

Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of ethekwni municipality for 24 months.

BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL

PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.2.2.1 PS.C1.2.2.1	Programming and Reporting: Submission of a Scheme 1 Programme A new programme for each batch of activities.	no	1		
2	C1.2.5.1	Safety:Health and safety plan	Lump sum	1		
3	C1.2.5.2	Implementation of health and safety plan	months	24		
		<u>Community Liaison Officer</u>				
4	PS.C1.2.10	Provision for a Community Liaison Officer	PC Sum	300000	1.00	300,000.00
5	PS.C1.2.10	Handling cost, profit and all other charges in respect of Community Liaison Officer	%	300000		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

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PART 0103 C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.3.1.1	Fixed obligations	Lump sum	200000		
2	C1.3.1.3	Time-related obligations	months	24		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

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PART 0105 C1.5 ACCOMMODATION OF TRAFFIC

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Temporary Traffic Control Facilities</u>				
1	C1.5.7.1(a)	Delineators including mounting bases and ballast: Single sided, reversible left or right (1200mm x 250mm)	no	100		
2	C1.5.7.1(b)	Delineators including mounting bases and ballast: Double sided, reversible left or right (1200mm x 250mm)	no	100		
3	C1.5.7.2	Traffic cones, minimum height 750 mm	no	100		
4	C1.5.7.5(d)	Provision of Illuminated Traffic Signs: (d) Illuminated road sign – TW series (length of sides indicated)	no	15		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

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SECTION 2 BULK EARTHWORKS

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Import: Supply Material Only</u>				
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	3000		
2	C4.4.2.1(e)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G5	m3	500		
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	500		
		<u>Processing and Compacting of Materials</u>				
4	C5.2.2.1(a)	Fill construction: Normal fill material (G2) in compacted layer thicknesses of 200 mm and less: (a) Compacted to 98 % of MDD	m3	3500		
5	C5.2.2.1(a)	Fill construction: Normal fill material (G5) in compacted layer thicknesses of 200 mm and less: (a) Compacted to 95 % of MDD	m3	500		
6	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		

TOTAL CARRIED TO SECTION 2 SUMMARY: BULK EARTHWORKS

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PART 0501 C5.1 ROADBED

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Excavation to Spoil, Excluding Haulage</u>				
1	C5.1.2.1	Excavate material to spoil from roadbed construction, material obtained from: (a) Soft excavation	m3	100		
2	C5.1.2.1	Excavate material to spoil from roadbed construction, material obtained from: (d) Hard excavation	m3	25		
		<u>Hauling of Material to Spoil</u>				
3	C1.7.2.2(a)	Hauling of all material to spoil and off-loading it at an approved municipal dumpsite	m3 * km	500		

TOTAL CARRIED TO SECTION 2 SUMMARY: BULK EARTHWORKS

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Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of ethekwinini municipality for 24 months.

SECTION 3 ROAD REPAIRS

PART 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Saw Cut</u>				
1	C8.8.1.1(a)	Saw cutting pavement layers for patching Asphalt or bituminous surfacing to an average dept: (a) Not exceeding 50 mm"	m	5000		
2	C8.8.1.1(b)	Saw cutting pavement layers for patching Asphalt or bituminous surfacing to an average dep : (b) Exceeding 50 mm but not exceeding 100 mm	m	2000		
3	C8.8.1.1(c)	Saw cutting pavement layers for patching Asphalt or bituminous surfacing to an average dept: (c) Exceeding 100 mm	m	1500		
		<u>Removal of Asphalt</u>				
4	C8.8.2.1(a)	Excavation in existing pavements for patching (non-milling) Asphalt layers (a) Not exceeding 10 m ² including for edge repairs wider than 250 mm"	m ³	1000		
5	C8.8.2.1(b)	Excavation in existing pavements for patching (non-milling) Asphalt layers (b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	1000		
6	C8.8.2.1(c)	Excavation in existing pavements for patching (non-milling) Asphalt layers (c) Exceeding 50 m ² up to 100 m ² including for edge repairs wider than 250 mm	m ³	2050		
7	C8.8.2.1(d)	Excavation in existing pavements for patching (non-milling) Asphalt layers (d) Exceeding 100 m ²	m ³	1000		
		<u>Removal of Pavement Layers</u>				
8	C8.8.2.3(a)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (a) Not exceeding 10 m ² including for edge repairs wider than 250 mm	m ³	430		
9	C8.8.2.3(b)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	450		

Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of eThekweni municipality for 24 months.

Part Continued **PART** 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
10	C8.8.2.3(c)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (c) Exceeding 50 m ² up to 100 m ² including for edge repairs wider than 250 mm	m3	450		
11	C8.8.2.3(d)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (d) Exceeding 100 m ²	m3	3000		
		<u>Loading from Spoil Stockpile</u>				
12	C1.7.1.1	Loading: Loading from stockpile using machines and hand labour	m3	2000		
		<u>Hauling to Spoil</u>				
13	C1.7.2.2(a)	Hauling of all material to spoil and off-loading it at an approved municipal dumpsite	m3 * km	3000		
		<u>Roadbed/ Formation</u>				
14	C5.1.1.2	Roadbed construction and compaction of 93% of MDD. Depth 150mm.	m2	7000		
		<u>Category B - Asphalt Layer</u>				
15	C8.8.4.3(a) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 160mm for a patch with a surface area: (a) Not exceeding 10m ² including for edge repairs wider than 250mm	m2	1000		
16	C8.8.4.3(b) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 160mm for a patch with a surface area: (b) Exceeding 10m ² including for edge repairs wider than 250mm	m2	1000		
		<u>Category C - Asphalt Layer</u>				
17	C8.8.4.3(a) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 80mm for a patch with a surface area: (a) Not exceeding 10m ² including for edge repairs wider than 250mm	m2	3000		

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Part Continued **PART** 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
18	C8.8.4.3(b) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 80mm for a patch with a surface area: (b) Exceeding 10m ² including for edge repairs wider than 250mm <u>Category D - Asphalt Layer</u>	m2	7000		
19	C8.8.4.3(a) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 50mm for a patch with a surface area: (a) Not exceeding 10m ² including for edge repairs wider than 250mm	m2	500		
20	C8.8.4.3(b) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 50mm for a patch with a surface area: (b) Exceeding 10m ² including for edge repairs wider than 250mm <u>Category E - Asphalt Layer</u>	m2	1000		
21	C8.8.4.3(a) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 25mm for a patch with a surface area: (a) Not exceeding 10m ² including for edge repairs wider than 250mm	m2	500		
22	C8.8.4.3(b) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS14) of depth 25mm for a patch with a surface area: (b) Exceeding 10m ² including for edge repairs wider than 250mm <u>Tack / Prime Coat</u>	m2	1000		
23	C9.1.3.1 C9.1.3.3	Application of bond coat: Stable-grade 30% net bitumen emulsion as specified applied with a calibrated distributor	l	500		
24	C8.1.1.2	Prime Coat: MC-30 cut-back bitumen <u>Pavement Base Layers: Including Material</u>	l	300		
25	C8.8.4.4(a) PS. C8.8.4.4	Backfilling of excavations for patching with: Granular base material (G2 compacted to 98%MDD) for a patch with a surface area: (a) Not exceeding 10 m2 including for edge repairs wider than 250 mm"	m3	500		

Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of ethekwini municipality for 24 months.

Part Continued PART 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
26	C8.8.4.4(b) PS. C8.8.4.4	Backfilling of excavations for patching with: Granular base material (G2 compacted to 98%MDD) for a patch with a surface area: (b) Exceeding 10 m ² including for edge repairs wider than 250 mm	m3	1000		

TOTAL CARRIED TO SECTION 3 SUMMARY: ROAD REPAIRS R

Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of eThekweni municipality for 24 months.

SECTION 4 CONCRETE WORK

PART 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C3.3.1.1(a)	Prefabricated kerbing (a) Type A Barrier Kerb, Figure 2	m	200		
2	C3.3.1.1(b)	Prefabricated kerbing (b) Type A Barrier Kerb, Figure 6	m	500		
3	C3.3.1.1(a)	Prefabricated kerbing (a) Type A Mountable Kerb, Figure 2	m	200		
4	C3.3.1.1(b)	Prefabricated kerbing (b) Type A Mountable Kerb, Figure 6	m	500		
5	C3.3.1.2(a)	Cast in situ concrete: (a) Channel (300mm wide)	m	300		
6	C3.3.1.2(b)	Cast in situ concrete: (b) Fillet (100mm wide)	m	150		

TOTAL CARRIED TO SECTION 4 SUMMARY: CONCRETE WORK

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Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of eThekweni municipality for 24 months.

SECTION 5 MANHOLES AND INLETS

PART 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Alterations to existing</u>				
1	PS.C3.2.30(a)	Raise/Lower existing manholes fitted with concrete cover and frame in paved area: 0-100mm	no	10		
2	PS.C3.2.30(b)	Raise/Lower existing manholes fitted with cast iron cover and frame in paved area: 0-100mm	no	20		
3	PS.C3.2.30(c)	Raise/Lower cast iron water valve cover in paved area: 0-100mm	no	10		

TOTAL CARRIED TO SECTION 5 SUMMARY: MANHOLES AND INLETS

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Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of eThekweni municipality for 24 months.

SECTION 6 SIDEWALK REPAIRS

PART 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Saw Cut - Sidewalk</u>				
1	C8.8.1.1(a)	Saw cutting pavement layers for patching Asphalt or bituminous surfacing to an average dept: (a) Not exceeding 50 mm"	m	1000		
		<u>Removal of Asphalt - Sidewalk</u>				
2	C8.8.2.1(a)	Excavation in existing pavements for patching (non-milling)Asphalt layers (a) Not exceeding 10 m ² including for edge repairs wider than 250 mm"	m ³	500		
3	C8.8.2.1(b)	Excavation in existing pavements for patching (non-milling)Asphalt layers (b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	1000		
4	C8.8.2.1(c)	Excavation in existing pavements for patching (non-milling)Asphalt layers (c) Exceeding 50 m ² up to 100 m ² including for edge repairs wider than 250 mm	m ³	500		
5	C8.8.2.1(d)	Excavation in existing pavements for patching (non-milling)Asphalt layers (d) Exceeding 100 m ²	m ³	500		
		<u>Removal of Pavement Layers - Sidewalk</u>				
6	C8.8.2.3(a)	Excavation in existing pavements for patching (non-milling) Sand and Grav layers: (a) Not exceeding 10 m ² including for edge repairs wider than 250 mm"	m ³	1000		
7	C8.8.2.3(b)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	500		
8	C8.8.2.3(c)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (c) Exceeding 50 m ² up to 100 m ² including for edge repairs wider than 250 mm	m ³	500		
9	C8.8.2.3(d)	Excavation in existing pavements for patching (non-milling) Sand and Gravel layers: (d) Exceeding 100 m ²	m ³	500		

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Part Continued **PART** 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Loading from Spoil Stockpile</u>				
10	C1.7.1.1	Loading: Loading from stockpile using machines and hand labour	m3	500		
		<u>Hauling to Spoil</u>				
11	C1.7.2.2(a)	Hauling of all material to spoil and off-loading it at an approved municipal dumpsite	m3 * km	1000		
		<u>Asphalt Layer - Sidewalk</u>				
12	C8.8.4.3(a) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS7) of depth 25mm for a patch with a surface area: (a) Not exceeding 10m ² including for edge repairs wider than 250mm	m2	1000		
13	C8.8.4.3(a) PS. C8.8.4.3	Backfilling of excavations for patching with: Asphalt (SAS7) of depth 25mm for a patch with a surface area: (a) exceeding 10m ² including for edge repairs wider than 250mm	m2	1000		
		<u>Tack / Prime Coat</u>				
14	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	100		
15	C8.1.1.2	Prime Coat: MC-30 cut-back bitumen	l	100		
		<u>Pavement Base Layers: Including Material - Sidewalks</u>				
16	C8.8.4.4(a) PS. C8.8.4.4	Backfilling of excavations for patching with: Granular base material (G2 compacted to 98%Mdd) for a patch with a surface area: (a) Not exceeding 10 m2 including for edge repairs wider than 250 mm"	m3	250		
17	C8.8.4.4(b) PS. C8.8.4.4	Backfilling of excavations for patching with: Granular base material (G2 compacted to 98%Mdd) for a patch with a surface area: (b) Exceeding 10 m ² including for edge repairs wider than 250 mm	m3	100		
		<u>Weed Killer</u>				
18	PS.C5.3.2.1	Application of weed killer per Engineers instruction	m2	1000		

Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of ethekwinini municipality for 24 months.

Part Continued **PART** 0808 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Clause	Description	Unit	Quantity	Rate	Amount
19	C6.2.1.1	Concrete Surface Cast in situ concrete: (c) Concrete (25/19) 100mm thick-wood finish and jointed to suit surrounding paving	m2	1000		

TOTAL CARRIED TO SECTION 6 SUMMARY: SIDEWALK REPAIRS

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PART EJ CONCRETE INTERLOCKING BLOCK SURFACES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C6.2.1.1	Segmental block paving layers	m2	500		
2	C6.2.1.1	Replacement of precast concrete slabs (450mm2 to 610mm2)	m2	0		

TOTAL CARRIED TO SECTION 6 SUMMARY: SIDEWALK REPAIRS

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Surface repairs to roads, sidewalks and trench re-instatments as and when required within the North region of eThekweni municipality for 24 months.

SECTION 7 PROTECTION WORKS

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C12.6.14.1 (a)	Foundation trench excavation: Excavating all material for gabions situated within the following depth ranges (a) 0m - 1.5m	m3	100		
2	C12.6.14.1 (b)	Foundation trench excavation: Excavating all material for gabions situated within the following depth ranges (a) 1.5 m - 3.0 m	m3	100		
3	C12.6.15	Surface preparation for bedding the Gabions	m2	100		
4	C12.6.16.2	Gabions : PVC coated gabion boxes (1.0m x 1.0m x 1.0m)	m3	300		
5	C12.6.17,PS 12.6.17	Geotextile (Filtration and separation for use with gabions,min Grade 7)	m3	3000		
TOTAL CARRIED TO SECTION 7 SUMMARY: PROTECTION WORKS					R	