

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD

C.2.2.1 : INDEX TO BILL OF QUANTITIES**SECTION 1 PRELIMINARY AND GENERAL****PART AA PRELIMINARIES****PART AB GENERAL SPECIFICATIONS****PART AH OCCUPATIONAL HEALTH and SAFETY****SECTION 2 CASTLE ROAD****PART B SITE CLEARANCE****PART C CONCRETE WORK****PART DA EARTHWORKS : BULK****PART DD EARTHWORKS FOR STRUCTURES****PART EB GRADED CRUSHED STONE****PART ED ROAD ASPHALT****PART F PROTECTION WORKS****PART TA ROAD SIGNS****PART TB ROAD MARKINGS****SECTION 3 HAMILTON ROAD****PART B SITE CLEARANCE****PART C CONCRETE WORK****PART DA EARTHWORKS : BULK****PART DD EARTHWORKS FOR STRUCTURES****PART EB GRADED CRUSHED STONE****PART ED ROAD ASPHALT****PART EF KERBS AND HAUNCHES****PART F PROTECTION WORKS**

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD

C.2.2.2 : BILL OF QUANTITIES**SECTION 1 PRELIMINARY AND GENERAL****PART AA PRELIMINARIES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA</u>				
1	GCC 2015	Fixed Charge obligations	sum	1		
2	GCC 2015	Time Related obligations	sum	1		
		<u>SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS</u>				
3	SANS 1921-1	Fixed Charge Items	sum	1		
4	SANS 1921-1	Time Related Items	sum	1		
		<u>COMMUNITY LIAISON OFFICER</u>				
5	PS.15.1	Allow for a CLO to be appointed.	PC Sum	150000	1.00	150 000.00
6	PS.15.1	Allow for a percentage (%) mark-up on item 05	%	150000		
7	PS.15.2	Allow for the weekly submission of proof of employment of local labour	week	16		
		<u>STAKEHOLDER MANAGEMENT AND LIAISON</u>				
8	PS.20	Stakeholder Management and Liaison	week	16		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC.6.2.1	Surities	sum	1		
2	GCC.8.6.1.1	Workmans Compensation	sum	1		
3	GCC.8.6.1.1	Insurance of work, damage to persons and property etc.	sum	1		
4	AB.4	Contractor's Camp Site / Store Yard	sum	1		
5	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
6	AB.7	Road Deviations	sum	1		
7	PS.AB.11	Proving of exisging services by hand	m3	40		
8		Flushing/High Pressure Jetting of exisging stormwater lines	PC Sum	100000	1.00	100 000.00
9		Survey control for setting out of works	sum	1		

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FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
10	AB.6	Allowance for samples, geotechnical and acceptance testing by a SANAS Accredited Specialist Material Lab as required by the Engineer	PC Sum	10000	1.00	10 000.00
11		Contractors Markup on Item 11	%	10000		
12		Allowance for the use of additional local labour	PC Sum	5000	1.00	5 000.00
13		Repairing of existing services inclusive of all fittings, pipes, plant and labour	m	40		
14		Raise/Lower existing services (water, electricity ect)inclusive of all fittings, pipes, plant and labour	m	40		
15		Cost of Samples and Contractors Preliminary Site control Testing	sum	1		
<u>TIME RELATED ITEMS</u>						
16		Allow for progress photographs (Contractor to submit BOTH a USB and CD weekly depicting works on site as required by the Engineer, be able to print out a minimum of 40 photographs in colour per month)	week	16		
17		Maintenance of Pedestrian and Traffic facilities	week	16		
18	AB.7	Maintenance of all signs, barricades and delineators	week	16		
19		Contractors Superintendence	week	16		
20		Site Security	week	16		
21	PS.DW	Dayworks (TLB Hire)	hr	15		
22	PS.DW	Dayworks (LDV Hire)	hr	15		
23	PS.DW	Dayworks (Skilled Labour)	hr	15		
24	PS.DW	Dayworks (Unskilled Labour)	hr	15		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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	week	16		

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Part Continued PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	AH.14.3	Submission of the Health and Safety File	sum	1		
TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES					R	

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**SECTION 2 CASTLE ROAD****PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance within the road reserve	m2	100		
2	B.8.2	General clearance and grubbing in contractor's camp site	m2	400		
3		General clearing and grubbing within the stream	m2	40		
4		Removal of asphal roadway to tip	m2	5		
5		Removal of existing handrails	m	25		
6		Removal of wire mesh fence and store on site for re-use	m	30		
7		Removal of unreinforced concrete and spoil at tip	m3	5		
8		Removal of brickwork and spoil at tip	m3	5		
9		Removal of existing gabion structure and spoil at tip	m3	0		
10		removal of existing gabion structures and store on site for re-use	m3	0		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Construct concrete chute using 25MPa concrete, Mesh REF 395, 150mm thick. Chute to have splays at entrance, stone pitching, and gabion mattresses. Include all necessary shuttering, formwork, expansion joints, weedkiller and finishing	m3	5		
2		Grade 25/19 mass concrete to be used at Engineers discretion	m3	5		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.3	Excavate suitable material and place, into fill and compact to 95% Mod. A.A.S.H.T.O. Rate to include haulage and royalties	m3	5		
2	DA.8.3	Excavate unsuitable material and spoil at spoil site. The spoil site to be approved by Engineer prior to spoiling.	m3	20		

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FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**Part Continued PART DA EARTHWORKS : BULK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	DA.8.3	Extra over above for excavation of intermediate material to spoil at spoil site. The spoil site is to be approved by Engineer prior to spoiling.	m3	10		
4	DA.4	Import suitable fill material (G7 or better Quality) from Contractor's off-site source and compact to 93% MOD A.A.S.H.T.O inclusive of haulage and royalties. Weedkiller to be included	m3	10		
5	DA.8.9	Formation	m2	80		
6	DA.8.6	Trimming of embankments	m2	80		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R****PART DD EARTHWORKS FOR STRUCTURES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate in all material for gabion retaining structure and spoil at spoil site approved by the Engineer	m3	40		
2		Restricted excavation for gabion basket bedding preparation. Rate to include for compaction	m3	13		
3	DD.8.3	Backfill and compact using imported suitable fill material (G7 or better) from contractors Off-site source and compact to 95% MOD A.A.S.H.T.O. rate to include for haulage and royalties	m3	60		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R****PART EB GRADED CRUSHED STONE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8(1)	Supply, load, transport and process upper selected G5 graded crushed stone, 150 mm thick from commercial or off-site source, compacted to 95% MOD A.A.S.H.T.O	m3	25		
2	EB.8(1)	Supply, load, transport and process upper selected G2 graded crushed stone, 150 mm thick from commercial or off-site source, compacted to 95% MOD A.A.S.H.T.O	m3	25		
3	EB.8(2)	Supply and apply prime coat at 0.6l/m2	m2	25		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**PART ED ROAD ASPHALT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.1	Continuously graded wearing course of 40mm thickness. Privte Plant Asphalt Sa-S14. Bitumen content 5%	t	15		
2	AA.ED	Saw cut existing road edge. Saw cut to expose 50mm G2 layer of the existing roadway to aid as a key between existing asphalt wearing course.	m	45		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Supply and lay of PVC coated(1.0m X 1.0m X 2.0m) Gabion boxes as per the detailed drawing. Rate to include for stone and geofabric as surround to cage	m3	25		
2	F.8.1	Supply and lay of PVC coated(1.0m X 1.5m X 2.0m) Gabion boxes as per the detailed drawing. Rate to include for stone and geofabric as surround to cage	m3	40		
3	F.8.1	Supply and lay of PVC coated(1.0m X 2.0m X 2.0m) Gabion boxes as per the detailed drawing. Rate to include for stone and geofabric as surround to cage	m3	15		
4		Reinstatement of fence	m	30		
5	F.8.1	Supply and lay of PVC coated 2.0m X 1.0m X 300mm deep Gabion gabion mattress. Rate to include, bedding preperation, stone and geofabric as surround to cage	m3	5		
6		Replace steel handrails to match to existing as per detailed drawing	m	25		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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PART TA ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TA.8.1	Supply and erect road sign boards, area not exceeding 2m2	m2	20		
2	TA.8.4	Concrete grade 20/19 for road sign footings	m3	15		
3	TA.8.2	Supply and erect 75mm x 75mm square hot dipped galvanised steel supports. Rate to include all haulage.	m	5		
4	TA.8.3	Excavate and backfill for road sign supports	m3	5		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**PART TB ROAD MARKINGS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TB.8.1.1 AA.TB.1	Painted road lines 150mm wide (white), including setting out and premarking	m	20		
2	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings.	m2	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**SECTION 3 HAMILTON ROAD****PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance within the road reserve	m2	35		
2	B.8.2	General clearance and grubbing in contractor's camp site	m2	400		
3		Removal of existing damaged gabion baskets and store on site for re-use	m3	15		
4		Removal of asphal roadway to tip	m2	20		
5		Removal of existing gabion structure and spoil at tip	m3	5		
6		Removal of existing gabion structures and store on site for re-use	m3	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Grade 25/19 mass concrete to be used at Engineers discretion	m3	5		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.3	Excavate suitable material and place, into fill and compact to 95% Mod. A.A.S.H.T.O. Rate to include haulage and royalties	m3	5		
2	DA.8.3	Excavate unsuitable material and spoil at spoil site. The spoil site to be approved by Engineer prior to spoiling.	m3	15		
3	DA.8.3	Extra over above for excavation of intermediate material to spoil at spoil site. The spoil site is to be approved by Engineer prior to spoiling.	m3	5		
4	DA.4	Import suitable fill material (G7 or better Quality) from Contractor's off-site source and compact to 93% MOD A.A.S.H.T.O inclusive of haulage and royalties. Weedkiller to be included	m3	30		
5	DA.8.9	Formation	m2	20		
6	DA.8.6	Trimming of embankments	m2	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**PART DD EARTHWORKS FOR STRUCTURES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate in all material for gabion retaining structure and spoil at spoil site approved by the Engineer	m3	12		
2		Restricted excavation for gabion basket bedding preparation. Rate to include for compaction	m3	5		
3	DD.8.3	Backfill and compact using imported suitable fill material (G7 or better) from contractors Off-site source and compact to 95% MOD A.A.S.H.T.O. rate to include for haulage and royalties	m3	30		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART EB GRADED CRUSHED STONE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8(1)	Supply, load, transport and process upper selected G5 graded crushed stone, 150 mm thick from commercial or off-site source, compacted to 95% MOD A.A.S.H.T.O	m3	5		
2	EB.8(1)	Supply, load, transport and process upper selected G2 graded crushed stone, 150 mm thick from commercial or off-site source, compacted to 95% MOD A.A.S.H.T.O	m3	5		
3	EB.8(2)	Supply and apply prime coat at 0.6l/m2	m2	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.1	Continuously graded wearing course of 40mm thickness. Private Plant Asphalt Sa-S14. Bitumen content 5%	t	5		
2	AA.ED	Saw cut existing road edge. Saw cut to expose 50mm G2 layer of the existing roadway to aid as a key between existing asphalt wearing course.	m	15		
3	ED.8.4	Tack coat	m2	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Supply and lay Type D barrier kerb and 300mm channel to match existing. Rate to include for concrete base and haunching as per STD Detail 38577	m	12		

FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES						R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Supply and lay of PVC coated(1.0m X 1.0m X 2.0m) Gabion boxes as per the detailed drawing. Rate to include for stone and geofabric as surround to cage	m3	12		
2	F.8.1	Supply and lay of PVC coated(1.0m X 1.5m X 2.0m) Gabion boxes as per the detailed drawing. Rate to include for stone and geofabric as surround to cage	m3	15		
3		Repair existing channel	m	20		
4		Reinstatement of existing Gabion structure. Rate to include for new geofabric	m3	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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FLOOD DAMAGE REMEDIATION OF CASTLE ROAD AND HAMILTON ROAD**C.2.2.3 : SUMMARY OF BILL OF QUANTITIES****Section****1 PRELIMINARY AND GENERAL****R** _____

AA PRELIMINARIES

R _____

AB GENERAL SPECIFICATIONS

R _____

AH OCCUPATIONAL HEALTH and SAFETY

R _____

2 CASTLE ROAD**R** _____

B SITE CLEARANCE

R _____

C CONCRETE WORK

R _____

DA EARTHWORKS : BULK

R _____

DD EARTHWORKS FOR STRUCTURES

R _____

EB GRADED CRUSHED STONE

R _____

ED ROAD ASPHALT

R _____

F PROTECTION WORKS

R _____

TA ROAD SIGNS

R _____

TB ROAD MARKINGS

R _____

3 HAMILTON ROAD**R** _____

B SITE CLEARANCE

R _____

C CONCRETE WORK

R _____

DA EARTHWORKS : BULK

R _____

DD EARTHWORKS FOR STRUCTURES

R _____

EB GRADED CRUSHED STONE

R _____

ED ROAD ASPHALT

R _____

EF KERBS AND HAUNCHES

R _____

F PROTECTION WORKS

R _____

SUB TOTAL**R** _____

ADD VAT (15%) - (only if a registered VAT Vendor)

R _____**TOTAL CARRIED TO FORM OF OFFER AND ACCEPTANCE (C.1.1)****R** _____