

BILL OF QUANTITIES

WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO

March 2022

SUMMARY OF BILLS OF QUANTITIES
BOQ FOR WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO

CONSTRUCTION PHASE - II

Bill No	Description	Amount
1	BILL No: 01 - PRELIMINARIES	-
2	BILL No: 02 - GROUND WORKS	-
3	BILL No: 03 - CONCRETE	-
4	BILL No: 04 - MASONRY AND PLASTERING	-
5	BILL No: 05 - PAINTING AND FINISHES	-
7	BILL No: 07 - ROOFING,TIMBER WORKS	-
8	BILL No: 08 - HYDRAULICS & DRAINAGE	-
9	BILL No: 09 - ELECTRICAL INSTALLATIONSITEMS	-
10	BILL No: 10 - TENDER'S ADJUSTMENTS	-
	SUB-TOTAL	-
	GST %	-
GRAND TOTAL CARRIED		

PROJECT DURATION (DAYS)

BOQ FOR WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO						
Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
BILL No: 01						
<u>PRELIMINARIES</u>						
1.1	<u>GENERAL NOTES</u>					
(1)	<u>Abbreviations</u> m - metre Nos - numbers m ³ - cubic metre m ² - square metre m - metre kg - kilogram incl - including mm - millimetre dia - diametre SS - Staiinless Steel GI - Galvinised Iron ltr - Liter					
1.2	<u>SITE MANAGEMENT COSTS</u> Allow for all on and off site management costs including costs of foreman and assistants, temporary services, telephone, fax, hoardings, fences and similar items.	1.00	Item			
1.3	<u>SITE ESTABLISHMENT</u> Allow for mobilization and demobilization	1.00	Item			
1.4	<u>TEMPORARY FENCING AND HOARDING</u> Supply, erect and maintenance of a fence using safety fence & GI pipes,including horizontal work planks, through out the construction period, a the work site.	1.00	Item			
1.5	<u>SITE CLEARENCE</u>					
1.5.1	Site clearence and demolition works include; (a) Clearing grass, bushes, shrubs, saplings, uprooting rank vegetation all at the site area and removal & disposal of rubbish to anywhere in the island as directed by the Engineer-in-charge. (b) Dismantling and demolition of existing structures (if any) like pillars, walls, slabs and any other structure constructed of Brick or coral stone masonry, cement concrete, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material. (c) Removal and relocation of existing service lines at build-up area whereas necessary					
1.5.1	Site clearence and demolition works	1.00	Item			
1.6	<u>ERECTION OF NOTICE BOARDS</u> Provision and Erection of Notice Boards 3m x 4m size as per approved drawing, safety instructions, including complete cost and conveyance of materials, labour charges, & etc.	1.00	Item			
1.7	<u>CONCRETE TESTING</u> Allow for concrete testing. Compressive strength cube test results for columns, beams, slabs and foundations according to British Standards. Test shall be carried out for 7 day, 14 day and 28 days.	1.00	Item			

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BILL No: 01 - PRELIMINARIES						
TOTAL OF BILL No: 01 - Carried over to summary						-
BILL No: 02						
<u>GROUND WORKS</u>						
	<p><u>GENERAL</u> Rates shall include for; leveling, grading, trimming, compacting to faces of excavation, keep sides plumb, backfilling, consolidating and disposing of surplus soil</p> <p><u>EXCAVATION</u> Excavation quantities are measured to the faces of concrete members. Rates shall include for all additional excavation required to place the formwork/shuttering and dewatering the trenches and others</p>					
2.10	<u>WAREHOUSE BUILDING</u>					
2.1.1	<u>FOUNDATION PADS</u> Foundation depth = 600mm					
	(1) Foundation footing, (F1)600mm X 800mm X 400mm	1.78	m ³			
	(2) Foundation footing, (F2) 700mm X 700mm X 400mm	3.60	m ³			
	(3) Foundation footing, (F3) 400mm X 600mm X 300mm	0.88	m ³			
	(4) Foundation footing, (F4) 500mm X 500mm X 300mm	0.22	m ³			
2.1.2	<u>FOUNDATION BEAMS</u>					
	(1) Foundation beam (TFB) 200mm X 300mm	4.06	m ³			
2.1.3	<u>BACK FILLING</u> Rates shall include for levelling, grading, trimming and compacting.					
	(1) External Backfilling	1.00	Item			
2.1.4	<u>CLEANING UPON COMPLETION</u>					
	(1) Cleaning the site upon completion of all works	1.00	Item			
BILL No: 02 - GROUND WORKS						
TOTAL OF BILL No: 02 - Carried over to summary						-
BILL No: 03						
<u>CONCRETE WORK</u>						
3.1	<p><u>GENERAL</u> (a) Rates shall include for: provision to place in position; casting of all required items and finishing after removal of formwork and additional concrete required to confirm to structural and excavated tolerances. (b) Rates shall include supply of all formwork item including form oil, timber, plywood, nails etc. (c) Adequate cover to be provided from all the sides for reinforced concrete of 35mm unless otherwise specified. (d) Mix ratio for reinforced concrete shall be 1:2:3 unless otherwise specified and lean concrete shall be 1:3:6 by volume (e) River sand (fine /coarse) and aggregate shall be used for all concrete works</p>					
3.20	<u>WAREHOUSE BUILDING</u>					
3.2.1	<u>LEAN CONCRETE</u>					

BOQ FOR WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO						
Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
	Note: Quantity is measured to the edges of concrete members.					
	(1) 50mm thick lean concrete to bottom of Foundation footing.	0.50	m ³			
3.2.2	<u>REINFORCED CONCRETE</u> In-situ reinforced concrete to:					
3.2.2.1	<u>FOUNDATION PADS</u>					
	(1) Foundation footing, (F1)600mm X 800mm X 400mm	0.77	m ³			
	(2) Foundation footing, (F2) 700mm X 700mm X 400mm	1.57	m ³			
	(3) Foundation footing, (F3) 400mm X 600mm X 300mm	0.29	m ³			
	(4) Foundation footing, (F4) 500mm X 500mm X 300mm	0.08	m ³			
3.2.2.2	<u>FOUNDATION BEAMS</u>					
	(1) Foundation beam (TFB) 200mm X 300mm	4.06	m ³			
3.2.2.3	<u>COLUMNS</u> Quantities for columns are measured from top surface of foundation beam upto the soffit of first floor beams					
	(1) Columns (C1), 250mm X 250mm	4.29	m ³			
	(2) Columns (C2), 200mm X 200mm	1.14	m ³			
3.2.2.4	<u>GROUND SLAB</u>					
	(1) 150mm Thick RCC Ground Slab	42.92	m ³			
3.2.2.5	<u>ROOF BEAMS</u>					
	(1) Beams (RB1), 200mm X 150mm	2.03	m ³			
	(1) Bracing beam (WB), 100mm X 100mm	0.51	m ³			
3.2.3	<u>FORM WORK</u>					
3.2.3.1	<u>GENERAL</u> (a) Rates shall include for: all necessary boarding, supports, erecting, framing, temporary cambering, cutting, perforations for reinforcing bars, straps, ties, hangers, pipes, edge formwork and removal of formwork.					
3.2.3.2	<u>FOUNDATION PADS</u>					
	(1) Foundation footing, (F1)600mm X 800mm X 400mm	4.48	m ³			
	(2) Foundation footing, (F2) 700mm X 700mm X 400mm	8.96	m ³			
	(3) Foundation footing, (F3) 400mm X 600mm X 300mm	2.40	m ³			
	(4) Foundation footing, (F4) 500mm X 500mm X 300mm	0.60	m ³			
3.2.3.3	<u>FOUNDATION BEAMS</u>					
	(1) Foundation beam (TFB) 200mm X 300mm	47.36	m ³			
3.2.3.4	<u>COLUMNS</u>					
	(1) Columns (C1), 250mm X 250mm	68.66	m ³			
	(2) Columns (C2), 200mm X 200mm	22.89	m ³			
3.2.3.1	<u>ROOF BEAMS</u>					
	(1) Beams (RB1), 200mm X 150mm	37.21	m ³			
	(2) Bracing beam (WB), 100mm X 100mm	15.17	m ³			

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Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
3.2.4	<u>REINFORCEMENT</u>					
3.2.4.1	<u>GENERAL</u> (a) Rates shall include for placing, provision for all necessary temporary fixings and supports including tie wire.					
3.2.4.2	<u>FOUNDATION FOOTING</u>					
(1)	Foundation footing, (F1)600mm X 800mm X 400mm					
(a)	10mm Dia. Bars	48.37	m			
(2)	Foundation footing, (F2) 700mm X 700mm X 400mm					
(a)	10mm Dia. Bars	97.81	m			
(3)	Foundation footing, (F3) 400mm X 600mm X 300mm					
(a)	10mm Dia. Bars	31.63	m			
(4)	Foundation footing, (F4) 500mm X 500mm X 300mm					
(a)	10mm Dia. Bars	8.04	m			
3.2.4.3	<u>FOUNDATION BEAMS</u>					
(1)	Foundation beam (TFB) 200mm X 300mm					
(a)	12mm Dia. Bars	320.94	m			
(b)	6mm Dia. Bars	368.89	m			
3.2.4.4	<u>Columns</u>					
(1)	Columns (C1), 250mm X 250mm					
(a)	12mm Dia. Bars	292.99	m			
(b)	6mm Dia. Bars	458.49	m			
(1)	Columns (C2), 200mm X 200mm					
(a)	12mm Dia. Bars	122.08	m			
(b)	6mm Dia. Bars	151.89	m			
3.2.4.6	<u>GROUND SLAB</u>					
(1)	150mm Thick RCC Ground Slab					
(a)	10mm Dia. Bars	3,373.94	m			
3.2.4.5	<u>ROOF BEAMS</u>					
(1)	Beams (RB1), 200mm X 150mm					
(a)	12mm Dia. Bars	320.94	m			
(b)	6mm Dia. Bars	305.60	m			
(2)	Bracing beam (WB), 100mm X 100mm					
(a)	10mm Dia. Bars	116.94	m			
(b)	6mm Dia. Bars	127.12	m			
BILL No: 03 - CONCRETE						
TOTAL OF BILL No: 03 - Carried over to summary						-
BILL No: 04						
4.1	<u>MASONRY AND PLASTERING</u>					
4.1	<u>GENERAL</u> (a) Rates shall include for: cleaning out cavities, forming rebated reveals and pointing and cleaning down reveals where necessary; and blocks, cutting or leaving holes and openings as recesses.					

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Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
	(b) River sand (fine / coarse) shall be used for all masonry works					
4.2	<u>CEMENT BLOCK WORK</u> All internal & External wall should be 140mm Thick hollow block walls, laid on and including 1:5 cement mortar, tie rods, compression gap filler, PVC mesh as specified.					
4.30	<u>WAREHOUSE BUILDING</u>					
4.3.1	<u>Internal & External walls</u>					
(1)	140mm thick hollow blocks wall	334.22	m ²			
(2)	Installation 100mm thick dry partition walls	37.50	m ²			
4.3.2	<u>PLASTERING</u> Plastering on walls and concrete surfaces with 1:4 cement mortar					
4.3.2.1	<u>INTERNAL AND EXTERNAL WALL</u> 20mm Thick cement plastering (made up of 2 layers, 1st layer being 8mm thick and second layer 12mm thick) on external surfaces of walls and concrete surfaces with 1:5 cement mortar first coat and 1:4 cement mortar second coat including PVC					
4.3.2.2	<u>GROUND FLOOR</u>					
(1)	20mm thick plaster on top of the masonry wall	668.44	m ²			
(2)	Installation 100mm thick dry partition walls	75.00	m ²			
BILL No: 04 - MASONRY AND PLASTERING						
TOTAL OF BILL No: 04 - Carried over to summary						-
BILL NO: 05						
<u>PAINTING AND FINISHES</u>						
5.1	<u>GENERAL</u> (a) Rates shall include for: fixing, bedding, grouting, pointing, finishing and any other similar works to ensure the required finish. (b) All painting works shall be carried in accordance with the manufacturer's specifications (c) Exterior surfaces and concrete surfaces shall be finished with paint specifically manufactured for exterior surfaces (d) The paint system shall be SKK, sigma or similar brand unless otherwise specified. The contractor shall submit the details of the paint system for client approval					
5.2	<u>Wall and concrete surfaces</u> (a) Emulsion paint finish or cement plasterd walls and concrete column, sides and soffits of slab surfaces as specified / required (b) All interior walls and soffits of ceiling to be applied with paint after application of wall putty and grinding for a smooth finish					
5.2.1	<u>WAREHOUSE BUILDING</u>					
(1)	Finish paints on interior and exterior walls (Including concrete surfaces)	743.44	m ²			
BILL No: 05 - PAINTING AND FINISHES						

BOQ FOR WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO						
Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
TOTAL OF BILL No: 05 - Carried over to summary						-
BILL N0: 07						
<u>ROOFING & TIMBER WORKS</u>						
7.1	<u>GENERAL</u> (a) Rates shall include for fabrication of trusses, fair edges, dressing over angle fillets, turning into grooves, all other labours, circular edges, nails, screws and other fixing and laps. (b) Rates shall include for: the provision, erection and removal of scaffolding, preparation, the protection and/or masking floors, fittings and similar work. (c) Rates shall include for supply and complete installation.					
7.3	<u>ROOFING</u>					
7.3.1	<u>GENERAL</u> Roofing works including supply and installation of all fixing, screws, nuts, bolts, timber treatment					
7.3.2	<u>WAREHOUSE BUILDING</u>					
7.3.2.1	<u>ROOF COVERING</u>					
	(1) Lysaght roofing	294.81	m ²			-
	(2) Lysaght flashings (cable end)	68.08	m			-
	(3) Lysaght gutter (200mm X 200mm)	34.68	m			-
	(4) 50mm Mineral wool Insulation in between purlins	294.81	m ²			-
	(5) Supply and fix 200mm x 20mm Facia Board	34.68	m			-
7.3.2.2	<u>ROOF STRUCTURE</u> Roof truss, including all fixing, paintings and complete fabrication and installation as shown in the drawings.					
	(1) Supply and fix GI Pipe 38mm (4mm thick)	234.00	m			-
	(2) Supply and fix GI Pipe 60 mm (5mm thick)	248.40	m			-
	(3) Supply and fix GI Pipe 165mm (5mm thick)	18.00	m			-
	(4) Supply and C purlins CH125x65x2	154.65	m			-
BILL No: 07 - ROOFING,TIMBER WORKS						
TOTAL OF BILL No: 07- Carried over to summary						-
BILL N0: 08						
<u>HYDRAULICS & DRAINAGE</u>						
8.1	<u>Drainage</u>					
8.1.1	<u>Peramble notes</u> (a) Rates shall include for sockets, runnin joints, connector, (b) All pipe work and fittings shall be PVC (c) Rates shall include for supply and fixing of all pipes (d) All sanitary fixtures used shall be of superior quality and approved by the client or as per the agreement. (e) Rates shall include for maintaining faces of drain pipes, freshwater supply pipes, rainwater collection pipes, trenches and pits, diposal of surplus soil, bends, junctions, reducers, expansion joints and all joints and other incidental materials.					
8.2	<u>INTERNAL PLUMBING</u>					

BOQ FOR WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO						
Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
	Internal plumbing to all downpipes, toilets, internal water supply network, rainwater collection, and floor drain incl. supply and laying of pipes.					
8.2.1	<u>WAREHOUSE BUILDING</u>					
(1)	Allow for supply and installation of pipework including all the necessary accessories & fittings.	1.00	Item			-
(2)	Construction of concrete drainage trenches and collection chambers including installation of GI grate plates and uPVC pipe connection to septic tank	1.00	Item			
BILL No: 08 - HYDRAULICS & DRAINAGE						
TOTAL OF BILL No: 08 - Carried over to summary						-
BILL No: 9						
<u>ELECTRICAL INSTALLATIONS</u>						
9.1	<u>GENERAL</u>					
	(a) Rates shall include for: screws, nails, bolts, nuts, standard (b) Rates for electrical conduits, fittings, equipment and similar items shall include for: all fixings to various building surfaces (c) Light end and switch end of wiring together measured as (d) A point wiring for power points is measured as one point for each socket outlet; other end of wire is not included in the quantity. (e) Rates shall include for supply and complete installation (f) Single phase power supply.					
9.2.1	<u>WAREHOUSE BUILDING</u>					
(1)	Three Phase Distribution Board with MCB, ELCB & CBS	1.00	Item			-
9.3	<u>ELECTRICAL WIRING</u>					
	Electrical wiring with copper conductor cable in conduits in walls and concrete as per government regulations.					
9.3.1	<u>WAREHOUSE BUILDING</u>					
(1)	Wiring to lights	12.00	Pts			-
(2)	Wiring to power points	4.00	Pts			-
(3)	Wiring to distribution boards	1.00	Item			-
9.4	<u>LIGHTING, POWER POINTS & FANS</u>					
	Supply and installation of;					
9.4.1	<u>WAREHOUSE BUILDING</u>					
(1)	1 Way switch (4 gang)	3.00	Nos			-
(2)	1x100W High bay UFO Light 15000 Lumnes, 6000k	12.00	Nos			-
(3)	30-50ft retractable ceiling mounted extension cord reel 15Amp, Heavy duty, 3 phase connection	2.00	Nos			
BILL No: 09 - ELECTRICAL INSTALLATIONSITEMS						
TOTAL OF BILL No: 09 - Carried over to summary						-
BILL No: 10						
<u>ADDITION AND OMISSION</u>						
12.1	<u>Additions</u>					
(1)	Preliminaries - Bill 01					

BOQ FOR WASTE MANAGEMENT CENTER AT HDH.NAAVAIDHOO						
Item	Description	Qty	Unit	Material Rate (MVR)	Labour Rate (MVR)	Amonut (MVR)
	(2) Ground works - - Bill 02 (3) Concrete - Bill 03 (4) Masonry and Plastering- Bill 04 (5) Painting and Finishes - Bill 05 (6) Ceiling Works -Bill 06 (7) Roofing & Timber deck Wroks - Bill 07 (8) Hydraulics & Drainage - Bill 08 (9) Electrical Installations - Bill 09 12.2 Omissions (1) Preliminaries - Bill 01 (2) Ground works - - Bill 02 (3) Concrete - Bill 03 (4) Masonry and Plastering- Bill 04 (5) Painting and Finishes - Bill 05 (6) Ceiling Works -Bill 06 (7) Roofing & Timber deck Wroks - Bill 07 (8) Hydraulics & Drainage - Bill 08 (9) Electrical Installations - Bill 09					
BILL No: 10 - TENDER'S ADJUSTMENTS TOTAL OF BILL No: 10 - Carried over to summary						