

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 FOOTPATHS

PART B	SITE CLEARANCE
PART C	CONCRETE WORK
PART DA	EARTHWORKS : BULK
PART EF	KERBS AND HAUNCHES
PART EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS
PART F	PROTECTION WORKS

SECTION 3 STORMWATER DRAINAGE

PART B	SITE CLEARANCE
PART C	CONCRETE WORK
PART DB	EARTHWORKS FOR PIPE TRENCHES
PART F	PROTECTION WORKS

SECTION 4 RETAINING STRUCTURES - CIVIL WORKS

PART B	SITE CLEARANCE
PART C	CONCRETE WORK
PART DA	EARTHWORKS : BULK
PART DB	EARTHWORKS FOR PIPE TRENCHES
PART DD	EARTHWORKS FOR STRUCTURES
PART F	PROTECTION WORKS
PART PG	NON PRESSURE PIPELINES and PC CULVERTS

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>GENERAL CONDITIONS OF CONTRACT (GCC2015) READ IN CONJUNCTION WITH 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		
5	C1.2.3.1	COMMUNITY LIAISON OFFICER	PC Sum	58000	1.00	58 000.00
6		Allow for CLO to be appointed	%	58000		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>FIXED CHARGES</u>				
1	PS.AB.2	Offices for Engineer and Staff	sum	1		
2	PS.AB.4	Contractor's Camp Site / Store Yard	sum	1		
3	AB.5	Notice Board as per Annexure C3.6.1	no.	1		
4	PS.15.3	Deductions for re-tests requested when density of a layer is not as per specification as determined by Acceptance Testing (minus R1000 per set)	sum	1		
5	PS.AB.7	Initial Supply of all signs, barricades and delineators	sum	1		
6	PS.11.1	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
7		Allow the following additional items which the tenderer require to be priced separately:-	sum	1		
8		a)	sum	1		
9		c)	sum	1		
10		b)	sum	1		

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>TIME RELATED CHARGES</u>				
11	PS.AB.2	Offices for Engineer and Staff	sum	1		
12	PS.AB.4	Contractors Camp Site/Store Yard	sum	1		
13	AB.6	Cost of Samples and Contractor's Preliminary and Site and Site Control Testing	sum	1		
14	AB.7	Maintenance of Pedestrian and Traffic Facilities	sum	1		
15	AB.7	Maintenance of all signs, barricades and delineators	sum	1		
16	PS.11.2	Setting out of works	sum	1		
17	PS.12	Site Security	sum	1		
18	PS.AB.8	De-establishment and re-establishment of Site Camp	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1/ PS.10	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2/ PS.10	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3/ PS.10	Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

SECTION 2 FOOTPATHS

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing including trees up to a maximum girth of 1.5m	m2	200		
2	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	1		
3	B.8.9	Removal of existing brickwork	m3	5		
4	PS.B.8.13	Removal of reinforced/unreinforced concrete	m3	5		
5	PS.B.8.24	Removal of informal retaining structures	m2	60		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 20MPa/19mm concrete for Footpaths (Class 3 - Wood Float Surface Finish)	m3	15		
2	C.8.1	Grade 20MPa/19mm concrete for Handrail Post Bases and Bollard Bases	m3	2		
3	C.8.2	Welded fabric reinforcement - Ref Mesh 193	t	0.3		
4	PS.C.8.4	Movement Joints for footpaths as per Detail Drawing 49248-003	m	10		
5	PS.C.8.5	Saw cut joints for footpaths as per Detail Drawing 49248-003	m	65		
6	C.8.3	Class 1 Formwork for concrete works	m2	90		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.2	Remove topsoil to stockpile and if surplus to requirements, spoil in an approved dump site. Rate to include for stockpile handling	m3	30		
2	DA.8.3	Excavation of material, deposit and spread material as fill or stockpile or, if surplus to requirements, spoil in an approved dump site. Rate to include for stockpile handling.	m3	110		
3	DA.8.3	Extra over on item 2 for excavation in intermediate material	m3	40		
4	DA.8.3	Extra over on item 2 for excavation in hard material	m3	35		

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

Part Continued **PART** DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	DA.8.3	Excavate soft material to spoil	m3	40		
6	DA.8.4	Import G7 Material from commercial sources	m3	15		
7	DA.8.5	Compact imported G7 material to 95% Mod. AASHTO.	m3	15		
8	PS.DA.8.11	Rip and re-compact insitu material to 95% Mod AASHTO	m3	25		
9	DA.8.6	Trimming of embankments	m2	120		
10	DA.8.9	Formation	m2	180		
11	DA.8.9	Extra over item 10 above for areas of cut or where the fill layer thickness is less than 150mm	m3	5		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1	Fig.12 Kerb	m	150		
2	EF.8.1	Extra over item 1 for curves of radius less than 25 m	m	25		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.EG.8.7	Precast Concrete Steps (Base steps or similar approved) including Grade 20MPa/13mm base as per Standard Details Drawing 49248-003	no.	135		
2	PS.EG.8.8	Handrails as per Standard Detail Drawing 49248-003	m	60		
3	PS.EG.8.9	Precast Handrail Posts as per Standard Detail Drawing 49248-003	no.	33		
4	PS.EG.8.10	Precast Concrete Bollards as per Standard Detail Drawing 49248-003	no.	1		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Topsoiling on banks, verges and service lines from stockpile - thickness 100mm	m2	65		

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

Part Continued PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	PS.F.8.3	Grass planting on banks, verges and service lines. Rate to include for supply and lay of Cynodon 'Dactylon' grass, fertilizer and maintenance etc.	m2	65		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS R

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

SECTION 3 STORMWATER DRAINAGE

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.3	General clearance and grubbing for pipelines within a servitude for a width of 2m and for concrete drains	m2	35		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 25MPa/19mm concrete for 500mm wide x 100mm thick 'V' drain.	m3	5		
2	C.8.2	Welded fabric reinforcement Ref : Mesh 193	t	0.1		
3	C.8.3	Class 1 Formwork for concrete 'V' drain	m2	3		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.4	Remove topsoil to stockpile for re-use	m2	20		
2	DB.8.4	Remove 100mm topsoil to spoil	m2	20		
3	DB.8.19	Probe existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	5		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Topsoiling from stockpile as directed by the Engineer - thickness 100mm	m2	35		
2	PS.F.8.3	Grass planting as directed by the Engineer. Rate to include for supply and lay of Cynodon 'Dactylon' grass, fertilizers, pesticides etc	m2	35		
3	F.8.6	Gabion Mattresses: 300mm thick	m3	5		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

SECTION 4 RETAINING STRUCTURES - CIVIL WORKS

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General site clearance and grubbing	m2	100		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 25MPa/26mm concrete for retaining wall bases	m3	10		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.4	Import G7 material from commercial sources	m3	35		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.9	Provision of 19 mm single size stone chippings for subsoil drain from commercial or off-site source	m3	3		
2	DB.8.9	Provision of clean coarse sand for pipe trench bedding and the drainage blanket behind the wall from commercial or offsite source	m3	35		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART DD EARTHWORKS FOR STRUCTURES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate soft material, load, haul, deposit, stockpile or if surplus to requirements, spoil in an approved dump site.	m3	55		
2	DD.8.2	Extra over item 1 for hard material	m3	15		
3	DD.8.2	Extra over item 1 for rock	m3	10		
4	DD.8.5	Backfill G7/G9 material and compact to 93% MOD AASHTO	m3	55		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Supply and construct the following blocks:</u>				
1	PS.F.8.9	Supply and construct dry stack retaining wall using Geolok - G400 or similar approved	m2	100		
2	PS.F.8.10	Soilcrete or stabilised fill material	m3	30		
3	PS.F.8.11	Drainage for retaining walls - 50mm diameter uPVC pipe	m3	20		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.12.1	Geotextile blanket for retaining walls(2.3mm thick, Penetration load = 2.5KN, Porosity = 93%)	m2	200		
2	PG.8.12.1	Geotextile blanket as surround to Subsoil Drains (1.6mm thick, Penetration load = 1.7KN, Porosity = 93%)	m2	55		
3	PG.8.12.2	110 mm diameter pitch fibre sub-soil pipes	m	45		
4	PS.PG.8.14	Sub-soil drain connection to existing system	no.	2		
5	PS.PG.8.15	Sub-soil termination stub	no.	2		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

BILL OF QUANTITIES SECTION SUMMARY

SECTION 1 PRELIMINARY AND GENERAL

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

BILL OF QUANTITIES SECTION SUMMARY**SECTION 2 FOOTPATHS**

PART B	SITE CLEARANCE	
PART C	CONCRETE WORK	
PART DA	EARTHWORKS : BULK	
PART EF	KERBS AND HAUNCHES	
PART EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	
PART F	PROTECTION WORKS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 3 STORMWATER DRAINAGE**

PART B	SITE CLEARANCE	
PART C	CONCRETE WORK	
PART DB	EARTHWORKS FOR PIPE TRENCHES	
PART F	PROTECTION WORKS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 4 RETAINING STRUCTURES - CIVIL WORKS

PART B	SITE CLEARANCE	
PART C	CONCRETE WORK	
PART DA	EARTHWORKS : BULK	
PART DB	EARTHWORKS FOR PIPE TRENCHES	
PART DD	EARTHWORKS FOR STRUCTURES	
PART F	PROTECTION WORKS	
PART PG	NON PRESSURE PIPELINES and PC CULVERTS	
TOTAL CARRIED TO FINAL SUMMARY		

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 84 Settlement Umlazi BB-BB868

SUMMARY OF BILL OF QUANTITIES

1	PRELIMINARY AND GENERAL		R	
AA	PRELIMINARIES	R		
AB	GENERAL SPECIFICATIONS	R		
AH	OCCUPATIONAL HEALTH and SAFETY	R		
2	FOOTPATHS		R	
B	SITE CLEARANCE	R		
C	CONCRETE WORK	R		
DA	EARTHWORKS : BULK	R		
EF	KERBS AND HAUNCHES	R		
EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R		
F	PROTECTION WORKS	R		
3	STORMWATER DRAINAGE		R	
B	SITE CLEARANCE	R		
C	CONCRETE WORK	R		
DB	EARTHWORKS FOR PIPE TRENCHES	R		
F	PROTECTION WORKS	R		
4	RETAINING STRUCTURES - CIVIL WORKS		R	
B	SITE CLEARANCE	R		
C	CONCRETE WORK	R		
DA	EARTHWORKS : BULK	R		
DB	EARTHWORKS FOR PIPE TRENCHES	R		
DD	EARTHWORKS FOR STRUCTURES	R		
F	PROTECTION WORKS	R		
PG	NON PRESSURE PIPELINES and PC CULVERTS	R		
SUB TOTAL			R	
ADD VAT (15%) - (only if a registered VAT Vendor)			R	
TOTAL CARRIED TO FORM OF TENDER			R	