BILL OF QUANTITIES (BOQ)

Item	Description	Unit	Qty	Rate	Amount
	<u>BILL No: 01</u> <u>GENERAL & PRELIMINARIES</u>				
1.1	GENERAL				
a)	Abbreviations				
b)	m - metre				
c)	nos - numbers				
d)	m ³ - cubic metre				
e)	m ² - square metre				
f)	m - Linear metre				
g)	Kg-Kilogram				
h)	t - Tonne				
i)	incl - including				
j)	mm - millimetre				
k)	dia - diameter				
1)	L/S -Lump Sum				
1.2	<u>Notes</u>				
a)	The contractor should take adquate measures to ensure the works are been carried out safely and would be held laible any nusance or injury to a third party.				

Item	Description	Unit	Qty	Rate	Amount
b)	On practical completion of project the contractor should at not extra cost thoroughly clean out each room by washing all floors, cleaning glasses, removing paint stains, mortar droppings, and clear site completely of all debris and restore to original conditions, with all services interrupted during construction.				
2	PRELIMINARIES				
2.1	<u>Mobilization and Demobilization</u> Mobilization and Demobilization of contractors personel, plants,				
a)	machineries, equipments, materials, contractors facilities and the like.	Item	1.00		-
2.3	Site Management Cost Allow provision for all on and off site management cost including costs of foreman and assistants, site office, Internet & telephone Facilities and equipments for site office and other Operational	Ţ.			
a)	costs for site office. The Contractor shall constantly keep upon the Works on a full-time basis, the following key site personnel:-	Item	1.00		-
2.4	Site Safety and Protection				

Item	Description	Unit	Qty	Rate	Amount
a)	Providing and maintaining adequate safety measures on site for all workers and all authorized visitors on site safeguard the works including providing safety equipments, pest control, fire fighting equipments, materials and Plant against damage or theft including all necessary watching and lighting for the security of the Works and the protection of the public, Provide for carefully covering up and protecting the Works and Materials from inclement weather and theft.	Item	1.00		-
2.5 a)	<u>Plants & Machineries</u> Rate shall include cost of rentals, operation & maintenance, fuel, lubricant and the like.	Item	1.00		-
2.6 a)	Services and Facilities Allow Provision for services and facilities such as water, power supply, food, lodging and the like.	Item	1.00		-
2.7	Temporary Structures				

Item	Description	Unit	Qty	Rate	Amount
a)	Provide all necessary temporary fencing, hoarding, scaffolding, Safety nets, screens, fans, planked footways, guardrails, gantries, and the like to seal off the site and for the protection of the public and the occupants of any local or statutory authority, law or regulations and to the satisfaction of the Engineer. Provide all necessary lighting to same at night and for removing and making good any damage resulting there from on completion. Rate shall include for providing temporary support such as jacks & 75x250mm temporary timber beam for existing roof until 28 days after casting RC beam.	Item	1.00		-
2.8 a)	<u>Sign Board</u> Project Information Boards, Safety and Security Boards etc.	item	1.00		-
2.9 a)	Clean-ups and Handover Daily removal of debris and unnecessary materials from the project site to the dump site 'area as designated by the Engineer. The General Contractor shall allow all costs for proper housekeeping of the project site at all times. Making good of the compacted areas during final completion.	Item	1.00		-
2.10	Site Clearing				

Item	Description	Unit	Qty	Rate	Amount
a)	Includes clearing of all trees and bushes complete with stems, roots Flooring and the reimbursement fees if applicable. The contractor is advised to survey the construction site and ensure that all necessary works for site clearing also included Reallocation of existing prefabricated garage within the health center site, Rates includes to additinal materials (if needed) and labour to reallocate garage.	m ²	37.17		_
2.11	Allow for all other cost not included elsewhere for General & Prelimineries. Each item to be detailed and priced seperately below.				
	a)				
	b)				
	c)				
	d)				
	e)				
	f)				
	BILL No 1: GENERAL & PRELIMINARIES TOTAL OF BILL - Carried over to summary				
	<u>BILL No: 02</u>				

Item	Description	Unit	Qty	Rate	Amount
	DEMOLITION & REMOVAL General (a) Cost to include supply of material, labour, tools, & equipment, scaffolding, consumables (nails,screws,bolts,nuts,washer ,etc.), culling & forming, technical supervision and all other incidentals necessary to complete the work all in accordance with plans & specification. (b) Rates for demolishing existing structure shall include; breaking up and pulling down of structures and its associated substructure , and removing all incidental debris, cleaning and stacking materials required for making good, casing, covering up and protecting works to be retained or left intact, carrying out the works in sequence or phases; including piecemeal works. (c) Rates for setting aside for re-use shall include cleaning, stacking, protecting and dispatching from, and the subsequent returning to site as required. (d) Rates for cutting out existing structures shall include; using chisels, sledge hammers, pneumatic tools, flame cutters, diamond cores and other equipments/processes of various descriptions in cutting openings, quoining up jambs, forming recessed reveals, toothing and bonding, preparing thresholds and cut edges, providing necessary safety and security measures, installing temporary supports as required, cleaning and stacking materials required for making good, removing all debris from site.				

Item	Description	Unit	Qty	Rate	Amount
	 (e) Rates shall include for: removal of doors, windows, sanitary and electrical fixtures without damage and demolition of the masonry walls, floor tiles and clearing the area by disposing off debris in specified location. Rate shall also include for making good of any affected areas. (f) Rates shall include for the proper stacking & storage of the removed items which are to be reused. 				
a)	Demolition of existing block masonry wall as shown in the drawing. Rate shall include for labour, tools, machineries, cleaning & removal of debris to a dumping site approved by council.	m ²	41.20		-
b)	Demolition & removal of existing ceiling complete with timber frame. Rate shall include for labour, tools, machineries, cleaning & removal of debris to a dumping site approved by council.	m ²	74.66		-
c)	Allow provision for removal of existing services such as electrical & network fixtures, cables, wiring, condiuts, removal of existing DB box, making good anround any cuttings, drills etc. Rate shall include for labour, tools, machineries, cleaning & removal of debris to a dumping site approved by council. Any reusable materials to be handed over / reused as per the instruction of council representative.	item	1.00		-
d)	Removal of existing door size 950x2600mm. Rate shall include for labour, tools, machineries, cleaning & removal of debris to a dumping site approved by council.	nos	4.00		-
e)	Dittoo but 1618x1314mm fixed glass window.	nos	2.00		-

Item	Description	Unit	Qty	Rate	Amount
f)	Cleaning, removal of existing paint in existing internal & external walls.	item	1.00		-
	BILL No: 02 DEMOLITION & REMOVAL TOTAL OF BILL No: 02 - Carried over to summary				-
	<u>BILL No: 03</u> <u>EARTH WORKS</u>				
	GeneralExcavationa) Excavation shall be carried out in all type of materials and by whatever means are necessary accurately to the lines and levels shown in the approved drawing. No blasting of any kind will be permitted. Excavation for foundations and will include timbering of soil faces. Excavation quantities are measured to the faces of concrete members. Rates shall include for leveling, grading, trimming compacting to faces of excavation, keeping sides plumb, 				

Item	Description	Unit	Qty	Rate	Amount
	(b) If required, for dewatering works, rate shall include for taking all Authority approvals and all necessary mitigation measures.				
3.1 a)	Excavation Excavation to receive foundation, foundation beams, tie beams and other concrete structures below ground level.	m ³	5.84		-
3.2 a)	<u>Back filling</u> Backfilling using excavated materials to receive below concrete structures.	item	1.00		-
	BILL No: 03 EARTHWORKS TOTAL OF BILL No: 03 - Carried over to summary				-
	BILL No: 04 WATERPROOFING General a) All the Waterproofing chemical shall be applied / mixed with the instruction of Manufacturer / Supplier and Consultant.				

Item	Description	Unit	Qty	Rate	Amount
	b) Cutting and laying in position heavy duty polythene sheets of gauge 500 (not less than 1.5mm thick). Rates shall include for: dressing around and sealing to all penetrations. Apply slurry type waterproofing to all surfaces of concrete below ground level in accordance with manufacturer's instructions.				
4.1	Apply 2 coats of water proofing bitumen paint conmix moya shield RBE or equivalent to all concrete structures and plastered masonry walls below ground level	Item	1.00		-
4.2	Add water proofing admixture, CONMIX MEGA ADD WL2 and concrete plasticizer, CONMIX MEGA FLOW P4 or approved equivalent to all below ground concrete work.	Item	1.00		-
4.3	Add water proofing admixture, CONMIX MEGA FLOW P4 or approved equivalent to all above ground concrete work. Add water proofing admixture, C ONMIX MEGA ADD WL2 to terrace floor slab in addition to Mega Flow P4.	Item	1.00		-
4.4	Apply CONMIX MOYA PROOF WS2 or equivalent Water Proofing membrane on top of terrace foor screed.	m ²	36.60		-
4.5	Polythene damp proof membrane 18 gauge to recive foundation and foundation beams. Rate shall include for: dressing around and sealing to all penetrations.	m ²	9.31		-
4.6	Dittoo below ground slab	m ²	34.71		-

Item	Description	Unit	Qty	Rate	Amount
4.7	Apply Bituminous felt DPC through all ground floor masonry walls 1m above ground level.	m	24.40		-
	BILL No: 04 WATERPROOFING TOTAL OF BILL No: 04 - Carried over to summary				-
	<u>BILL No: 05</u> <u>CONCRETE WORKS</u>				
	General <u>ConcreteWorks</u> (a) Rate shall include batching, mixing, compacting, leveling and placing of concrete and curing and removal of any formwork include for provision casting of required items & finishing after removal of formwork and additional concrete required to confirm to structural tolerances and rates shall include supply of all required materials and machineries (b) Mix ratio for reinforced concrete shall be 1:2:3 (20mm crushed aggregates) and lean concrete shall be 1:2:4 (20mm Crushed aggregates)by volume. (c) concrete test results shall be submitted by the contractor. All structural concrete shall be Grade 30 unless specified.				
	the drawing. <u>Formwork</u>				

Item	Description	Unit	Qty	Rate	Amount
	 (a) Rates shall include for all necessary boarding, supports, erecting, framing, temporary cambering, cutting, perforations for reinforcing bars, bolts, straps, ties, hangers, pipes and removal of formwork. b) All materials such as plywood, shutter oils and other items and transportation to site and secure the formwork in highly precise manner guaranteeing straight and smooth concrete edges. 				
	 <u>Reinforcement</u> a) Rates shall include for cleaning, fabrication, placing, the provision for all necessary temporary fixings and supports including tie wire and other supports, laps and wastage. a) All reinforcement bars except 6 mm dia bars shall be of deformed high strength bars. 6 mm bar shall be round mild steel bars. c) Binding wire shall be of 1.6 mm or 1.4 mm soft iron wire. d) Reinforcement bars shall be cleaned before use i.e. should be free from rust, oil, din, or other coatings that reduces bonds, all reinforced bars and binding wires shall be stored under cover of at least 450 mm above the ground, cutting and bending according to approved manner. 				
5.1	<u>Below Ground</u>				
5.1.1	Lean Concrete				

Item	Description	Unit	Qty	Rate	Amount
	Lean concrete shall be 50mm thick & mix ratio shall be 1:3:6 by dry volume. Lean concrete placed at bottom of footing and foundation beam and below plinth for protection according to line and length mentioned in the approved drawing. Quantity measured to the edges of concrete foundation members. Rate shall include of placing any formwork where necessary, batching, mixing, casting in all required items pouring & compacting and curing for 3 days and removal of any formwork include for provision casting of required items & finishing after removal of formwork and additional concrete required to confirm to structural and excavated tolerances and rates shall include supply of all required works.				
a)	50mm thk 1:2:4 Concrete Blinding to receive foundation & foundation beams	m ³	0.46		-
5.1.2	Pad Foundation				
a)	Concrete	m ³	0.72		-
b)	Formwork	m^2	4.80		-
c)	10mm dia bars	Kg	79.00		-
5.1.3	Tie Beams				
a)	Concrete	m ³	2.25		-
b)	Formwork	m^2	22.50		-
c)	6mm dia bars	Kg	115.00		-
d)	16mm dia bars	Kg	314.00		-
5.1.4	RC Column Stumps				

Item	Description	Unit	Qty	Rate	Amount
a)	Concrete	m ³	0.06		-
b)	Formwork	m ²	1.28		-
c)	6mm dia Bars	Kg	11.00		-
d)	16mm dia bars	Kg	50.00		-
5.2	<u>Above Ground</u>				
4.2.1	Roof Floor Slab				
a)	Concrete	m ³	4.76		-
b)	Formwork	m ²	40.00		-
c)	10mm dia bars	Kg	607.45		-
5.2.1	Roof Beams				
a)	Concrete	m ³	1.49		-
b)	Formwork	m ²	22.00		-
c)	6mm dia bars	Kg	110.00		-
d)	16mm dia bars	Kg	440.00		-
5.2.2	RC Columns				
a)	Concrete	m ³	1.09		-
b)	Formwork	m ²	22.00		-
c)	6mm dia bars	Kg	35.00		-
d)	16mm dia bars	Kg	177.00		-
5.2.3	100mm thk Ground Slab				
a)	Concrete	m ³	3.47		-
b)	6mm dia bars @ 250mm c/c	Kg	58.00		-

Item	Description	Unit	Qty	Rate	Amount
5.3	Other Concrete Works				
a)	Rate shall include Concrete, formwork, reinforcement, casting, curing, placing etc required for complete works as specified in the drawings and specifications. Wall Stiffner members incl RC Lintel Beams, Sill beams, Stiffner columns, stiffner beams, RC Lip line etc.	item	1.00		-
	BILL No: 05 CONCRETE WORKS				
	TOTAL OF BILL No: 05 - Carried over to summary				-
	<u>BILL No: 06</u> <u>MASONRY AND PLASTERING</u>				
	General <u>Masonry</u> (a) Rates shall include for: cleaning out cavities, forming rebated reveals and pointing and cleaning down to reveals where necessary; fractional size blocks, all necessary machine cutting, cutting or forming chases or edges of floor slabs, cutting or leaving holes and openings as recesses for and building in pipes, conduits, sleeves and similar as required for all trades; leaving surfaces rough or raking out joints for plastering and flashings, bedding				
	frames or plates, building in joists, bearers or similar, temporary supports to openings, templates, reinforcement in walls and for all necessary making good.				

Item	Description	Unit	Qty	Rate	Amount
	(b) Blocks shall be of standard quality with no defects and sample shall be submitted for approval of the Consultant.				
	(c) Bonding mortar shall be used immediately after mix, and mixed				
	mortar left for more than one hour shall be rejected.				
	(d) The thickness of joints shall not exceed 10 mm and the joints				
	shall be rated (13 mm dup.) when the mortar is still floor, so as to				
	provide for proper bond for the plaster. Any mortar which falls on				
	the floor from this joints or removed due to raking of joints shall not be reused.				
	(e) The blocks shall be free from excessive amounts of salt or other				
	impurities and shall be inspected and approved by the Consultant.				
	(f) Vertical and horizontal joint of blocks shall be filled completely				
	and suitable with mortar on line shall not be moved or rearranged.				
	Joint and surface of block of exposed finished block wall shall be				
	cleaned immediately after joint is filled.				
	<u>Plastering</u>				
	(g) The thickness stated for plastering and backings are nominal. Allowance				
	shall be made for any dubbing required to achieve the designed thickness.				
	(h) All masonry walls shall have smooth finished cement plaster on				
	both sides with a surface setting coat of neat cement applied within				
	an hour of the completion of rendering.				
	i) Rate shall include for gauge 22 G.I Wire Mesh (400 Wide) Plaster				
	at the joint or provide flexible sealant joint as directed in the				
	drawings.				

Item	Description	Unit	Qty	Rate	Amount
	 (j) Rate shall include providing Sonalastic NP1 or equivalent antifungal silicon fill to masonry and slab joints to suppliers instruction. k) The cement shall be of Villa Cement or equivalent brand for all the works stated below. L) Masterseal 380 (BASF) or similar to be on External plastered area prior to application of the paint to prevent rainwater seepage 				
6.1	throughout plaster. <u>Below Ground</u>				
6.1.1	<u>Brick Work</u> 100mm thick solid block masonry wall, bricks laid to form alternate courses of headers and stretchers, laid on and incl. mortar				
a)	Below Ground Walls	m^2	4.88		-
6.1.2	Plastering Plastering 20mm thk. (10+10mm) 2 coats Plain Cement Plaster, 1:4 cement to river sand mix ratio on both sides of below ground walls with bituminous waterprooing application on both sides.				
a)	Below Ground Walls	m^2	9.76		-
6.2	<u>Above Ground</u>				
6.2.1	Brick Work				

Item	Description	Unit	Qty	Rate	Amount
	100mm thick solid block masonry wall, bricks laid to form alternate courses of headers and stretchers, laid on and incl. mortar				
a)	External Walls	m ²	53.45		-
	100mm thick hollow block masonry wall, bricks laid to form alternate courses of headers and stretchers, laid on and incl. mortar				
b)	Internal Walls	m^2	20.11		-
6.2.2	Plastering External plastering 20mm thk. (10+10mm) 2 coats Plain Cement Plaster, 1:4 cement to river sand mix ratio on External surface with waterproofed prime plaster				
a)	External Walls	m ²	53.45		-
	Internal plastering 13mm thk. One coats Plain Cement Plaster, 1:4 cement to river sand mix ratio on Internal surface				
b)	Internal Walls	m ²	103.18		-
	BILL No: 06 MASONRY AND PLASTERING TOTAL OF BILL No: 06 - Carried over to summary				-
	BILL No: 07 DOORS & WINDOWS				

Item	Description	Unit	Qty	Rate	Amount
	General(a) The prices for doors, windows, handrailings and fixed glass panels, etc., shall include for All necessary materials, labor and plant in connection with design, manufacturing, fabricating, transporting, handling, hoisting, installing, Cutting holes and chases for fixings, extract fans and making good, Pointing the clearances between the aluminum framings and structural openings with quality patent mastic as recommended, Large and small panes, cutting, waste, all risk putty, glazing beads, caulking compound, breakages before and after fixing, fixing at floor level or at heights, etc.(b) Rates shall include for locks, latches, closers, push plates, pull handles, bolts, kick plates, hinges and all door & window hardware.(c) Rates shall include for door frames, mullions, transoms, trims, glazing, tinting, timber panels, boardings, framing, lining, fastenings and all fixings.(d) Sizes are given overall outside dimensions of actual doors and windows.(e) Thickness and sizes of glass panels are shown on the Drawings and doors and windows schedule and glazing for doors and windows shall be of specified thickness and of approved quality and shall conform to specification of glazing(f) Rates shall include for all doors and windows painting as specified				

Item	Description	Unit	Qty	Rate	Amount
	 (g) Rate shall be include for sills & lintels for all necessary doors and windows and lintel shall be reinforced concrete as approved or directed by the Engineer. (h) Rates shall be include all items specified in the door schedule (i) All louvres, windows and sliding doors shall be 80 micron powder coated aluminium as per details given in Door/Window schedule. (j) Rate shall be include for Bedding frames in waterproof cement mortar and pointing both sides in mastic and All necessary fixing and glazing beads, rubber or neoprene gaskets, rivets, bolt anchors (k) On Site Measurements shall be taken to verify the dimensions before fabricating any door/ window. 				
a)	D1 - 900 x 2200mm Aluminum framed door with viewing glass	nos	3.00		-
b)	W1 - 1618 x 1520mm Aluminum framed window with glass	nos	3.00		-
c)	FG - 1618 x 1314mm Aluminum framed fixed glass window	nos	3.00		-
	BILL No: 07 DOORS & WINDOWS				
	TOTAL OF BILL No: 07 - Carried over to summary				-
	<u>Bill No: 08</u>				

Item	Description	Unit	Qty	Rate	Amount
	WOOD, GLASS & METAL WORKS				
	<u>General</u> a)Rates shall include for: all labour in framing, notching and fitting around projections, pipes, light fittings, hatches, grilles and similar and complete with cleats, packers, wedges and similar and all nails,bolts & screws.				
	 b) Rate shall include for all fabrication works, welding, polishing, Marking, drilling for bolts, nuts, washers, rivets, sounter sinking and the like. c) The Contractor / Supplier shall take On Site measurements before commenting any fabrication works. d) Any materials used shall be approved by the Client / Consultant before commencing the installation works. 				
	e) The Contractor shall submit shop drawings for Consultant's review / approval for any of the mentioned works .				
	<i>f) All the mentioned works shall be constructed in accordance to the given specifications.</i>				
	(g)Rates shall include for fabrication and erection of scaffolding and temporary supports and fixing in to position.				
	(h) All are according to the drawings and specification. The rates shall cover all the works completely unless other wise measured separately.				
8.1	<u>Ceiling Works</u>				

Item	Description	Unit	Qty	Rate	Amount
a)	Supply and Installation of gypsum board ceiling on 600x600mm timber frame complete with all required tools, temporary structures, consumables etc (Existing IT Room, Existing ID Room, Store Rooms, IT Extension & ID Extension, Toilet Area Walk Way).	m ²	136.30		-
8.2 b)	SS Railing Fabrication & installation 1100mm high SS railing complete with 50mm dia top and bottom rail, 25mm dia SS mid rails, bolts, nuts, washers, etc required for complete installation.	m	15.60		-
	BILL No: 08 - WOOD & METAL WORKS TOTAL OF BILL No: 08 - Carried over to summary				
	BILL No: 09 FINISHING WORKS General <u>Tiling Works</u> a)Rate shall include prepare surface for approved bedding tiles with reach bedding materials as per the technical specifications & approved working drawings, fix tiles with ct grout in a precise manner to maintain correct alignment, applying tile grout and wiping any excess grout to ensure the required standards of finished works. Rates shall include for: fixing, bedding, grouting, and pointing materials; making good around pipes, sanitary fixtures, and similar; cleaning down and polishing any other similar works to ensure the required finish.				

Item	Description	Unit	Qty	Rate	Amount
	b) Rate shall include waterproofing membrane below floor screeding for all toilets, wet kitchens and outdoor areas. c) Approved Adhesive waterproofing chemical shall be used as screed for toilets, wet kitchens and external floor tiles as per				
	manufacturers instruction. d) Rate shall include skirting for all floor finishing works except on toilets.				
	e) The tile material shall be of medium quality				
	Painting Works (a) Rates shall include for: the provision, erection and removal of scaffolding, preparation, rubbing down between coats and similar work, the protection and/or masking floors, fittings and similar work, removing and replacing door and window furniture where necessary. (b) All painting work shall be carried in accordance with the drawings and Specifications and subject to approval by Engineer				
	External Painting (c) Rate shall include for putty, 2 coats of wall sealer and 2 coats of weather proof paint to External walls and ceiling and concrete surfaces. Internal Painting (c) Rate shall include for putty, 1 coat of wall sealer and 2 coats of Acrylic Washable Paint to internal masonry walls, ceiling and othr				
0.1	concrete surfaces.				
9.1 a)	<u>Floor Tiling</u> 300 x 300 ceramic floor tiles	m^2	34.71		-

Item	Description	Unit	Qty	Rate	Amount
b)	300 x 300 non skid ceramic floor tiles	m ²	36.60		-
9.2	Painting Painting 2 coat of wall sealer, 2 coats of weather proof paint as specified to; External Walls (existing walls and new walls)	m ²	260 51		
a)	Painting 1 coat of wall sealer & 2 coats of approved paint as specified to;	m	260.51		-

Item	Description	Unit	Qty	Rate	Amount
b)	Internal Walls and Concrete Surfaces (existing walls & new walls)	m ²	325.63		-
9.3 a)	<u>Ceiling putty & painting</u> Putty & Painting 2 coat of wall sealer, 2 coats of emulsion white matt paint finish to suspended ceiling and Soffit of RC Slab.	m ²	136.30		-
	BILL No: 09 - FINISHING WORKS TOTAL OF BILL No: 09 - Carried over to summary				
	BILL No: 10 ELECTRICAL INSTALLATIONS General (a) Rates shall include for: screws, nails, bolts, nuts, standard cable fixing or supporting clips, brackets, straps, rivets, plugs and all incidental accessories (b) Rates for work in trench shall include for: excavation, maintaining faces of excavations, backfilling, compaction, appropriate cable covers, warning tape and disposal of surplus spoil (c) Rates shall include for electrical conduits, fittings, equipment and similar all fixings to various building surfaces and also all elecetrical work shall be carried out according to STELCO & MEA standards and specifications.				

Item	Description	Unit	Qty	Rate	Amount
	 (d) Each Light/light fixture and its switch is measured as one one point; similarly each fan or each socket outlet is measured as one point; (e) Rates shall include for supply and complete installation f) Electrical Sockets and IT Socket locations to be verified by the contractor / electrician accoring to spaces and there relevant equipment. g) Electrical Sockets Amperage to be determined by the electrical specialist according to there relavant equipment and there spaces. (h) Rates shall include all costs associated with provision of all holes , openings , chases in block walls , duct and other builders work completely. (i)Rates for all electrical panels shall include for supply and installation of all necessary MCCB's, MCB's, EFR's, ELCB's auxiliary contacts, Volt meters, ammeters, kWh meters, indicator lamps, selector switches, inter connecting copper bus bars, inter locks aligning and grounding the panel, interconnections, internal wiring instrument wiring loops, connecting to switch gears, cable gland lugs, steel channels and necessary hardware fixing and insulating materials with fully enclosed metal clad panels and distribution boards where ever necessary and complete as shown in drawing and comply with the specifications, and as per relevant latest B.S. standards and I.E.T. regulations and all complete to working order to the approval of the Engineer. 				
	Point Wiring				

Item	Description	Unit	Qty	Rate	Amount
	 (a)Rates shall include for all conduits, conduit fittings, clips, earth cables, draw wire, wiring accessories, hardware fixing, insulating materials, making holes and chases in brick work, concrete worketc. and making good the same. (b)Rate for lamp point shall include for cables, ceiling roses, flexible wire, bulb holders, and flush type switches, flush boxes etc (c)Rates for socket outlets shall be inclusive of cables, switch socket outlets of correct rating, sunk boxes etc (d)All cables for equipment's and units designated to function under fire condition to be in fire rated cables and steel conduits as indicated and rates shall include accordingly. 				
	 <u>Fixtures</u> (a) All the light fixtures to be without any defects to the complete satisfaction of the Architect/Engineer. (b) Rates shall also include for supply and installation of all the fittings complete with all the accessories, such as starters, bulbs, chokes, power factor correction capacitorsetc. © Rates shall also include for all the fixing material such as rawl plugs, hooks, chains, flexible cordsetc. (d) Contractor shall get approval from the Engineer for Electrical fittings before installation. € All lighting cables shall be 1.5mm2 and power circuits shall include earth cable of 2.5mm2 unless otherwise specified 				

Item	Description	Unit	Qty	Rate	Amount
	(f) All 5A/10A circuit shall be wired in min 2x1/1.13 mm2 PVC insulated sheathed Cu cables and earth cable taken through minimum size of 20 mm PVC conduit unless otherwise specified . All corridors & staircases area lighting shall be wired with 2x2.5 mm2 PVC/PVC Cu+2.5mm2E PVC Cu cables drawn in PVC Conduits				
	(g) All 13A/15A circuit/Socket outlet shall be wired in min 2x7/0.067 mm2 PVC insulated sheathed Cu cables and earth cable taken through minimum size of 2.5 mm PVC conduit .All corridors & staircases area small power outlets shall be wired with 2x4 mm2 PVC/PVC Cu+2.5mm2E PVC Cu cables drawn in PVC Conduits				
	(h) Contractor shall get the approval for position of fittings indicated in drawings from Architect/Engineer before commencing the work				
	(i) Electrical wiring accessories, fixtures etc shall be "HAGER" or equivalent brand (j) All outdoor lights shall be IP66 rated				
	(k) All outdoor & toilet sockets & switches shall be in waterproof casing				
	(l) rate shall include for 2hr backup rechargeable power pack connected to light where specified				
10.1	Electrical Mains Connection Allow provision for supply & laying 47m 16sqm cable and supply				
a)	& installation of 3 phase Panel boad complete with conenction etc.	Item	1.00		-

Item	Description	Unit	Qty	Rate	Amount
a)	Allow Provision for Carrying out testing and commissioning as per the employers requirment for all components of the Electrical System and Obtain Fenaka Approval for Permanent Electrical Connection to the building.	Item	1.00		-
10.2 a)	Electrical Boards Supply and installation of Distribution Boards complete with MCBs, ELCBs, Breakers, etc any other item required to working order, wall mounted steel powder coated IP44 enclouser with neutral link, earth bar and required accessories required for complete installation as per the specifications. Rate shall include for wiring and connection from electrical fixtures. every power point shall be connected to separate breaker.	nos	1.00		-
10.3	<u>Electrical wiring</u> Three phase Electrical wiring with copper conductor cable in conduits in walls and in casing on soffits of slab as specified to:				
a)	1.5mm ² cable to light & Fan fixtures	points	47.00		-
b)	2.5mm^2 cable to Power Points	points	29.00		-
c)	Allow provision for providing additional condiut points from DB to server location through wall.	points	5.00		-
10.4	Electrical Fixtures				
10.4.1	Lights and Fans				

Item	Description	Unit	Qty	Rate	Amount
a)	1x26W compact fluorescent light in ceiling mount luminaire	nos	38.00		-
b)	Dia 12006mm dia decorative ceiling fan	nos	5.00		-
c)	Emergency light with 2hr power pack	nos	4.00		-
10.4.2	Light switches				
a)	1 gang 1 way switch	nos	9.00		-
b)	Fan / Light Dimmer	nos	5.00		-
10.4.3	<u>Sockets</u>				
a)	2 gang 13A socket outlet floor	nos	23.00		-
b)	1 gang 13A socket outlet at 2000 mm from FFL	nos	3.00		-
c)	1 gang 15A socket outlet at 2500 mm above finished floor level	nos	3.00		-
10.5	<u>Telecommunication and IT System</u> Note: rate shall include for cables, electrical provisions and connection				
a)	Computer network outlet (RJ45 connectors)	nos	18.00		-
b)	Building access card reader complete with door phone unit, push button and connection to main server.	points	4.00		-

Item	Description	Unit	Qty	Rate	Amount
c)	Supply, test & commission monitoring system CCTV Cameras (Dome / Bullet Type), (CCTV Monitor with 13A socket, including NVR, switches [manageable & Unmanageable), router], network cables, etc. The rate shall be inclusive of complete work including the wiring network, power connection, with all required fittings and accessories and testing the complete system etc. Rate shall be inclusive of providing pole/ brackets where required with all relevant works and installing cameras on it as per approved detail design and direction of Engineer/Project-in-charge.	point	3.00		-
	BILL No: 10 - ELECTRICAL INSTALLATIONS TOTAL OF BILL No: 10 - Carried over to summary				
	BILL No: 11 BILL No: 11 AIR CONDITIONING & VENTILATION SYSTEM (a) Rates shall include for detail design, supply and complete installation of A/C units pipework, insulation, fixings, electrical wiring, drain pipes etc. (b) The Contractor shall provide detailed and complete set of shop drawings (c) The contractor shall submit shop drawings of AC and Exhaust System. The capacity shall be determined by the contractor.				

Item	Description	Unit	Qty	Rate	Amount
	 d) Rate shall include complete installation of indoor units and outdoor units. (e) Rates shall include for complete supply, installation, ducting, wiring, pipe work (insulated liquid, gas and drain), electrical and fixings as per the drawings. (f) Rate to include builders works as necessary complete the works. (g) Rate shall include all the works completely unless otherwise measured separately. (h) All Indoor and Outdoor AC Units shall be "GREE" or equivalent brand (i) All FCU & CU units shall be provided with 15A power socket outlets as required (j) Power sockets shall be provided for all electrical exhaust units as required 				
a)	Supply and Complete Installation of wall mount A/C - 24000 BTU. Rate shall Include All Pipe Works, indoor units, outdoor units and all required accessories for Complete Installation.	nos	3		-
	BILL No: 11 -AIR CONDITIONING & EXHAUST SYSTEM TOTAL OF BILL No: 11 - Carried over to summary				-
	<u>BILL No: 12</u> <u>FURNITURES</u>				

Item	Description	Unit	Qty	Rate	Amount
	<i>General</i> (a) Rate shall include for supply & complete installation				
a) b) c) d)	Office Tables 1.3x0.69m with cubicle height 1.22m Office Chairs Filing Cabinet 4.4 x 2.4 x 0.45m to employers requirement and specification Filing Cabinet 2.4 x 2.4 x 0.45m to employers requirement and specification	nos nos nos nos	17.00 17.00 1.00 1.00		- - -
	BILL No: 12 -'FURNITURES TOTAL OF BILL No: 12 - Carried over to summary				-
	BILL No:13 TENDERER'S ADJUSTMENTS Any adjustments, missing items, works, etc that are not specified in this BOQ but specified in drawings, specifications, etc and other document forming part of the contract that the contractor may deemed to consider necessary to complete the works should be written below and on similar continuation sheets if required, and the net amount of the adjustments is to be carried to the summary.				
13.1 a)	<u>Additions</u> BILL No 1: GENERAL & PRELIMINARIES				

Item	Description	Unit	Qty	Rate	Amount
b)	BILL No: 02 DEMOLITION & REMOVAL				
c)	BILL No: 03 EARTHWORKS				
d)	BILL No: 04 WATERPROOFING				
e)	BILL No: 05 CONCRETE WORKS				
f)	BILL No: 06 MASONRY AND PLASTERING				
g)	BILL No: 07 DOORS & WINDOWS				
h)	BILL No: 08 - WOOD & METAL WORKS				
i)	BILL No: 09 - FINISHING WORKS				
j)	BILL No: 10 - ELECTRICAL INSTALLATIONS BILL No: 11 -AIR CONDITIONING & EXHAUST SYSTEM				
k)	BILL NO: 11 - AIR CONDITIONING & EXHAUST SYSTEM BILL No: 12 - 'FURNITURES				
l)	DILL NO: 12 - FURNITURES				
	ADDITIONS TOTAL				
13.2	<u>Omissions</u>				
a)	BILL No 1: GENERAL & PRELIMINARIES				
b)	BILL No: 02 DEMOLITION & REMOVAL				
c)	BILL No: 03 EARTHWORKS				
d)	BILL No: 04 WATERPROOFING				
e)	BILL No: 05 CONCRETE WORKS				
f)	BILL No: 06 MASONRY AND PLASTERING				
g)	BILL No: 07 DOORS & WINDOWS				
h)	BILL No: 08 - WOOD & METAL WORKS				
i)	BILL No: 09 - FINISHING WORKS				
j)	BILL No: 10 - ELECTRICAL INSTALLATIONS				
k)	BILL No: 11 -AIR CONDITIONING & EXHAUST SYSTEM				
l)	BILL No: 12 -'FURNITURES				

Item	Description	Unit	Qty	Rate	Amount
	OMISSIONS TOTAL				
	BILL No: 13 - TENDERER'S ADJUSTMENTS TOTAL OF BILL No: 13 - Carried over to summary				