorptivity	PR Sum	1	R50,000.00	R50,000.00
	45	B81.02	Other special tests requested by the engineer (a) Additional durability tests requested by the engineer (ii) tests for oxygen permeability	PR Sum	1	R50,000.00	R50,000.00
	46	B81.02	Other special tests requested by the engineer (a) Additional durability tests requested by the engineer (iii) tests for chloride conductivity	PR Sum	1	R50,000.00	R50,000.00
	47	DA.3, DB.3, PS.AB.14	Seismic velocity testing of materials for clasification as directed by Engineer.	no.	30		
AH			OCCUPATIONAL HEALTH and SAFETY				
	48	AH.14.1, PS.11	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	49	AH.14.2, PS.11	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
	50	AH.14.3, PS.11	Submission of the Health and Safety File	sum	1		
	51		Allowance for Professional Services	PC Sum	1	R5,646,870.56	R5,646,870.56
SITE CLEARANCE							
B			SITE CLEARANCE				
	52	B.8.2	General clearance and grubbing in road reserve	m2	5000		
	53	B.8.4	Removal and grubbing of large trees and tree stumps (a) Girth up to and including 1m	no.	10		
	54	B.8.4	Removal and grubbing of large trees and tree stumps (a) Girth exceeding 1m up to and including 2m	no	5		
	55	B.8.4	Removal and grubbing of large trees and tree stumps (b) Girth exceeding 2m up to and including 3m	no	5		
	56	B.8.4	Removal and grubbing of large trees and tree stumps c)Girth exceeding 3m up to and including 4m	no	10		
	57		Removal of paving blocks	m2	1000		
	58	B.8.15	Removal of asphalt sidewalks/medians to tip	m3	100		
	59	B.8.16	Removal of kerb and channel/fillet to tip	m3	200		
	60	B.8.19, PS.B.10	Removal of disused pipes, 0 300 mm diameter and spoil at tip. Rate to include all haulage	m	50		
	61	B.8.19, PS.B.10	Removal of disused pipes, 300 500 mm diameter and spoil at tip. Rate to include all haulage	m	50		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	62	B.8.19, PS.B.10	Removal of disused pipes, 500 800 mm diameter and spoil at tip. Rate to include all haulage	m	50		
	63	B.8.20, PS.B.4	Seal ends of pipes with grade 15/26 concrete	m3	50		
	64	B.8.22	Transport reusable material to Municipal depot	t * km	500		
	65	B.8.21	Backfilling with suitable material from site	m3	200		
	66	B.8.14, PS.B.2, PS.DA.16, PS.DA.17	Removal of roadways to an approved tip site. Rate to include all haulage and royalties within a 25km radius.	m3	200		
BULK EARTHWORKS							
DA			EARTHWORKS : BULK				
	67	DA.8.2, PS.DA.3, PS.DB.2	Excavate topsoil and stockpile	m3	100		
	68	DA.8.2, PS.DA.3, PS.DB.2	Excavate topsoil and spoil, Rate to include haulage and royalties within a radius of 2km.	m3	100		
	69	DA.8.3, PS.DA.4, PS.DB.2	Excavate soft material to spoil, Rate to include haulage and royalties within a radius of 2km.	m3	50		
	70	DA.8.3, PS.DA.5, PS.DB.2	Excavate unsuitable material below formation to spoil. Rate to haulage and royalties within a radius of 2km.	m3	50		
	71	DA.8.2, PS.DA.4, PS.DA.12, PS.DB.2	Excavate soft material to stockpile for blending	m3	100		
	72	DA.8.3, PS.DA.4, PS.DB.2	Excavate soft material and place directly into fill within a radius of 2km of the site.	m3	100		
	73	DA.8.4, PS.DA.6	Import suitable fill material (G7 or better) for blending from contractor's offsite source inclusive of haulage and royalties.	m3	500		
	74	DA.8.4, PS.DA.6	Import suitable fill material (G9) from contractor's offsite source inclusive of haulage and royalties.	m3	500		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	75	DA.8.3	Extra over item 3,4,5,6,7 for excavation in intermediate material.	m3	250		
	76	DA.8.3	Extra over item 3,4,5,6,7 for excavation in hard material	m3	250		
	77	PS.DA.6.2	Extra over item 8 and 13 for blending of material	m3	250		
	78	DA.8.7, PS.DA.12	Stockpile handling of material to fill	m3	250		
	79	DA.8.5, PS.DA.7	Compact spoil material in median area to 90% Mod. A.A.S.H.T.O.	m3	300		
	80	DA.8.5, PS.DA.7	Compact fill material from site to 93% Mod. A.A.S.H.T.O.	m3	100		
	81	DA.8.5, PS.DA.7	Compact fill material from site to 95% Mod. A.A.S.H.T.O.	m3	100		
	82	DA.8.5, PS.DA.7	Compact of blended material (item 8 and 13) to 95% Mod. A.A.S.H.T.O.	m3	100		
	83	DA.8.5, PS.DA.7	Compact imported G9 material to 95% Mod. A.A.S.H.T.O.	m3	100		
	84	DA.8.6	Trimming of embankments	m2	500		
	85	PS.DA.7	Import and compact clean coarse sand, free draining, from contractor's offsite source inclusive of haulage and royalties	m3	200		
	86	PS.DA.15	Supply and Install Kaytech Tensar Triax TX160 or similar approved for subgrade improvements.(Provisional)	m2	300		
	87	PS.DA.15	Supply and install Kaytech Rockgrid PC100 (100kN/m3) or similar approved for base improvements. (Provisional)	m2	300		
	88	PS.DA.15	Supply and place Kaytech grade A2 geofabric, or similar approved material.(Provisional)	m2	300		
	89	PS.DA.15	Supply and place Kaytech grade A5 geofabric, or similar approved material.(Provisional)	m2	300		
	90	DA.8.10	OVERHAUL Overhaul (Provisional)	m3km	500		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
EL			DUMPROCK SUBGRADE IMPROVEMENT				
	91	EL.8, PS.EL.1, PS.EL.2	Dumprock subgrade improvement, 600 mm thick.	m3	200		
	92	EL.8, PS.DA.18, PS.EL.2	Import and choke suitable material (G5 or better) into Dumprock.	t	200		
ROAD WORKS							
DA							
	93	DA.8.9, PS.DA.8	LAYERWORKS Formation	m3	1000		
	94	DA.8.4, PS.DA.6	Import suitable fill material (G6) from contractor's offsite source inclusive of haulage and royalties for road layerworks.	m3	500		
	95	DA.8.5, PS.DA.7	Compact G6 material from site to 98% Mod. A.A.S.H.T.O.	m3	500		
	96	DA.8.4, PS.DA.6	Import suitable fill material (G7) from contractor's offsite source inclusive of haulage and royalties for road layerworks.	m3	500		
	97	DA.8.5, PS.DA.7	Compact imported G7 material to 97% Mod. A.A.S.H.T.O.	m3	1000		
	98	DA.8.5, PS.DA.7	Rip and recompact insitu (G9) material from site to 95% Mod. A.A.S.H.T.O.	m3	500		
	99	DA.8.4, PS.DA.6	Import suitable fill material (G9) from contractor's offsite source inclusive of haulage and royalties for road layerworks.	m3	500		
	100	DA.8.5, PS.DA.7	Compact imported G9 material to 95% Mod. A.A.S.H.T.O.	m3	500		
	101	PS4209.01	(i) Mixed Traffic Lanes: SaH14 layer compacted to 93% MTRD (50mm thickness)	t	9529.1268		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	102	PS4205.02	Tack coat of 30% stablegrade emulsion	l	14287		
	103	PS4209.01	(iii) Asphalt sidewalks: SaS7 layer compacted to 93% MTRD	t	2000		
	104	PS4209.01	(i) Mixed Traffic lanes: EME - E14 layer compacted to 96% MTRD (80mm thickness) (120mm EME to be used)**	t	110.90		
DB			EARTHWORKS FOR PIPE TRENCHES				
	105	DB.8.5, PS.DB.2	Excavate and backfill in all material for 375 mm diameter pipe where depth is : Over 0,0 m and not exceeding 1,5 m	m	100		
	106	DB.8.5, PS.DB.2	Excavate and backfill in all material for 375 mm diameter pipe where depth is : Over 1,5 m and not exceeding 2,0 m	m	50		
	107	DB.8.5, PS.DB.2	Excavate and backfill in all material for 375 mm diameter pipe where depth is : Over 2,0 m and not exceeding 2,5 m	m	50		
	108	DB.8.5, PS.DB.2	Excavate and backfill in all material for 375 mm diameter pipe where depth is : Over 2,5 m and not exceeding 3,0 m	m	50		
	109	DB.8.5, PS.DB.2	Excavate and backfill in all material for 450 mm diameter pipe where depth is : Over 1,5 m and not exceeding 2,0 m	m	50		
	110	DB.8.5, PS.DB.2	Excavate and backfill in all material for 450 mm diameter pipe where depth is : Over 2,0 m and not exceeding 2,5 m	m	50		
	111	DB.8.5, PS.DB.2	Excavate and backfill in all material for 450 mm diameter pipe where depth is : Over 2,5 m and not exceeding 3,0 m	m	50		
	112	DB.8.5, PS.DB.2	Excavate and backfill in all material for 450 mm diameter pipe where depth is : Over 3,0 m and not exceeding 3,5 m	m	50		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	113	DB.8.5, PS.DB.2	Excavate and backfill in all material for 600 mm diameter pipe where depth is : Over 1,5 m and not exceeding 2,0 m	m	50		
	114	DB.8.5, PS.DB.2	Excavate and backfill in all material for 600 mm diameter pipe where depth is : Over 2,0 m and not exceeding 2,5 m	m	50		
	115	DB.8.5, PS.DB.2	Excavate and backfill in all material for 600 mm diameter pipe where depth is : Over 3,5 m and not exceeding 4,0 m	m	50		
	116	DB.8.5, PS.DB.2	Excavate and backfill in all material for 600 mm diameter pipe where depth is : Over 4,0 m and not exceeding 4,5 m	m	50		
	117	DB.8.5, PS.DB.2	Excavate and backfill in all material for 750 mm diameter pipe where depth is : Over 2,5 m and not exceeding 3,0 m	m	50		
	118	DB.8.5, PS.DB.2	Excavate and backfill in all material for 750 mm diameter pipe where depth is : Over 3,0 m and not exceeding 3,5 m	m	50		
	119	DB.8.5, PS.DB.2	Excavate and backfill in all material for 900 mm diameter pipe where depth is : Over 2,5 m and not exceeding 3,0 m	m	50		
	120	DB.8.5, PS.DB.2	Excavate and backfill in all material for 1200 mm diameter pipe where depth is : Over 3,5 m and not exceeding 4,0 m	m	50		
	121	DB.8.5, PS.DB.2	Excavate and backfill in all material for 1200 mm diameter pipe where depth is : Over 4,0 m and not exceeding 4,5 m	m	50		
	122	DB.8.10	Placing and compacting of Class B bedding for 375 mm diameter pipe	m	100		
	123	DB.8.10	Placing and compacting of Class C bedding for 375 mm diameter pipe	m	100		
	124	DB.8.10	Placing and compacting of Class C bedding for 450 mm dia. Pipe	m	100		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	125	DB.8.10	Placing and compacting of Class C bedding for 600 mm diameter pipe	m	100		
	126	DB.8.10	Placing and compacting of Class C bedding for 750 mm diameter pipe	m	100		
	127	DB.8.10	Placing and compacting of Class C bedding for 900 mm diameter pipe	m	100		
	128	DB.8.3, DB.8.3.3	Extra over item 1 to 18 for excavation in Intermediate material	m3	100		
	129	DB.8.3, DB.8.3.3	Extra over item 1 to 18 for excavation in hard material	m3	100		
	130	DB.8.3, DB.8.3.3	Extra over item 1 to 18 for excavation in rock	m3	100		
	131	DB.8.15	Disposal of unsuitable or surplus material from trench excavation to an approved tip site. Rate to include for haulage and royalties within a 25km radius.	m3	100		
	132	DB.8.13	Provision of clean coarse sand for backfill of pipe bedding from commercial or offsite source.	m3	100		
	133	DB.8.13	Provision of selected granular backfill material from commercial or offsite source.	m3	100		
	134	DB.8.9	Provision of 19 mm stone material from commercial or offsite source	m3	100		
	135	DB.8.19, PS.DB.2	Prove existing services by hand excavation (provisional), where depth is: Over 0,0 m and not exceeding 1,5 m	m3	100		
	136	DB.8.19, PS.DB.2	Prove existing services by hand excavation (provisional), where depth is: Over 1,5 m and not exceeding 2,0 m	m3	100		
	137	DB.8.5, PS.DB.2	Excavate and backfill in all material for open drains.	m3	100		
PG			NON PRESSURE PIPELINES and PC CULVERTS				
	138	PG.8.2	375 mm diameter concrete Class 100D	m	100		
	139	PG.8.2	450 mm diameter concrete Class 100D	m	50		
	140	PG.8.2	600 mm diameter concrete Class 100D	m	50		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	141	PG.8.2	750 mm diameter concrete Class 100D	m	50		
	142	PG.8.2	900 mm diameter concrete Class 100D	m	50		
	143	PG.8.2	1200 mm diameter concrete Class 100D	m	25		
	144	PG.8.13	Grade 20/26 concrete protection to pipes	m3	25		
	145	PG.8.12, PS.PG.2, PS.PG.4	110 mm diameter perforated subsoil pipes	m	350		
	146	PS.PG.5.1, PS.PG.5.2	Subsoil termination stub at manholes	no.	40		
	147	DB.8.13, PS.PG.4, PS.PG.6	Provision of 19 mm stone chippings for subsoil drain from commercial or offsite source	m3	250		
	148	PS.PG.7	Import and compact clean coarse sand, free draining, from contractor's offsite source inclusive of haulage and royalties	m3	200		
	149	PS.PG.5.1, PS.PG.5.2	No fines concrete plug wrapped in geofabric for subsoils terminating at manholes.	no.	40		
PH			MANHOLES and APPURTENANT DRAINAGE WORKS				
	150	PH.8.3, PS.PH.1	Standard inlet type S1. Depth : Over 0,0 m and not exceeding 1,5 m	no.	10		
	151	PH.8.3, PS.PH.1	Standard inlet type S2. Depth : Over 0,0 m and not exceeding 1,5 m	no.	20		
	152	PH.8.3, PS.PH.1	Standard inlet type S2. Depth : Over 2,0 m and not exceeding 2,5 m	no.	5		
	153	PH.8.3, PS.PH.1	Standard inlet type S2. Depth : Over 2,5 m and not exceeding 3,0 m	no.	5		
	154	PH.8.2, PS.PH.1	Manhole type B with inlet type cover S2. Depth : Over 3,0 m and not exceeding 3,5 m	no.	6		
	155	PH.8.2, PS.PH.1	Manhole type B with inlet type cover S2. Depth : Over 3,5 m and not exceeding 4,0 m	no.	5		
	156	PH.8.2, PS.PH.1	Manhole type B with inlet type cover S2. Depth : Over 4,0 m and not exceeding 4,5 m	no.	5		
	157	PH.8.3, PS.PH.1	Standard inlet type D3. Depth : Over 1,5 m and not exceeding 2,0 m	no.	1		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	158	PH.8.3, PS.PH.1	Standard inlet type D3. Depth : Over 2,0 m and not exceeding 2,5 m	no.	3		
	159	PS.PH.4	Construct standard, Type A outlet headwall (pipe dia 375mm) as per drawing no. [38576]	no.	1		
	160	PS.PH.4	Construct standard, Type A outlet headwall (pipe dia 1200mm) as per drawing no. [38576]	no.	1		
	161	F.8.5, PS.F.11	Shaping of Vdrain around Inlets with grade 25/26 concrete.	m3	10		
	162	F.8.5	Construct concrete to vdrains, including formation, backfill and compaction, grade 25/26 concrete reinforcement and shuttering	m	10		
PROTECTION WORKS							
F			PROTECTION WORKS				
	163		Erosion protection	PC Sum	1	R250,000.00	R250,000.00
	164		EO to Item above, Handling fee by main contractor	%	R250,000.00		
	165		Gabions .02 Gabion boxes of PVCcoated galvanized wire: .01 80 mm x 80 mm mesh, 2.7 mm dia wire, 1m x 1m x 2 m boxes	m3	100		
	166		.02 80 mm x 80 mm mesh, 2.7 mm dia wire, 1m x 1m x 3 m boxes	m3	75		
	167		.04 Gabion mattresses of PVCcoated galvanized wire, up to 0,3 m deep: .01 60mm x 60mm mesh, 2.2 mm dia wire, 1m x 2 m x 0.3m mattress	m3	30		
	168		.02 60mm x 60mm mesh, 2.2 mm dia wire, 6m x 2 m x 0.3m mattress	m3	100		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	169		Geotextile .01 Bidim A2 or approved equivalent	m2	300		
	170		.02 Bidim A5 or approved equivalent	m2	100		
	171		Pitching .01 Plain pitching .02 Medium pitching	m2	350		
	172		.03 Heavy pitching	m2	50		
	173		.04 Extra heavy pitching	m2	50		
	174		.02 Grouted pitching .02 Medium pitching	m2	200		
	175		.03 Heavy pitching	m2	25		
	176		.04 Extra heavy pitching	m2	20		
S			REINSTATEMENT				
	177	S.8.1	Reinstatement of ground surface	m2	500		
	178	S.8.2	Temporary access road 50mm Asphalt Private Plant. Refer to Drawing for proposal. Contractor to allow for opening in the kerb and channel which shall be constructed by the contractor at a later stage.	m2	420		
Guardrails							
	179		(a) Complete galvanized system on:				
	180	B54.01	(ii) Concrete Posts	m	1909.00		
	181	B54.01	(i) Flared ends (including end wing)	No	200.00		
	182	B54.01	(ii) End treatments where single guardrails sections are used (including additional posts)	No	32.00		
	183	B54.01	(v) Horizontally curved guardrails factory bent to a radius of less than 45m	m	100		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	184	54.06	Reflective plates	No	502.00		
	185	B54.07	Removing existing guardrails and posts, and store for reuse.	m	153.00		
	186	B54.14	Nailing of gang nail plates on top of concrete guardrail posts	No	502.00		
Road Signs							
	187		Road sign boards sign faces with painted or coloured background. Symbols, lettering and borders in semimatt black or in Class 1 engineering grade retro reflective material. where the sign board is constructed from :				
	188		(c) Prepainted galvanized steel plate (chromadek 1,6 mm thick or approved equivalent) :				
	189	BS56.01	(i) Area not exceeding 2 m ²	m ²	50.00		
	190	56.01	(ii) Area exceeding 2 m ² but not 10 m ²	m ²	115.00		
	191	56.01	(iii) Area exceeding 10 m ²	m ²	0.00		
	192		(a) Background of retroreflective material of :				
	193	56.02	(i) Class I retroreflective material	m ²	165.00		
	194		(b) Lettering, symbols and borders of retroreflective material of:				
	195	56.02	(i) Class II retroreflective material	m ²	55.00		
	196		Road sign supports (overhead road sign structures excluded) :				
	197	56.03	(b) Steel tubing	t	3.50		
	198		(c) Timber				
	199	56.03	(i) 100 mm dia.	m	250.00		
	200	56.03	(ii) 150 mm dia.	m	350.00		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	201	56.05	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m3	50.00		
	202	56.06	Extra over item 56.05 for cementtreated soil backfill	m3	5.00		
	203	56.07	Extra over item 56.05 for rock excavation	m3	15.00		
	204		Dismantling, storing and reerecting road signs with a surface area of:				
	205	56.08	(a) Up to 2 m ²	No	47.00		
	206	56.08	(b) Exceeding 2 m ² but not 10 m ²	No	14.00		
	207	B56.10	Danger plates at culvert/ structures	No	30.00		
Road Marking							
	209		Retroreflective road marking paint				
	210		(a) White lines (broken or unbroken)				
	211	57.02/B5702	(i) 100 mm wide	km	19.50		
	212	57.02/B5702	(ii) 150 mm wide	km	0.30		
	213	57.02/B5702	(iii) 200 mm wide	km	1.20		
	214	57.02/B5702	(iv) 300 mm wide	km	0.40		
	215		(b) Yellow or Red lines (broken or unbroken)				
	216	57.02/B5702	(i) 150 mm wide	km	10.00		
	217	57.02/B5702	(d) White lettering and symbols	m2	320.00		
	218	57.02/B5702	(e) Yellow lettering and symbols	m2	120.00		
	219	57.02/B5702	(f) Traffic island markings (any colour)	m2	1895.00		
	220		Thermoplastic roadmarking material				
	221		(a) White lines (broken or unbroken)				
	222	B57.03	(i) 100 mm wide	km	19.00		
	223	B57.03	(ii) 150 mm wide	km	0.50		
	224	B57.03	(iii) 200 mm wide	km	1.50		
	225	B57.03	(iv) 300 mm wide	km	0.50		
	226		(b) Yellow or Red lines (broken or unbroken)				
	227	B57.03	(i) 150 mm wide	km	1.20		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	228	B57.03	(d) White lettering and symbols	m2	48.00		
	229	B57.03	(e) Yellow lettering and symbols	m2	18.00		
	230	B57.03	(f) Traffic island markings (any colour)	m2	285.00		
	231		Road studs (Installation and maintenance)				
	232	57.05/B5702	(a) White/ red on centre line	No	1380.00		
	233	57.05/B5702	(b) Amber/ red on slow shoulder	No	1280.00		
	234	57.05/B5702	(c) Red/ red on median shoulder	No	960.00		
	235	57.05/B5702	(d) White/ blank on centre line	No	360.00		
	236	57.05/B5702	(e) Amber/ blank on slow shoulder	No	130.00		
	237	57.05/B5702	(f) Red/blank on median shoulder	No	960.00		
	238	57.06	Setting out and premarking the lines (excluding trafficisland markings, lettering and symbols)	km	33.90		
	239		Removal of existing, temporary or permanent road markings by means of:				
	240	57.08	(a) Sandblasting	m2	600.00		
	241	57.08	(c) Water jetting	m2	600.00		
	242		Cold plastic road marking material				
	243	B57.10	(a) White lettering and symbols	m2	60.00		
	244	B57.10	(b) Yellow lettering and symbols	m2	50.00		
	245	B57.10	(c) Transverse lines, painted island and arrestor bed markings (any colour)	m2	50.00		
	246	B57.11	Bauxiteepoxy resins mix for use in demarcating the red guidance markings at all BRT entry/exit sections.	km	250.00		
		5800	Landscaping and Planting plants				
	247		Trimming:				
	248	58.01	(a) Machine trimming	m2	39000.00		
	249	58.01	(b) Hand trimming	m2	13000.00		
	250		Preparing the areas for grassing				
	251		(c) Topsoiling within the road reserve or demarcated areas, where the following materials are used:				

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	252	B58.03	(i) Topsoiling obtained from within the road reserve/ demarcated area or borrow areas thickness 100mm (free haul 2.0km)	m3	6500.00		
	253	B58.03	(ii) Topsoiling obtained from other sources by the contractor thickness 100mm (including all haul)	m3	3900.00		
	254		(f) Stockpiling topsoil (free haul 2.0km) where the following applies:				
	255	B58.03	(i) Topsoil stored at a stockpile site agreed with by the Engineer	m3	800.00		
	256	B58.03	(ii) Topsoil pushed or bladed in to heaps next to area from which it was taken Trees and shrubs:	m3	1000.00		
	257		(b) Planting and establishing:				
	258	B58.09	(iii) General planting	PR Sum	1.00	R 174,256.65	R 174,256.65
	259	5900	Finishing the road and road reserve				
	260	B59.01	Finishing the road and road reserve	km	4.50		
		58	Pedestrian bridge ramps, stairs and Bus laybys				
	261	21.01	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	262		(i) 0m to 1.5m	m ³	665.44		
	263		(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m ³	66.54		
	264	21.23	Class 20/19 concrete	m ³	400.00		
	265	2200	Backfilling				
	266	22.02	(a) Using excavated material	m ³	350.00		
	267		Steel reinforcement				
	268	22.1	(c) Welded steel fabric (Ref 193)	kg	900.00		
	269	2300	Concrete Kerbing and channelling				
	270	B23.02	(a) Barrier kerb with continous concrete backing and channel type A (fig6) on concrete bedding as shown on drawing 275455029	m	182.00		
	271		Extra over Items 23.01 and 23.02 for concrete kerbing or concrete kerbing and channeling on curves				
	272	B23.17	(a) On curves of radii more than 5.0m but less than 20m	m	26.00		

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	273	B23.25	Fig 12, Precast edge retrain with a continous concrete backing layed with the rounded edge exposed on a 250x100mm	m	182.00		
	274		concrete base (20/19 grade concrete)				
	275	3300	Mass earthworks				
	276	33.12	(a) In situ treatment by ripping	m³	245.30		
	277		Fill constructed with material obtained from temporary (not designated) stockpiles or directly from existing pavement				
	278		and existing road prisms, irrespective of material type, including haul:				
	279	B33.21	(ii) Eight roller pass compaction	m³	147.00		
	280	3400	Pavement layers of gravel material				
	281	B34.14	Gravel base G5 natural gravel compacted to 97% of modified AASHTO density (compacted in 100mm layer thicknes)	m³	94.80		
	282	B34.14	(i)BRT lanes gravel subbase compacted to 97% of modified AASHTO density 1.5 and PI<6	m³	94.80		
	283		(150mm layer thickness compacted using C3 material with minimum UCS 1.5Mpa: GM >1.5				
	284		Prime coat				
	285		MSP1 @ 0.8l/m^2 or approved equivalent	l	505.59		
	286		Brickwork of NFP clay bricks (14 Mpa nominal compressive strength) clay imperial bricks in cement mortar				
	287		One brick wall	m²	15.00		
	288		Precast concrete slabs	no.	50.00		
			Construction of V. Naik School guard house				
	289		Construction of guard house at V. Naik School	PC Sum	1.00	R 200,000.00	R 200,000.00
	290		Handling cost with respect to item above.	%	200,000.00		
	291		V.Naik School Access gate				
	292		Supply and install security bar sliding gate and D20 centurion motor	PC Sum	1.00	R 80,000.00	R 80,000.00

	ItemNo	Clause	Description	Unit	Estimated Qty	Rate	Amount
	293		Handling cost with respect to item above.	%	80,000.00		
Tactile Paving							
	294		Removal and disposal of concrete kerbing or kerbing channel combination(Fig 6 &12)	m	690		
	295		Fig12, Precast edge restraint with a continuous concrete backing layed with the rounded edge exposed on a 250 x 100mm concrete base (20/19 Grade concrete)	m	759		
	296		Bullnose Delineator High profile kerb 500 x 300 x 300	m	208		
	297		25mpa/19mm cast insitu concrete for sloped areas	m3	50		
	298		(1) Grey colour paver's	m2	1300		
	299		(ii) 450mm x 450mm x 50mm Directional indicator	m2	120		
	300		(iii) 450mm x 450mm x 50mm Warning indicator	m2	210		