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**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

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**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

BILL OF QUANTITIES

SECTION 1 Preliminary and General

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC 2015	GCC 2015 FIXED CHARGE ITEMS AS A % OF THE CONTRACT VALUE, WHERE THE CONTRACT VALUE IS Less than <R1m	%	1,000,000.00		
2	GCC 2015	Greater than R1m and less than R3m	%	3,000,000.00		
3	GCC 2015	Greater than R3m and less than R6m	%	6,000,000.00		
4	GCC 2015	Greater than R6m and less than R10m	%	10,000,000.00		
5	GCC 2015	Greater than R10m	%	12,000,000.00		
6	GCC 2015	GCC 2015 TIME RELATED ITEMS AS A % OF THE CONTRACT VALUE, WHERE THE CONTRACT VALUE IS Less than <R1m	%	1,000,000.00		
7	GCC 2015	Greater than R1m and less than R3m	%	3,000,000.00		
8	GCC 2015	Greater than R3m and less than R6m	%	6,000,000.00		
9	GCC 2015	Greater than R6m and less than R10m	%	10,000,000.00		
10	GCC 2015	Greater than R10m	%	12,000,000.00		
11	SANS 1200 & SANS 1921-1	SANS 1921-1 & SANS 1200 FIXED CHARGE ITEMS AS A % OF THE CONTRACT VALUE, WHERE THE CONTRACT VALUE IS: Less than <R1m	%	1,000,000.00		
12	SANS 1200 & SANS 1921-1	Greater than R1m and less than R3m	%	3,000,000.00		
13	SANS 1200 & SANS 1921-1	Greater than R3m and less than R6m	%	6,000,000.00		
14	SANS 1200 & SANS 1921-1	Greater than R6m and less than R10m	%	10,000,000.00		
15	SANS 1200 & SANS 1921-1	Greater than R10m	%	12,000,000.00		
16		SANS 1921-1 & SANS 1200 TIME RELATED ITEMS AS A % OF THE CONTRACT VALUE, WHERE THE CONTRACT VALUE IS: Less than <R1m	%	1,000,000.00		
17	SANS 1200 & SANS 1921-1	Greater than R1m and less than R3m	%	3,000,000.00		
18	SANS 1200 & SANS 1921-1	Greater than R3m and less than R6m	%	6,000,000.00		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

19	SANS 1200 & SANS 1921-1	Greater than R6m and less than R10m	%	10,000,000.00		
20	SANS 1200 & SANS 1921-1	Greater than R10m	%	12,000,000.00		
21	C.1.2.3.1	COMMUNITY LIAISON OFFICER Allow for a CLO to be appointed.	PC Sum	673,920.00	1.00	673,920.00
22	C.1.2.3.1	% Mark-up for Item 22 Above. Tenderer to state %Mark-up(Mark-up=.....%)	%	673,920.00		
23	C.1.2.3.4	LOCAL LABOUR Allow for the weekly submission of proof of employment of local labour	months			

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

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PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AB.4	Contractor's Camp Site / Store Yard	sum	1		
2	AB.5	Notice Board	sum	1		
3	AB.7	Stream diversion	sum	1		
4	AB.7	Road Deviations	sum	1		
5	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
6	AB.7	Maintenance of Pedestrian and Traffic Facilities	months	36		
7	AB.7	Maintenance of all signs, barricades and delineators	months	36		
8	PS.14.3	Survey coordination of existing valves, manholes, catchpits, and cable duct markers	sum	1		
9	PS.17	Allow for the following Additional Items which the tenderer requires to be priced separately :- a)	sum	1		
10	AB.6	Cost of Samples and Contractor's Preliminary and Site Control Testing. Acceptance testing for material to be undertaken by a SANAS accredited Specialist Materials Testing Laboratory as directed by Engineer on Site	sum	1		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**
Part Continued PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
11	PS.14.3	Setting Out	sum	1		
12	PS.14.7	Addi	sum	1		
13	PS.11	Site Security	week	200000		
14	PS.14.4	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
15	PS.14.5	Provision	PC Sum	1	1.00	1.00
16	PS.14.5	%Mark-up for item 16 above. Tenderer to state % Mark-up (Mark-up= %)	%	1		
17	PS.20	Allowance for Geotechnical Engineer for investigations and testing, design, detail, supervision and stability certificate	PC Sum	1	1.00	1.00
18	PS.20	%Mark-up for item 18 above. Tenderer to state % Mark-up (Mark-up= %)	%	1		
19	PS.22	Provision of temporary suitable access to the sites or working area including level working platform	sum	1		
20	PS.3	Water services to be relocated by an approved Ethekewini subcontractor and as directed by the Engineer on site	PC Sum	500000	1.00	500,000.00
21	PS.3	%Mark-up for item 22 above. Tenderer to state % Mark-up (Mark-up= %)	%	500000		
22	PS.6	Electrical services to be relocated by an approved Ethekewini subcontractor and as directed by the Engineer on site	PC Sum	250000	1.00	250,000.00
23	PS.6	%Mark-up for item 24 above. Tenderer to state % Mark-up (Mark-up= %)	%	250000		
24	PS.4	Wastewater services to be relocated by an approved Ethekewini subcontractor and as directed by the Engineer on site	PC Sum	250000	1.00	250,000.00
25	PS.4	%Mark-up for item 26 above. Tenderer to state % Mark-up (Mark-up= %)	%	250000		
26	PS.7	Telecommunications services to be relocated by an approved Ethekewini subcontractor and as directed by the Engineer on site	PC Sum	100000	1.00	100,000.00

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
27	PS.7	%Mark-up for item 28 above. Tenderer to state % Mark-up (Mark-up=..... %)	%	100000		
28	C.1.2.3.6	Expected Risk: De-establishment	sum	1		
29	C.1.2.3.6	Expected Risk: Re-establishment	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

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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

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

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	1000		
2	B.8.2	General clearance and grubbing within a servitude	m2	500		
3	B.8.2	General clearance and grubbing in contractor's camp site	m2	1000		
4	B.8.2	General clearance and grubbing in temporary stockpile area	m2	1000		
5	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	20		
6	B.8.5	Removal of 1.8 m high steel palisade fence and store on site for re-use	m	15		
7	B.8.9	Removal of brickwork	m3	200		
8	B.8.10	Removal of unreinforced concrete	m3	50		
9	B.8.11	Removal of reinforced concrete	m3	50		
10	B.8.14	Removal of roadways to tip	m2	200		
11	B.8.15	Removal of asphalt sidewalks/medians to tip	m2	200		
12	B.8.16	Removal of kerb and channel/fillet to tip	m	200		
13	B.8.19	Removal of disused pipes, 0 - 800 mm diameter as directed by the engineer. Rate to include all haulage	m	100		
14	B.8.19	Removal of disused pipes, greater than 800 mm diameter as directed by the engineer. Rate to include all haulage	m	50		
15	PS.B.8.23	Removal of heavy duty cast iron covers and store on site for re-use	no.	20		
16	B.8.5	Removal of 1.5 - 2.1 m high wire mesh fence and store on site for re-use	m	300		
17	B.8.6	Removal of guardrail and posts and store on site for re-use	m	100		
18	B.8.7	Removal of street/traffic signs and posts and store on site for re-use	no.	30		

TOTAL CARRIED TO SECTION 2 SUMMARY: Site Clearance

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 3 Earthworks

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.2	Excavate topsoil and stockpile. Rate to include all haulage and royalties	m3	1000		
2	DA.8.2	Excavate topsoil and spoil at tip. Rate to include all haulage and royalties	m3	1000		
3	DA.8.3	Excavate soft material and place directly into fill. Rate to include all haulage and royalties	m3	500		
4	DA.8.3	Extra over above for excavation in hard material to fill	m3	200		
5	DA.8.3	Excavate soft material to stockpile. Rate to include all haulage and royalties	m3	250		
6	DA.8.3	Extra over for excavation in hard material to stockpile	m3	200		
7	DA.8.3	Excavate in soft material to spoil	m3	250		
8	DA.8.3	Extra over above for excavation of hard material to spoil	m3	50		
9	DA.8.3	Excavate unsuitable material below embankments or formation and spoil at tip	m3	100		
10	PS.DA.5	Import suitable fill material from contractor's off-site source inclusive of haulage and royalties	m3	1000		
11	DA.8.5	Compact soft material from site to 93% Mod. A.A.S.H.T.O.	m3	250		
12	DA.8.5	Compact soft material from site to 95% Mod. A.A.S.H.T.O.	m3	250		
13	DA.8.5	Compact hard material from site to 93% Mod. A.A.S.H.T.O.	m3	50		
14	DA.8.5	Compact imported fill material to 93% Mod. A.A.S.H.T.O.	m3	500		
15	DA.8.5	Compact imported fill material to 95% Mod. A.A.S.H.T.O.	m3	500		
16	DA.8.6	Trimming of embankments	m2	1000		
17	DA.8.7	Stockpile handling of all material to fill	m3	500		
18	DA.8.9	Formation	m2	1000		
19	PS.DA.2	Supply and place general grade geofabric	m2	2000		

TOTAL CARRIED TO SECTION 3 SUMMARY: Earthworks

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**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.4	Excavate topsoil to stockpile for re-use. Depth 100 mm	m2	1000		
2	DB.8.5	Excavate and backfill in all material where depth is:- - Over 0,0 m and not exceeding 1,5 m	m3	500		
3	DB.8.5	Excavate and backfill in all material where depth is:- - Over 1,5 m and not exceeding 2,0 m	m3	500		
4	DB.8.5	Excavate and backfill in all material where depth is:- - Over 2,0 m and not exceeding 2,5 m	m3	500		
5	DB.8.5	Excavate and backfill in all material where depth is:- - Over 2,5 m and not exceeding 3,0 m	m3	500		
6	DB.8.5	Excavate and backfill in all material where depth is:- - Over 3,0 m and not exceeding 3,5 m	m3	500		
7	DB.8.6	Extra over item 1 - 7 for hard material	m3	50		
8	DB.8.6	Extra over item 1 - 7 for rock	m3	30		
9	DB.8.14	Extra over item 1 - 7 for cement stabilised backfill	m3	100		
10	DB.8.9	Provision of selected fill for pipe bedding from a commercial or off-site source	m3	1000		
11	DB.8.9	Provision of 19 mm stone material for pipe bedding from commercial or off- site source	m3	200		
12	DB.8.10	Placing and compacting of Class B pipe bedding.	m	1000		
13	DB.8.10	Placing and compacting of Class C pipe bedding.	m	1000		
14	DB.8.10	Placing and compacting of flexible pipe bedding.	m	1000		
15	DB.8.12	Encasing of pipes in concrete grade 20/19	m3	100		
16	DB.8.13	Provision of selected backfill material for pipe trenches from commercial or off-site source	m3	1000		
17	DB.8.15	Disposal of unsuitable or surplus material from trench excavation	m3	200		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**
Part Continued PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
18	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	100		
19	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		
20	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 2,0 m and not exceeding 2,5 m	m3	100		
21	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 2,5 m and not exceeding 3,0 m	m3	100		
22	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 3,0 m and not exceeding 3,5 m	m3	100		
23	PS.DB.9	Lateral support system	m2	20		

TOTAL CARRIED TO SECTION 3 SUMMARY: Earthworks
R
PART DD EARTHWORKS FOR STRUCTURES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate in all material for culvert to stockpile	m3	300		
2	DD.8.2	Excavate in all material for culvert to spoil	m3	600		
3	DD.8.2	Extra over item 1 for hard material	m3	600		
4	DD.8.2	Extra over item 1 for excavation in excess of planned depth [provisional]	m3	100		
5	DD.8.3	Backfill and compact using material from stockpile	m3	500		
6	DD.8.3	Backfill and compact using imported material from contractor's own source. Rate to include all haulage and royalties	m3	500		
7	PS.DD.2	Design, installation and removal of a ground lateral support system to secure the excavated surfaces	m2	20		

TOTAL CARRIED TO SECTION 3 SUMMARY: Earthworks
R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 4 Stormwater Pipe works

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	375 mm diameter concrete Class 100D	m	100		
2	PG.8.2	450 mm diameter concrete Class 100D	m	250		
3	PG.8.2	525 mm diameter concrete Class 100D	m	100		
4	PG.8.2	600 mm diameter concrete Class 100D	m	250		
5	PG.8.2	750 mm diameter concrete Class 100D	m	100		
6	PG.8.2	900 mm diameter concrete Class 100D	m	250		
7	PG.8.2	1050 mm diameter concrete Class 100D	m	100		
8	PG.8.2	1200 mm diameter concrete Class 100D	m	100		
9	PG.8.2	1500 mm diameter concrete Class 100D	m	100		
10	PG.8.2	400mm diameter HDPE 4KN/m2 structured wall	m	250		
11	PG.8.2	600mm diameter HDPE 4KN/m2 structured wall	m	250		
12	PG.8.2	800mm diameter HDPE 4KN/m2 structured wall	m	100		
13	PG.8.2	900mm diameter HDPE PN10 solid wall	m	100		
14	PG.8.2	400mm diameter HDPE PN10 solid wall	m	100		
15	PG.8.2	600mm diameter HDPE PN10 solid wall	m	250		
16	PG.8.2	800mm diameter HDPE PN10 solid wall	m	100		
17	PG.8.2	900mm diameter HDPE PN10 solid wall	m	250		
18	PG.8.2	But-fusion weld HDPE pipes (400mm - 900mm)	no.	200		
19	PG.8.2	Welded Spigot and socket HDPE joint collars (400mm - 900mm)	no.	200		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater Pipe works

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PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.2	Manhole type A with inlet type cover S1. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
2	PH.8.2	Manhole type A with inlet type cover S3. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

Part Continued **PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	PH.8.2	Manhole type A with inlet type cover S3. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
4	PH.8.2	Manhole type A with inlet type cover D3. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
5	PH.8.2	Manhole type A with inlet type cover D3. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
6	PH.8.2	Break into existing brick manhole wall for 400 - 800 mm diameter pipe and make good	no.	10		
7	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
8	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
9	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 2,0 m and not exceeding 2,5 m	no.	10		
10	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 2,5 m and not exceeding 3,0 m	no.	10		
11	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 3,0 m and not exceeding 3,5 m	no.	10		
12	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
13	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
14	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 2,0 m and not exceeding 2,5 m	no.	10		
15	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 2,5 m and not exceeding 3,0 m	no.	10		
16	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 3,0 m and not exceeding 3,5 m	no.	10		
17	PH.8.5.6	Precast concrete light duty manhole cover and frame	no.	10		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

Part Continued **PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
18	PH.8.5.6	Precast concrete heavy duty manhole cover and frame	no.	10		
19	PH.8.5.6	Precast concrete light duty inlet splay	no.	10		
20	PH.8.5.6	Precast concrete heavy duty inlet splay	no.	10		
21	PH.8.5.4	Benching	m3	25		
22	PH.8.2	Manhole type A with inlet type cover S1. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
23	PH.8.2	Manhole type A with inlet type cover S1. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
24	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
25	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
26	PH.8.2	345 mm brickwork to [manhole/ headwall]	m2	500		
27	PH.8.5.3	230 mm brickwork to [manhole/ headwall]	m2	500		
28	PG.8.2	Construct standard inlet headwall as per drawing no. 38576	no.	10		
29	PG.8.2	Construct standard outlet headwall as per drawing no. 38576	no.	10		
30	PH.8.5.6	Heavy duty cast iron manhole cover and frame	no.	10		
31	PH.8.7	Raise/lower existing manhole with concrete cover and frame in paved area by :- - 0 to 500 mm	no.	10		
32	PH.8.5	Break into existing brick manhole wall for 400 - 800 mm diameter pipe and make good	no.	10		

TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater Pipe works

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**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 5 Culvert Works

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 15/19 concrete blinding of thickness 75 mm	m2	200		
2	C.8.1	Grade 25/19 concrete	m3	25		
3	C.8.1	Grade 30/19 concrete	m3	100		
4	C.8.1	Grade 40/19 concrete	m3	25		
5	C.8.2	Mild steel reinforcement	t	0.5		
6	C.8.2	High tensile steel reinforcement	t	5		
7	C.8.3	Class 1 shuttering	m2	50		
8	C.8.3	Class 3a shuttering	m2	150		
9	PS.C.8.3	Sealant in expansion joint (polysulfied or similar approved)	m	50		
10	PS.C.8.4	Construct 75 mm dia. P.V.C weepholes inclusive of no fines concrete plug	no.	25		
11	C.8.2	High tensile steel fabric reinforcement ref: 617	t	1		
12	C.8.2	High tensile steel fabric reinforcement ref : 193	m	50		
13	PS.C.8.3	Adhesive tape to expansion joints	m	100		

TOTAL CARRIED TO SECTION 5 SUMMARY: Culvert Works

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PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.7	Standard precast concrete portal culvert Class C - 1800 x 1800 mm	m	100		
2	PG.8.7	Standard precast concrete portal culvert Class C - 2100 x 2100 mm	m	100		
3	PG.8.7	Standard precast concrete portal culvert Class C - 2400 x 2400 mm	m	100		
4	PG.8.7	Standard precast concrete portal culvert Class C - 3000 x 3000 mm	m	50		
5	PG.8.7	Standard precast concrete portal culvert Class C - 2100 x 1200 mm	m	50		
6	PG.8.7	Standard precast concrete portal culvert Class C - 2100 x 1500 mm	m	50		
7	PG.8.7	Standard precast concrete portal culvert Class C - 2400 x 1500 mm	m	100		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

Part Continued PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
8	PG.8.7	Standard precast concrete portal culvert Class C - 3000 x 1500 mm	m	50		
9	PG.8.9	Form recess for portal legs	m	250		

TOTAL CARRIED TO SECTION 5 SUMMARY: Culvert Works

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 6 Protection Works

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Imported topsoil: thickness 150 mm	m2	500		
2	F.8.3	Grass planting	m2	500		
3	F.8.6	Supply and lay Galvanised PVC coated Terramesh Gabion boxes: 1000 mm depth	m3	150		
4	F.8.6	Supply and lay Galvanised PVC coated Gabion boxes: 1000 mm depth	m3	500		
5	F.8.6	Supply and lay Galvanised PVC coated Gabion boxes: 500 mm depth	m3	150		
6	F.8.6	Supply and lay Galvanised PVC coated Gabion mattresses, 300 mm thick	m3	150		
7	F.8.6	Extra over item 3,4,5 for non- standard shape gabion boxes and mattresses	m3	10		
8	F.8.7	230 mm brickwork	m2	500		
9	PS.F.8.3	GEOPIPE OR SIMILAR APPROVED	m	100		
10	PS.F.8.3	Drainage grade Geofabric	m2	500		
11	PS.F.8.3	Unpacking and packing of gabion boxes using on site gabion stones	m3	100		

TOTAL CARRIED TO SECTION 6 SUMMARY: Protection Works

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 7 Road Works

PART EB GRADED CRUSHED STONE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8.1 EB1234 EB12345 EB123456	Supply, lay and compact Graded crushed stone, 150 mm thick G2 material compacted to 98% MOD A.A.S.H.T.O	m3	70		
2	EB.8.1 EB1234 EB12345 EB123456	Supply, lay and compact Graded crushed stone, 150 mm thick G5 material compacted to 95% MOD A.A.S.H.T.O	m3	70		
3	EB.8.1 EB1234 EB12345 EB123456	Supply, lay and compact Graded crushed stone, 200 mm thick G7 material compacted to 93% MOD A.A.S.H.T.O	m3	70		
4	EB.8.1	Provision of 19 mm stone from commercial or off-site source	m3	70		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.1	Private Plant Asphalt Sa-V14. Bitumen content % as per mix design entered at time of use.	t	50		
2	ED.8.1, P.ED.9-14	Private Plant Asphalt Sa-H20. Bitumen content % as per mix design entered at time of use.	t	50		
3	ED.8.3.1	Transverse joints	m	25		
4	ED.8.3.2	Longitudinal joints	m	70		
5	ED.8.4	Tack Coat 0.3litres/m2	m2	400		
6	PS.ED.8.6	Prime Coat 0.6litres/m2	m2	400		
7	PS.ED.8.5	Saw Cut existing road edge	m	250		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.EF.8.4	Excavation for kerb and channel/ fillet in existing asphalt layers	m3	25		
2	EF.8.1	Type B barrier kerb and channel	m	150		
3	EF.8.1	Type B barrier kerb and fillet	m	150		
4	EF.8.1	Extra over item 2 & 3 for curves of radius less than 25 m	m	25		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

Part Continued **PART EF KERBS AND HAUNCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	EF.8.1	Scoop kerb and channel (Type C - mountable) including transition kerb	m	25		
6	EF.8.2	Additional concrete to kerb foundation where road layer thickness exceeds standard	m3	10		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EG.8.1, PS.EG.3 EG187.7 EG1567	Asphalt sidewalk 25mm - Asphalt Private Plant	m2	50		
2	EG.8.5, PS.EG.3	Asphalt commercial vehicular access scoop 80mm - Asphalt Private Plant	m2	25		
3	EG.8.6, PS.EG.3	Concrete commercial vehicular access scoop	m2	25		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

PART EL DUMPROCK SUBGRADE IMPROVEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EL.8, PS.EL.3, PS.EL.9, PS.EL.10	Dumprock subgrade improvement, 300 mm thick	m3	100		
2	PS.EL.11	Supply and place structural grade geofabric blanket as surround to dumprock	m2	750		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

PART TA ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TA.8.4	Concrete grade 20/19 for road sign footings	m3	5		
2	TA.8.1	Supply and erect road sign boards, area not exceeding 2m2	m2	25		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

PART TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (white), including setting out and premarking	m	100		
2	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (yellow), including setting out and premarking	m	100		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

Part Continued **PART** TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (red), including setting out and premarking	m	100		
4	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings.	m2	25		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 8 Reinstatement

PART S REINSTATEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	S.8.1	Reinstatement of ground surface	m2	1000		
2	S.8.2	Road Category C-Permanent road reinstatement 80 mm Mix D, 150mm Crusher run, Trench backfill with CBr 4 or more	m2	1000		
3	S.8.4	Reinstatement of wire/plastic coated fence, 1,2 m - 2.1m high	m	200		
4	S.8.4	Reinstatement of guard rail and posts	m	200		
5	S.8.4	Reinstatement of bollards	no.	20		
6	S.8.4	Reinstatement of Loffelstein type retaining wall	m2	100		
7	S.8.2	Reinstatement of asphalt sidewalk 25mm- Asphalt Private Plant	m2	200		
8	S.8.2	Reinstatement of concrete sidewalk/ median - Precast slabs	m2	200		
9	S.8.2	Reinstatement of in-situ concrete access scoop	m2	100		

TOTAL CARRIED TO SECTION 8 SUMMARY: Reinstatement

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SECTION 9 Dayworks

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Personnel: (a) Unskilled labourer	hr	40		
2		Personnel: (b) Semi-skilled labourer	hr	40		
3		Personnel: (c) Skilled labourer	hr	40		
4		Personnel: (e) Foreman	hr	40		
5		Construction equipment: (e) Excavator	day	1		
6		Construction Equipment: TLB	day	1		

TOTAL CARRIED TO SECTION 9 SUMMARY: Dayworks

R

1D-34794

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION**

PRICING DAT.

SECTION 1 Preliminary and General

PART	AA	PRELIMINARIES	
PART	AB	GENERAL SPECIFICATIONS	
PART	AH	OCCUPATIONAL HEALTH and SAFETY	
TOTAL CARRIED TO FINAL SUMMARY			

SECTION 2 Site Clearance

PART B SITE CLEARANCE	
TOTAL CARRIED TO FINAL SUMMARY	

1D-34794

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION**

PRICING DAT.

SECTION 3 Earthworks

PART	DA	EARTHWORKS : BULK	
PART	DB	EARTHWORKS FOR PIPE TRENCHES	
PART	DD	EARTHWORKS FOR STRUCTURES	
TOTAL CARRIED TO FINAL SUMMARY			

ID-34794

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION**

PRICING DAT.

SECTION 4 Stormwater Pipe works

PART	PG	NON PRESSURE PIPELINES and PC CULVERTS	
PART	PH	MANHOLES and APPURTENANT DRAINAGE WORKS	
TOTAL CARRIED TO FINAL SUMMARY			

1D-34794

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION**

PRICING DAT.

SECTION 5 Culvert Works

PART C	CONCRETE WORK	
PART PG	NON PRESSURE PIPELINES and PC CULVERTS	
TOTAL CARRIED TO FINAL SUMMARY		

ID-34794

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION**

PRICING DAT.

SECTION 6 Protection Works

PART F	PROTECTION WORKS	
TOTAL CARRIED TO FINAL SUMMARY		

SECTION 7 Road Works

PART	EB	GRADED CRUSHED STONE	
PART	ED	ROAD ASPHALT	
PART	EF	KERBS AND HAUNCHES	
PART	EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	
PART	EL	DUMPROCK SUBGRADE IMPROVEMENT	
PART	TA	ROAD SIGNS	
PART	TB	ROAD MARKINGS	
TOTAL CARRIED TO FINAL SUMMARY			

ID-34794

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION**

PRICING DAT.

SECTION 8 Reinstatement

PART S REINSTATEMENT	
TOTAL CARRIED TO FINAL SUMMARY	

1D-34794

COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED
INFRASTRUCTURE REPAIRS MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma &
KwaMashu Areas) REGION

PRICING DAT.

SECTION 9 **Dayworks**

PART AB	GENERAL SPECIFICATIONS	
TOTAL CARRIED TO FINAL SUMMARY		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT AREA BASED INFRASTRUCTURE REPAIRS
MAINTENANCE FOR 36 MONTHS: INK (Inanda, Ntuzuma & KwaMashu Areas) REGION**

SUMMARY OF BILL OF QUANTITIES

1 Preliminary and General		R
AA PRELIMINARIES	R	
AB GENERAL SPECIFICATIONS	R	
AH OCCUPATIONAL HEALTH and SAFETY	R	
2 Site Clearance		R
B SITE CLEARANCE	R	
3 Earthworks		R
DA EARTHWORKS : BULK	R	
DB EARTHWORKS FOR PIPE TRENCHES	R	
DD EARTHWORKS FOR STRUCTURES	R	
4 Stormwater Pipe works		R
PG NON PRESSURE PIPELINES and PC CULVERTS	R	
PH MANHOLES and APPURTENANT DRAINAGE WORKS	R	
5 Culvert Works		R
C CONCRETE WORK	R	
PG NON PRESSURE PIPELINES and PC CULVERTS	R	
6 Protection Works		R
F PROTECTION WORKS	R	
7 Road Works		R
EB GRADED CRUSHED STONE	R	
ED ROAD ASPHALT	R	
EF KERBS AND HAUNCHES	R	
EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R	
EL DUMPROCK SUBGRADE IMPROVEMENT	R	
TA ROAD SIGNS	R	
TB ROAD MARKINGS	R	
8 Reinstatement		R
S REINSTATEMENT	R	
9 Dayworks		R
AB GENERAL SPECIFICATIONS	R	
SUB TOTAL		R
ADD VAT (15%) - (only if a registered VAT Vendor)		R
TOTAL CARRIED TO FORM OF TENDER		R