

SUMMARY OF BILL OF QUANTITIES**Section**

1	PRELIMINARY AND GENERAL ITEMS		R	_____
0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS	R	_____	
0103	C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND	R	_____	
0104	C1.4 FACILITIES FOR THE ENGINEER	R	_____	
0105	C1.5 ACCOMMODATION OF TRAFFIC	R	_____	
2	DAY WORKS		R	_____
0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS	R	_____	
3	SITE CLEARANCE		R	_____
0106	C1.6 CLEARING AND GRUBBING	R	_____	
0107	C1.7 LOADING AND HAULING	R	_____	
4	SERVICES		R	_____
0201	C2.1 GEN REQMENTS AND TRENCHING SERVICE	R	_____	
0202	C2.2 DRY SERVICES	R	_____	
0204	C2.4 ENERGY AND OTHER SERVICES	R	_____	
023A	C2.3A WET SERVICES - SEWERS	R	_____	
5	DRAINAGE		R	_____
0301	C3.1 DRAINS	R	_____	
0302	C3.2 CULVERTS	R	_____	
0303	C3.3 CONCRETE KERBING AND CHANNELING	R	_____	
1206	C12.6 MECH STABILISED FILL AND GABIONS	R	_____	
6	EARTHWORKS		R	_____
0402	C4.2 CUT MATERIALS	R	_____	
0403	C4.3 EXISTING ROAD MATERIALS	R	_____	
0404	C4.4 COMMERCIAL MATERIALS	R	_____	
0502	C5.2 FILL	R	_____	
7	LAYERWORKS		R	_____
0404	C4.4 COMMERCIAL MATERIALS	R	_____	
0501	C5.1 ROADBED	R	_____	
0503	C5.3 ROAD PAVEMENT LAYERS	R	_____	
0504	C5.4 STABILISATION	R	_____	
0901	C9.1 ASPHALT LAYERS	R	_____	
1203	C12.3 GROUND IMPROVEMENT	R	_____	
8	ANCILLARY ROAD WORKS		R	_____
1104	C11.4 ROAD RESTRAINT SYSTEMS	R	_____	
1105	C11.5 FENCING	R	_____	
1106	C11.6 ROAD SIGNS	R	_____	
1107	C11.7 ROAD MARKINGS AND ROAD STUDS	R	_____	
1108	C11.8 LANDSCAPING AND PLANTING PLANTS	R	_____	
1109	C11.9 FINISHING ROAD AND ROAD RESERVE	R	_____	

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Section

9	RETAINING WALLS		R	
1206	C12.6 MECH STABILISED FILL AND GABIONS	R		
10	RIVER COURSE WORKS		R	
0402	C4.2 CUT MATERIALS	R		
1211	C12.11 GEOSYNTHETICS	R		
11	STRUCTURES - BRIDGE		R	
1301	C13.1 FOUNDATIONS	R		
1302	C13.2 FALSEWORK, FORMWORK AND CONCRETE	R		
1303	C13.3 STEEL REINFORCEMENT	R		
1304	C13.4 CONCRETE	R		
1306	C13.6 BEARINGS	R		
1307	C13.7 JOINTS	R		
1308	C13.8 ANCILLARY STRUCTURAL ELEMENTS	R		
1407	C14.7 PROTECTIVE COATINGS AND TREATMENTS	R		
2001	C20.1 TESTING MATERIALS AND JUDGEMENT	R		
SUB TOTAL				R
ADD VAT (15%) - (only if a registered VAT Vendor)				R
TOTAL CARRIED TO FORM OF TENDER				R

BILL OF QUANTITIES SECTION SUMMARY**SECTION 1 PRELIMINARY AND GENERAL ITEMS**

PART 0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS	
PART 0103	C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND	
PART 0104	C1.4 FACILITIES FOR THE ENGINEER	
PART 0105	C1.5 ACCOMMODATION OF TRAFFIC	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 2 DAY WORKS

PART 0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 3 SITE CLEARANCE

PART	0106	C1.6 CLEARING AND GRUBBING	
PART	0107	C1.7 LOADING AND HAULING	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 4 SERVICES**

PART 0201	C2.1 GEN REQMENTS AND TRENCHING SERVICE	
PART 0202	C2.2 DRY SERVICES	
PART 0204	C2.4 ENERGY AND OTHER SERVICES	
PART 023A	C2.3A WET SERVICES - SEWERS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 5 DRAINAGE**

PART 0301	C3.1 DRAINS	
PART 0302	C3.2 CULVERTS	
PART 0303	C3.3 CONCRETE KERBING AND CHANNELING	
PART 1206	C12.6 MECH STABILISED FILL AND GABIONS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 6 EARTHWORKS**

PART	0402	C4.2 CUT MATERIALS	
PART	0403	C4.3 EXISTING ROAD MATERIALS	
PART	0404	C4.4 COMMERCIAL MATERIALS	
PART	0502	C5.2 FILL	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 7 LAYERWORKS**

PART	0404	C4.4 COMMERCIAL MATERIALS	
PART	0501	C5.1 ROADBED	
PART	0503	C5.3 ROAD PAVEMENT LAYERS	
PART	0504	C5.4 STABILISATION	
PART	0901	C9.1 ASPHALT LAYERS	
PART	1203	C12.3 GROUND IMPROVEMENT	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 8 ANCILLARY ROAD WORKS**

PART	1104	C11.4 ROAD RESTRAINT SYSTEMS	
PART	1105	C11.5 FENCING	
PART	1106	C11.6 ROAD SIGNS	
PART	1107	C11.7 ROAD MARKINGS AND ROAD STUDS	
PART	1108	C11.8 LANDSCAPING AND PLANTING PLANTS	
PART	1109	C11.9 FINISHING ROAD AND ROAD RESERVE	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 9 RETAINING WALLS

PART	1206	C12.6 MECH STABILISED FILL AND GABIONS	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 10 RIVER COURSE WORKS**

PART 0402	C4.2 CUT MATERIALS	
PART 1211	C12.11 GEOSYNTHETICS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 11 STRUCTURES - BRIDGE**

PART	1301	C13.1 FOUNDATIONS	
PART	1302	C13.2 FALSEWORK, FORMWORK AND CONCRETE	
PART	1303	C13.3 STEEL REINFORCEMENT	
PART	1304	C13.4 CONCRETE	
PART	1306	C13.6 BEARINGS	
PART	1307	C13.7 JOINTS	
PART	1308	C13.8 ANCILLARY STRUCTURAL ELEMENTS	
PART	1407	C14.7 PROTECTIVE COATINGS AND TREATMENTS	
PART	2001	C20.1 TESTING MATERIALS AND JUDGEMENT	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES**SECTION 1 PRELIMINARY AND GENERAL ITEMS****PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Environmental Management</u>				
1	C1.2.1.1 PS.C1.2.1.1	Monitoring of compliance with and reporting on the EMP	months	14		
2	C1.2.1.2 PS.C1.2.1.2	Dedicated environmental officer	months	14		
		<u>Programming and Reporting</u>				
3	C1.2.2.3 PS.1.1 PS.C1.2.2.3	Submission of a Scheme 2 Initial Programme	Lump sum	1		
4	C1.2.2.4 PS.C1.2.2.3	Submission of a Scheme 2 Full Programme	Lump sum	1		
5	C1.2.2.5 PS.C1.2.2.5	Reviewing and updating a Scheme 2 programme every month	months	14		
		<u>Other Documentation</u>				
6	C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	months	14		
		<u>Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of the Works which are used as detours</u>				
7	C1.2.3.1	Grass cutting	ha	1		
8	C1.2.3.2	Drain cleaning	km	0.5		
9	C1.2.3.3	Cleaning out culverts	m3	300		
10	C1.2.3.4	Collection of rubbish / litter	km	0.5		
		<u>Stakeholder Management & Liaison</u>				
11	C1.2.4 PS.20	Stakeholder Management and Liaison	months	14		
		<u>Health and Safety</u>				
12	C1.2.5.1 PS.9	Health and safety plan	Lump sum	1		
13	C1.2.5.2 PS.9	Implementation of health and safety plan	months	14		
14	C1.2.6.1	Work adjacent to properties:Survey of adjacent properties	no	1		
15	C1.2.6.2	Preventive and/or mitigation measures	PC Sum	50000	1.00	50,000.00
16	C1.2.6.3	Handling cost, profit and all other charges in respect of item C1.2.6.2	%	50000		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
17	C1.2.7.1	Road safety audits:Stage 4 work zone traffic management audit	PC Sum	100000	1.00	100,000.00
18	C1.2.7.2	Handling cost, profit and all other charges in respect of item C1.2.7.1	%	100000		
		<u>Community Liaison Officer</u>				
19	PS.12	Allow for 2 CLO's to be appointed	PC Sum	650000	1.00	650,000.00
20	PS.12	Handling costs and profit in respect of item 9	%	650000		
		<u>Additional Security</u>				
21	PS.11	Provision of security on site to guard against any disruption of the works throughout the duration of the contract	months	14		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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PART 0103 C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>The Contractor's General Obligations</u>				
1	C1.3.1.1 PS.C1.3.1	Fixed obligations	Lump sum	1		
2	C1.3.1.2 PS.C1.3.1	Value-related obligations	Lump sum	1		
3	C1.3.1.3 PS.C1.3.1	Time-related obligations	months	14		
4	C1.3.2 PS.C1.3.2	Contract sign boards (as per drawing)	no.	2		
5	PS.17	Submission of As-Built Data	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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PART 0104 C1.4 FACILITIES FOR THE ENGINEER

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Site Accommodation</u>				
1	C1.4.1.1 PS.C1.4	Offices and conference room	m2	66		
2	C1.4.1.6 PS.C1.4	Car ports	no	4		
3	C1.4.1.7 PS.C1.4	Ablution unit (equipped as specified)	no	2		
4	C1.4.1.9 PS.C1.4	Kitchen unit (equipped as specified)	no	1		
5	C1.4.2.8 PS.C1.4	Notice boards	m2	2		
6	C1.4.2.9 PS.C1.4	White boards	m2	3.5		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0104 C1.4 FACILITIES FOR THE ENGINEER

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Items Measured by Number</u>				
7	C1.4.3.1 PS.C1.4	Office swivel chair	no	5		
8	C1.4.3.2 PS.C1.4	Office chair	no	7		
9	C1.4.3.5 PS.C1.4	Office desk with 3 drawers (at least one lockable drawer)	no	4		
10	C1.4.3.8 PS.C1.4	Conference table with chairs	no	1		
11	C1.4.3.10 PS.C1.4	Filing cabinet	no	4		
12	C1.4.3.24 PS.C1.4	Air-conditioning unit	no	5		
13	C1.4.3.27 PS.C1.4	Waste paper basket	no	4		
14	C1.4.3.29 PS.C1.4	A3 / A4 colour printer, copier, scanner	no	1		
15	C1.4.3.31 PS.C1.4	Rain gauge	no	1		
16	C1.4.3.33 PS.C1.4	Digital thermometer	no	1		
17	C1.4.3.36 PS.C1.4	Measuring wheel	no	1		
18	C1.4.3.37 PS.C1.4	First aid kit	no	2		
		<u>Prime Cost Items</u>				
19	C1.4.4.1	Cell phones costs, including pro-rata rentals, for calls made in connection with contract administration	PC Sum	7500	1.00	7,500.00
20	C1.4.4.2	Handling costs and profit in respect of item C1.4.4.1	%	7500		
21	C1.4.4.5	The provision of internet connectivity and WiFi data for Engineer's site staff	PC Sum	7000	1.00	7,000.00
22	C1.4.4.6	Handling costs and profit in respect of item C1.4.4.5	%	7000		
23	C1.4.4.7	The provision of stationery, paper, ink and other equipment.	PC Sum	70000	1.00	70,000.00
24	C1.4.4.8	Handling costs and profit in respect of item C1.4.4.7	%	70000		
		<u>Services at Site Offices, Laboratories and Site Accommodation</u>				
25	C1.4.5.1 PS.C1.4	Fixed costs	Lump sum	1		
26	C1.4.5.2 PS.C1.4	Running costs	months	14		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0104 C1.4 FACILITIES FOR THE ENGINEER

Item	Clause	Description	Unit	Quantity	Rate	Amount
27	C1.4.8.2 PS.C1.4	Provision of security guards / watchmen and an armed response service at the Engineer's site offices and laboratories	months	14		
28	PS.13	Community and Public Relations	PC Sum	100000	1.00	100,000.00
29	PS.13	Handling costs in respect of item above	%	100000		
Professional Services						
30	PS.18	Adjudication, Employer's contribution	PR Sum	250000	1.00	250,000.00
31	PS.18	Handling costs in respect of item above	%	250000		
32	PS.20	Allowance for Progress Photographs every month, digital and aerial	PC Sum	100000	1.00	100,000.00
33	PS.20	Handling costs and profit in respect of item above	%	100000		
34	PS.23	Allowance for professional services.	PR Sum	1500000	1.00	1,500,000.00
35	PS.23	Handling costs and profit in respect of item above	%	1500000		
36	PS.24	Allowance for geotechnical investigations and testing	PR Sum	400000	1.00	400,000.00
37	PS.24	Handling costs in respect of item above	%	400000		
38	PS.24	Allowance for geotechnical design and supervision	PR Sum	150000	1.00	150,000.00
39	PS.24	Handling costs in respect of item above	%	150000		
40	PS.25	Allowance for the additional survey required by the Engineer	PC Sum	200000	1.00	200,000.00
41	PS.25	Handling costs in respect of item above	%	200000		
42	PS.27	Allowance for Laboratory Acceptance testing as required by the Engineer	PC Sum	450000	1.00	450,000.00
43	PS.27	Handling costs in respect of item above	%	450000		
44	PS.28	Incidental Expense (Prov Sum)	PR Sum	5000000	1.00	5,000,000.00

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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PART 0105 C1.5 ACCOMMODATION OF TRAFFIC

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.5.1.1 PS.1.3	Accommodation of pedestrian and non-motorised traffic	months	14		
2	C1.5.2 PS.1.3	Accommodation of vehicular traffic	months	14		
3	C1.5.6	Removal of temporary deviations	km	0.6		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0105 C1.5 ACCOMMODATION OF TRAFFIC

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Temporary Traffic Control Facilities</u>				
4	C1.5.7.1(a)	Delineators including mounting bases and ballast: Single sided, reversible left or right (1200mm x 250mm)	no	100		
5	C1.5.7.1(b)	Delineators including mounting bases and ballast: Double sided, reversible left or right (1200mm x 250mm)	no	150		
6	C1.5.7.3	Flagmen	man-day	1400		
7	C1.5.7.4	Traffic controllers	man-day	650		
8	PS.C1.5	Temporary barriers for accommodation of traffic, concrete New Jersey type, Contractor's own source	m	100		
9	PS.C1.5	Temporary barriers: Moving of barriers within the site.	m	300		
		<u>Provision of Illuminated Traffic Signs</u>				
10	C1.5.7.5(a)(i)	Sign mounted flashing amber lights (2 lights with the specified power supply) mounted on a backing board which is: (a)(i) 900 mm wide x 150 mm high	no	4		
11	C1.5.7.5 (c)	(c) Illuminated road sign – R & TR series (900mm)	no	10		
12	C1.5.7.5(d)	(d) Illuminated road sign – TW series (900mm)	no	10		
13	C1.5.7.5(d)	(d) Illuminated road sign – TW series (TW407 / TW408)	no	10		
14	C1.5.7.6(a)	Maintenance of illuminated traffic signs: (a) Sign mounted flashing amber lights (i and ii)	months	14		
15	C1.5.7.9	Cleaning of traffic control facilities	months	14		
16	C1.5.7.7(a)	Traffic calming devices: (a) 25 mm high x 100 mm wide asphalt rumble strips	m	50		
17	C1.5.8 PS.1.3.4	Traffic safety officer	man-day	500		
		<u>Provision of Safety Equipment for Visitors</u>				
18	C1.5.11.1	Provision of reflective safety vests for visitors	no	10		
19	C1.5.11.2	Provision of hard hats for visitors	no	10		
20	C1.5.12.1	Additional traffic accommodation facilities ordered by the Engineer	PC Sum	50000	1.00	50,000.00
21	C1.5.12.2	Handling cost, profit and all other charges in respect of item above	%	50000		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0105 C1.5 ACCOMMODATION OF TRAFFIC

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Traffic Safety Officer: Penalties</u>				
22	A1.5.3.7 PS.1.4	(a) Fixed Penalty per occurrence, R2000 per day	RateOnly	0		RATE ONLY
23	A1.5.3.7 PS.1.4	(b) Time-Related Penalty, R1000 per hour	RateOnly	0		RATE ONLY
		<u>Construction of Deviations</u>				
24	C1.5.4 C4.2.4.1 PS.C.4.2	Excavating of materials in box cuts for use in the works, material obtained from: Soft excavation	m3	1600		
25	C1.5.4 C5.1.1.2	Roadbed construction and compaction to 95 % of MDD	m3	2600		
26	C1.5.4 C5.1.3.1(a)	Excavate material to spoil from roadbed construction, material obtained from: (a) Soft excavation	m3	100		
27	C1.5.4 C4.4.2.1(l)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G2, 150mm layers	m3	800		
28	C1.5.4 C5.3.2.1(k)	Construction of layers: Upper subbase (G2) layer compacted to 98 % of MDD	m3	800		
29	C1.5.4 C4.4.2.1(l)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G7, 150mm layers	m3	430		
30	C1.5.4 C5.3.2.1(b)	Construction of layers: Upper selected subgrade layer (G7) compacted to 95 % of MDD	m3	430		
31	C1.5.4 C8.1.1.2	Prime coat: MC -30 cut-back bitumen. 0.8l/m2	l	2100		
32	C1.5.4 C9.1.5.1 (e) PS.C9.1	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S10) (40mm layer)	m2	2600		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 2 DAY WORKS**PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.2.8.1(a)	Personnel: (a) Unskilled labourer	hour	100		
2	C1.2.8.1(b)	Personnel: (b) Semi-skilled labourer	hour	50		
3	C1.2.8.1 (c)	Personnel: (c) Skilled labourer	hour	14		
4	C1.2.8.1 (e)	Personnel: (e) Foreman	hour	125		
5	C1.2.8.1(f)	Personnel: (f) Skilled Artisan	hour	25		
6	C1.2.8.2(a)	Construction equipment : (a) Motor grader	hour	20		
7	C1.2.8.2(b)	Construction equipment : (b) Vibratory roller (7t)	hour	20		
8	C1.2.8.2 (c)	Construction equipment : (c) Pneumatic roller	hour	10		
9	C1.2.8.2€	Construction equipment : (e) Tractor loader backhoe	hour	20		
10	C1.2.8.2(f)	Construction equipment : (f) Excavator (20t)	hour	20		
11	C1.2.8.3(a)	Vehicles : (a) Light delivery vehicle	km	30		
12	C1.2.8.3 (c)	Vehicles : (c) Dump truck (10t)	km	50		
13	C1.2.8.4(a)	Materials - Procurement of materials	PC Sum	80000	1.00	80,000.00
14	C1.2.8.4(b)	(b) Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	%	80000		

TOTAL CARRIED TO SECTION 2 SUMMARY: DAY WORKS**R**

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 3 SITE CLEARANCE**PART 0106 C1.6 CLEARING AND GRUBBING**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Clearing</u>				
1	C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	1.2		
2	C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.3		
		<u>Grubbing</u>				
3	C1.6.2.1	Grubbing with machines and some hand labour where necessary	ha	1.2		
4	C1.6.2.2	Grubbing with hand labour when labour enhancement work is specified or it is not practical to use a machine	ha	0.3		
		<u>Removal and Grubbing of Large Trees and Tree Stumps</u>				
5	C1.6.3.1	Girth equal to or exceeding 1,0 m up to and including 2,0 m	no	15		
6	C1.6.3.2	Girth exceeding 2,0 m up to and including 3,0 m	no	5		
7	C1.6.3.3	Girth exceeding 3,0 m	no	2		
		<u>Protected Grass</u>				
8	C1.6.8.1 PS.C1.6.8.1	Establishment of a temporary nursery: Area of 200m ²	no	1		
9	C1.6.8.2	Removal, storage and maintenance of shrubs	no	10		
10	C1.6.8.3	Removal, storage and maintenance of trees, girth up to and including 1,0 m	no	3		
11	C1.6.8.5	Removal, storage and maintenance of trees, girth exceeding 2,0 m up to and including 3,0 m	no	1		
		<u>Stockpile Site</u>				
12	C4.1.10	Compacting the floor of the stockpile sites	m ³	750		
13	C4.1.15.2(c)	Finishing of the stockpile sites	ha	0.05		
14	C1.6.9.1	Conservation of topsoil: Stockpiling topsoil	m ³	1200		
		<u>Removal</u>				
15	C1.6.4.1 PS.C1.6.4.1	Removal of structures: Demolition of brickwork of Manholes and inlets. Depth 0.0m to 1.0m	m ³	10		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0106 C1.6 CLEARING AND GRUBBING

Item	Clause	Description	Unit	Quantity	Rate	Amount
16	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater manholes and inlet; covers and frames. Store on site.	no	3		
17	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater manholes and inlet; covers and frames. Spoil at tip, including haulage.	no	16		
18	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater Pipes, Diameter 300mm-600mm. Spoil at tip, including haulage.	m	100		
19	C13.3.1.1(a) PS.C1.6.4.1	Cast in situ concrete: Strength concrete (class C): Seal Pipe ends (a) Concrete 15/26	m3	5		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE

R

PART 0107 C1.7 LOADING AND HAULING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Hauling material for use in the Works</u>				
1	C1.7.2.1(a)	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	m3 * km	1100		
		<u>Hauling material to spoil</u>				
2	C1.7.2.2(a) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (a) Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m3	3000		
3	C1.7.2.2(b) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (b) Soil and gravel material	m3	500		
4	C1.7.2.2(c) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (c) Boulders and hard material	m3	100		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 4 SERVICES**PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Location, Identification, Protection and Relocation of Existing Services</u>				
1	C2.1.1.1	Contractor's obligation	Lump sum	1		
		<u>Relocation of Services by Others:</u>				
		<u>Water</u>				
2	C2.1.1.2 PS.3	Permanent services relocation or protection work by others: Water	PC Sum	80000	1.00	80,000.00
3	C2.1.1.3 PS.3	Handling costs and profit in respect of item C2.1.1.2 above	%	80000		
		<u>Sewer</u>				
4	C2.1.1.2 PS.4	Permanent services relocation or protection work by others: Sewer	PC Sum	200000	1.00	200,000.00
5	C2.1.1.3 PS.4	Handling costs and profit in respect of item C2.1.1.2 above	%	200000		
		<u>Electricity</u>				
6	C2.1.1.2 PS.6	Permanent services relocation or protection work by others: Electricity	PC Sum	500000	1.00	500,000.00
7	C2.1.1.3 PS.6	Handling costs and profit in respect of item C2.1.1.2 above	%	500000		
		<u>Telecoms</u>				
8	C2.1.1.2 PS.6	Permanent services relocation or protection work by others: Telecoms	PC Sum	600000	1.00	600,000.00
9	C2.1.1.3 PS.6	Handling costs and profit in respect of item C2.1.1.2 above	%	600000		
		<u>Proving By Hand</u>				
10	C2.1.2.5 PS.2.2	Using hand excavation to locate, expose and verify services, Depth of 0.0m to 1.5m. (Prov)	m3	50		
11	C2.1.2.5 PS.2.2	Using hand excavation to locate, expose and verify services, Depth of 1.5m to 2.0m (Prov)	m3	15		
		<u>Cable Ducts</u>				
12	C2.1.6.1(a) PS.C2.1.6	Trench excavation (in soft material): Trenches up to 1,0 m wide (a) Up to 1,0 m deep	m3	400		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE

Item	Clause	Description	Unit	Quantity	Rate	Amount
13	C2.1.6.1(b) PS.C2.1.6	Trench excavation (in soft material): Trenches up to 1,0 m wide (b) Over 1,0 m and up to 2,0 m deep	m3	300		
14	C2.1.6.2(a) PS.C2.1.6	Trenches over 1,0 m and up to 2,0 m wide: (a) Up to 1,0 m deep	m3	200		
15	C2.1.6.2(b) PS.C2.1.6	Trenches over 1,0 m and up to 2,0 m wide: (b) Over 1,0 m and up to 2,0 m deep	m3	300		
16	C2.1.7.1	Extra over item for excavating in hard material irrespective of depth	m3	300		
17	C2.1.11.1(a) PS.C2.1.6	Backfilling of trenches: Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material: (a) From the excavated trench material	m3	800		
18	C2.1.11.1(b) PS.C2.1.6	Backfilling of trenches: Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material: (b) From other excavations on Site	m3	250		
19	C2.1.11.1(d) PS.C2.1.6	Backfilling of trenches: Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material: (d) From sources provided by the Contractor	m3	400		
20	C2.1.14.2	Extra over items C2.1.11, C2.1.12 and C2.1.13 for additional compaction of backfill:Compaction increased from 93 % of MDD to 95 % of MDD	m3	100		
		<u>Subsoil</u>				
21	C2.1.16 PS.C2.1.16	Subsurface drains in trench bottoms (Drawing 38575 - Type A)	m	350		
22	C2.1.16 PS.C2.1.16	Subsurface drains in trench bottoms (Drawing 38575 - Type C)	m	60		
23	C2.1.17.2	Removal and disposal of spoil material from trench excavations:To spoil sites or dumping areas provided by the Contractor	m3	200		
24	C2.1.19.1	Dealing with surface water	Lump sum	1		
25	C2.1.19.2	Dealing with subsurface water	Lump sum	1		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE

Item	Clause	Description	Unit	Quantity	Rate	Amount
26	C2.1.27.3 PS.C2.1.27.3	Demolition of existing manholes, access chambers and other service structures consisting of: Masonry	m3	10		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES

R

PART 0202 C2.2 DRY SERVICES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Supply, Lay and Prove Ducts</u>				
1	C2.2.1.1(a) PS.C2.2.1.1	U-PVC, type N450, with push fit couplings. (a) 110 mm diameter	m	1000		
2	C2.2.1.1(b) PS.C2.2.1.1	U-PVC, type N450, with push fit couplings. (b) 160 mm diameter	m	1100		
		<u>Bedding for Ducts</u>				
3	C2.2.4.1	Bedding for ducts compacted to 93 % of MDD (100 % for sand) using material: Selected from the excavated trench material	m3	20		
4	C2.2.4.2	Bedding for ducts compacted to 93 % of MDD (100 % for sand) using material: Selected from other excavations on site	m3	20		
5	C2.2.4.5(a)	Bedding for ducts compacted to 93 % of MDD (100 % for sand) using material: From commercial sources : (a) Clean Coarse Sand	m3	5		
		<u>Concrete for Bedding and Encasement of Ducts</u>				
6	C2.2.5.1	Concrete for bedding of ducts: Concrete bedding (Class 20/26)	m3	20		
7	C2.2.5.2	Concrete for encasement of ducts: Concrete encasement of ducts (Class 20/26)	m3	100		
8	C2.2.6.1	Duct accessories: Duct markers (230 x 250 x 50)	no	40		
9	C2.2.6.3	Duct accessories: Draw wires	m	2200		
10	C2.2.6.4	Duct accessories: End caps or plugs (U-PVC for 110mm dia)	no	60		
11	C2.2.6.4	Duct accessories: End caps or plugs (U-PVC for 160mm dia)	no	40		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0202 C2.2 DRY SERVICES

Item	Clause	Description	Unit	Quantity	Rate	Amount
12	C2.2.7.2(a)	Manholes (Standard Manhole): (a)1,0 m and up to 1,5 m deep	no	4		
13	C2.2.7.4 PS.C2.2.7.4	Cable duct headwalls (230mm brickwork). Drawing: 38581	m2	20		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES

R

PART 0204 C2.4 ENERGY AND OTHER SERVICES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.6.2	Street lighting	PC Sum	500000	1.00	500,000.00
2	PS.21	Handling costs and profit in respect of Street lighting	%	500000		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES

R

PART 023A C2.3A WET SERVICES - SEWERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C2.3.1.1(a)	Supply, lay, joint and test sewers:UPVC UG , class 16, collar joint and the class of bedding etc.:(a) 160mm dia	m	300		
2	C2.3.3.1(a)	Bedding for sewers (Class B and C) and fill blanket compacted to 93 % of MDD (100 % for sand):Bedding using selected granular material:(a) From the excavated trench material	m3	130		
3	C2.3.5.1(a)	Manholes, inspection chambers and cleaning eyes for sewers manholes 1000dia ring manhole as per standard drawing 38574.)(a)pipe size 160mm and depth: 1.5m to 2.0m	no	4		
4	C2.3.8.4(a)	Connecting sewers to existing manholes: At start and end of line	no	2		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 5 DRAINAGE**PART 0301 C3.1 DRAINS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C3.1.1.1(a)	Excavation for open drains: Excavating all material situated within the following depth ranges below the surface level using conventional methods: (a) 0 m to 1,5 m	m3	50		
2	C3.1.4.1(a)	Excavation and disposal of material for subsoil drainage systems: in all material situated within the following depth ranges below the surface:(a) 0 m to 1,5 m	m3	75		
3	C3.1.7.2	Crushed stone obtained from commercial sources (13.2mm stone chips)	m3	10		
4	C3.1.8.2	Natural sand from commercial sources (Clean coarse sand)	m3	150		
5	C3.1.9.1	Pipes in subsoil drainage systems: U-PVC pipes and fittings, normal duty, complete with couplings (state size and whether or not perforated or slotted)	m	100		
6	C3.1.11 PS.C12.11	Geotextiles (Drainage grade, A3.)	m2	120		
7	C3.1.14.3	PVC Caps for subsoil drain pipes for subsoil drain pipes	no	4		
8	C3.1.20	Breaking into existing drainage structures and install subsoil drain pipe	no	4		
9	C3.1.22	Test flushing of subsoil drain pipe systems	no	4		
10	C3.1.12.2 PS.C12.11	Vertical subsoil strip drainage systems (Flodrain or Macdrain or similar approved, 1.2m depth, 110mm perforatd pipe, Grade 3 geotextile , etc. of geotextile)	m	50		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

R

PART 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C3.2.1.1(a) PS.C2.1.6 PS.C3.2.1.1	<u>Excavation:</u> <u>Pipes</u> Excavation for culvert structures for pipes: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	m3	300		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	C3.2.1.1(b) PS.C2.1.6 PS.C3.2.1.1	Excavation for culvert structures for pipes: in all material situated within the following depth ranges below the surface level: (b) Exceeding 1,5 m and up to 3,0 m	m3	450		
3	C3.2.1.1(c) PS.C2.1.6 PS.C3.2.1.1	Excavation for culvert structures for pipes: in all material situated within the following depth ranges below the surface level: (b) Exceeding 3,0 m and up to 4,5 m	m3	100		
4	C3.2.1.4 PS.C2.1.6	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material,irrespective of depth	m3	50		
		<u>Backfilling:</u> <u>Pipes</u>				
5	C3.2.2.1	Backfilling: Using the excavated material	m3	600		
6	C3.2.2.2(a)	Backfilling: Using imported selected material: (a) From commercial sources (Using granular material)	m3	250		
		<u>Concrete Pipes: Spigot and Socket Type</u>				
7	C3.2.3.2 PS.C3.2.3.2	Concrete pipe culverts, Spigot and Socket: On Class B bedding (375mm diameter concrete Class 100D)	m	210		
8	C3.2.3.2 PS.C3.2.3.2	Concrete pipe culverts, Spigot and Socket: On Class B bedding (450mm diameter concrete Class 100D)	m	40		
9	C3.2.3.2 PS.C3.2.3.2	Concrete pipe culverts, Spigot and Socket: On Class B bedding (600mm diameter concrete Class 100D)	m	70		
10	C3.2.3.2 PS.C3.2.3.2	Concrete pipe culverts, Spigot and Socket: On Class B bedding (750mm diameter concrete Class 100D)	m	50		
11	C3.2.8	Concrete backfill or encasement for culverts (Grade 20/26)	m3	15		
		<u>Excavation:</u> <u>Manholes, Inlets and Headwalls</u>				
12	C3.2.1.1(a) PS.C2.1.6	Excavation for culvert structures for Manholes Inlets and Headwalls: in all material situated within the following depth ranges below the surface level: (a) 0 m to 1,5 m	m3	135		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
13	C3.2.1.1(b) PS.C2.1.6	Excavation for culvert structures for Manholes Inlets and Headwalls: in all material situated within the following depth ranges below the surface level: (b) Exceeding 1,5 m and up to 3,0 m	m3	160		
14	C3.2.1.1(b) PS.C2.1.6	Excavation for culvert structures for Manholes Inlets and Headwalls: in all material situated within the following depth ranges below the surface level: (b) Exceeding 3,0 m and up to 4,5 m <u>Backfilling:</u> <u>Manholes, Inlets and Headwalls</u>	m3	50		
15	C3.2.2.1	Backfilling: Using the excavated material	m3	200		
16	C3.2.2.2(a)	Backfilling: Using imported selected material: (a) From commercial sources (Using granular material) <u>Headwalls</u>	m3	50		
17	PS.C3.2.9	Inlets and outlets to culverts: Headwalls, Type A, for 375mm and 450mm pipes	no	1		
18	PS.C3.2.9	Inlets and outlets to culverts: Headwalls, Type A, for 600mm pipes	no	2		
19	PS.C3.2.9	Inlets and outlets to culverts: Headwalls, Type A, for 750mm pipes <u>Manholes and Inlets</u>	no	1		
20	PS.C3.2.15.2	Manhole: Type A with a heavy duty polymer concrete cover; Depth: Exceeding 0,0m and up to 1,5m	no	1		
21	PS.C3.2.15.2 PS.C3.2.15.2	Manhole: Type A with a heavy duty polymer concrete cover; Depth: Exceeding 1,5m and up to 2,0m	no	2		
22	PS.C3.2.15.2	Inlet: Type S1, heavy duty polymer concrete cover; Depth: Exceeding 0,0m and up to 1,5m	no	4		
23	PS.C3.2.15.2	Inlet: Type S2, heavy duty polymer concrete cover; Depth: Exceeding 0,0m and up to 1,5m	no	9		
24	PS.C3.2.15.2	Inlet: Type S2, heavy duty polymer concrete cover; Depth: Exceeding 1,5m and up to 2,0m	no	3		
25	PS.C3.2.15.2	Manhole: Type A with a S2 inlet cover, heavy duty polymer concrete cover; Depth: Exceeding 2,0m and up to 2,5m	no	1		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
26	PS.C3.2.15.2	Manhole: Type A with a S2 inlet cover, heavy duty polymer concrete cover; Depth: Exceeding 2,5m and up to 3,0m	no	1		
27	PS.C3.2.15.2	Manhole: Type B with a S2 inlet cover, heavy duty polymer concrete cover; Depth: Exceeding 3,0m and up to 3,5m	no	1		
28	PS.C3.2.15.2	Manhole: Type B with a S2 inlet cover, heavy duty polymer concrete cover; Depth: Exceeding 3,5m and up to 4,0m	no	1		
29	PS.C3.2.15.2	Inlet: Type D3, heavy duty polymer concrete cover; Depth: Exceeding 0,0m and up to 1,5m	no	2		
		<u>Compaction</u>				
30	C3.2.24.1	Compaction of bedding for inlets, outlets, manholes and catchpits: Preparation and compaction of in situ bedding material to 90 % of MDD (depth 150mm)	m3	15		
31	C3.2.24.2	Extra-over sub-item C3.2.24.1 for compaction to 93 % of MDD (depth indicated)	m3	5		
32	C1.7.2.2(b) PS.C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil area: (b) Soil and gravel material	m3	50		
33	C1.7.2.2(c) PS.C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil area: (c) Boulders and hard material	m3	10		
		<u>Chutes</u>				
34	C3.3.6.1	Prefabricated concrete chutes (minimum size 0.4m wide x 0.15m depth)	m	140		
		<u>Alterations to Existing</u>				
35	PS.C3.2.30	Raise/Lower manhole in paved area by :- 0 to 250mm	no	2		
36	C3.2.16.2	Brickwork (Engineering bricks): 230 mm thick	m2	60		
37	C3.2.19.2	Accessories: Inlet Covers frames: Type S2, Heavy Duty Polymer Concrete.	no	3		
38	C3.2.19.3	Accessories: Manhole frames: Standard Manhole, Heavy Duty Polymer Concrete.	no	2		
39	C3.2.19.4	Accessories: Manhole covers or gratings: Standard Manhole, Heavy Duty Polymer Concrete.	no	2		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
40	C3.2.23	Breaking into existing drainage structures and building in pipes or culverts of the following size (Pipe dia 375mm)	no	10		
41	C3.2.23	Breaking into existing drainage structures and building in pipes or culverts of the following size (Pipe dia 600mm)	no	1		
42	C3.2.23	Breaking into existing drainage structures and building in pipes or culverts of the following size (Pipe dia 750mm)	no	1		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

R

PART 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Kerb and Channel / Fillet for Roadway</u>				
1	C3.3.2.1, PS.C3.3.2.1	Prefabricated kerbing, cast in-situ channeling: Type A Barrier Kerb, fig. 6, with 300mm channel, Drawing 38577	m	530		
2	C3.3.2.1, PS.C3.3.2.1	Prefabricated kerbing, cast in-situ channeling: Type A Barrier Kerb, fig.6, with 300mm fillet, Drawing 38577	m	530		
3	C3.3.2.1, PS.C3.3.2.1	Prefabricated kerbing, cast in-situ channeling: Type A Mountable Kerb, fig. 6, with 300mm channel, Drawing 38577	m	10		
4	C3.3.2.2	Cast in situ kerbing-channeling	m3	1		
5	C3.3.3.1, PS.C3.3.2.1	Extra over items C3.3.1 and C3.3.2 for concrete kerbing and channeling on curves of radii more than or equal to 2,0 m but less than 25 m	m	50		
6	C3.3.3.2, PS.C3.3.2.1	Extra over items C3.3.1 and C3.3.2 for concrete kerbing and channeling on curves with radii less than 2,0 m	m	10		
7	C3.3.4	Extra over item C3.3.2 for drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	m	10		
		<u>Sidewalk Edge Restraint</u>				
8	C3.3.2.1, PS.C3.3.2.1	Prefabricated kerbing (edge restraint, Figure 12 kerb including 100mm x 100mm haunching)	m	900		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Scoops</u>				
9	C13.4.11	Cast in situ concrete for Pedestrian / Vehicular Scoop (Grade 20/13)	m3	3		
		<u>Clearing</u>				
10	C3.3.16	Demolition and removal of existing kerbs and/or channel	m3	5		
11	C3.3.6.2	Cast in situ concrete chutes (V Drain, as per drawing) Item to include formation, backfill and compaction, Concrete, reinforcement and formwork	m	180		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

R

PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Reno Mattress and Gabions for Headwalls</u>				
1	C12.6.14.1(a)	Foundation trench excavation: Excavating all material for gabions and reno mattress situated within the following depth ranges (a) 0 m to 1,5 m	m3	70		
2	C12.6.14.1(b)	Foundation trench excavation: Excavating all material for gabions and reno mattress situated within the following depth ranges (b) Exceeding 1,5 m and up to 3,0 m	m3	20		
3	C12.6.15	Surface preparation for bedding the reno mattress	m2	120		
4	C12.6.16.2	Reno mattress: PVC coated gabion boxes (2.0mx1.0mx0.3m)	m3	40		
5	C12.6.15	Surface preparation for bedding gabions	m2	50		
6	C12.6.16.2	Gabions Box: PVC coated gabion boxes (2.0mx1.0mx1.0m)	m3	50		
7	C12.6.17, PS.C12.6.17	Geotextile (Filtertation and separation for use with reno mattress, min Grade 7)	m2	150		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 6 EARTHWORKS**PART 0402 C4.2 CUT MATERIALS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C4.2.1.1	Compiling and implementing M&U plans for the cuttings exceeding 5 000 m3 up to 10 000 m3	no	1		
		<u>Excavation to Stockpile or Fill</u>				
2	C4.2.3.1 PS.C4.2	Excavating of materials in cuttings for use in the works, material obtained from: Soft excavation	m3	1500		
3	C4.2.3.3 PS.C4.2	Excavating of materials in cuttings for use in the works, material obtained from: Boulder excavation class B	m3	200		
4	C4.2.3.4 PS.C4.2	Excavating of materials in cuttings for use in the works, material obtained from: Hard excavation (other than by blasting)	m3	50		
5	C4.2.4.1 PS.C4.2	Excavating of materials in box cuts for use in the works, material obtained from: Soft excavation	m3	1200		
6	C4.2.4.3 PS.C4.2	Excavating of materials in box cuts for use in the works, material obtained from: Boulder excavation class B	m3	50		
7	C4.2.4.4 PS.C4.2	Excavating of materials in box cuts for use in the works, material obtained from: Hard excavation (other than by blasting)	m3	10		
8	C1.7.2.2(b)	Hauling material to spoil and off-loading it at a designated spoil area: (b) Soil and gravel material	m3	300		
9	C1.7.2.2(c)	Hauling material to spoil and off-loading it at a designated spoil area: (c) Boulders and hard material	m3	20		
		<u>Removal of Unsuitable: Bulk Excavation</u>				
10	C4.2.7.1	Removal of unsuitable stable cut material to spoil: In layer thicknesses of 200 mm and less	m3	100		
11	C4.2.7.2	Removal of unsuitable stable cut material to spoil: In layer thicknesses exceeding 200 mm	m3	50		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0402 C4.2 CUT MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Excavation to Spoil</u>				
12	C4.2.9.1 PS.C4.2	Excavate material to spoil in sites designated by the Contractor, material obtained from: Soft excavation, overburden and unsuitable material	m3	3200		
13	C4.2.9.3 PS.C4.2	Excavate material to spoil in sites designated by the Contractor, material obtained from: Boulder excavation class B	m3	100		
14	C4.2.9.4 PS.C4.2	Excavate material to spoil in sites designated by the Contractor, material obtained from: Hard excavation (other than by blasting)	m3	50		
15	C4.2.12.1(a)	Finishing the side slopes of Cuttings: (a) In soft material	m2	1800		
16	C4.2.12.1(b)	Finishing the side slopes of Cuttings: (b) In boulder material class A and B	m2	100		
17	C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m3	1000		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

R

PART 0403 C4.3 EXISTING ROAD MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Saw-cut</u>				
1	C4.3.4.1(a)	Saw-cutting existing materials within the following average depth ranges: Asphalt: (a) Up to 50 mm	m	25		
2	C4.3.4.1(b)	Saw-cutting existing materials within the following average depth ranges: Asphalt: (b) Exceeding 50 mm and up to 100 mm	m	15		
3	C4.3.9.2 PS.C4.2	Excavating material by using conventional road construction equipment to stockpile: Crushed stone and macadam materials	m3	90		
4	C4.3.9.4 PS.C4.2	Excavating material by using conventional road construction equipment to stockpile: Natural gravel and sand materials	m3	180		
5	C4.3.18.1 PS.C4.2	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, material consisting of: Asphalt material	m3	60		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

PART 0403 C4.3 EXISTING ROAD MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS						R

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G7	m3	300		
2	C4.4.2.1(l)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G9	m3	2000		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS R

PART 0502 C5.2 FILL

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.2.1.1	Compiling and implementing M&U plans: For fills more than 5000 m3	no	1		
2	C5.2.2.1(a)	Fill construction: Normal fill material (G7) in compacted layer thicknesses of 200 mm and less: (a) Compacted to 95 % of MDD	m3	500		
3	C5.2.2.1(a)	Fill construction: Normal fill material (G9) in compacted layer thicknesses of 200 mm and less: (a) Compacted to 90 % of MDD	m3	200		
4	C5.2.2.1(b)	Fill construction: Normal fill material (G9) in compacted layer thicknesses of 200 mm and less: (b) Compacted to 93 % of MDD	m3	2800		
5	C5.2.3	Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less	m3	1500		
6	C5.2.11.1	Finishing-off fill slopes	m2	1900		
7	PS.C12.11	Geosynthetic: Reinforcement and separation. Rockgird PC100 or Similar approved	m2	250		
8	PS.C12.11	Geosynthetic: Reinforcement. Bi-axial grid 50kN or Similar approved	m2	600		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 7 LAYERWORKS**PART 0404 C4.4 COMMERCIAL MATERIALS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C4.4.2.1(b)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G2	m3	1000		
2	C4.4.2.1(f)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G5	m3	1100		
3	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G7	m3	1700		
4	C4.4.2.1(l)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G9	m3	1000		
5	C4.4.4.1 PS.C4.4.4.1	Cementitious stabilising agents: Cement	t	10		
		<u>Sidewalks</u>				
6	C4.4.2.1(e)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers:(for sidewalk) Pavement layer material:Type G2	m3	200		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PART 0501 C5.1 ROADBED

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.1.1.2	Roadbed construction and compaction to 95 % of MDD	m3	750		
2	C5.1.4.1(a)	Removal of unsuitable material to spoil: In layer thicknesses of 200 mm and less (a) Stable material	m3	80		
3	C5.1.4.2(a)	Removal of unsuitable material to spoil: In layer thicknesses exceeding 200 mm (a) Stable material	m3	50		
4	C5.1.5.1	In-place treatment of roadbed in hard material: by ripping	m3	30		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

PART 0503 C5.3 ROAD PAVEMENT LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.3.1	Compiling and implementing M&U plans for the construction of all the pavement layers.	no	1		
2	C5.3.2.1(j)	Construction of layers: Lower subbase (C5) layer compacted to 95 % of MDD	m3	1100		
3	C5.3.2.1(k)	Construction of layers: Upper subbase (G2) layer compacted to 98 % of MDD	m3	1000		
4	C5.3.2.1(b)	Construction of layers: Upper selected subgrade layer (G7) compacted to 95 % of MDD	m3	1700		
5	C5.3.2.1(a)	Construction of layers: Upper selected subgrade layer (G9) compacted to 95 % of MDD	m3	1000		
6	C5.3.11.3 PS.C9.1	Using an inertial profilometer	km	0.5		
		<u>Sidewalk</u>				
7	C5.3.2.1(m)	Sidewalk selected layer (G2) compacted to 98 % of MDD	m3	200		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PART 0504 C5.4 STABILISATION

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.4.1.1	Pre-treatment of (G5) gravel layer	m3	100		
2	C5.4.2.1 PS.C4.4.4.1	Cementitious stabilisation (200mm layers) of pavement layers (to C4 quality)	m3	100		
3	C5.4.5.1(a) PS.C4.4.4.1	Addition of cementitious soil stabilisation agents for pavement layers: (a) Cement (for pavement layer)	t	8		
4	C5.4.10	Provision and application of water for curing	kl	10		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PART 0901 C9.1 ASPHALT LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Asphalt Mix Designs</u>				
1	C9.1.1.2(a) PS.C9.1	Sand skeletal mixes: Continuously graded base or surfacing (SA-S14).	Lump sum	1		
2	C9.1.1.2(a) PS.C9.1	Sand skeletal mixes: Continuously graded base or surfacing (SA-S7).	Lump sum	1		
		<u>Trial Sections</u>				
3	C9.1.2.1 PS.C9.1	Trial Layer: Asphalt layers (SA-S14, 50mm layer, paver laid).	m2	100		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 0901 C9.1 ASPHALT LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Bond Coat</u>				
4	C9.1.3.1 PS.C9.1	Application of bond coat: Stable –grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributor	l	2400		
		<u>Asphalt Surface</u>				
5	C9.1.5.1(e) PS.C9.1	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S14) (50mm layer)	m2	4200		
6	C8.1.1.2	Prime coat: MC -30 cut-back bitumen. 0.8l/m2	l	3400		
		<u>Sidewalk / Median Surface</u>				
7	C9.1.5.1 (e) PS.C9.1	New construction Sidewalks (a) Stone skeletal mix – continuously graded (SA-S7) (25mm layer)	m2	2000		
8	C8.1.1.2	Prime coat: MC -30 cut-back bitumen. 0.8l/m2	l	960		
9	C8.1.3	Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment.	l	960		
10	C6.2.1	Brick Pavers - Burgundy 220x110x50mm or similar approved butt jointed clay brick pavers on 20mm cement stabilised bedding	m2	20		
		<u>Bridge Deck</u>				
11	C9.1.8.1	Surfacing of bridge decks: Levelling course Levelling course: Sand skeletal mix – Continuously graded, 20mm thickness, 50/70 pen bitumen binder 7.1mm maximum particle size)	t	90		
12	C9.1.8.2	Surfacing of bridge decks: 50mm SA-S14 paver laid	t	200		
		<u>Other</u>				
13	C9.1.12	Asphalt reinforcing - complete (100kN) (Glasgrid or MacGrid or similar)	m2	200		
14	C9.1.13.2	Coring of asphalt layers: 150 mm diameter	no	10		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

PART 1203 C12.3 GROUND IMPROVEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C12.3.20 PS.C12.3.20	Importing dump rock for subgrade improvement, 300mm thick	m3	60		
2	C12.3.20 PS.C12.3.20	Importing dump rock for subgrade improvement, 500mm thick	m3	100		
3	PS.C12.3.20	Supply and place minimum grade 5 geofabric to dumprock layer.	m2	250		
4	C12.3.19 PS.C12.3.20	Importing G5 quality material from approved sources, to be applied over dumprock layer.	t	140		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 8 ANCILLARY ROAD WORKS**PART 1104 C11.4 ROAD RESTRAINT SYSTEMS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.4.1.1(c)	Erecting of guardrails at 3,81 m spacing: Complete galvanized system compliant to SANS 1350: (c) on CONCRETE post (Drawing 38580)	m	130		
2	C11.4.1.2(a)	Terminal sections for 3,81 guardrails comprising of: (a) End wings to SANS 1350	no	6		
3	C11.4.1.2(b)	Terminal sections for 3,81 guardrails comprising of: (b) Bullnoses to SANS 1350	no	4		
4	C11.4.1.2(a)	Terminal sections for 3,81 guardrails comprising of: (c) Bridge adapters to SANS 1350 (Drawing: Structures)	no	4		
5	C11.4.5.1	"Additional guardrail posts for 3,81 m systems: Concrete"	no	10		
6	C11.4.6.2	Reflective Plastic plates	no	30		
7	C11.4.4.1	Extra over C11.4.1 and C11.4.11 for horizontally curved guard rails factory bent to a radius of less than 45m	m	25		
<u>Removal, Disposal and Re-erection</u>						
8	C11.4.7	Removing existing guardrails	m	30		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1105 C11.5 FENCING

Item	Clause	Description	Unit	Quantity	Rate	Amount
<u>Wire Mesh Fence - Drawing 38583</u>						
1	C11.5.1.3	Diamond mesh	m2	375		
2	C11.5.1.9(a)(i)	Straining posts, stays and anchors:(a) Vertical (Concrete straining post)	no	200		
3	C11.5.4.1(d)	Dismantling existing fences: (d) Security fences	m	30		
4	C11.5.4.2, PS.C11.5.4.1	Dismantling existing gates: Water Treatment Plant access gate	no	1		
5	C11.5.2 PS.C11.5.4.1	New gates (Vehicular)	no	1		
6	C11.5.2	New gates (Pedestrian)	no	1		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1105 C11.5 FENCING

Item	Clause	Description	Unit	Quantity	Rate	Amount
7	PS.C11.5.4.1	Providing and installing heavy duty gate motor, including min 4 remotes, security bracket and lock, gate rack/runners and gate control unit in guard hut (30m from gate), all electrical works, all materials, all cabling under ground.	no	1		
8	C11.5.10.1	Disposal of existing fencing materials: Security Fences	m	10		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1106 C11.6 ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.6.1.3(a)	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: Prepainted galvanized steel plate: (a) Area 0 to 0,5 m2	m2	12		
2	C11.6.1.3(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: Prepainted galvanized steel plate: (b) Area exceeding 0,5 m2 but not 2,0 m2	m2	5		
3	C11.6.1.4(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: Prepainted galvanized steel profiles (200 mm high panels): (b) Area exceeding 0,5 m2 but not 2,0 m2	m2	2		
4	C11.6.2.1(a)	Extra over on item C11.6.1 for using: Background of retro-reflective material: (a) Class I	m2	12		
5	C11.6.2.1(b)	Extra over on item C11.6.1 for using: Background of retro-reflective material: (b) Class III	m2	7		
6	C11.6.3.1	Road sign supports: Steel tubing (75m diameter), Galvanised	m	80		
7	C11.6.3.2	Road sign supports: Timber (100mm diameter)	m	10		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1106 C11.6 ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
8	C11.6.5.1	Excavation and backfilling for road sign supports:Excavating soft material and backfilling	m3	8		
9	C11.6.5.4	Extra over item C11.6.5.1 for hard material excavation	m3	1		
10	C13.4.11	Cast in situ concrete for road sign footings as directed by the Engineer (Grade 20/19)	m3	6		
11	C11.6.10.1	Disposing of road signs with a surface area of: (a) Area 0 to 0,5 m2	m2	0		
12	C11.6.10.2	Disposing of road signs with a surface area of: (b) Area exceeding 0,5 m2 but not 2,0 m2	m2	3		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1107 C11.7 ROAD MARKINGS AND ROAD STUDS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Lettering and Symbols</u>				
1	C11.7.1.4 PS.C11.7.1	White lettering and symbols (Thermoplastic)	m2	35		
2	C11.7.1.5 PS.C11.7.1	Yellow lettering and symbols (Thermoplastic)	m2	10		
		<u>Transverse Lines and Painted Islands</u>				
3	C11.7.1.7 PS.C11.7.1	Transverse lines, painted island and arrestor bed markings (White) (Thermoplastic)	m2	20		
4	C11.7.1.7 PS.C11.7.1	Transverse lines, painted island and arrestor bed markings (Yellow) (Thermoplastic)	m2	300		
		<u>Broken and Unbroken Lines</u>				
5	C11.7.3.1 PS.C11.7.1	Thermoplastic road marking, broken or unbroken (White, 100mm wide)	km	0.8		
6	C11.7.3.1 PS.C11.7.1	Thermoplastic road marking, broken or unbroken (White, 150mm wide)	km	0.1		
7	C11.7.3.1 PS.C11.7.1	Thermoplastic road marking, broken or unbroken (White, 200mm wide)	km	0.01		
8	C11.7.3.1 PS.C11.7.1	Thermoplastic road marking, broken or unbroken (Yellow, 100mm wide)	km	0.2		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1107 C11.7 ROAD MARKINGS AND ROAD STUDS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Road Studs</u>				
9	C11.7.7.1 PS.C11.7.2	Permanent road studs compliant to SANS 1442 (Tempered glass 360 degree, Clear Holophane or similar approved)	no	50		
10	C11.7.7.1 PS.C11.7.2	Temporary road studs compliant to SANS 1442 or 1463 (red or yellow)	no	100		
11	C11.7.7.1 PS.C11.7.2	Solar powered road studs (3 LED's, Red)	no	10		
		<u>Premarking</u>				
12	C11.7.8 PS.C11.7.1	Setting out and premarking the lines	km	1.11		
		<u>Other</u>				
13	C11.7.9 PS.C11.7.1	Re-establishing the painting unit during the defects notification period and at other instances on instruction of the Engineer	no	1		
14	C11.7.10.1	Removal of existing, temporary or final road markings by: Sandblasting	m2	20		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1108 C11.8 LANDSCAPING AND PLANTING PLANTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.8.3.3(a)	Preparing the areas for grassing: (a) Topsoil obtained from within the road reserve or borrow areas	m3	50		
2	C11.8.3.3(b)	Preparing the areas for grassing: (b) Topsoil obtained from commercial sources by the Contractor	m3	350		
3	C11.8.4.3(a)	Hydroseeding: (a) Providing an approved seed mixture for hydroseeding	kg	200		
4	C11.8.4.3(c)	(c) Hydroseeding	ha	0.4		
5	C11.8.6	Watering the already planted grass, trees and shrubs during the growing season	kl	5		
6	C11.8.10	Unspecified work for landscaping	ProvSum	1	1,000,000.00	1,000,000.00

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1109 C11.9 FINISHING ROAD AND ROAD RESERVE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.9.1.2	Single carriageway road	km	0.43		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 9 RETAINING WALLS**PART 1206 C12.6 MECH STABILISED FILL AND GABIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Gabions</u>				
1	C12.6.14.1(a)	Foundation trench excavation: Excavating all material for gabions situated within the following depth ranges (a) 0 m to 1,5 m	m3	200		
2	C12.6.14.1(b)	Foundation trench excavation: Excavating all material for gabions situated within the following depth ranges (b) Exceeding 1,5 m and up to 3,0 m	m3	50		
3	C12.6.15	Surface preparation for bedding the gabions	m2	150		
4	C12.6.16.2	Gabions and mattresses: PVC coated gabion boxes (1.0mx1.0mx2.0m)	m3	350		
5	C12.6.17, PS.C12.6.17	Geotextile (Filtertation and separation for use with gabions, min Grade 7)	m2	400		
		<u>Segmented Block walls (Geolock or similar approved)</u>				
6	C12.6.2	Excavation for wall base foundation	m3	150		
7	C12.6.3	Concrete for wall base foundation (25/26)	m3	75		
8	C12.6.7	Metallic reinforcing mesh (Mesh Ref. 245)	m2	240		
9	C12.6.12.2	Facings (Geolock wall as per drawing for wall 0-2m): For concrete block wall facing	m2	250		
10	C12.6.12.2	Facings (Geolock wall as per drawing for wall 2m-3m): For concrete block wall facing	m2	300		
11	C12.6.12.2	Facings (Geolock wall as per drawing for wall 3-4m): For concrete block wall facing	m2	130		
12	C12.6.13	Drainage (50mm weepholes installed inclusive of all elements as per drawing)	no	50		
13	C12.6.11	Backfill (19mm stone chips)	m3	100		
14	C12.6.11	Backfill (Cement stabilised backfill as per drawing)	m3	270		
15	C12.6.11	Backfill (compacted to 95%MDD)	m3	75		
16	C12.6.17	Geotextile (Drainage A3)	m2	650		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
17	C12.6.3	Concrete for wall Top blocks of wall (25/26)	m3	20		
18	C3.1.9.1	Pipes in subsoil drainage systems: U-PVC pipes and fittings, normal duty, complete with couplings (state size and whether or not perforated or slotted)	m	180		
19	C3.3.6.2	Precast concrete chutes (catchwater drain, minimum 300mm wide by 150mm deepm as per drawing) Item to include all materials, formation, backfill and installation.	m	100		

TOTAL CARRIED TO SECTION 9 SUMMARY: RETAINING WALLS

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 10 RIVER COURSE WORKS**PART 0402 C4.2 CUT MATERIALS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>River Clearing</u>				
1	C4.2.3.1	Excavating of materials in cuttings for use in the works, material obtained from: Soft excavation Clearing and along the river as instructed by Engineer	m3	1500		
2	C4.2.3.2	Excavating of materials in cuttings for use in the works, material obtained from: Boulder excavation class A Clearing and along the river as instructed by Engineer	m3	200		
3	C4.2.12.2	Finishing the side slopes of Designated excavations Along the river as instructed by Engineer	m2	4000		

TOTAL CARRIED TO SECTION 10 SUMMARY: RIVER COURSE WORKS

R

PART 1211 C12.11 GEOSYNTHETICS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C12.6.17	Geotextile (Maccaferri Macweb /Kaytech MultiCell geosynthetic or similar approved) including installation accessories.	m2	500		
2	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Top soil	m3	30		
3	C13.3.1.1(a)	Cast in situ concrete: Strength concrete (class C): (a) C20/13. To fill Macweb/Multicell or similar approved, with concrete float finish	m3	20		
4	C12.6.17	Geotextile (Biogradable soil saver mat)	m2	2000		
5	C12.6.17	Geotextile (Maccaferri Macmat -R or similar approved) including installation accessories.	m2	350		

TOTAL CARRIED TO SECTION 10 SUMMARY: RIVER COURSE WORKS

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

SECTION 11 STRUCTURES - BRIDGE**PART 1301 C13.1 FOUNDATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C13.1.6.1	Access and drainage: Access	sum	1		
2	C13.1.6.2	Access and drainage: Drainage	sum	1		
3	C13.1.3.1.(a)	Excavation: Excavating soft material situated within the following depth range: (a) 0 m up to 1,5 m	m3	500		
4	C13.1.3.1.(b)	Excavation: Excavating soft material situated within the following depth range: (b) > 1,5 m and < 3,0 m	m3	400		
5	C13.1.3.1.(b)	Excavation: Excavating soft material situated within the following depth range: (c) > 3,0 m and < 4,5 m	m3	300		
6	C13.1.3.1.(b)	Excavation: Excavating soft material situated within the following depth range: (d) > 4,5 m and < 6,0 m	m3	200		
7	C13.1.3.1.(b)	Excavation: Excavating soft material situated within the following depth range: (e) > 6.0 m and < 7,5 m	m3	200		
8	C13.1.3.1.(b)	Excavation: Excavating soft material situated within the following depth range: (f) > 7,5 m and < 9,5 m	m3	100		
9	C13.1.3.2	Extra over subitem C13.1.3.1 for excavation in hard material irrespective of depth	m3	300		
10	C13.1.7.1	Backfill to excavations utilising: Material from excavation	m3	1000		
11	C13.1.7.2	Backfill to excavations utilising: Imported material	m3	1500		
12	C13.1.7.3	Backfill to excavations utilising: Soil cement	m3	20		
13	C13.1.14.6	Foundation fill consisting of: Plum concrete Class C25/30-20 using large river boulders from site to create natural rock formation effect	m3	100		
14	C13.1.14.6	Foundation fill consisting of: Plum concrete Class C12/15-50	m3	400		
15	C13.1.14.4	Foundation fill consisting of: Mass concrete Class C12/15-50	m3	150		
16	C13.1.14.5	Foundation fill consisting of: Concrete blinding (75mm min. thickness, Class C12/15-20)	m3	50		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1301 C13.1 FOUNDATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
17	PS.C13.1.14.3	Foundation fill consisting of: Compacted select, free-draining, granular material (friction angle between 35 and 45 degrees).	m3	2500		
18	C13.1.9	Fill within a restricted area (extra over item C5.2.2)	m3	1500		
19	C13.1.23(a)	Lateral support for excavations: Excavation behind abutments (a) 0 to 2,5 m depth	m2	200		
20	C13.1.23(b)	Lateral support for excavations: Excavation behind abutments (b) 2,5 to 5,0 m depth	m2	200		
21	C13.1.23(c)	Lateral support for excavations: Excavation behind abutments (c) 5,0 to 7,5 m depth	m2	200		
22	C13.1.23(c)	Lateral support for excavations: Excavation behind abutments (d) 7,5 to 10.0 m depth	m2	200		
23	C13.1.20.1	Dowel bars: Drilling and preparation of holes of 80 mm dia. and 1.8 m deep	m	15		
24	C13.1.20.2	Supply and installation of dowel bars (Hot dipped galvanised Y32 3.2 m long together with cementitious grout)	kg	250		
25	C13.1.21	Foundation lining for approach slabs (250 micron Polyethylene)	m2	170		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 1302 C13.2 FALSEWORK, FORMWORK AND CONCRETE

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>BASES</u>				
1	C13.2.2	Vertical formwork to provide F2 surface finish to exposed and hidden faces of abutment bases	m2	95		
2	C13.2.2	Vertical formwork to provide F2 surface finish to exposed and hidden faces of wingwall bases	m2	200		
3	C13.2.2	Vertical formwork to provide F2 surface finish to exposed faces of pier bases	m2	60		
		<u>ABUTMENTS, WINGWALLS AND PIERS</u>				
4	C13.2.2	Vertical formwork to provide F2 surface finish to exposed faces of abutments (to remain in place for minimum 7 days after abutment wall concrete is poured)	m2	190		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1302 C13.2 FALSEWORK, FORMWORK AND CONCRETE

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	PS.C13.2.11	Vertical formwork to provide imitation stonework patterned surface finish using flexible inserts to exposed faces of wingwalls as shown on Drawing 49217 Sheet 5)	m2	370		
6	C13.2.2	Vertical formwork to provide F1 surface finish to hidden faces of abutments (to remain in place for minimum 7 days after abutment wall concrete is poured)	m2	230		
7	C13.2.2	Vertical formwork to provide F1 surface finish to hidden faces of wingwalls	m2	370		
8	C13.2.2	Vertical formwork to provide F2 surface finish to exposed faces of piers (inclusive of curved rounding, to remain in place for minimum 7 days after pier concrete is poured)	m2	145		
9	C13.2.4	Inclined formwork to provide F2 surface finish to exposed faces piers (inclusive of curved rounding, to remain in place for minimum 7 days after pier concrete is poured)	m2	15		
10	C13.2.2	Vertical formwork to provide F1 surface finish to hidden faces of approach slab	m2	25		
		DECK				
11	C13.2.2	Vertical formwork to provide F1 surface finish to hidden faces of deck edges and vertical construction joints	m2	180		
12	C13.2.3	Horizontal formwork to provide F2 surface finish to soffit of deck (to remain in place for minimum 21 days after deck concrete is poured)	m2	525		
13	C13.2.4	Inclined formwork to provide F2 surface finish to soffit of deck (to remain in place for minimum 21 days after deck concrete is poured)	m2	800		
14	C13.2.2	Vertical formwork to provide F1 surface finish to hidden faces of barrier base slabs and handrail ground beams	m2	180		
15	C13.2.10	Provision of designs and drawings of falsework and formwork by an ECSA registered Professional Engineer or Technologist (description of member to which applicable)	sum	1		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

PART 1303 C13.3 STEEL REINFORCEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>PIERS</u>				
1	C13.3.1.1(a)	Reinforcement for: Pier Bases: (a) Mild-steel bars (R)	t	1		
2	C13.3.1.1(b)	Reinforcement for: Pier Bases: (b) High-yield-stress-steel bars (Y)	t	15		
3	C13.3.1.1(a)	Reinforcement for: Piers: (a) Mild-steel bars (R)	t	1		
4	C13.3.1.1(b)	Reinforcement for: Piers: (b) High-yield-stress-steel bars (Y)	t	5		
		<u>ABUTMENTS</u>				
5	C13.3.1.1(a)	Reinforcement for: Abutment Bases: (a) Mild-steel bars (R)	t	4		
6	C13.3.1.1(b)	Reinforcement for: Abutment Bases: (b) High-yield-stress-steel bars (Y)	t	40		
7	C13.3.1.1(a)	Reinforcement for: Abutments and Approach Slabs: (a) Mild-steel bars (R)	t	4		
8	C13.3.1.1(b)	Reinforcement for: Abutments and Approach Slabs: (b) High-yield-stress-steel bars (Y)	t	40		
		<u>WINGWALLS</u>				
9	C13.3.1.1(a)	Reinforcement for: Wingwall Bases: (a) Mild-steel bars (R)	t	3		
10	C13.3.1.1(b)	Reinforcement for: Wingwall Bases: (b) High-yield-stress-steel bars (Y)	t	30		
11	C13.3.1.1(a)	Reinforcement for: Wingwalls: (a) Mild-steel bars (R)	t	3		
12	C13.3.1.1(b)	Reinforcement for: Wingwalls: (b) High-yield-stress-steel bars (Y)	t	30		
		<u>DECK</u>				
13	C13.3.1.1(a)	Reinforcement for: Deck: (a) Mild-steel bars (R)	t	26		
14	C13.3.1.1(b)	Reinforcement for: Deck: (b) High-yield-stress-steel bars (Y)	t	260		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1303 C13.3 STEEL REINFORCEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>BARRIERS</u>				
15	C13.3.1.1(a)	Reinforcement for: Barriers, Barrier Base Slabs and Handrail Ground Beams: (a) Mild-steel bars (R)	t	2		
16	C13.3.1.1(b)	Reinforcement for: Barriers, Barrier Base Slabs and Handrail Ground Beams: (b) High-yield-stress-steel bars (Y)	t	10		
17	C13.3.4	Extra-over item C13.3.1.1. for galvanising of reinforcement	t	6		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 1304 C13.4 CONCRETE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C13.3.1.1(a)	Cast in situ concrete: Strength concrete (class C): (a) Abutment Bases C32/40-20	m3	250		
2	C13.3.1.1(b)	(b) Wingwall Bases C32/40-20	m3	250		
3	C13.3.1.1(b)	(c) Pier Bases C32/40-20	m3	110		
4	C13.3.1.1(b)	(d) Wingwalls C32/40-20	m3	230		
5	C13.3.1.1(b)	(e) Approach Slabs C32/40-20	m3	80		
6	C13.3.1.1(b)	(f) Barrier Base Slabs and Handrail Ground Beams C32/40-20	m3	90		
7	C13.3.1.1(a), A13.4.5.5	Cast in situ concrete: Water-tight concrete (class C) with integral permeability reducing technology: (a) Piers 32/40-20 Water-tight Concrete	m3	40		
8	C13.3.1.1(b), A13.4.5.5	(b) Abutment Walls 32/40-20 Water-tight Concrete	m3	190		
9	C13.3.1.1(b)	(c) Deck C32/40-20	m3	1540		
10	C13.4.5.1	Curing and surface protection of cast in situ concrete, as and where specifically required: Abutments, piers and deck soffit and sides by retaining formwork in place for 14 days and using an approved curing compound applied in accordance with the manufacturer's instructions	m2	1750		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1304 C13.4 CONCRETE

Item	Clause	Description	Unit	Quantity	Rate	Amount
11	C13.4.5.1	Curing and surface protection of cast in situ concrete, as and where specifically required: Deck top surface by using an approved curing compound applied in accordance with manufacturer's instructions and covering it with clean, non-marking sand or absorbent mats made from a moisture-retaining material, and keeping the covering constantly wet for 14 days.	m2	1300		
12	PS.C13.4.13.1	Complete demolition of existing structural concrete elements or parts of existing structures: All parts of existing major culvert and apron slabs, including removal of reinforcing steel to spoil and haul of concrete remainder to stockpile	m3	400		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 1306 C13.6 BEARINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C13.6.3	Bearing strips below approach slab (3 layers of 3 ply lubricated roofing felt or malthoid)	m2	15		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 1307 C13.7 JOINTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C13.7.2.1	Filled joints: Rigid foam of expanded polyethylene (or similar approved) for 50 mm joint between abutment base and wingwall base	m2	30		
2	C13.7.2.1	Filled joints: Rigid foam of expanded polyethylene (or similar approved) for 20 mm joint between abutment and wingwalls	m2	30		
3	C13.7.2.1	Filled joints: Rigid foam of expanded polyethylene (or similar approved) for 10 mm joint in wingwalls	m2	20		
4	C13.7.4.1	Sealing joints with: Sealant (structural silicone including backing chord for 20 mm joint between abutments and wingwalls)	m	30		
5	C13.7.4.1	Sealing joints with: Seal (flexible Polyolefin sealant tape with epoxy bonding, Sikadur-Combiflex or similar approved, for 20 mm joint in abutment)	m	30		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1307 C13.7 JOINTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
6	C13.7.4.1	Sealing joints with: Seal (flexible Polyolefin sealant tape with epoxy bonding, Sikadur-Combiflex or similar approved, for 50 mm joint in abutment base)	m	20		
7	C13.7.4.1	Sealing joints with: Sealant (structural silicone including backing chord for 10 mm joint in wingwalls)	m	70		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 1308 C13.8 ANCILLARY STRUCTURAL ELEMENTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C13.8.1.1	Concrete barriers and parapets (refer to Drawing 49217 Sheet 10): Barriers	m	250		
2	C13.8.1.1	Concrete barriers and parapets (refer to Drawing 49217 Sheet 9): Rounded precast concrete coping to deck and wingwalls	m	230		
3	C13.8.1.1	Concrete barriers and parapets (refer to Drawing 49217 Sheet 9): Drainage channel to secure precast coping above wingwall	m	50		
4	C13.8.2	Barrier end blocks (refer to Drawing 49217 Sheet 10)	no	4		
5	C13.8.2, C13.9.2.2	Barrier panel with light mast attachment detail including anchor bolts (refer to Drawing 49217 Sheet 11)	no	4		
6	C13.8.10.1(b)	Drainage pipes and weep holes: Drainage pipes: (b) 110 mm diameter scuppers in deck, including fittings as shown on Drawing 49217 Sheet 9)	no	20		
7	C13.8.10.2(b)	Drainage pipes and weep holes: Weep holes: (b) 50 mm diameter in abutments and wingwalls	m	80		
8	C13.8.15	Drainage strips: HDPE 200 mm wide DN3 behind abutments	m	150		
9	C13.8.16.1	Perforated drainage pipes: 65 mm diameter wrapped in Grade B synthetic fibre filter fabric	m	100		
10	C13.8.7.3	Numbers for structures: Numbers formed in concrete	no	1		
11	PS.C13.8.18	Bridge instrumentation, data collection and structural performance monitoring	PC Sum	1000000	1.00	1,000,000.00
12	PS.C13.8.18	Handling costs in respect of item above	%	1000000		

Flood Damage Remediation: Shallcross/Blundell Road and Bridge Construction, Ward 63

Part Continued **PART** 1308 C13.8 ANCILLARY STRUCTURAL ELEMENTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
13	PS.C13.8.19	Design, supply and installation of pedestrian security fencing system on bridge as per Drawing 49217 Sheet 12	PC Sum	1500000	1.00	1,500,000.00
14	PS.C13.8.19	Handling costs and profit in respect of above item.	%	1500000		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 1407 C14.7 PROTECTIVE COATINGS AND TREATMENTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C14.7.1	Cleaning and preparation of concrete surface (high pressure water jetting with a final F3 finish)	m2	155		
2	C14.7.2	Application of protective coatings and treatments (Sealers and Poreblockers: Cementitious Crystalline Waterproofing 0.8kg/m ²)	m2	155		
3	C14.7.3	On site monitoring and supply of written product performance guarantee	sum	1		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R

PART 2001 C20.1 TESTING MATERIALS AND JUDGEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C20.1.2.1(a)	Special tests requested by the Engineer: Employer's contribution to concrete durability tests:(a) Tests for water sorptivity	PC Sum	15000	1.00	15,000.00
2		Handling costs and profit in respect of item C20.1.2.1(a)	%	15000		
3	C20.1.2.1(b)	Special tests requested by the Engineer: Employer's contribution to concrete durability tests:(b) Tests for oxygen permeability	PC Sum	15000	1.00	15,000.00
4		Handling costs and profit in respect of item C20.1.2.1(b)	%	15000		
5	C20.1.2.1(c)	Special tests requested by the Engineer: Employer's contribution to concrete durability tests:(c)Tests for chloride conductivity	PC Sum	15000	1.00	15,000.00
6		Handling costs and profit in respect of item C20.1.2.1 (c)	%	15000		

TOTAL CARRIED TO SECTION 11 SUMMARY: STRUCTURES - BRIDGE

R