

Contract Estimate Report**SECTION 1 Preliminary and General****PART AA PRELIMINARIES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC 2015	GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA	sum	1		
		Fixed Charge obligations				
2	GCC 2015	Time Related obligations	sum	1		
3	SANS 1921-1	SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS	sum	1		
		Fixed Charge Items				
4	SANS 1921-1	Time Related Items	sum	1		
5	PS.16	COMMUNITY LIAISON OFFICER	PC Sum	240000	1.00	240,000.00
		Allow for a CLO to be appointed.				
6	NEC 3	Handling cost for above item, max. of 7.5%	%	240000		
7	PS.17	LOCAL LABOUR	sum	1		
		Allow for the weekly submission of proof of employment of local labour				

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AB.2; PS.13	FIXED CHARGES	sum	1		
		Offices for Engineer and Staff				
2	AB.2	Services Connection Fee (electrical / water / telephone) (Provisional)	PC sum	30000	1.00	30,000.00
3	AB.4; PS.12	Contractor's Camp Site / Store Yard	sum	1		
4	AB.5	Notice Board	sum	1		
5	AB.7; PS.1.3; PS.AB.3	Road Deviations	sum	1		
6	AB.7; PS.1.3	Initial supply of all signs, barricades and delineators	sum	1		
7	AB.3; PS.1.3; PS.AB.14	Additional supply of delineators due to wear and tear or damage	PR Sum	20000	1.00	20,000.00
8	AB.3	EO above item for Handling fee by main Contractor, max 7.5%	%	20000		

Item	Clause	Description	Unit	Quantity	Rate	Amount
9	PS.2; PS.AB.AS	Survey coordination of existing valves, manholes, catchpits, and cable duct markers	sum	1		
10	AB.2; PS.AB.A	Attendance on and Maintenance of Office for Engineer and Staff	sum	1		
11	AB.3	Rental of Telephone / Fax for Engineer's Office Including Payment of Telephone / Service Accounts (Provisional Sum)	sum	1		
12	AB.6; PS.AB.7	Cost of Samples and Contractor's Preliminary and Site Control Testing	sum	1		
13	AB.7	Maintenance of Pedestrian and Traffic Facilities	sum	1		
14	AB.7	Maintenance of all signs, barricades and delineators	sum	1		
15	PS.AB.5	Allow for Progress Photographs (Provisional Sum)	PC sum	10000	1.00	10,000.00
16		EO above item for Handling fee by main Contractor, max 7.5%	%	10000		
17	PS.AB.9	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
18	PS.AB.11.1	Temporary Barriers for accommodation of traffic, concrete new Jersey Barriers - from Contractor's own source.	m	250		
19	PS.AB.11.2	Moving of Concrete New Jersey Barriers within the site.	m	250		
20	PS.AB.12.2	Allowance for additional survey as required by the Engineer	PC Sum	50000	1.00	50,000.00
21	GCC 2015	EO above item for Handling fee by main Contractor	%	50000		
22	PS.AB.13	Allowance for Geotechnical investigations and testing, as directed by the Engineer.	PC Sum	200000	1.00	200,000.00
23	GCC2015	EO above item for Handling fee by main Contractor	%	200000		
24	GCC10.5; PS.AB.15	Adhoc Adjudicator - Employer's Contribution	PC Sum	100000	1.00	100,000.00
25	GCC2015	EO above item for Handling fee by main Contractor	%	100000		
26	PS.AB.17	Fixed penalty per occurrence	RateOnly			
27	PS.AB.17	Time-related penalty	RateOnly			
28	PS.11; PS.AB.8	Provision of security on site to guard against any disruption of the works throughout the duration of the contract.	sum	1		
29	PS.14	Community and Public Relations	PC Sum	240000	1.00	240,000.00
30	GCC	EO above item for Handling fee by main Contractor	%	240000		
31	PS.AB.19	PPE and Medicals for Sub-contractors	PC Sum	50000	1.00	50,000.00

Item	Clause	Description	Unit	Quantity	Rate	Amount
32	GCC	EO above item for Handling fee by main Contractor	%	50000		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3	Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

SECTION 2 Site Clearance**PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing in road reserve	m2	3000		
2	B.8.2	General clearance and grubbing in contractor's camp site	m2	1500		
3	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	10		
4	PS.B.15	Removal of 0-2m high precast concrete fence and barbed wire, and spoil at tip. Rate to include all haulage	m	150		
5	PS.B.16	Removal of 0-2.1m high concrete palisade fence and barbed wire, and spoil at tip. Rate to include all haulage	m	130		
6	B.8.6	Removal of guardrail and posts and spoil at tip Rate to include all haulage	m	150		
7	B.8.7	Removal of street/traffic signs and posts and store on site for re-use	no.	50		
8	B.8.7	Removal of street/traffic signs and posts and spoil at tip Rate to include all haulage	no.	5		
9	B.8.9; PS.B.2	Removal of brickwork (Provisional)	m3	10		
10	B.8.11	Removal of reinforced concrete (Provisional)	m3	10		
11	B.8.9	Removal of underground brickwork (Provisional)	m3	10		
12	B.8.11	Removal of underground reinforced concrete (Provisional)	m3	10		
13	B.8.14	Removal of roadways to tip (Provisional)	m3	50		
14	B.8.15	Removal of asphalt sidewalks/medians to tip	m3	50		
15	B.8.16	Removal of kerb and channel/fillet to tip	m3	60		
16	B.8.21	Backfilling with suitable material from site (Provisional)	m3	50		
17	B.8.21	Backfilling with suitable material imported from an off-site source (Provisional)	m3	250		
18	PS.B.8	Removal of Stormwater inlet / manhole covers and frame to spoil.	no.	3		

TOTAL CARRIED TO SECTION 2 SUMMARY: Site Clearance**R**

SECTION 3 Roadworks**PART DA EARTHWORKS : BULK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.2	Excavate topsoil and spoil at tip. Rate to include haulage and royalties to a radius of 20km.	m3	1500		
2	DA.8.3	Excavate soft material to stockpile	m3	500		
3	DA.8.3	Excavate soft material to spoil. Rate to include haulage and royalties to a radius of 20km.	m3	1300		
4	DA.8.3	Extra over above for the excavation of intermediate material to spoil.	m3	500		
5	DA.8.3	Extra over above for excavation of hard material to spoil.	m3	250		
6	PS.DA.5	Import suitable fill material, G9 or better, from contractor's off-site source inclusive of haulage and royalties	m3	700		
7	AA.DA.[]	Import clean coarse sand from contractor's off-site source inclusive of haulage and royalties. Provisional.	m3	100		
8	DA.8.5	Compact soft material from site to 95% Mod. A.A.S.H.T.O.	m3	500		
9	DA.8.5	Compact imported fill material to 95% Mod. A.A.S.H.T.O.	m3	700		
10	DA.8.5	Compact clean coarse sand to 95% Mod A.A.S.H.T.O. Provisional.	m3	100		
11	DA.8.7	Stockpile handling of soft material to fill.	m3	500		
<u>Layerworks</u>						
12	DA.8.9	Formation	m2	1500		
13	PS.DA.5	Import suitable fill material, G9 for layerworks, from contractor's off-site source inclusive of haulage and royalties	m3	500		
14	DA.8.5	Compact imported fill material to 95% Mod. A.A.S.H.T.O.	m3	500		
15	PS.DA.5	Import suitable fill material, G7 for layerworks, from contractor's off-site source inclusive of haulage and royalties	m3	700		
16	DA.8.5	Compact imported fill material to 95% Mod. A.A.S.H.T.O.	m3	700		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART EC CEMENT TREATED GRADED CRUSHED STONE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EC.8(A)	Cement treated C3 layer using graded crushed stone 125mm thick (G4 as the parent material). Rate to include for the supply of all materials required excluding stabilising agents, the construction of the layer and shall include all haulage and royalties	m3	140		
2	EC.8, PS.EC.1.2	EO to item 1 for cement stabilising agent	t	7.4		

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	EC.8,	Trial layer to Item No. 1. Supply and place cement stabilised layer in 125mm thick layer. Rate to include parent material, stabilising agents and shall be inclusive of all haulage and royalties	m2	25		
4	EC.8(b)	Prime coat	m2	890		
5	EC.8(b)	Prime coat to Upper Selected G7 layer	m2	2000		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.3; PS.ED.7	Transverse joints	m	25		
2	ED.8.3; PS.ED.7	Longitudinal joints	m	1000		
3	ED.8.4	Tack coat, 3 layers	m2	4500		
4	PS.ED.8	Saw Cut existing road edge (Provisional)	m	1000		
5	PS.ED.12	Private Plant Asphalt Sa-E14 (R) Level ii (A). Bitumen content % as per mix design entered at time of use.	t	150		
6	PS.ED.12	Private Plant Asphalt Sa-S10. Bitumen content % as per mix design entered at time of use.	t	100		
7	PS.ED.12	Private Plant Asphalt EME-E14 R (2). Bitumen content % as per mix design entered at time of use.	t	400		
8		Prime Coat 0.6litres/m2	m2	2600		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1; PS.EF.1	Type A barrier kerb and channel	m	220		
2	EF.8.1; PS.EF.1	Type A barrier kerb and fillet	m	60		
3	EF.8.1; PS.EF.4	Special Type A Barrier Kerb: right of Way separation kerb with 150mm channel and 150mm fillet, including base. As per tender drawing.	m	800		
4	EF.8.1	EO for above item for channel/fillet widening from 150mm to 300mm.	m3	60		
5	EF.8.1	Scoop kerb and channel (Type A) including transition kerb	m	50		
6	EF.8.1; PS.EF.5	Figure 12 Kerbs, with 100mm x 100mm haunching	m	340		
7	EF.8.1	Extra over item 1 and 2 for curves of radius less than 25 m	m	30		

Item	Clause	Description	Unit	Quantity	Rate	Amount
8	EF.8.1	Extra over item 1 and 2 for curves of radius less than 2 m	m	2		
9	PS.EF.2	Additional concrete to kerb foundation where road layer thickness exceeds standard	m3	10		
10	PS.EF.3	Excavation for kerb and channel/ fillet in existing asphalt layers	m3	60		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EG.8.1; PS.EG.7	Asphalt sidewalk 25mm - Asphalt Private Plant	m2	350		
2	EG.8.5; PS.EG.10	Asphalt industrial vehicular access hardening 150mm - Asphalt Private Plant	m2	250		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EH 8.1	Curved steel guardrails	m	250		
2	EH 8.1	End wings	no.	2		
3	EH 8.1	Guardrail Reflectors - V-shape	no.	8		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART TA ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS	Supply and install Road Signs.	PR Sum	200000	1.00	200,000.00
2	PS	Installation of Street Lights	PC Sum	300000	1.00	300,000.00
3	PS	EO to item above, max handling fee 7.5%	%	300000		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

PART TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AA.TB	Remove existing lane, edge and painted island lines by sand blasting	m	800		
2	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (white), including setting out and premarking	m	700		
3	TB.8.1.1 AA.TB.1	Painted road lines 150mm wide (white), including setting out and premarking	m	70		
4	TB.8.1.1 AA.TB.1	Painted road lines 300mm wide (white), including setting out and premarking	m	30		
5	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (red/yellow), including setting out and premarking	m	750		

Item	Clause	Description	Unit	Quantity	Rate	Amount
6	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings.	m2	25		
7	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (yellow), including setting out lettering, symbols and traffic island markings.	m2	25		

TOTAL CARRIED TO SECTION 3 SUMMARY: Roadworks

R

SECTION 4 Stormwater and Duct**PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.5	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 0,0 m and not exceeding 1,5 m	m	260		
2	DB.8.5	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	10		
3	PS.DB.5	Excavate in all material for services to be laid by others where depth is:- - Over 0,0 m and not exceeding 1,5 m	m3	300		
4	PS.DB.5	Excavate in all material for services to be laid by others where depth is:- - Over 1,5 m and not exceeding 2,0 m	m3	100		
5	DB.8.3	EO items 1 to 4 for excavation in intermediate material	m3	50		
6	DB.8.9	Provision of selected fill for pipe bedding from a commercial or off- site source	m3	90		
7	DB.8.10	Placing and compacting of Class B bedding for 450 mm diameter pipe	m	260		
8	DB.8.13	Provision of selected granular material for backfilling of pipe trenches from commercial or off-site source	m3	150		
9	PS.DB.9	Backfill and compact trenches excavated by others using material from site	m3	100		
10	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	150		
11	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 1,5 m and not exceeding 2,0 m	m3	100		
12	AA.DB.[]	Lateral support system	sum	1		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater and Duct**R****PART PG NON PRESSURE PIPELINES and PC CULVERTS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	450 mm diameter concrete Class 100D	m	260		
2	PG.8.11	160 mm diameter U.P.V.C. cable ducts	m	110		
3	PG.8.11	Grade 20/26 concrete encasement to ducts	m3	10		
4	PS.PG.10	230 mm brickwork to cable duct headwalls	m2	11		
5	PG.8.11	Cable duct markers	no.	7		
6	PG.8.11; PS.LC.1-4	ITS Duct, 50mm dia UPVC 7 core duct	m	350		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater and Duct**R**

PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.3	Standard inlet type S2. Depth :- - Over 0,0 m and not exceeding 1,5 m, HDCC.	no.	8		
2	PS.PH.8	Converting a type S2 inlet to a manhole with heavy duty cast iron cover and frame	no.	2		
3	PS.PH.9	Break into existing brick manhole wall for [400 - 600] mm diameter pipe and make good	no.	5		
4	PH.8.2; PS.PH.20-22	Special manhole type A1 with heavy duty Polymer Concrete Grid type Inlet and frame or similar approved. Depth : 0 to 1.5m. As per tender drawing 1T-48646 Typical Details	no.	2		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater and Duct

R

SECTION 6 Structures**PART C CONCRETE WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Wall E				
1	C.8.1; PS.C.5	Grade 15/19 concrete blinding of thickness 50 mm	m2	5		
2	C.8.1	Grade 30/19 concrete in footings	m3	18		
3	C.8.1	Grade 30/19 concrete in walls	m3	13		
4	AA.C.[.]	No fines concrete drain	m	50		
5	C.8.2; PS.C.1	High tensile steel reinforcement	t	8		
6	C.8.3	Class 1 shuttering to footings	m2	20		
7	C.8.3	Class 2 shuttering to walls	m2	5		
8	PS.C.3	Bitumen impregnated softboard in expansion joints, 10mm Jointex.	m2	8		
9	PS.C.3	Sealant in expansion joint, Polysulphide, 10mm wide and 20mm deep.	m	25		
10	PS.C.7	Construct 50 mm dia. P.V.C weepholes inclusive of no fines concrete plug at 2.5m c/c.	no.	20		
11	PS.C.8	200mm / 300mm Wide filter elements	m	80		
		Wall G				
12	C.8.1	Grade 15/19 concrete blinding of thickness 50 mm	m2	25		
13	C.8.1	Grade 30/19 concrete in footings	m3	200		
14	C.8.1	Grade 30/19 concrete in walls	m3	130		
15	C.8.2	High tensile steel reinforcement	t	26		
16	C.8.3	Class 1 shuttering to footings	m2	360		
17	C.8.3	Class 1 shuttering to walls	m2	300		
18	C.8.3	Class 2 shuttering to walls	m2	1000		
19	PS.C.3	Bitumen impregnated softboard in expansion joints, 10mm Jointex	m2	30		
20	PS.C.3	Sealant in expansion joint, Silicon sealant, 10mm wide and 20mm deep.	m	55		
21	PS.C.7	Construct 50 mm dia. P.V.C weepholes inclusive of no fines concrete plug	no.	30		
22	PS.C.9	150mm wide x 2mm thick galvanized steel plate	no.	16		
23	PC.S.10	Precast parapet walls, to collect and install.	m	146		
24	PS.C.11	Precast parapet walls, to supply and install.	m	10		
25	PS.C.6	R20 Dowels, 1.3m long, inclusive of the Denso tape, supply and install	no.	16		

TOTAL CARRIED TO SECTION 6 SUMMARY: Structures

R

PART DD EARTHWORKS FOR STRUCTURES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Wall E</u>				
1	DD.8.2	Excavate in all material for Wall E to stockpile	m3	50		
2	DD.8.2	Excavate in all material for Wall E to spoil	m3	400		
3	DD.8.2	Restricted excavation in all material for Wall E to spoil	m3	100		
4	DD.8.2	Extra over item 1 - 3 for hard material	m3	100		
5	DD.8.3	Backfill and compact using material from stockpile	m3	50		
6	DD.8.3	Backfill and compact using imported material from contractor's own source. Rate to include all haulage and royalties	m3	150		
7	DD.8.3	Backfill and compact using clean coarse sand. Rate to include all haulage and royalties	m3	70		
8	PS.PG.4-8	Supply and install subsoil drain inclusive of 65mm perforated subsoil pipe.	m	50		
		<u>Wall G</u>				
9	DD.8.2	Excavate in all material for Wall G to stockpile	m3	50		
10	DD.8.2	Excavate in all material for Wall G to spoil	m3	1500		
11	DD.8.2	Restricted excavation in all material for Wall G to spoil	m3	100		
12	DD.8.2	Extra over item 9 - 11 for hard material	m3	100		
13	DD.8.3	Backfill and compact using material from stockpile	m3	50		
14	DD.8.3	Backfill and compact using imported material from contractor's own source. Rate to include all haulage and royalties	m3	3000		
15	DD.8.3	Backfill and compact using clean coarse sand. Rate to include all haulage and royalties	m3	320		
16	PS.PG.4-8	Supply and install subsoil drain inclusive of 65mm perforated subsoil pipe.	m	160		

TOTAL CARRIED TO SECTION 6 SUMMARY: Structures

R

SECTION 7 Reinstatement**PART F PROTECTION WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.8	Standard 1,8 m high diamond mesh fence with shade cloth and barbed wire, temporary - during construction	m	380		
2		Installation of Bollards	no.	10		
3	PS.F.13	Installation of Barbed Wire, Flat	m	150		
4	PS.F.14	Installation of Barbed Wire, Roll	m	50		
5	F.8.7	115mm Common Clay brickwork	m2	80		
6	F.8.7	Brick on edge coping	m	50		
7	F.8.7	Facebrick skin to front face 115 mm	m2	180		

TOTAL CARRIED TO SECTION 7 SUMMARY: Reinstatement

R**PART S REINSTATEMENT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	S.8.1	Reinstatement of ground surface	m2	400		
2	S.8.2	Permanent road reinstatement 150 mm sub base 100 mm Asphalt - Asphalt Private Plant	m2	400		
3	PS.F.6	Landscaping	PC Sum	30000	1.00	30,000.00
4	PS. F.6	EO to item 3, max handling fee 7.5%	%	30000		

TOTAL CARRIED TO SECTION 7 SUMMARY: Reinstatement

R