

NKANGALA ECONOMIC DEVELOPMENT AGENCY

APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT OF THE EMAKHAZENI
BRICK MANUFACTURING PLANT FOR NKANGALA ECONOMIC DEVELOPMENT AGENCY

BILL OF QUANTITIES

C2.2 BILL OF QUANTITIES

1. BILL 01 PRELIMINARY AND GENERALS*Tenderer**Witness 1**Witness 2**Employer**Witness 1**Witness 2*

No	Item Description	Unit	Qty	Rate	Amount
1.1	TIME-RELATED ITEMS				
1.1.1	Contractual Requirements	Sum	1		
1.1.2	Operation and Maintain of Facilities on site for the Duration of the Construction	Sum	1		
	<u>Facilities for Contractor</u>				
1.1.3	Offices and storage sheds (PSA-4.2)	Sum	1		
1.1.4	Workshop	Sum	1		
1.1.5	Living accommodation	Sum	1		
1.1.6	Ablution facilities	Sum	1		
1.1.7	Tools and equipment	Sum	1		
1.1.8	Water Supply	Sum	1		
1.1.9	Access	Sum	1		
1.1.10	Supervision	Sum	1		
1.1.11	Company and Head Office Overhead Costs for the Duration of the Construction	Sum	1		
1.1.12	Other Time-related Obligations	Sum	1		
1.2	Camping site, stores &Toilets Total price for the acquiring of a construction site as specified and erection of temporary accommodation for employees	Sum	1		
1.3	Insurance of the works The total cost of the insurance of the works in accordance with condition of contract	Sum	1		
1.4	OCCUPATIONAL HEALTH AND SAFETY				
	Provision for thee cost related to the Occupational Health and Safety Act, 85 of 1993, and the relevant regulations	Sum	1		
1.4.1	Preparing of a Health and Safety Plan	Sum	1		
1.4.2	Compilation of a risk assessment prior to construction	Sum	1		
1.4.3	Health and Safety induction training of employees	Sum	1		

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1.4.4	Compilation and keeping up to date the health and safety file which shall include all documentation required in terms of the Act.	Sum	1		
1.4.5	Implementation of the health and safety plan over the entire construction period.	Sum	1		
1.5	Compile Inception Report	Sum	1		
1.6	Provide Training	Prov.Sum	1		R 250 000.00
1.7	Contractor's overheads and profit	%	R 250 000.00		
Total for Bill 01 carried forward to Final summary page (excl. VAT)					

2. BILL 02 IMPLEMENTATION

No	Item Description	Unit	Qty	Rate	Amount
2.1	SITE CLEARANCE ETC Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m ²	1600		
2.2	Soil poisoning to bottoms and sides of trenches	m ²	1600		
2.3	Electrical Installations - External Works				
2.3.1	MV Reticulation Supply, deliver, and install electrical equipment all complete. Apply, supply, deliver and install and commission of a 200kVA (11KV to 400 Volt) transformer, pole mounted and associated costs.	Sum	1		
2.4	Electrical Installations				
2.4.1	Building General trenching work for sleeves along the routes as pegged out on site after co-ordination with other services removal and carting away of all stones and rocks	Sum	1		

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	including dumping off site. Backfilling and compaction shall be carried				
2.4.2	Trenching through floor for sleeves	m ³	110		
2.4.3	Excavation and backfilling in soft soil	m ³	110		
2.4.5	Excavation and backfilling in hard rock	m ³	80		
2.4.6	Cable and Data Sleeves Supply and installation of PVC Sleeves through floor construction to power distribution board and communication board complete with standard radius sleeve bends	m	200		
2.4.7	95mm square x 4 core cable PVC 180-216 amps current carrying capacity	m	200		
2.6	Distribution Boards				
2.6.1	Supply, delivery, storage and submission of workshop drawings for the Flush mounted architrave steel type power distribution boards complete with flush trays, doors, switch gear mounting trays, copper busbars, neutral and earth bars, correctly sized internal	Sum	1		
2.6.2	Distribution Board (DB-Main Building)	No.	1		
2.6.3	Conduit Work Supply, delivery and installation of SABS approved PVC / Galvanised Conduits completed with all required conduit accessories.	m	50		
2.6.4	Built or Chase into brick or concrete work: 20mm Galvanised Conduit	m	50		
2.6.5	In Ceiling space and/ or Timber work or along Purlins 20mm Galvanised Conduit	m	50		
2.6.6	Girder clamp for chain and wire,	No.	20		
2.6.7	Conduit Boxes Supply and installation of SABS approved conduit boxes, installed in the run of the conduit installation, cast into concrete and built into brickwork or flush inside false	No.	30		

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	ceiling spaces, complete with all required conduit termination accessories.				
2.7	STANDBY GENERATOR SET				
2.7.1	200kVA (11KV to 400 Volt) Diesel Generator c/w automatic changeover No 1 Supply, off-loading positioning and installation of a 200kVA (11KV to 400 Volt) complete with automatic change over switch. Generator to be enclosed in a silent canopy	No.	1		
2.7.2	Provision for labelling of installation as directed by the Client	No.	1		
2.7.3	Electrification of buildings complete with all ancillaries	Sum	1		
2.7.4	Supply, Delivery and installation of Electric Fence (Six lines)	m	400		
2.7.5	Generator plinth, approx. 2105mm x 1300mm x 1910mm The above shall include all relevant civil works pertaining to this item	Sum	1		
2.7.6	Commissioning and Testing Supply all Test equipment and Labour for Testing	Sum	1		
2.7.7	Ablution facilities (B7.5) Alternative selected: A The contractor shall make provision for sewer connection requirements that will enable them to carry out works around the site. The contractor shall apply for all necessary supply connections requirements with the Local authority. The contractor shall connect to any other existing services pointed to him by the Principal Agent in the same manner that the Local authority would have supplied services to site i.e. in compliance with the specifications of the Local authority.	Sum	1		
2.8	WATER SUPPLIES				
2.8.1	Provision of Water Supply complete with connections	Item	1		
2.8.2	Allow an amount of R 100 000.00 (Hundred Thousand Rand) for borehole, water storage tanks and stands complete.	Item	1		R 100 000,00

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2.8.3	Contractor's overheads and profit	%	R 100 000		
2.8.4	Allow an amount of R 200 000.00 for drilling and equipping of borehole, 4x 20 000 litres water storage tanks and stands complete.	Item	1		R 200 000,00
2.8.5	Contractor's overheads and profit	%	R 200 000		
2.9	ELECTRICAL WORKS				
2.9.1	Allow the amount of R 100 000.00 (Hundred Thousand Rand) for the supply and installation of bulk electric services.	Item	1		R 100 000,00
2.9.2	Contractor's overheads and profit	%	R 100 000		
2.10	BUILDING WORK SPECIFICATIONS				
2.10.1	Brickwork				
2.10.1.1	230mm wall, inner wall built with claytile clay brick and other wall built with FBX clay face brick (in stack bond with keyed joints)	m ²	298		
2.10.1.2	230mm wall below ground foundation with clay brick	m ²	58		
2.10.1.3	Refurbishment of Buildings	Sum	1		
2.11	GUARDHOUSE				
2.11.1	EARTHWORKS				
2.11.1.1	Excavate for strip foundation	m ³	7,00		
2.11.1.2	Compaction to 93% Mod AASTHO for foundations	m ³	3,00		
2.12	CONCRETE WORKS				
2.12.1	Reinforcement (Foundation, Floor and Roof- Ref 888)	t	3,00		
2.12.2	25 Mpa/19 Concrete for Foundation	m ³	7,00		
2.12.3	25 Mpa/19 Concrete for Floor Slab - 85mm thick	m ³	1,50		
2.12.4	15 Mpa/19 Concrete for Walkway	m ³	6,00		

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2.12.1	25 Mpa/19 Concrete for Roof Slab	m ³	14,00		
2.13	BRICKWORK				
2.13.1	230mm wall, inner wall built with claytile clay brick and other wall built with FBX clay face brick (in stack bond with keyed joints).	m ²	100,00		
2.13.2	230mm wall below ground foundation with clay brick	m ²	15,00		
2.13.3	Brick force	m	185,00		
2.14	PLASTERWORK				
2.14.1	(a) One coat 1:4 cement plaster	m ²	50,00		
2.15	FLOOR SCREEDS AND FINISHES				
2.15.1	(a) Normal cement screed	Sum	1		
2.16	WATERPROOFING				
2.16.1	Damp-proof course in walls	Sum	1		
2.16.2	Damp-proof membrane under floors	Sum	1		
2.16.3	Damp-proof course under window sills	Sum	1		
2.17	JOINERY INCLUDING STAINLESS STEEL FRAMES, IRONMOGERY AND INSTALLATION THEREOF				
2.17.1	Entrance Door	No.	1		
2.17.2	Toilet Door	No.	1		
2.18	METAL WORK				
2.18.1	987mm x 673mm Side Window	No.	1		
2.18.2	1 445mm x 1 616mm Through Window	No.	1		
2.18.3	511mm x 673mm Toilet Window	No.	2		
2.19	PAINTING				
2.19.1	(a) Internal walls: Paint one coat primer and two coats low odour premium quality velvet sheen wall coatings that is highly	m ²	100,00		

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	washable and stain resistant. Paint to comply to total volatile organic compounds limits of the green building society - Table IEQ-9.1				
2.20	MISCELLANEOUS				
2.20.1	Water supply pipework and plumbing for all sanitary ware for 2 standpipes, including connection to nearest potable water supply line, 100m away.	Sum	1,00		
2.20.2	Sanitation facility including toilet seat, wash hand, plumbing at the Guardhouse, construction of septic tank (5m3) and connected to the guardhouse	Sum	1,00		
2.20.3	Precast concrete lintels over door frames and other brickwork openings, allow minimum 150mm bearing each side	m	10,00		
2.20.4	Supply and install 5Kg fire extinguishers complete in fire closet with signage and all accessories	No	2,00		
2.20.5	Building signage	Prov-sum	1,00		R 60 000
2.20.6	Contractor's overheads and profit	%	R 60 000		
2.20.7	Provisional sum for small power and lighting	Prov-sum	1,00		R 50 000
2.20.8	Contractor's overheads and profit	%	R 50 000		
2.21	FENCING				
2.21.1	Supply and install 1.8m high x 3m wide Clear Fence Panels with 150 x4 3/4mm aperture, 450mm Razor Coil on top of fence, 3m high extended T-posts 100x60mm with pole caps, Aluminium fixators (12 per post) powder coat black	m	400		
2.21.2	Supply and install 1.8m high x 7m wide gate to match the fence	No.	1		
2.22	RE-GRAVELLING OF GRAVEL ACCESS ROAD AND PREPARATION WORKS				
2.22.1	For re-gravelling and associated works	Sum	1		
2.23	BRICK MANUFACTURING PLANT REPAIRS				

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2.23.1	20mm diameter 4 way type(round box)	No.	30		
2.23.2	Discharge Conveyor Belt (500 x 4.15)	No.	1		
2.23.3	Side Conveyor Belt (500 x 3.5)	No.	1		
2.23.4	Side Conveyor Belt (500 x 6)	No.	1		
2.23.5	Centre Conveyor Belt (500 x 3)	No.	1		
2.23.6	3 Bin Batcher Load Cell (1000kg)	No.	4		
2.23.7	Load Cells 300kg	No.	4		
2.23.8	Proximity Sensor Yellow Long Cable	m	12		
2.23.9	Conveyor Rollers Medium (89 x 240)	m	14		
2.23.10	Conveyor Rollers Large (89 x 600)	No.	4		
2.23.11	Claw for Pallet Feeder	No.	2		
2.23.12	Air Pipes	No.	1		
2.23.13	Brick Trolley	No.	2		
2.23.14	Pallet Jack	No.	2		
2.23.15	JS500 Body Lining Plates	No.	14		
2.23.16	500L Gate Lining Plates	No.	84		
2.23.17	500L Plate	No.	24		
2.23.18	500L Plate	No.	8		
2.23.19	JS500L Middle Blades	No.	10		
2.23.20	JS500L Side Blades	No.	4		
2.23.21	500L Plate	No.	4		
2.23.22	JS750 Skip Cable 16mm x 18	m	100		
2.23.23	Water Pipes	m	100		
2.23.24	2350 Li V Belt (Machine Vibrating Motors)	No.	4		

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2.23.25	2600 Li V Belt (Conveyor)	No.	2		
2.23.26	2950 Li V Belt (Conveyor)	No.	2		
2.23.27	Installation fees	Sum	1		
2.23.28	Testing and Commissioning (inclusive of Compliance Certificate)	Sum	1		
2.23.29	3 Years Warranty on the components replaced	Sum	1		
Total amount For Bill 02 carried to Summary (excl. VAT)					

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SUMMARY OF BILL OF QUANTITIES

ITEM		TOTAL AMOUNT
1	PRELIMINARY AND GENERAL	
2	IMPLEMENTATION	
	SUB TOTAL (A)	R
	CONTINGENCIES @ 10%	R
	SUB TOTAL (B)	R
	VALUE ADDED TAX @ 15%	R
	TOTAL CARRIED TO FORM OF OFFER	R

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