

Contractor:				Client: TATA Chemicals Magadi Ltd.	
BOQ FOR CONST. OF 2X2M BOX CULVERT AT KM 37 & CROSS CULVERTS ON MAGADI-KONZA SECTION RAILWAY LINE					
BILL 1 : GENERAL PRELIMINARY				RFQ Document	
ITEM	DESCRIPTION	UNIT	QTY	UNIT RATE (Kshs)	TOTAL (Kshs)
1.01	Allow for contractual requirements, training levy with holding tax and other GoK statutes necessary to commence and proceed with the works to completion.	SUM	1		
1.02	Allow preliminaries to cover overheads, transport, site access, security, storage, water for construction, power supply, insurances as required by the General Condition of Contract and safety requirement not covered under specific items in the Bills of Quantities	SUM	1		
1.03	Allow for recovery of a service girder from Km 27 to site and reinstate the track for passage to traffic.	ITEM	1		
1.04	Assemble and Install Item 1.03 for the passage of traffic at construction site to the satisfaction of Permanent Way Engineer.	ITEM	1		
1.05	Allow for the blasting of the existing middle concrete abutment (15 cubic meter) of the culvert and disposal as directed by the Engineer. Rates to include river training of approximately 30m on the out fall as directed by the Engineer.	ITEM	1		
Total Carried Forward to Summary					

Contractor:				Client: TATA Chemicals Magadi Ltd.	
BILL 2 : EXCAVATION AND FILLING FOR STRUCTURES				RFQ Document	
ITEM	DESCRIPTION	UNIT	QTY	UNIT RATE (Kshs)	TOTAL (Kshs)
2.01	Excavate in soft material to any depth for structures such as box and round culverts to remove them and further excavation to desired depth	M ³	500		
2.02	As Item 2.01 but in Hard Rock class 1	M ³	250		
2.03	As Item 2.02 but in Hard Rock Class 2	M ³	500		
2.04	Backfill to existing channels and structures in soft material	M ³	400		
2.05	Backfilling with selected Granular fill	M ³	200		
2.06	Providing, placing selected granular back fill material behind , wing wall and retaining wall to any depth and compaction complete as per drawing and technical Specification and as directed by Engineer.	M ³	280		
2.07	Provide and place 2 x 1 x 1M gabion meshes including diaphragms as directed by the Engineer.	NO	60		
2.08	Provide and place close jointed rip -rap	M ³	40		
2.09	Provide and place rock fill below structures and gabions	M ³	120		
2.10	Stone pitch the sides of the embankment next to the culvert area on both sides 10m wide using well selected stones and surface underneath before hand prepared	M ²	350		
Total Carried Forward to Summary					

Contractor:				Client: TATA Chemicals Magadi Ltd.	
BILL 3: CONCRETE WORKS				RFQ Document	
ITEM	DESCRIPTION	UNIT	QTY	UNIT RATE (Kshs)	TOTAL
3.01	Provide, place and compact blinding concrete Class 15 (20) to foundation of wing walls and abutments, approach slabs, rate including formwork erection and dismantling.	M ³	10		
3.02	Provide, place and compact concrete class 25 (20), to the entry and exit surrounding over and sides of the gabion steps	M ³	25		
3.03	Provide, place and compact concrete class 30 (20), rate including formwork erection, dismantling, false work and construction after care.	M ³	70		
3.04	Sampling, preparation of 150mm concrete cubes, curing and carrying out compressive strength tests as per standard specifications for road and bridge construction (1986).				
(a)	After 7 days	NO	12		
(b)	After 28 days	NO	12		
REINFORCEMENT					
3.05	Provide, cut, bend and fix steel reinforcement as shown in the drawings. All reinforcement shall comply with BS449, BS4482, BS4461 and BS4483				
(a)	Y10	KG	9,800		
(b)	Y12	KG	4,200		
(c)	Y16	KG	5,500		
(d)	Y20	KG	2,800		
(e)	BRC mesh B283 double reinforced	KG	4,200		
3.06	Construction of Formwork, including all necessary support and false work as per standard specifications for roads and bridges (1986)				
(a)	F1 Finish	M ²	150		
(b)	F3 Finish	M ²	90		
3.07	Provide and fix water bar at the base adjoining the cell and wing walls size 100mm wide plate	MT	40		
Total Carried Forward to Summary					

BILL 4: CULVERTS AND DRAINAGE WORKS				RFQ Document	
ITEM	DESCRIPTION	UNIT	QTY	UNIT RATE (Kshs)	TOTAL
4.01	Ditch/Mitre drain/catch water drain excavation and river training	M ³	400		
4.02	Provide , lay and join 600mm inner dia concrete pipes (Km 91.4 Single Cross Culvert)	MT	6		
4.03	Provide , lay and join 900mm inner dia concrete pipes (Km 120.5)	MT	8		
4.04	Provide and place A142 fabric mesh reinforcement	M ²	100		
4.05	Excavate in soft material for pipe culverts, headwalls, wing walls, apron, toe walls, and drop inlets and compact as specified or as directed by the Engineer	M ³	410		
4.06	Provide and place class 15/20 concrete to blinding and beds	M ³	85		
4.07	Provide and place class 25/20 concrete to headwalls, wing walls, aprons, surrounds to walls, inlets and outlets to pipe culverts including formwork (Bar reinforcement measured separately, Item 3.05)	M ³	200		
4.08	Stone pitch the sides of the embankment next to the culvert areas on both sides using well selected stones and surface underneath before hand prepared	M ²	500		
Total Carried Forward to Summary					

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BOQ FOR CONST. OF 2X2M BOX CULVERT AT KM 37 & 2 CROSS CULVERTS ON MAGADI-KONZA SECTION RAILWAY LINE		
Bills of Quantities - RFQ Document		
Bill No	DESCRIPTION	AMOUNT (KES)
	SUMMARY	
1	Preliminaries	
2	Excavation and Filling for Structures	
3	Concrete Works	
4	Culverts and Drainage Works	
I	Total of Bills (Bill No 1 to Bill No 4)	
II	Add 10% of Total of Bills as Provisional sum for contingencies	
III	Sub - Total (I+II)	
IV	Add 16% of Sub-Total for Value Added Tax	
V	Grand Total carried forward to Form of Bid (III+IV)	