

Construction of Lulekani Low level bridge

CONTRACT No.:

Summary of BOQ

Section No	Description	Billed Amount (R)
1200	Provisional Sums	
1300	Contractor's Establishment On Site and General Obligations	
1400	Housing, Offices and Laboratories for Engineer's Site Personnel	
1500	Accommodation of Traffic	
1600	Overhaul	
1700	Clearing and Grubbing	
3300	Mass Earthworks	
3400	Pavement Layers	
5100	Pitching, Stonework and Protection Against Erosion	
5200	Gabions	
5400	Guardrails	
5600	Road Signs	
6000	Structures	
ROADWORKS - SCHEDULE A		
OCCUPATIONAL HEALTH AND SAFETY - SCHEDULE B		
STRUCTURED TRAINING - SCHEDULE D		
Sub-Total		
Add 10% Contingencies		
Professional fees -SCHEDULE E		
Sub-Total		
Value Added Tax at 15%		
Total Amount Due		

Employer:
Project:
Contract No:

Ba-Phalaborwa Local Municipality
Construction of Lulekani Low Level Bridge

PROVISIONAL SUMS

Item No.	Pay clause	Description	Unit	Billed		
				Quantity	Rate	Amount
SECTION 8: SUM STATED PROVISIONALLY BY THE ENGINEER						
Existing Services						
1.		Provisional sum for special tests requested by the engineer	Prov-sum	1.00	160,000.00	160,000.00
2.		Provisional sum for Community Liason Officer	Prov-sum	1.00	15,000.00	15,000.00
3.		Provisional sum for SHE Rep.	Prov-sum	1.00	15,000.00	15,000.00
4.		Provisional sum of acceptance control testing ordered by the engineer by an approved independent laboratory including travel expenses and supply test results	Prov-sum	1.00	150,000.00	150,000.00
5		Provision for attendance of PSC members(@ R200/member/seating)	Prov-sum	1.00	1,500.00	1,500.00
6		Provisional sum for relocation of existing services	Prov-sum	1.00	3,000.00	3,000.00
7		Provisional sum for Labours Protective Clothing	Prov-sum	1.00	12,000.00	12,000.00
8		Provisional sum for demolishing Existing Bridge Structure	Prov-sum	1.00	200,000.00	200,000.00
9		Percentage for the contractors handling Fee with respect to items 1 up to Item 10, limited to 15%	%	556,500.00		
Sub-Total Carried Forward to Summary						

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SECTION 1300 : CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
13.01	COLTO 1300	SECTION 1300 : CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
		(a) Fixed obligations	sum	1.00		
		(b) Value-related obligations	sum	1.00		
		(c) Time-related obligations	sum	3.00		
Sub-total carried forward to summary						-

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Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
14.01	COLTO 1400	HOUSING, OFFICES AND LABORATORIES FOR ENGINEER'S SITE PERSONNEL				
		<u>Office and laboratory accommodation :</u>				
		the provision of accommodation as specified, including roof, external and internal walls, windows complete with glazing, doors with locks and fittings, burgular proofing, painting, floors, fencing, the provision of a 220/230 volt electric switchboards, etc, water and sewerage installation , and stores complete, in accordance with the drawings and specifications, except for items scheduled elsewhere :				
		(a) Office floor space (interior floor space only)	m ²	10.00		
		(b) Ablution blocks	m ²	10.00		
		(c) Stores	m ²	13.00		
14.02		<u>Office and Laboratory Furniture</u>				
		(a) Chairs	no.	10.00		
		(b) Desks, complete with drawers and locks	no.	2.00		
		(c) Conference tables	no.	1.00		
14.03		<u>Office and laboratory fittings, installations and equipment:</u>				
		(a) Items measured by number:				
		(i) 220/250 volt power point	no.	2.00		
		(ii) 400/231 volt 3-phase power point	no.	2.00		
		(iii) Double 80 watt flourescent-light fittings complete with ballast and tubes	no.	2.00		
		(iv) Double 55 watt flourescent-light fittings complete with ballast and tubes	no.	2.00		
		(v) Single incandescent-light fittings complete with 100 watt globes	no.	2.00		
		(vi) Wash-hand basins complete with taps and drains	no.	2.00		
		(viii) Extractor fans installed complete with own power connected	no.	2.00		
				Total Carried Forward		

Item No.	Payment clause	Description	Unit	Quantity	Rate	Amount
		Brought Forward				
		(xi) Air-conditioning unit with, 2.2 kW minimum capacity, and with own power connection	no.	1.00		
		(xii) Heater, space-heating type, minimum capacity 1.5 kW	no.	1.00		
		(xv) Steel filling cabinets with drawers	no.	1.00		
		(xviii) Voltage Stabilizers	no.	1.00		
		Total Carried Forward				

Item No.	Payment clause	Description	Unit	Quantity	Rate	Amount
		Brought Forward				
14.04		(vii) Venetian Blinds	m ²	5.00		
		(viii) Contract Nameboard	no.	2.00		
		Car ports				
		Car ports, as specified, at offices and laboratory buildings	no.	2.00		
		Total carried forward to summary				

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SECTION 1500 : ACCOMMODATION OF TRAFFIC

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
15.01	COLTO 1500	ACCOMMODATION OF TRAFFIC				
		Accommodating traffic and maintaining temporary deviations	km	0.08		
15.02		<u>Earthworks for temporary deviations:</u>				
		(a) Shaping of temporary deviations	km	0.08		
		(b) Cut and borrow to fill	m ³	65.00		
		(c) Cut to spoil	m ³	75.00		
15.03		<u>Temporary traffic-control facilities:</u>				
		(a) Flagmen	man-day	132.00		
		(b) Portable STOP and GO-RY signs	no.	2.00		
		(c) Temporary traffic-control signals as specified or as shown on drawings	no.	2.00		
		(d) Amber flicker lights	no.	2.00		
		(e) Road signs, R- and TR-series (size indicated)	no.	2.00		
		(f) Road signs, TW-series (size indicated)	no.	2.00		
		(g) Road signs, STW-, DTG-, TGS-, AND TG-series (excluding delineators and barricades)	no.	2.00		
		(h) Delineators (DTG50J) (size indicated):				
		(i) Single	no.	2.00		
		(ii) Mounted back to back	no.	2.00		
		(i) Movable barricade/road sign combination (size indicated)	no.	2.00		
		(j) Traffic cones	no.	2.00		
15.03		<u>Gravelling and repair of temporary deviations and existing gravel should be used as temporary deviations:</u>				

		(a) Watering of temporary deviations	KI	50.00		
		Total Carried to Summary				

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SECTION 1600 :OVERHAUL

SECTION 1600 :OVERHAUL				Billed		
Item No.	Payment clause	Description	Unit	Quantity	Rate	Amount
	COLTO 1600	OVERHAUL				
16.01		Overhaul on material hauled in excess of a free-haul distance 0.5 km, for haul up to or through 1.0 km (restricted overhaul)	m ³	504.00		
16.02		Overhaul on material hauled in excess of 1.0 km	m ³ -km	2,016.00		
		Total Carried to Summary				

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SECTION 1700 : CLEARING AND GRUBBING

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
17.01	COLTO 1700	CLEARING AND GRUBBING				
		Clearing and grubbing	ha	0.10		
17.02		<u>Removal and grubbing of large trees and tree stumps:</u>				
17.03		(a) Girth exceeding 1 m up to and including 2 m	no.	4.00		
		(b) Girth exceeding 2 m up to and including 3 m	no.	-		
		Reclearing of surfaces (on written instructions of the engineer only)	ha	-		
		Total Carried to Summary				

Employer:
Project:

Ba-Phalaborwa Local Municipality
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295.00

SECTION 3300 : MASS EARTHWORKS				Billed		
Item No.	Payment clause	Description	Unit	Quantity	Rate	Amount
33.01	COLTO 3300	MASS EARTHWORKS				
		<u>Cut and borrow to fill, including free-haul up to 0.5 km:</u>				
		(ii) Compacted to 90% modified AASHTO density	m ³	135.00		
33.04	COLTO 3300	(iii) Eight roller passes compaction	m ³	135.00		
		<u>Cut to spoil, including free-haul up to 0.5 km. Material obtained from:</u>				
		(a) Soft excavation	m ³	288.00		
		(b) Intermediate excavation	m ³	144.00		
		(c) Hard excavation	m ³	30.00		
33.07	COLTO 3300	(d) Boulder excavation class A	m ³	30.00		
		<u>Removal of unsuitable material (including free-haul of 0.5 km)</u>				
		(a) In layer thicknesses of 200 mm and less:				
		(ii) Unstable material	m ³	35.00		
33.10	COLTO 3300	<u>Roadbed preparation and the compaction of material:</u>				
		(a) Compaction to 90% of modified AASHTO density	m ³	84.00		
33.13	COLTO 3300	<u>Finishing-off cut and fill slopes, medians and interchange areas:</u>				
		(a) Cut slopes	m ²	35.00		
		(b) Fill slopes	m ²	35.00		
		Total Carried to Summary				

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
34.01	COLTO 3400	PAVEMENT LAYERS OF GRAVEL MATERIAL				
		<u>Pavement layers constructed from gravel taken from cut or borrow, including free-haul up to 1.0 km:</u>				
		(a) Gravel selected layer compacted to: (i) 93 % of modifiedd AASHTO density (specify compacted layer thickness)	m ³	84.00		
		(b) Gravel subbase comacted to: (i) 95 % of modifiedd AASHTO density (specify compacted layer thickness)	m ³	84.00		
		(c) Gravel base (chemically stabilized material) compacted to: (i) 97 % of modifiedd AASHTO density (specify compacted layer thickness)	m ³	84.00		
		(d) Gravel shoulders compacted to: (i) 95 % of modifiedd AASHTO density (specify compacted layer thickness)	m ³	28.00		

		Total Carried to Summary				

SECTION 5100 : PITCHING, STONWORK AND PROTECTION AGAINST EROSIO

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
51.01	COLTO 5100	PITCHING, STONWORK AND PROTECTION AGAINST EROSION				
		Stone pitching: (a) Grouted stone pitching	m ²	35		
		Total Carried to Summary				

SECTION 5200 : GABIONS

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
52.01	COLTO 5200	GABIONS				
		Foundation trench excavation and backfilling :				
		(b) In all other classes of material	m ³	26		
52.02		Surface preparation for bedding the gabions	m ²	26		
52.03		Gabions				
		(a) Galvanized gabion boxes (2m x 1m x 1m boxes using un-weathered and solid without flaking or weathering rocks with the sizes ranging between 100mm to 200mm)	m ³	121		
		Total Carried to Summary				

SECTION 5400 : GUARDRAILS

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
54.01	COLTO 5400	GUARDRAILS				
		Guardrails on timber posts:				
		(a) Galvanized	m	46		
54.03		Extra over items 54.01 for horizontally curved guardrails factory bent to a radius of less than 45m	m	18		
54.04		End treatments:				
		(a) End wings	no	4		
54.06		Reflective plates	no	58		
		Total Carried to Summary				

SECTION 5600 : ROAD SIGNS

Item No.	Payment clause	Description	Unit	Billed		
				Quantity	Rate	Amount
56.01	COLTO 5600	ROAD SIGNS				
		Road sign boards 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 :				
		(a) Aluminium sheet (2.0 mm thick) :				
		(i) Area not exceeding 2 m ²	m ²	3.5		
		(ii) Area exceeding 2 m ² but not 10 m ²	m ²	3.5		
		(iii) Area exceeding 10 m ²	m ²	3.5		
		(a) Background of retro-reflective material :				
		(i) Class I	m ²	3.5		
		(b) Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material :				
		(i) Class II	m ²	3.5		
(ii) Class III	m ²	3.5				
56.03		Road sign supports (overhead road sign structures excluded) :				
		(a) Steel tubing (100mm diameter)	m	18		

		Total Carried to Summary				
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STRUCTURES : BRIDGE STRUCTURE

Item No.	Description	UNIT	Billed		
			Qty	Rate	Amount
	STRUCTURES : BRIDGE STRUCTURE				
	FOUNDATIONS FOR STRUCTURES				
2/61.01	Additional foundation investigations	Prov Sum	1	98,000.00	R 98,000.00
2/61.02	Excavation:				
	(a) Common excavation in soft material situated within the following successive depth ranges:				
	(i) 0 m up to 2 m	m ³	88		
	(ii) Exceeding 2 m and up to 4 m	m ³	18		
	(iii) Exceeding 4 m and up to 6 m	m ³	0		
	(b) Extra over subitem 61.02(a) for excavation in hard material irrespective of depth	m ³	9.0		
2/61.03	Access and drainage:				
	(a) Access	Lump Sum	2.0		
Part 2	Sub-Total Carried forward				

			Billed		
ITEM NO	DESCRIPTION	UNIT	Qty	Rate	Amount
	Sub-Total Brought forward				
2/61.04	Backfill to excavations utilising:				
	(a) Material from the excavation	m ³	21.0		
	(b) Imported material	m ³	25.0		
	(c) Soil cement (8% Cement)	m ³	18.0		
			4.0		
2/61.05	Fill within a restricted area	m ³	11.0		
2/61.07	Overbreak in excavation in hard material	m ²	12.0		
2/61.08	Foundation fill consisting of:				
	(a) Rock fill	m ³	85		
	(c) Compacted granular material	m ³	21		
	(d) Mass concrete class 15/19	m ³	42		
	(e) Concrete screed, 50 mm thickness, class 15/19	m ³	42		
Part 2	Sub-Total Carried forward				

			Billed		
ITEM NO	DESCRIPTION	UNIT	Qty	Rate	Amount
	Sub-Total Brought forward				
	<u>FALSEWORK, FORMWORK AND CONCRETE FINISH</u>				
2/62.02	Vertical formwork to provide:				
	(a) Class F1 surface finish to:				
	(i) Wing walls and inlet/outlet structures	m ²	57.6		
	(b) Class F2 surface finish to:				
	(i) Approach slabs and base slabs	m ²	36		
63.00	<u>STEEL REINFORCEMENT FOR STRUCTURES</u>				
2/63.01	Steel reinforcement for:				
	(a) Approach slabs, head walls and base slabs				
	(i) Mild steel bars	t	4		
	(ii) High-yield-stress-steel bars	t	7.0		
64.00	<u>CONCRETE FOR STRUCTURES</u>				
2/64.01	Cast in situ concrete:				
	(a) Class 30/19 concrete in:				
	(i) Approach slabs, head walls and base slabs	m ³	19		
Part 2	Sub-Total Carried forward				

ITEM NO	DESCRIPTION	UNIT	Billed		
			Qty	Rate	Amount
	Sub-Total Brought forward				
	<u>NO-FINES CONCRETE, JOINTS, BEARINGS, BOX CULVERTS AND DRAINAGE FOR STRUCURES</u>				
2/66.05	Expansion joints:				
	(a) 400mm x 100mm asphaltic plug-type joints	m	45.0		
2/66.06	Concrete pipe culverts:				
	(a) With prefabricated floor slabs (1200mm x 1200mm RP-75S)	m	48.0		
2/66.07	Unfilled joints:				
	(a) Two layers bituminous paint	m ²	9		
2/66.08	Sealing joints with:				
	(a) 10 mm silicone sealant, Dow Corning 888 approved equivalent	m	39		
2/66.17	End blocks	No	12		

ITEM NO	DESCRIPTION	UNIT	Billed		
			Qty	Rate	Amount
	Sub-Total Brought forward				
2/66.19	Drainage pipes and weep holes:				
	(a) Drainage pipes:				
	(i) 75mm dia PVC pipes	m	33		
	(b) Weep holes:				
	(i) 50mm dia PVC pipes	m	29		
2/66.21	Synthetic-fibre filter fabric (Kaymat U24)	m ²	59		
2/66.23	Crushed stone in drainage strips	m ³	12		
	TOTAL CARRIED TO SUMMARY				

Employer:
Project:
Contract No:

Ba-Phalaborwa Local Municipality
Construction of Selwane Low Level Bridge

SCHEDULE B : OCCUPATIONAL HEALTH AND SAFETY

Item No.	Pay clause	Description	Unit	Billed		
				Quantity	Rate	Amount
B1		OCCUPATIONAL HEALTH AND SAFETY Occupational health and safety				
B1.1		Contractors initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Lump Sum	1.00		
B1.2		Contractors time related obligations in respect of the Occupational Health and	Month	3.00		
B1.3		Submission of the Health and Safety File	Lump Sum	1.00		
		Total Carried to Summary				

SCHEDULE C: ENVIRONMENTAL MANAGEMENT PLAN

Item No.	Pay clause	Description	Unit	Billed		
				Quantity	Rate	Amount
C1000		ENVIRONMENTAL MANAGEMENT PLAN				
C100.01		Penalty for unnecessary removal or damage to trees for the following diameter sizes:				
		(a) 2 600mm girth or less	No			Rate Only
		(b) Greater than 2 600mm, but less than 6 180mm girth	No			Rate Only
		(c) Greater than 6 180mm girth	No			Rate Only
C100.02		Penalty for serious violations:				
		(a) Hazardous chemical/oil spill and/or dumping in non-approved sites	No			Rate Only
		(b) General damage to sensitive environment	No			Rate Only
		(c) Damage to cultural and historical sites	No			Rate Only
		(d) Pollution of water sources	No			Rate Only
		(e) Unauthorised blasting activities	No			Rate Only
		(f) Uncontrolled/unmanaged erosion per incident, depending on environment impacts, plus rehabilitation at contractor's cost	No			Rate Only
		(g) Damage to sensitive vegetation within "no-go" areas of vegetation damaged, plus rehabilitation thereof at contractors cost	No			Rate Only
C100.03		Penalty for less serious violations:				
		(a) Littering on site	No			Rate Only
		(b) Lighting of illegal fires on site	No			Rate Only
		(c) Persistent or un-repaired fuel and oil	No			Rate Only
		(d) Any person related to the contractor's operations found within the designated "no-go" areas	No			Rate Only
		(e) Any vehicles or equipment related to the Contractor's operations found within the designated "no-go" areas	No			Rate Only

	(f) Excess dust or excess noise emanating from the mill	No		Rate Only
	(g) Dumping of milled material in side drains or on grassed areas]	No		Rate Only

	(h) Possession or use of intoxicating substances on site	No		Rate Only
	(i) Any vehicles being driven in excess of designated speed limits	No		Rate Only
	(j) Removal and/or damage to flora or cultural or heritage objects on site, and/or killing	No		Rate Only
	(k) Illegal hunting	No		Rate Only
	(l) Urination and defecation anywhere except in designated areas	No		Rate Only

TOTAL CARRIED FORWARD TO SUMMARY

SCHEDULE D: PROVISION OF STRUCTURED TRAINING

Item No.	Pay clause	Description	Unit	Billed		Amount
				Quantity	Rate	
D1200		Provision of Structured training				
D12.05		Provision for accredited training				
		(a) Generic Skills/Entrepreneurial skills	Prov Sum	1.00	220,000.00	220,000.00
		(c) Handling cost and profit in respect of C12.05 (a) above	%	220,000.00		

TOTAL CARRIED FORWARD TO SUMMARY

SCHEDULE E: PROFESIONAL FEES

				Billed		
Item No.	Pay clause	Description	Unit	Quantity	Rate	Amount
E1		Profesional fees				
		a) Fees from stage 1 to 6 as per ECSA Gazette vol 719 may 2025	lump sum	1.00		
		b) All Specialist services required	lump sum	1.00		-
		(c) All additional fees incl(disbursment and fulltime supervision)	lump sum	1.00		
TOTAL CARRIED FORWARD TO SUMMARY						