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TENDER NO. BHEL: NR (SCT): KOSTI: HOUSING COMPLEX: 591

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TENDER SPECIFICATION

TENDER NO. BHEL: NR (SCT): KOSTI: HOUSING COMPLEX: 591

FOR

Execution of Civil and Architectural works for Housing complex at Kosti Thermal Power Project, Kosti, Sudan.

PART II – PRICE BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA



ISO 9001-2000, ISO 14001
and OHSAS 18001 certified
company
SubContract and Purchase
Deptt.

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Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA
Phone: 0091-0120-2515476 / 2515464 / 2515479
Fax 091-0120-2515464 / 2515467
Email: sku@bhelnsr.co.in / pshiv@bhelnsr.co.in

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IMPORTANT NOTE

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THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

BILLS OF QUANTITIES
PREAMBLE

1. This preamble is considered to be part of the Bills of Quantities and applies to the whole of the works contained in these Bills of Quantities and to all variations, whether additions, omissions or alterations.
2. The contractor is advised to visit to the site and inspect very carefully its conditions, location, surrounding traffic, adjacent buildings, accessibility, working spaces around it and such additional information as may be deemed necessary to price the Bills of Quantities as no claim for extras on ground of lack of information will be considered.

3. RATES

a. ALL ITEMS IN THE BQ

Rates for all items in the Bills of Quantities shall be sent in place costs & shall include for the following: -

- i. Labour and all costs in connection therewith.
- ii. Materials, goods and all costs in connection therewith.
- iii. Fitting and fixing materials and goods in position, including, storing, handling, painting contact surfaces, welding drilling, bolting, jointing, boxing and filling, making good and all incidental work to items connected and their surroundings.
- iv. Transport of materials, plant, labour etc. to and from the site and in and about the works.
- v. Waste of materials
- vi. All cutting
- vii. Establishment charges, overhead charges and profit.

viii. Contractor's obligations and liabilities under the contract and all matters and things necessary for the proper completion and maintenance of the works and performing the works in compliance with the conditions of contract, drawings, Schedules and Specification.

ix. All samples required for the approval of consultant.

x. All shops drawings required for the approval of the consultant.

xi. Temporary works constructed by the contractor for the efficient running of THE WORKS including those of nominated sub-contractors and clearing them away on completion.

xii. Provision and use of all scaffolding, plant, tools and equipment necessary for the construction of THE WORKS.

xiii. Water and power supply consumption required for the construction of THE WORKS.

xiv. Telephone Service to the site.

xv. All necessary protection of the materials and works against weather conditions and any possible damage.

xvi. Removal of all surplus materials and rubbish during construction and on completion of THE WORKS.

b. EXCAVATION AND SITE PREPARATION

Unit rates for excavation shall include ground level and topography, setting out, supporting excavation, necessary shoring, allowance for working space, trimming surface of excavation and embankments, backfilling and compaction; keeping the works and excavations free from water and dry including dewatering of required and leveling bottom of excavation; excavating and clearing the debris from demolished buildings and foundations, tree roots, wells, drains and the like; removing from the site and disposing of excavated and demolished materials, all costs

associated with disposal of excavated and demolished material, including provision of suitable disposal site and any necessary written authority or approval from local authorities.

c. PILLING

Unit rates shall include provision, mobilization and use of all necessary pile driving and testing equipment, casting and form work, plugs, reinforcing steel, concrete, under-reaming and forming bulb, testing, cutting off and finishing top piles for beams and caps, removal and disposal of surplus soil.

d. CAST-IN-SITU CONCRETE

Unit rates for concrete shall include supply and testing of concrete and its constituents; curing; shuttering and formwork costs, reinforcing steel, throating, fillets, forming holes, block-outs, mortices and the like; casting in of sleeves, pipes, conduits, plates, anchors, fasteners and the like; preparation of surfaces to receive plaster.

e. REINFORCEMENT

- i) Bars: Rates for steel bar reinforcement shall include all costs associated with supplying and placing reinforcement, scheduling, cutting, bending, tying wires, spacers, chairs and stools.
- ii) Fabric: Rates for fabric shall include for the above and for laps.

f. PRE-CAST CONCRETE

- i) Unit rates for pre-cast concrete shall include concrete and formwork costs, hoisting, welding and grouting, leveling, plumbing and aligning, all fixing, fasteners, bracing, clips, brackets, plates and other attachments and devices on both the panels and panel support members that are required for the erection and fixing of panels;
- ii) Unit rates shall also include all sealing costs, including joint caulking, sealant, back-up rods, filler and grouting.

g. BLOCKWORK

Unit rates for block work shall include fair facing and pointing reveals, closing cavities, rough and fair, straight and racking cutting, wedging and pinning up, eaves filing, bedding, building in, cutting and leaving chases in walls, cutting and leaving holes in walls, racking out joints to receive cement plaster, scaffolding, wall ties, reinforcing and building sample panels.

h. STONE

Unit rates shall include all cutting, trimming, polishing, setting beds, anchors, fixing clips and devises, layout, caulking sealant and back-up rods, protection in formwork where necessary and protection of finished work.

j. STRUCTURAL STEEL AND METAL WORK

Unit rates shall include for all costs associated with supplying structural steel, metal work and sheet framing complying with the specification, fabrication costs, erection, site welding, bolts, connections, anchors, plates, fasteners, shop drawings, aligning, priming and galvanizing.

k. DOORS AND WINDOWS

i) DOORS & FRAMES

Unit rates shall include for doors, frames, solid panels, glass and glazing, screens, furniture unless otherwise stated, anchors, ties and fasteners, grouting, caulking, sealing and blocking rods, anchoring frames, fixing and all indicated by the drawings, schedules and specification.

ii) WINDOWS & SCREENS

Unit rates for windows shall include for frames, glass and glazing, solid panels, framing, netting, louvered shutters,

furniture, anchors, ties and fasteners, caulking, sealing and blocking rods, fixing and all indicated by the drawings, Schedules and Specification.

iii) ROLLING GRILLS

Unit rates shall include guides, rods, springs, hoods, cranks, gears, gear boxes, handles, jambs, head mould strips, fixtures, hangers, all the necessary hardware, complete installation, lubrication and adjusting to operate easily.

iv) FURNITURE

Unit rates shall include for all costs associated with fixing furniture, on, in and to doors and frames.

I. PLASTER WORK AND OTHER FINISHINGS

Unit rates for plaster work and other finishing shall include for backing coats and beds, cement and sand screed, preparation of sub-base, finishing neatly around pipes and the like, finishing up to the boundaries with other work, angles and arises, struck joints, angles and end of skirting, all cutting required, metal channel and angles casing beads, providing samples and protection of finished work.

m. SUSPENDED CEILING

Rates shall include for all materials, fixing, perimeter trim and trimming, finishing neatly around pipes and penetrations, finishing up to boundaries, all cutting required, providing samples, touching up and protection of finished work.

n. PAINTING

Unit rates for painting shall include preparation of surfaces, working to all boundaries, stopping to a line, priming, protection of

finished work and touching up damaged surfaces prior to handing over on completion.

o. PLUMBING AND DRAINAGE

i) Fixtures:

Unit rates for fixtures shall include faucets, traps, cocks, valves and other fitting, supplies to the fixture from the point of connection to the piping system; labour for installation, testing and fixing attachments. Components shall be as indicated by drawings, Schedules and Specification.

ii) Piping:

Unit rates for piping including culverts shall include labour costs and all fixing and fittings. Fixing and fittings include jointing materials, bedding materials, hangers, clips, screw and other fixings, sleeves insect screens, flashings fixture and equipment supports or brackets, protective coatings, piping fittings and nipples, excavation, backfilling, piping installation, trench support, surplus excavated materials disposal, chasing and penetrations, joints and jointing connections to appliances, drains, equipment fixtures and package units, costs and fees for street and surface restoration due to excavation and other disturbance and system identification. Rates for connections to existing utilities shall include costs and fees for survey verification for utility locations and depths, water meters and hookup fees, permits, testing and inspection.

Components shall be as indicated by drawings, schedules and specification.

iii) Water Supply and soil Waste/vent:

Unit rates for Water Supply and soil Waste/vent shall include fittings, devices and labour costs for installation. Fittings and devices include all system valves, patented soil/waste/vent “sovent” aerator and deaerator fittings in size and patterns as required and described specialty items not classified elsewhere.

Components shall be as indicated by the drawings, schedules and specification.

iv) Package units:

Rates for shall include finishing and installing all materials and equipment complete and operable in accordance with drawings, schedules and specification for each package including, but not limited to, water supply booster pump system package which includes pumps, motors, controllers, piping, fittings, valves, gauges, flexible connectors, startup and testing.

Rates for package units shall also include all labour and materials that are incidental to component piping, as described previously for Piping in this Preamble, and all other related components such as supports and brackets, frames, couplings, shock absorbers, vibration isolators and skids, all labour for assembly and inspection fees where applicable.

p. VENTILATING AND AIR CONDITIONING

i) Piping:

Unit rates for piping shall include labour costs and all fixing and fittings including jointing materials, hangers, clips, screws and other fixings, sleeves, equipment supports and brackets, piping fittings and nipples, piping installation, chasing and penetration, testing, inspection, balancing and system identification. Components shall be as indicated by the Drawings, Schedules and Specification.

ii) Ductwork and Grills:

Rates shall include all materials, fixtures fittings and labour including duct accessories, dampers, hangers and fixings, bends, fittings, sealing, connecting, chasing, penetrations, sleeves, building-in, fixing grounds, testing and balancing system on completion.

iii) Equipment:

Unit rates for equipment shall include all valves, motors, gauges, specialties, controls, installation, testing, startup and other items indicated by the Drawings and Specification.

q. FIRE PROTECTION

i) Sprinkler Heads:

Unit rates for Sprinkler Heads shall include furnishing, installing and connecting the sprinkler heads in accordance with the Drawings and Specification.

ii) Piping:

Unit rates for Piping shall include labour costs and all fixing and fittings including jointing materials, hangers, clips, screws and other fixings, sleeves, equipment supports and brackets, piping fittings and nipples, piping installation, earthquake bracing, chasing and penetration, testing, inspection, balancing and system identification. Components shall be as indicated by the Drawings, Schedules and Specification.

iii) Hose Valve Station Assembly:

The unit rates for “Hose Valve Station Assembly” shall include labour and materials for furnishing and installing all piping, fittings, valves, water flow indicator, union, sight glass and piping incidentals as described in the unit rate for “piping” above and in accordance with the Drawings.

iv) Fire Pump System Package:

The rate for the Fire Pump System Package shall include labour and materials for furnishing and installing the Fire Pump System complete and operable in accordance with the Drawings, Schedules and Specification, including, but not limited to, the pumps, motors controllers, piping, fittings, valves, gauges, flow meter, discharge cone, hose header, flexible connectors, supports, brackets, frames, vibrator isolators, skids all piping incidentals as described in the rates for “piping” above, startup and testing and inspection fees, where applicable, for all the fire protection components.

r. **ELECTRICAL**

- i) Rate shall include all materials, fittings, Fixings, labour, testing, plan checking, connection fees and necessary work required for complete operating electrical system.
- ii) Rates for fixtures, fittings, switches, sockets, equipment, distribution boards, switch boards, fuse boxes etc., shall include for all materials, fixings, labour, cable and conduit, casings, penetrations, fixing grounds, identification, testing, etc. for all work installed and required by Division 16 of the Contract Documents.
- iii) Rates for connections to existing utilities shall include costs and fees for survey verification for utility locations and depths, meters and hookup fees, permits, testing and inspection.

4. MEASUREMENTS

Quantities are billed to the nearest whole, unit. No deductions have been made from items measured by area for voids of less than 0.50 square meters. The permanent work shall be measured net in place and from time to time during execution of the works if requested by the consultant.

5. SPECIFICATION AND DRAWINGS

The Bills of Quantities shall be read in conjunction with the Specification and Drawings, and rates shall include all costs associated with performing the works in accordance with the Specification and Drawings.

Where conflict occurs between the Bills of Quantities and Specification and Drawings, the Specification and Drawings shall take priority over the Bills of Quantities.

In the event of any discrepancy between the Drawings and the Specification, Consultant's decision as to which shall be followed shall be final.

6. CONTRACT PRICE AND QUANTITIES

The Tender Value reached by pricing the Bills of Quantities shall be considered as the Lump Sum Price submitted by the Contractor for the execution, completion and maintenance of the whole works. The Contractor shall check the Bills of Quantities and satisfy himself of their correctness and completeness and he shall bring any errors or missing items therein to the attention of the consultant before submitting his tender. Any items shown on the drawings, mentioned in the specification, included in the Conditions or considered by the Consultant essential for the satisfactory completion of the Works and neither included in the Bills of Quantities nor brought by the Contractor to the attention of the Consultant before submitting his tender, shall be considered included in the Lump Sum price.

7. STATUTORY APPROVALS AND CONSENTS

The Contractor shall be responsible for obtaining all necessary approvals and consents from all appropriate local statutory authorities including

Sudan Municipality, Electricity and Water Authority, Survey Department, Town Drainage, Civil Defence and Sudatel.

All expenses related to obtaining such approvals and consents shall be considered included by the Contractor in his Lump Sum price. The Contractor shall familiarize himself with all procedures in this respect as no claims for delays or extra cost arising from obtaining such approvals and consents will be considered.

8. DIMENSIONS

All dimensions whether on the drawings or in the Bills of Quantities, shall be checked on the site from the building as it progresses and where necessary amended to fit the actual size of the building. Figured dimensions shall be preferred to scaled dimensions, and large scale drawings to smaller scale drawings.

9. ABBREVIATIONS

The following abbreviations are used in the Bills of Quantities.

M	= Meters	B.Q	= Bills of Quantities
M2	= Square Meters	Dia	= Diameter
M3	= Cubic Meters	Dwg	= Drawing
mm	= Millimeters	Galv.	= Galvanized
mm sq.	= Square millimeters	Max	= Maximum
mm cu.	= Cubic millimeters	Min	= Minimum
Kg	= Kilogram	M.S.	= Mild Steel
Dss	= Sudanese dinars	No.	= Number
Approx.	= Approximately	PVC	= Polyvinyl Chloride
Det	= Detail	W.C	= Water Closet
R.C	= Reinforcement	DSP	= Dry stand Pipe
B.S.	= British standards	F.H.C	= Fire Hose Cabinet
C/C	= Centre to center	ELEC	= Electrical
Y	= High Yeild Steel	MECH	= Mechanical
P.C	= Precast	R.A.	= Return Air
REINF.	= Reinforcement	R.	= Radius
W.P.M.	= Water Proof Membrane	S/S	= Stainless steel
C.I.S	= Cast-in-Situ	P.S.	= Pressed steel
G.I	= Galvanized Iron	G.S.	= Galvanized Steel
V & A/C	=Ventilating & Air Conditioning	HR	= Hour

PREPARATORY WORKS

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	1- <u>EXCAVATION & EARTHWORKS</u>				
	See detailed specifications & required in division -2-:				
A	Remove and cart away as and where directed all materials, soil, debris which have been dumped on the natural contour levels (by others) down to the existing contour lines levels as shown on Drawing #(01). Removal of such materials shall approximately be according to Drawing # (03-02).	M ²	8500		
B	Excavate 30cms depth of top soil and scarify completely to the design below the level of existing contour lines shown on Drawing #(01) and cart away as and where directed by the consultant, all in accordance with the detailed specifications in (Division-2:- Excavation and Earthworks)	M ³	3600		
C	Excavate to the Design levels for the various Zones and roads, all complete as per the Detailed Drawings :(# 30-01) & (# 03-02) and the related Design Drawings. <u>Note:</u> Before completing excavation levelling of the various zones, a Grid Plan of the whole site (at 10Ms.) intervals shall be submitted to the Consultants (in 5 copies) for approval. Detailed proposals for the excavation, levelling and grading shall be submitted to the Consultant for verification and approval.	M ²	120000		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>2-ROADS & PARKING AREAS & RELATED WORKS</u></p> <p>Provide all materials, equipment, tools...&c, remove subsoil to the specified design levels, prepare bottom of excavated soil, provide approved materials for compaction of sub-grade and grade layers, carry out all specified tests, all in full conformity with the B.S. Codes of (AASHTO) and lay, using approved equipment asphaltic concrete layer to the proposed levels and finish off, test to the satisfaction of the Consultant the following roads:</p>				
A	Main Road (15M) wide complete as per detailed drawings and specifications.	M ²	7913		
B	Subsidiary Road (7M) wide all ditto as ditto.	M ²	1321		
C	<p>Parking lots :</p> <p>Excavation, soil replacement, compaction of approved soil, as for the Road Structure under 5cms thick (1:2:4) concrete screed under "Interlock" c/s concrete blocks 6 cm thick of an approved quality and colours with recessed grouting as directed by the Consultant</p>	M ²	2790		
D	Provide and construct Grade (20) precast concrete shaped, and finished smooth, kerbs all in full conformity with the design drawings and fix as per Consultant's instructions along sides of main and subsidiary Roads	ML	3500		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
E	Provide all materials and equipment, grade and scarify level to the design levels, lay compaction soil in shifts not exceeding 25cms of well water and compacted raw gravel to the approved level, using 14-ton roller and cover with fine-grain raw gravel layer to the satisfaction of the Consultant, in areas marked on drawings (55cms deep)	M ³	19000		
F	Ditto and ditto and lay compacted raw gravel layers as in () above, but a (10cm) layer of Grade (25) concrete is to be cast in panels each not exceeding (10m ²) in area but finished as per Consultant's instructions.	M ²	26500		
G	Provide all materials and equipment and install, fix "inter lock" c/s concrete blocks in areas as shown on the Drawings all complete as for the Floor Finish for the "Parking Lots" described above, to the satisfaction of the Consultant.	M ²	250		
H	Provide all materials, grade and scarify level to the design level, lay (25cms) thick layer of sandy soil and cover with another (25cms) thick layer of river silt, to level and plant with approved type of lawn grass (Nimuli Type) or equivalent to the satisfaction of the Consultant. (Level of lawn shall be 10cms below surroundings)	M ²	25600		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
J	Provide and construct Grade (20) precast concrete kerb, shaped and finished smooth, round lawns and other areas as shown on drawings, in conformity with deign drawings and to the satisfaction of the Consultant.	ML	7500		
TOTAL CARRIED TO COLLECTION					
<u>CAR SHEDS</u>					
Provide all materials, fabricate and install all in conformity with Drawing (08-02), car sheds comprising but not limited to the following:-					
A	Excavation for and construction of Concrete plinth base with 2No. (20mm) steel base plate with 8y16mm threaded steel dowels set in concrete base.				
B	Ø 150black weldable steel posts 4.3m length.				
C	0.14x0.28x0.01 steel plate.				
D	3m. Length MS. angle overhangs with Ø0.05 steel pipe struts welded to overhangs and pipe posts.				
E	All steel parts, should be cleaned thoroughly and have (1) priming coat and 3 metallic oil paint coats applied before installation.				
F	Fixing of washable weave shade (75% shadow) fabric fixed to overhangs, all				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	complete as per Drawings and Specifications and the instructions of the Consultant. (Area of each car shed is about (18m ²)	No.	230		
	TOTAL CARRIED TO COLLECTION				
A	<p>4- <u>SITE MECHANICAL WORK</u></p> <p>4-1 <u>EXTERNAL SITE WORKS:</u></p> <p>Provide materials, tools, equipment, level, scarify, excavate, lay pipes, properly fill with approved filling material, compact to the required compaction degree, lay and fix steel sleeves in concrete channels and culverts, fill in as required and shown on the drawings, cast grade (30) RC. Cost includes for rebars and laying of the necessary piping (electric cable, water supply, sewers &c.) all complete to the satisfaction of the Consultant. Cost shall include for the sub-bases and asphaltic concrete pavement (or concrete paving &c.) all in accordance with the Specifications for Roads.</p> <p>In the main and subsidiary roads and parking lots (6) Units.</p> <p>4-2 <u>RESIDENTIAL PUMPING SYSTEM</u></p> <p>All equipment and accessories shall be standard manufactured items with those in contact with sewage being specifically manufactured for sewage use.</p> <p>The Contractor shall submit, if required, a listing of satisfactory installations using the same product.</p>	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p>Individual systems shall meet the City Engineer's requirements. Of particular importance are the following:</p> <p>The sump shall have a minimum 400-gallon capacity.</p> <p>The system shall be of the duplex type "Flygt" or equivalent, (2 pumps) and have duplex controls, which will automatically alternate the pumps and energize both pumps and an alarm during high liquid level.</p> <p>Pumps shall be heavy-duty centrifugal non-clog type with mechanical seals and cast iron construction. Each pump shall have a minimum 60-gpm capacity when pumping against a total dynamic head of 20-feet. The impeller shall have a 2-inch solids handling capacity. The motor shall be completely oil filled and fully submersible.</p> <p>Discharge line shall be 4-inches in diameter with a working pressure of not less than 150-psi. All underground discharge piping shall be PVC schedule 40, and above ground piping shall be PVC schedule 80.</p> <p>The shutoff valve shall be either the ball-centric or centric type with a working pressure of not less than 150-psi and suitable for sanitary sewer use. The check valve shall be rubber flapper swing non-slamming type with a working pressure of not less than 150-psi and suitable for sanitary sewer use.</p>				

BQ1-6

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>4-4 DOMESTIC WATER SUPPLY SYSTEM</u></p> <p>Provide (in addition to a comprehensive Schedule of Equipment), all materials and equipment and construct a R.C. (75 m³) ground tank & Pump Room to the drawings and Specifications, Using sulphate-resisting cement, (Rebars cost included) all complete with openings, valves, pumps, float mechanisms all complete as per Schematic Water Tank Piping & Details. Rate shall include cost of laying pipes of the specified diameters and makes from the Pump Room up to the outer wall of the buildings.</p> <p>Rate shall also include for the cost of excavation to the design depth, bedding fill, covering up of the pipes complete as per Specifications & drawings (Ø 50mm) pipes which shall be uPVC with the appropriate connections, seals... &c according to Specification and shall have operating pressures between (40) and (60) psi</p> <p>Domestic water supply system (2) units</p>	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p>4-5 <u>WATER FOR FIRE FIGHTING</u></p> <p>Ditto, ditto & ditto and all complete as ditto but for firefighting water system: Ground Tank & Pump Room (all complete as detailed in the <u>Domestic Water Supply System above.</u>) all complete with valves, fire hydrants and all the related works all in accordance with Drawing and Specifications and to the satisfaction of the Consultant (Total length of piping Ø150=1800ml). Pipes shall be uPVC with the appropriate connections, seals... &c according to Specifications and shall have operating pressures between (40) and (60) psi.</p>	Job			
B	<p>Provide materials, excavate, and lay (150mm dia) uPVC pipes from mains to the Underground Tanks, backfill according to Specifications and Drawings all complete to the satisfaction of the Consultant.</p> <p>Pipes as ditto.</p>	LM	800		
C	<p>Provide all materials, including the approved accessories and install brass, Fire Hydrants of an approved make all as per drawings and Specifications and to the satisfaction of the Consultant.</p>	No.	25		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p>4-6 SEWER LINES</p> <p>Provide all materials, equipment, tools, excavate to the design depths shown on the Drawings and in full conformity with (DIVISION-15: MECHANICAL: Plumping, Drainage & Water Supply), cover with approved type of soil, test and commission in full conformity with the Specifications and Consultants instructions:</p>				
A	∅ 10cms PVC pipes	ML	80		
B	∅ 15cms PVC pipes	ML	1700		
C	∅ 20cms PVC pipes	ML	820		
D	∅ 25cms PVC pipes	ML	280		
E	∅ 30cms PVC pipes	ML	230		
F	<p>Provide materials and construct, all in accordance with the Drawings and Specifications, cleanouts (CO) as per Drawings along the sewer lines. Rate shall include cost of Excavations, backfill, concrete manhole covers, C.I. Frame & Covers and all the related works, test and commission to the satisfaction of the Consultant.</p>	No.	190		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide all materials and construct, all in accordance with the drawings and Specifications and design levels the following Manholes, inspection chambers, gully traps...&c all complete with R.C. bases (rates including rebars) benching, C.I (M. Duty & H Duty) covers, frames and steel steps, all complete including, backfilling, testing and commissioning and all the other related works, the following:				
G	Concrete manholes (Internal Dimensions: 45x45cms, with Invert Levels ranging between (45-120cms)	No.	113		
H	Ditto and Ditto but with Internal Dimensions: 90- 125cms & Invert Level between 120- 250cms	No.	84		
J	Ditto and Ditto but with internal dimensions 120x125cms Invert Levels deeper than 250cms	No.	103		
K	Ditto and Ditto but according to Drawings (150x150cms) to the Invert Level as shown on Drawings & Specifications.	No.	40		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>4-7 SEWER LIFT PUMP STATION (See Drawing #09-02)</u></p> <p>Lift station, where permitted, shall be of the dry-pit type incorporating the following features:</p> <ul style="list-style-type: none"> - Pumps or other devices shall be provided in duplicate, arranged for positive priming. - Capacity shall be provided to handle ultimate peak flow from the tributary area with the largest pump out of service. Stage installation of pumps will be permitted if space is provided for future pump units. - Access shall be provided to site for removal and repair of equipment. - A means for dewatering force main shall be provided. - Holding capacity in the wet well equivalent to a 24-hour accumulation of sewage from the fully developed area tributary to the pump station. - Bottom of wet well shall slope to suction lines at least 1.75 vertical to 1.0 horizontal. It is recommended that the width of the flat bottom in the wet well not exceed twice the diameter of the suction pipes. - Pump stations for newly developed areas shall not be located in road right of way, 				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p>but shall be located on a separate parcel of land and shall include fence, gates, landscaping, etc. pump stations located in road right of way will only be considered when it can be demonstrated the governing body of the road right of way and the Director of Engineering that no other site out of the road right of way is possible and such facility is not temporary</p> <p>- A pump station shall have suitable adjustable level control, sump pump, dehumidifier, ventilation, lights, locking entrance door, running time meters, and cathodic corrosion control.</p> <p>- Pump and fitting shall be designed to permit the passage of a 3-inches diameter sphere through the pump.</p> <p>- Standby power with automatic pump drive transfer shall be provided except when waived by Consultant.</p> <p>- Compressor to inject air into the force main at a point outside of pump station so that air will not collect back of check valve with possibility of air locking pump.</p> <p><u>IMPORTANT NOTE:</u></p> <p>The Contractor shall provide the Consultant with a "<u>Schedule of Equipment</u>" and comprehensive wiring and operation diagrams of all equipment, operations and systems proposals and shall obtain his written approval before placing orders.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
-	<p>Provide all materials, tools, equipment, together with a comprehensive "Schedule of Equipment" and construct all complete in conformity with the Drawings and Specifications, and Specifications of Particular Application, test and commission to the satisfaction of the manufacturers and Consultant.</p> <p>Complete in operational condition, Sewer Lift Pump Station, comprising, but not limited to, the following:</p> <ul style="list-style-type: none"> ▪ Excavation to the design depth and backfilling around the structure up on completion ▪ Casting of Reinforced concrete Chamber(s) using Sulphate -resisting cement treated internally and externally as detailed in the drawings, ▪ Inlet and outlet sewer pipes, <p>2(HD) Centrifugal submersible pumps "Flygt" type or equipment with the necessary hauling chains, stainless steel guide rails, valves, Floating controls, flexible connections, electrical control cabinets, level indicators, air compressor, ventilation pipes, all valves, HD Aluminum sheeting cover and frame for Flap doors on the top of the Lift station, all complete to the satisfaction of the Consultant after testing and commissioning.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p>Top Enclosure above and around the Lift station comprising, but not limited to the following:-</p> <ul style="list-style-type: none"> ▪ 2.4m high masonry wall plastered and painted externally and internally and provided with 1.2m high steel posts @ 1.2m intervals connecting a barbed wire fence on top of wall. ▪ 2.4m high chainlink fencing fixed to rectangular steel (10x5cms) posts spaced @ 1.22m, c/c. ▪ Barbed wire fence on top of the chainlink fencing to a height of 1.2m above. ▪ (6) No. steel gates, dimensioned on the Drawings, with RS Joist (size 16) mounted on RC. Plinths and provided with 1.2 m barbed wire above. ▪ (2No.) Electric Generating sets Ratings to be calculated by the Contractor and installed in accordance with the Manufacturers instructions. ▪ (2No.) Transformers set complete as ditto <p><u>(Note : Transformers and generating sets shall be placed on steel Railing fixed to R.C. plinths, and shall be tested and commissioned to the satisfaction of the Consultant)</u></p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide all materials, tools, equipment, together will comprehensive "Schedule of Equipment" and Construct all complete in conformity with the Drawings and Specifications, to the full satisfaction of the Consultant. and leave complete in operation condition for one sewer lift station including all necessary work and according to Drawings (#09-02) and Specifications mensioned above.	Job			
	TOTAL CARRIED TO COLLECTION				
	<p><u>5-WASTE WATER TREATMENT PLANT</u></p> <p>Once the water reaches the wastewater treatment plant, it goes through one, two or three stages of treatment (depending on the sophistication of the plant)</p> <ul style="list-style-type: none"> • The first stage, known as primary treatment, does the same thing a septic tank does. It allows the solid to settle out of the water and the scum to rise. The system then collects the solids for disposal (either in a landfill or an incinerator). • The second stage, known as secondary treatment, removes organic materials and nutrients. This is done with the help of bacteria – the water flows to large, aerated tanks where bacteria consume everything they can. 				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p>The wastewater then flows to settling tanks where the bacteria settle out. Secondary treatment can remove approximately 90 percent of all solids and organic materials from the wastewater.</p> <p>Three approaches are used to accomplish secondary treatment: fixed film, suspended film and lagoon systems.</p> <ul style="list-style-type: none"> • The third stage, known as tertiary treatment, varies depending on the community and the composition of the wastewater. Typically, the third stage will use chemicals to remove phosphorous and nitrogen from the water but may also include filters beds and other types of treatment. Chlorine added to the water kills any remaining bacteria, and the water is discharged. <p>Provide all materials, tools, and equipment and install all complete in conformity with the Drawings and specifications, to the full satisfaction of the Consultant and leave complete in operation condition one unit of 1000 person capacity (wastewater treatment plant) including all necessary work and according to Specifications mentioned above.</p>	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>5-1 Disposal Of Treated Effluent In Seeping (Absorption) Trenches:</u></p> <p>Provide all materials, tools, equipment, excavate Seeping Trenches 1.2m deep, 90cms wide trenches at 3M c/c.each / each trench has a total length of 60m. the effluent shall be transported from the Treatment Plant using 150 mm PVC pipes passing through metal Distribution boxes for eight (8) pipes. (3) Distribution Boxes are to be constructed (24No.) trenches are required. (3No.)Ozone Contact chambers are to be located between the Treatment Plant and the (3) Distribution Boxes (Ozone Generator is required) A layer of clean gravel having a depth of 40cms shall be placed at the bottom of the Seeping Trenches and the open perforated tiles shall be laid (75)cm below ground level. The PVC drain pipes shall have (Tar paper Covering) strip at the top of the joints. Perforations shall be 10 mm diameter spaced of 150 mm on the bottom half of the drain pipes and the top part shall be covered with clean gravel down to (150mm) below grade level and then covered with earth fill. Slope of seepage pipes shall be (5%).</p>	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>6- ELECTRIC CABLES TRENCHES</u></p> <p>Provide all materials and construct, all in accordance with the drawings and Specifications and design levels in full conformity with the Specifications in (DIVISION-16: Electrical Works, and the Consultant's Instruction, provide all materials, equipment, tools, spare parts and construct according to the Drawings; and construct, complete, test and commission; the following:</p>				
A	Excavate soil for cable trenches to the design Level, install conduit pipes and PVC pipes of various Lay electric cables as per Specifications and approved rating with all related works, backfill trenches with selected soil, place protective tiles as shown on drawings, level top soil to the satisfaction of the Consultant after testing and commissioning.	LM	2500		
B	Construct as per drawings and Specifications Inspection Chambers for the connection of cables, complete, of sheet steel, steel sleeves, all complete with angle frames, concrete construction, C.I. cover and frames, all complete as in Drawing (08-01).	LM	50		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	Excavate soil for the cable trenches to the design levels and install electric cables of appropriate sizes as laid out in Drawing (08 - 03) & (08-04) and in full conformity with the Specifications and Consultants instructions, install conduit and PVC pipes of appropriate dimensions, provide filling materials as specified, lay electric cables for street lighting of approved rating with all the related works, back fill trenches with selected soil, protective tiles and connect cables up the street lighting lamps and other accessories, electronic equipment, test and commission as per the specifications and to the satisfaction of the Consultant.	LM	1100		
D	Provide materials, fabricate install and fix according to the Drawing (08-02) Street lighting type (SL-01) all complete with sodium Light fixtures (and photovoltaic cells) all complete to the satisfaction of the Specifications and the Consultant	No.	25		
E	Ditto, ditto and ditto and all complete as ditto but street light fixtures type (SL-02) all complete as ditto	No.	70		
F	Ditto, ditto and ditto but Garden light fixtures of an approved type and quality (Flood Lights) in the Green Lawns (type and make = RAAK, PHILIPS, or equivalent).	No.	100		
TOTAL CARRIED TO COLLECTION					

BILL OF QUANTITY NO. 1
PREPARATORY & SITE WORK SUMMARY

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	EXCAVATION & EARTH WORK		
2	ROADS & PARKING AREAS & RELATED WORKS		
3	CAR SHED		
4	SITE MECHANICAL WORK		
5	WASTE WATER TREATMENT PLANT		
6	ELECTRICAL CABLES TRENCHES		
	TOTAL TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>SENIOR HOUSE</u>				
	<u>Building Type(S):From Building No.(01) Thru(05)</u>				
	<u>EXCAVATION AND EARTH WORK</u>				
A	Excavate to design depth & width for strip foundation with clearance for working area for shuttering.	M ³	56.8		
B	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	168.8		
C	Ditto and ditto (2500 – 3500)	M ³	67.52		
D	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	488		
E	Provide, mix and lay in position plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	67.52		
	TOTAL CARRIED TO COLLECTION				
	<u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u>				
	<u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u>				
	<u>PLAIN CONCRETE</u>				
	Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following:				
A	Under Footing.	M ²	67.52		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>SUPER STRUCTURE CONCRETE</u> <u>WITH ORDINARY PORTLAND CEMENT</u></p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
B	In foundations.	M ³	28.5		
C	In short columns.	M ³	6.52		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				
A	16 mm. Dia. Do in foundations, cols,	Kg.	2637.8		
B	12 mm. Dia. Do in foundations, cols,	Kg.	68.7		
C	10 mm. Dia. Do in col.	Kg.	-		
D	8 mm. Dia. Stirrups Do in beams.	Kg.	267.2		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MASONRY WORK</u></p> <p><u>BRICK WORK</u></p> <p>Provide all materials, excavate for foundation, 80cms depth x 50cms width, compact bottom trench, lay granite,stone layers to fill trench and grout in raw gravel layers to a depth of 40cms, construct lining layer in (6:3:1) concrete, build in 50cms depth 35cms brickwork in (4:1) c\s plaster and motar up to (10)cms above natural grade Level, all complete and backfill. Construct (4:2:1) R.C. grade beam 35x35cms reinforced with 3Ø16 bottom rebars & 3 Ø12 top rebars and Ø8@15 links, cast using appropriate formwole all to the satisfaction of Consultant.</p>				
A	Provide & lay grane stone inside excavated trenches, grout with raw granel filling between the stones after watering all complete in layers of 25cm thickness	LM	142		
B	Provide and lay grade (20) concrete lining layer on the last layer & some to level	Job			
C	Provide and build in (6:1) c\s mortar 4 courses of brick work (25cms wide & 30cms.deep) all complete	LM	142		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1
SENIOR HOUSE SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	Under floor tiles.	M ³	146.3		
B	At veranda.	M ³	22.8		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	6.6		
B	Shear walls.	M ³	—		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case flights & landing	M ³	1.89		
D	Ground floor subend slab	M ³	46.8		
E	Ground floor cover	M ³	54.36		
F	Beams at server room , Bath & slab cover	M ³	5.7		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. do at cols & shear walls.	Kg.	—		
B	22 mm. Dia. do, at cols,	Kg.	—		
C	20 mm. Dia.do at cols.	Kg	—		
D	16 mm. Dia. Do at cols, Ground Beams, suspend slab, slab cover.	Kg.	3660		
E	12 mm. Dia. Do at Beams, suspend slab cover & stair case.	Kg.	11090		
F	10 mm. Dia. Do at Ground Beams, slabs cover & suspend slab.	Kg.	295		
G	8mm. Dia. Do at beams & cols.	Kg.	90		
H	6mm. Dia. Do at beams & cols.	Kg.	135		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	90		
B	Enternal walls	M ²	174		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	1 ½ Brick wall at Boundery & bed, bath room	M ²	235.3		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	1		
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u> Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	Floors of toilets, kitchen and flowerbeds.	M ²	30		
	TOTAL CARRIED TO COLLECTION				
	<u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings. Rate shall include cost of MS flat protective grille (fully painted) in addition to wiremesh & Insect screen layers on all glazed vents. <u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Type D-2 size 1200 x 2200mm	No.	3		
B	Type D-3 size 1000 x 2200mm	No.	9		
C	Type D-4 size 800 x 2200mm	No.	5		
	<u>WINDOWS</u>				
	Aluminum glazed windows in the following types:				
D	Type W1 size 2400 x 1200 mm.	No.	3		
E	Type W2 size 1200 x 1200 mm.	No.	6		
F	Type W4 size 1800 x1200 mm.	No.	3		
G	Type W3 size 600 x 1200 mm.	No.	4		
	TOTAL CARRIED TO COLLECTION				
A	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacion of the Arch . and fix complete as and where indicated in Drawings including 6mm. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>SUNDRIES</u> Provide all materials and equipment, excavate to the design depth of (2.3)m and construct Retaining Wall, as per detailed drawing, composed of the following: (175x60) cms (4:2:1) mass concrete	LM	185		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	(60cms) deep red (50cms) bricks in (4:1) c\s. mortar	LM	185		
	Ditto but (35cms) Red brick wall (50cms deep) in c\s mortar	LM	185		
	1 brick wall up to 10 cms above grass lawn level in (c\s) mortar	LM	185		
	7cms thick (6:3:1) concrete coping above brickwork	LM	185		
	(4:1) c\s plasterwork on both sides of the concrete and the brick with (2) coats of hot bitument applied	LM	185		
	Backfilling of approved (regeta) soil on both sides of the Retaining wall, well watered and compacted	LM	185		
	Filling on the Lawn side with (15cms)thick sandy-silt layer and (30cms) thick Nile silt layer where grass is to be planted.	M ²	290		
	All work shall be in full conformity with Drawings, Specifications and Consultant's instructions				
	<u>FINISHES</u>				
	<u>REFER TO DIVISION :(9)</u>				
	<u>PLASTER WORK</u>				
	Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT SDG
A	On all internal walls.	M ²	360		
B	On all undersides of concrete soffits	M ²	294.12		
C	On all external walls.	M ²	106.16		
D	On boundary walls, server room & Bath	M ²	470.5		
E	Block BIRES	No.	24		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u>				
	<u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces		216.5		
B	Ceramic tiles 500x500 in veranda.	M ²	146.5		
C	Ceramic Tiles in Bath Room	M ²	20.0		
	<u>WALL TILING:</u>	M ²			
	Provide and fix in position the following wall tiles all complete in every respect.				
D	Ceramic tiles 300 x 300mm in kitchen and toilets.	M ²	75.0		
	<u>SKIRTING</u>				
	Provide and fix in position the following 100mm high skirting, all complete.				
E	Porcelain skirting at side areas.(at veranda)	LM	40.0		
F	Porcelain skirting in internals walls	LM	160.0		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>STAIRCASE</u>				
	Provide and fix in position the following treads and risers for the staircase :				
G	Marble treads 30mm thick. for main stair case,	No	21		
H	Marble risers 20mm thick	No	20		
I	300x600x30 mm. Marble tiles at landings & Working Top in Kitchens.	M ²	1.65		
J	Skirting 10mm thick 100 high at landing	ML	3.76		
K	Skirting 10mm thick 100 high	No	21		
L	Ditto for risers 20mm thick in out door steps.	No	31		
	<u>PAVEMENTS:</u>				
	Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones inside the Boundery Walls in the following:				
M	Along the sides and in front of the building over rawgravel filling 250mm thick. 7cm thick interlock bricks.	M ²	224		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u>				
	Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable)	M ²	360		
B	Gloss enamel paint to part of walls as indicated	M ²	—		
C	Ditto but as roof paint	M ²	294.12		
	<u>EXTERNAL SURFACES</u>		106.16		
D	Epoxy paint on walls, fascias, at veranda .	M ²	35		
E	Ditto but as roof soffits paint at veranda	M ²			
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work, all up to the limits of external walls of the speet compartments or kitchen...&s.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class shower basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	4		
D	Stainless steel kitchen sink with double bowl and drainer on all floors, all as ditto	No.	1		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p style="text-align: center;"><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
A	Provide and fix in position (2000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.	-			
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
C	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job	1		
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electrical water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.	No	4		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	62.5		
B	50mm dia. U.P.V.C. waste pipe.	LM	13.40		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing .</p> <p>Manholes of various sizes and invert levels.</p>	No.	10		
D	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	5		
E	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	4		
F	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and valve of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tamperproof lock. Cabinet shall be about (90x120 cms) with additional lower shelf to house fire extinguisher with a separate lock. The glazing shall be inscribed clearly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	1		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	2		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION</u> <u>BOARDS</u> For all out door fixtures, use (all weather resistant) items</p>				
A	SMDB	No.	2		
B	DB	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	6		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	26		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level				
F	(180w) indecandescent light fxtures in halls chandeliers of approved type(3)	No.	4		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
G	15 amp outlet for general use.	No.	20		
H	20 amp for water heater.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u>				
	Celing and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.		10		
			5		
I	Ceiling fans 1400 mm .	No.			
J	8”dia. exhaust fans.	No.			
	<u>TELEPHONES</u>				
	Provide and install telephone cables and wires complete in every respect for the entire telephone system for bank hall and main reception for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
K	Complete installation for the ground floor.	Job			
	<u>METAL WORK:</u>				
	Provide and erect in position the following metal work, all complete as per drawings, rate shall include for all fixing accessories:		6		
L	Steel handrails and baiustrades for staircase	LM	6.5		
M	Steel boundary fence	LM	38.64		
N	Gate door 250 width	No.	2		
	<u>BELS</u>				
	Call bells in flats complete with conduits, wiring etc. and connection	No.	1		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2**GROUND FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u></p> <p>The following works are contained in the roof. floor :</p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	0.50		
B	roof. floor cover flat slab & Beams.	M ³	4.6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				
A	16 mm. Dia. Do at slab cover & columns.	Kg.	650		
B	12 mm. Dia. Do at slab cover & columns	Kg.	420		
C	10 mm. Dia. Do at cols. shear walls, slab cover	Kg.	—		
D	8mm. Dia. Do at beams	Kg.	100		
E	6mm. Dia. Do at beams	Kg.	20.5		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MASONRY WORK</u></p> <p><u>BLOCK WORK</u></p> <p>Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:</p>				
A	One Block wall stair case & store	M ²	60.0		
B	One Block wall at barbat	M ²	68.67		
	<p><u>BRICK WORK</u></p> <p>Provide materials and construct according to (Drawing No. S03) brick work division walls on the Ground Floor cover of the Senior House all complete as per drawing and Specifications and to the satisfaction of the Consultant, for the construction of Terra-cotta Roof Tiles. Rate shall include cost of timer batten and all related works, expect for the tiles (which are measured seperately</p>				
	<p><u>THERMAL AND MOISTURE PROTECTION</u></p> <p>Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and two layers of polythene sheets.</p>				
A	At roof cover slab and terrace	M ²	265		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>DOORS & WINDOWS</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings.</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-3 size 1000x 2200mm.	No.	2		
B	Type D-3 size 1000 x 2200mm	No.	-		
C	Type D-4 size 800 x 2200mm	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>FINISHES</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal walls.	M ²	60		
B	On all external walls.	M ²	312		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect .</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Porcelain tiles 400 x 400 x 40mm in internal.	M ²	10		
B	Trazzo tiles 400 x 400 x 40mm in all external Balcony.	M ²	242		
C	Provide all materials and fix, all inconformity with Specifications and Consultant's instruction and satisfaction, Using approved terra-cota roof tiles using approved methods and manufacturers instructions to the GF roofs of the Senior House (as shown on Drawings)	M ²	45		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following: <u>INTERNAL SURFACES</u> Emulation spaint on walls, fascias. <u>EXTERNAL SURFACES</u> Epoxy paint on walls, fascias. <u>ELECTRIC:</u> Ceiling lamp (indoor) Wall lamps (outdoor)				
A	Emulation spaint on walls, fascias.	M ²	60		
	Epoxy paint on walls, fascias.	M ²	375		
	Ceiling lamp (indoor)	No.	3		
	Wall lamps (outdoor)	No.	15		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p style="text-align: center;"><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
A	Provide and fix in position (2000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.	Job			
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
C	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	-			
D	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	-			

BILL OF QUANTITIES No: 4**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
WATER SUPPLY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR SENIOR HOUSE

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ENGINEERS</u></p> <p><u>Building Type(E):From Building No.(01) Thru(10)</u></p> <p><u>EXCAVATION AND EARTH WORK</u></p>				
A	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	289.2		
B	Ditto and ditto (2500 – 3500)	M ³	115.68		
C	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	335.22		
D	Provide, mix and lay in position plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	115.68		
	TOTAL CARRIED TO COLLECTION				
	<p><u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u></p> <p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	Under Footing.	M ²	231.81		
	TOTAL CARRIED TO COLLECTION				
	<u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>REINFORCED CONCRETE</u>				
	Provide, mix,lay in position and consolidate reinforced concrete grade 30,rate shall include formwork costs, reinforcement bars measured separately in the following :				
B	In foundations.	M ³	57.84		
C	In short columns.	M ³	6.08		
D	Beams .	M ³	2.26		
	Provide, mix,lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following :				
E	Main Staircase and Enterances steps	M ³	46.96		
F	Grade slab (flat slab).	M ³	386.35		
G	Beams at Grade slab .	M ³	-		
	TOTAL CARRIED TO COLLECTION				
	<u>REINFORCEMENT BARS</u>				
	Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. Do in foundations, cols, shear walls.	Kg.	-		
B	22 mm. Dia. do in Foundation, cols, shaer walls.	Kg.	-		
C	20 mm. Dia.do in foundation and cols.	Kg.	-		
D	18 mm. Dia. Do in Foundation and cols.	Kg.	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
E	16 mm. Dia. Do in Grade slab cover and beams.	Kg.	4225.25		
F	12 mm.Dia.Do in basedment cover, shear walls and retaining walls	Kg.	-		
G	10 mm. Dia. Do in col. Shear walls and slab cover and retaining walls.	Kg.	-		
H	6 mm. Dia. Do in beams.	Kg.	262.56		
	TOTAL CARRIED TO COLLECTION				
	<u>MASONRY WORK</u>				
	<u>BLOCKWORK REFER TO DIVISION (4) BLOCK WORK</u>				
	Provide and construct concrete block walls in cement and sand mortar, including anchoring to adjacent concrete elements, reinforcing with expandite or approved equal metal mesh every four courses and damp proof membrane under walls in :				
A	200 mm hollow block out side of retaining walls.	M ²	83.89		
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u>				
	Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	All plaster work out side of retaining walls	M ²	-		
B	Under raft foundation and its Edges	M ²	-		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1
TECHNICIANS SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.04		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	4.33		
D	Ground floor cover .	M ³	386.35		
E	Beams at Ground floor cover .	M ³	2.26		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	1291.27		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	10445.8		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	56.26		
G	6mm. Dia. Do at beams .	Kg.	262.56		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	295.56		
B	Enternal walls	M ²	274.68		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen.	M ²	72.56		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes.</p>				
A	Type D-1 size 2000 x 2200mm	No.	1		
B	Type D-2 size 1200 x 2200mm	No.	2		
C	Type D-3 size 1000 x 2200mm	No.	16		
D	Type D-4 Size 800 x 2200mm	No.	6		
E	Type D-5 Size 1200 x 2200mm	No.	2		
F	Type D-6 Size 1700 x 2200mm	No.	2		
	<p><u>WINDOWS</u> Aluminum glazed windows in the following types:</p>				
G	Type W1 size 2400 x 1200 mm.	No.	4		
H	Type W2 size 1200 x 1200 mm.	No.	11		
I	Type W3 size 600 x1200 mm.	No.	6		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	937.11		
B	On all external walls.	M ²	320.61		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	262.65		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	20.44		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 300 x 300mm in kitchen and toilets.	M ²	67.87		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	332.88		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No	18		
I	Marble risers 20mm thick	No	20		
J	300x600x30 mm. Marble tiles at landings.	M ²	2.88		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	36.16		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable) walls , and lobby .	M ²	937.11		
B	Ditto but as roof paint	M ²			
	<u>EXTERNAL SURFACES</u>				
C	Epoxy paint on walls, fascias,	M ²	320.61		
D	Ditto but as roof paint	M ²	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	4		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	6		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	11.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM	-		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
D	Manholes of various sizes and invert levels.	No.	-		
	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.				
E	Gully traps size 300 x 300mm.	No.	-		
	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .				
F	Floor traps size 150 x 150mm.	No.	-		
	Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .				
G	85mm dia. UPVC rain water pipes.	LM	-		
TOTAL CARRIED TO COLLECTION					

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL:</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	8		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	33		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	21		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	38		
I	20 amp for water heater.	No.	9		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	10		
K	8"dia. exhaust fans.	No.	8		
	<u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job			
M	Telephone socket.	No.	10		
	<u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	10		
	<u>BELS</u> Call bells in flats complete with conduits, wiring etc. and connection	No.	2		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>1ST FLOOR</u></p> <p>The following works are contained in the 1ST floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.04		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	4.33		
D	Ground floor cover .	M ³	386.35		
E	Beams at Ground floor cover .	M ³	2.26		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	1291.27		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	10445.8		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	56.26		
G	6mm. Dia. Do at beams .	Kg.	262.56		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	295.56		
B	Enternal walls	M ²	274.68		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u> Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	Floors of toilets, kitchen and flowerbeds.	M ²	72.56		
	TOTAL CARRIED TO COLLECTION				
	<u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings . <u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes .				
A	Type D-1 size 2000 x 2200mm	No.	1		
B	Type D-2 size 1200 x 2200mm	No.	2		
C	Type D-3 size 1000 x 2200mm	No.	16		
D	Type D-4 Size 800 x 2200mm	No.	6		
E	Type D-5 size 1200 x 2200mm	No.	2		
F	Type D-6 size 1700 x 2200mm	No.	2		
	<u>WINDOWS</u> Aluminum glazed windows in the following types:				
G	Type W1 size 2400 x 1200 mm.	No.	4		
H	Type W2 size 1200 x 1200 mm.	No.	11		
I	Type W3 size 600 x1200 mm.	No.	6		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u>				
	<u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	937.11		
B	On all external walls.	M ²	320.61		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u>				
	<u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	262.65		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	20.44		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	67.87		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	332.88		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No	18		
I	Marble risers 20mm thick	No	20		
J	300x600x30 mm. Marble tiles at landings.	M ²	2.88		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	36.16		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable) walls , and lobby .	M ²	937.11		
B	Ditto but as roof paint	M ²	386.5		
	<u>EXTERNAL SURFACES</u>				
C	Epoxy paint on walls, fascias,	M ²	320.61		
D	Ditto but as roof paint	M ²	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	4		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u>				
	Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	4		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u>				
	Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	11.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM	-		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
D	Manholes of various sizes and invert levels.	No.	-		
	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.				
E	Gully traps size 300 x 300mm.	No.	-		
	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .				
F	Floor traps size 150 x 150mm.	No.	-		
	Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .				
G	85mm dia. UPVC rain water pipes.	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL:</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	8		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	33		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	21		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	38		
I	20 amp for water heater.	No.	9		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	10		
K	8"dia. exhaust fans.	No.	8		
	<u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job			
M	Telephone socket.	No.	10		
	<u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	10		
	<u>BELS</u> Call bells in flats complete with conduits, wiring etc. and connection				
		No.	2		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 3**1ST FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>2ND FLOOR</u></p> <p>The following works are contained in the 2ND floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.04		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	4.33		
D	Ground floor cover .	M ³	386.35		
E	Beams at Ground floor cover .	M ³	2.26		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	2907.61		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	10445.8		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	56.26		
G	6mm. Dia. Do at beams .	Kg.	262.56		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	295.56		
B	Enternal walls	M ²	274.68		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen.	M ²	72.56		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-1 size 2000 x 2200mm	No.	1		
B	Type D-2 size 1200 x 2200mm	No.	2		
C	Type D-3 size 1000 x 2200mm	No.	16		
D	Type D-4 Size 800 x 2200mm	No.	6		
E	Type D-5 size 1200 x 2200mm	No.	2		
F	Type D-6 size 1700 x 2200mm	No.	2		
	<p><u>WINDOWS</u> Aluminum glazed windows in the following types:</p>				
G	Type W1 size 2400 x 1200 mm.	No.	4		
H	Type W2 size 1200 x 1200 mm.	No.	11		
I	Type W3 size 600 x1200 mm.	No.	6		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u>				
	<u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	937.11		
B	On all external walls.	M ²	320.61		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	262.65		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	20.44		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	67.87		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	332.88		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No	18		
I	Marble risers 20mm thick	No	20		
J	300x600x30 mm. Marble tiles at landings.	M ²	2.88		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	36.16		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u> A Emulsion paint (washable) walls , and lobby . B Ditto but as roof paint <u>EXTERNAL SURFACES</u> C Epoxy paint on walls, fascias, D Ditto but as roof paint				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	4		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	4		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	11.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM	-		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
D	Manholes of various sizes and invert levels.	No.	-		
	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.				
E	Gully traps size 300 x 300mm.	No.	-		
	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .				
F	Floor traps size 150 x 150mm.	No.	-		
	Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .				
G	85mm dia. UPVC rain water pipes.	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL:</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	8		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	33		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	21		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	38		
I	20 amp for water heater.	No.	9		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	10		
K	8"dia. exhaust fans.	No.	8		
	<u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job			
M	Telephone socket.	No.	10		
	<u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	10		
	<u>BELS</u> Call bells in flats complete with conduits, wiring etc. and connection				
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 4**2ND FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u></p> <p>The following works are contained in the roof floor :</p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.39		
B	R.C. Shear walls.	M ³	-		
	<p>Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
C	Roof floor cover .	M ³	2.88		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				
A	16 mm. Dia. Do at slab cover.	Kg.	415		
B	12 mm. Dia. Do at shear walls, cover slab.	Kg.	525		
C	8 mm. Dia. Do at cols. Shear walls, slab cover.	Kg.	96		
D	6mm. Dia. Do at beams .	Kg.	25		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>BLOCK WORK</u> Provide and construct block walls in cement and sand mortar, including anchoring to adjacent concrete elements, reinforcing with expanded metal mesh every four courses and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:</p>				
A	One Block wall.	M ²	185.6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u> Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and two layers of polythene sheets.</p>				
A	At roof cover slab and terrace	M ²	386.35		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-2 size 1200x 2200mm.	No	-		
B	Type D-3 size 1000 x 2200mm	No.	1		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FINISHES</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal walls.	M ²	67		
B	On all external walls.	M ²	310		
C	Roof plaster	M ²	16		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect . Terrazzo tiles 250x250 x 25mm internal and external .</p> <p><u>SKIRTING</u></p> <p>Provide and fix in position the following 100mm high skirting, all complete.</p>				
A		M ²	386.35		
B	terrazzo skirting .	L.M	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :</p> <p><u>INTERNAL SURFACES</u></p> <p>A Emulsion paint (washable) in walls and free standing columns.</p> <p>B Ditto but as roof paint .</p> <p><u>EXTERNAL SURFACES</u></p> <p>C Epoxy paint on walls, fascias.</p>				
		M ²	-		
		M ²	16		
		M ²	271.2		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS:</u></p> <p>Provide the following sanitary fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and risers, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
C	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u>				
	Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u>				
	Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	110mm dia. U.P.V.C. soil pipe.	LM	-		
B	75mm dia. U.P.V.C. waste pipe.	LM	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	<p>Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .</p> <p>150mm dia. U.P.V.C. soil pipe.</p>	LM	-		
D	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p> <p>Manholes of various sizes and invert levels.</p>	No.	-		
E	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	-		
F	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	-		
G	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u></p> <p>Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) slandered all complete in every respect the entire electrical system for the roof floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p> <p>A SMDB for roof Floor.</p> <p><u>LIGHTING</u></p> <p>Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p> <p>B 1200 mm long double fluoresent lamps complete with reflectors.</p> <p>C Ceiling lamps .</p> <p>D Out door lamp .</p> <p><u>POWER OUTLETS</u></p> <p>Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p> <p>E 15amp outlet for general use.</p> <p>F 20 amp for water heater.</p>				
		No.	-		
		No.	20		
		No.	4		
		No	-		
		No.	4		
		No.	-		

BILL OF QUANTITIES No: 5**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
METAL WORK		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
WATER SUPPLY WORK		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR ENGINEERS

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	1 ST FLOOR SUMMARY		
4	2 ND FLOOR SUMMARY		
5	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>Technicians</u></p> <p><u>Building Type(T):From Building No.(01) Thru(10)</u></p> <p><u>EXCAVATION AND EARTH WORK</u></p>				
A	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	236.5		
B	Ditto and ditto(2500 – 3500)	M ³	94.6		
C	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	321.52		
D	Provide, mix and lay inposition plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	94.6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u></p> <p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	Under Footing.	M ²	96.5		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u>				
	<u>REINFORCED CONCRETE</u> Provide, mix,lay in position and consolidate reinforced concrete grade 30,rate shall include formwork costs, reinforcement bars measured separately in the following :				
B	In foundations.	M ³	48.5		
C	In short columns.	M ³	2.2		
D	Beams .	M ³	1.6		
	Provide, mix,lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following :				
E	Main Staircase and Enterances steps	M ³	10.5		
F	Grade slab (flat slab).	M ³	378.5		
	<u>TOTAL CARRIED TO COLLECTION</u>				
	<u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. Do in foundations, cols, shear walls.	Kg.	-		
B	22 mm. Dia. do in Foundation, cols, shaer walls.	Kg.	-		
C	20 mm. Dia.do in foundation and cols.	Kg.	-		
D	18 mm. Dia. Do in Foundation and cols.	Kg.	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
E	16 mm. Dia. Do in Grade slab cover and beams.	Kg.	4760		
F	12 mm.Dia.Do in basedment cover, shear walls and retaining walls	Kg.	-		
G	10 mm. Dia. Do in col. Shear walls and slab cover and retaining walls.	Kg.	-		
H	6 mm. Dia. Do in beams.	Kg.	230		
	TOTAL CARRIED TO COLLECTION				
	<u>MASONRY WORK</u> <u>BLOCKWORK REFER TO DIVISION</u> <u>(4) BLOCK WORK</u>				
	Provide and construct concrete block walls in cement and sand mortar, including anchoring to adjacent concrete elements, reinforcing with expandite or approved equal metal mesh every four courses and damp proof membrane under walls in :				
A	200 mm hollow block out side of retaining walls.	M ²	54.5		
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u>				
	Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	All plaster work out side of retaining walls	M ²	-		
B	Under raft foundation and its Edges	M ²	-		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1**TECHNICIANS SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	8.5		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	10.5		
D	Ground floor cover .	M ³	378.5		
E	Beams at Ground floor cover .	M ³	1.6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	8920		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	16600		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	132		
G	6mm. Dia. Do at beams .	Kg.	320		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	259.7		
B	Enternal walls	M ²	68.5		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen.	M ²	72.69		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes .</p>				
A	Type D-1 size 2000 x 2200mm	No.	1		
B	Type D-2 size 1200 x 2200mm	No.	2		
C	Type D-3 size 1000 x 2200mm	No.	14		
D	Type D-4 Size 800 x 2200mm	No.	4		
	<p><u>WINDOWS</u></p> <p>Aluminum glazed windows in the following types:</p>				
E	Type W1 size 2400 x 1200 mm.	No.	4		
F	Type W2 size 1200 x 1200 mm.	No.	10		
G	Type W3 size 600 x1200 mm.	No.	4		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u>				
	<u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	444.4		
B	On all external walls.	M ²	280.6		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	295		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	13.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	88		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	190.5		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No.	20		
I	Marble risers 20mm thick	No	18		
J	300x600x30 mm. Marble tiles at landings.	M ²	6		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	4		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :</p> <p><u>INTERNAL SURFACES</u></p> <p>A Emulsion paint (washable) walls , and lobby .</p> <p>B Ditto but as roof paint</p> <p><u>EXTERNAL SURFACES</u></p> <p>C Epoxy paint on walls, fascias,</p> <p>D Ditto but as roof paint</p>				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	4		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	4		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	11.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM	-		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
D	Manholes of various sizes and invert levels.	No.	-		
	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.				
E	Gully traps size 300 x 300mm.	No.	-		
	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .				
F	Floor traps size 150 x 150mm.	No.	-		
	Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .				
G	85mm dia. UPVC rain water pipes.	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and valve of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tamperproof lock. Cabinet shall be about (90x120 cms) with additional lower shelf to house fire extinguisher with a separate lock. The glazing shall be inscribed clearly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	20		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	20		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	38		
I	20 amp for water heater.	No.	20		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	10		
K	8"dia. exhaust fans.	No.	6		
	<u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job	8		
M	Telephone socket.	No.			
	<u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	8		
	<u>BELS</u> Call bells in flats complete with conduits, wiring etc. and connection	No.	2		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>1ST FLOOR</u></p> <p>The following works are contained in the 1st floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	8.5		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	10.5		
D	Ground floor cover .	M ³	378.5		
E	Beams at Ground floor cover .	M ³	1.6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	5100		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	8460		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	75		
G	6mm. Dia. Do at beams .	Kg.	320		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	259.7		
B	Enternal walls	M ²	68.5		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u> Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	Floors of toilets, kitchen.	M ²	72.69		
	TOTAL CARRIED TO COLLECTION				
	<u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings . <u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes .				
A	Type D-1 size 2000 x 2200mm	No.	1		
B	Type D-2 size 1200 x 2200mm	No.	2		
C	Type D-3 size 1000 x 2200mm	No.	14		
D	Type D-4 Size 800 x 2200mm	No.	4		
	<u>WINDOWS</u> Aluminum glazed windows in the following types:				
E	Type W1 size 2400 x 1200 mm.	No.	4		
F	Type W2 size 1200 x 1200 mm.	No.	10		
G	Type W3 size 600 x1200 mm.	No.	4		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	444.4		
B	On all external walls.	M ²	280.6		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	295		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	13.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	88		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	190.5		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No	20		
I	Marble risers 20mm thick	No	18		
J	300x600x30 mm. Marble tiles at landings.	M ²	6		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	4		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u> A Emulsion paint (washable) walls , and lobby . B Ditto but as roof paint <u>EXTERNAL SURFACES</u> C Epoxy paint on walls, fascias, D Ditto but as roof paint				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS:</u></p> <p>Provide the following sanitary fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and risers, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated	No.	4		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u>				
	Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	4		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u>				
	Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	11.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	<p>Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .</p> <p>150mm dia. U.P.V.C. soil pipe.</p>	LM	-		
D	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p> <p>Manholes of various sizes and invert levels.</p>	No.	-		
E	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	-		
F	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	-		
G	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to HOSE fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>	-			
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	20		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	20		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	38		
I	20 amp for water heater.	No.	20		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	10		
K	8"dia. exhaust fans.	No.	6		
	<u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job			
M	Telephone socket.	No.	8		
	<u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	8		
	<u>BELS</u> Call bells in flats complete with conduits, wiring etc. and connection				
		No.	2		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2**1ST FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>2ND FLOOR</u></p> <p>The following works are contained in the 2nd floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	8.5		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	10.5		
D	Ground floor cover .	M ³	378.5		
E	Beams at Ground floor cover .	M ³	1.6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	4280		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	9590		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	75		
G	6mm. Dia. Do at beams .	Kg.	222		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	259.7		
B	Enternal walls	M ²	68.5		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTRY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen.	M ²	72.69		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes .</p>				
A	Type D-1 size 2000 x 2200mm	No.	1		
B	Type D-2 size 1200 x 2200mm	No.	2		
C	Type D-3 size 1000 x 2200mm	No.	14		
D	Type D-4 Size 800 x 2200mm	No.	4		
	<p><u>WINDOWS</u></p> <p>Aluminum glazed windows in the following types:</p>				
E	Type W1 size 2400 x 1200 mm.	No.	4		
F	Type W2 size 1200 x 1200 mm.	No.	10		
G	Type W3 size 600 x1200 mm.	No.	4		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	444.4		
B	On all external walls.	M ²	280.6		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	295		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	13.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	88		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	190.5		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No	20		
I	Marble risers 20mm thick	No	18		
J	300x600x30 mm. Marble tiles at landings.	M ²	6		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	4		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u> A Emulsion paint (washable) walls , and lobby . B Ditto but as roof paint <u>EXTERNAL SURFACES</u> C Epoxy paint on walls, fascias, D Ditto but as roof paint				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS:</u></p> <p>Provide the following sanitary fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and risers, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	4		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	11.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
C	<p>Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .</p> <p>150mm dia. U.P.V.C. soil pipe.</p>	LM	-		
D	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p> <p>Manholes of various sizes and invert levels.</p>	No.	-		
E	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	-		
F	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	-		
G	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to HOSE fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	20		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	20		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	38		
I	20 amp for water heater.	No.	20		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	10		
K	8"dia. exhaust fans. <u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.	No.	6		
L	Complete installation for the ground floor.	Job	8		
M	Telephone socket. <u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.	No.			
N	Complete installation for the ground floor.	Job			
O	T.V socket. <u>BELS</u> Call bells in flats complete with conduits, wiring etc. and connection	No.	8		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2**2ND FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u></p> <p>The following works are contained in the roof floor :</p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.5		
B	R.C. Shear walls.	M ³	-		
	<p>Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
C	Roof floor cover .	M ³	2.88		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				
A	16 mm. Dia. Do at slab cover.	Kg.	415		
B	12 mm. Dia. Do at shear walls, cover slab.	Kg.	525		
C	8 mm. Dia. Do at cols. Shear walls, slab cover.	Kg.	96		
D	6mm. Dia. Do at beams .	Kg.	25		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:</p>				
A	One Brick wall.	M ²	127.8		
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u> Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and tows layers of polythene sheets.</p>				
A	At roof cover slab and terrace	M ²	378.2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-2 size 1200x 2200mm.	No	-		
B	Type D-3 size 1000 x 2200mm	No.	1		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FINISHES</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal walls.	M ²	67		
B	On all external walls.	M ²	60		
C	Roof plaster	M ²	16		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect .</p>				
A	Terrazzo tiles 250x250 x 25mm internal and external .	M ²	378.2		
	<p><u>SKIRTING</u></p> <p>Provide and fix in position the following 100mm high skirting, all complete.</p>				
B	terrazzo skirting .	L.M	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :</p> <p><u>INTERNAL SURFACES</u></p> <p>A Emulsion paint (washable) in walls and free standing columns.</p> <p>B Ditto but as roof paint .</p> <p><u>EXTERNAL SURFACES</u></p> <p>C Epoxy paint on walls, fascias.</p>				
		M ²	60		
		M ²	16		
		M ²	67.8		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS:</u></p> <p>Provide the following sanitary fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and risers, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
C	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and fix in position (10000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.	Job			
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
C	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	-			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	-			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	-			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) slandered all complete in every respect the entire electrical system for the roof floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for roof Floor.	No.	-		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
B	1200 mm long double fluorescent lamps complete with reflectors.	No.	20		
C	Ceiling lamps .	No.	4		
D	Out door lamp .	No	-		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
E	15 amp outlet for general use.	No.	4		
F	20 amp for water heater.	No.	-		
	<p><u>FANS</u> Celimg and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.</p>				
G	Ceiling fans 1400 mm .	No	-		

BILL OF QUANTITIES No: 4**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
METAL WORK		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR TECHNISIIONS

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	1 ST FLOOR		
4	2 ND FLOOR		
5	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GUEST HOUSE</u></p> <p><u>Building Type(G):From Building No.(01) Thru(05)</u></p> <p><u>EXCAVATION AND EARTH WORK</u></p>				
A	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	377.62		
B	Ditto and ditto(2500 – 3500).	M ³	151.05		
C	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	522.53		
D	Provide, mix and lay inposition plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	151.05		
	TOTAL CARRIED TO COLLECTION				
	<p><u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u></p> <p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	Under Footing.	M ²	151.06		
	TOTAL CARRIED TO COLLECTION				
	<u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following :</p>				
B	In foundations.	M ³	75.52		
C	In short columns.	M ³	12		
D	Beams .	M ³	12.97		
E	Main Staircase and Enterances steps	M ³	49.3		
F	Grade slab (flat slab).	M ³	92.96		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				
A	25 mm. Dia. Do in foundations, cols, shear walls.	Kg.	-		
B	22 mm. Dia. do in Foundation, cols, shaer walls.	Kg.	-		
C	20 mm. Dia.do in foundation and cols.	Kg.	-		
D	18 mm. Dia. Do in Foundation and cols.	Kg.	-		
E	16 mm. Dia. Do in Grade slab cover and beams.	Kg.	5816.8		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	12 mm.Dia.Do in basedment cover, shear walls and retaining walls	Kg.	-		
G	10 mm. Dia. Do in col. Shear walls and slab cover and retaining walls.	Kg.	-		
H	6 mm. Dia. Do in beams.	Kg.	424.51		
	TOTAL CARRIED TO COLLECTION				
	<u>MASONRY WORK</u> <u>BLOCKWORK REFER TO DIVISION</u> <u>(4) BLOCK WORK</u> Provide and construct concrete block walls in cement and sand mortar, including anchoring to adjacent concrete elements, reinforcing with expandite or approved equal metal mesh every four courses and damp proof membrane under walls in :				
A	200 mm hollow block out side of retaining walls.	M ²	110.79		
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE</u> <u>PROTECTION</u> Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	All plaster work out side of retaining walls	M ²	-		
B	Under raft foundation and its Edges	M ²	-		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1
GUEST HOUSE SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	23.00		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	2.34		
D	Ground floor cover .	M ³	92.96		
E	Beams at Ground floor cover .	M ³	12.97		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	3256.03		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	10806.11		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	387.75		
G	6mm. Dia. Do at beams .	Kg.	626.67		
TOTAL CARRIED TO COLLECTION					
<u>BLOCK WORK</u>					
Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:					
A	External walls	M ²	366.88		
B	Enternal walls	M ²	413.09		
TOTAL CARRIED TO COLLECTION					
<u>CARPENTERY AND JOINERY</u>					
Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.					
A	Floor mounted kitchen.	No.	1		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u> Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	Floors of toilets, kitchen.	M ²	49.37		
	TOTAL CARRIED TO COLLECTION				
	<u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings . <u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes				
A	Type D-1 size 2000 x 2200mm	No.	-		
B	Type D-2 size 1200 x 2200mm	No.	1		
C	Type D-3 size 1000 x 2200mm	No.	18		
D	Type D-4 Size 800 x 2200mm	No.	6		
E	Type D-6 size 1700 x 2200mm	No.	2		
	<u>WINDOWS</u> Aluminum glazed windows in the following types:				
F	Type W7 size 1600 x 3000 mm.	No.	1		
G	Type W2 size 1200 x 1200 mm.	No.	10		
H	Type W3 size 600 x1200 mm.	No.	9		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quaitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	50.5		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	394.96		
B	On all external walls.	M ²	428.56		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	247.3		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	33.37		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	97.78		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	181.18		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	-		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No.	18		
I	Marble risers 20mm thick	No	20		
J	300x600x30 mm. Marble tiles at landings.	M ²	3.44		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	36.16		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable) walls , and lobby .	M ²	423.56		
B	Ditto but as roof paint	M ²	92.96		
	<u>EXTERNAL SURFACES</u>				
C	Epoxy paint on walls, fascias,	M ²	394.96		
D	Ditto but as roof paint	M ²	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	9		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	9		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	9		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	6		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	23.76		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM	-		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
D	Manholes of various sizes and invert levels.	No.	-		
	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.				
E	Gully traps size 300 x 300mm.	No.	-		
	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .				
F	Floor traps size 150 x 150mm.	No.	-		
	Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .				
G	85mm dia. UPVC rain water pipes.	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL:</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	9		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	12		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	41		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	25		
I	20 amp for water heater.	No.	11		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u>				
	Celing and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	13		
K	8"dia. exhaust fans.	No.	10		
	<u>TELEPHONES</u>				
	Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job			
M	Telephone socket.	No.	11		
	<u>T.V</u>				
	Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	11		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>1st FLOOR</u></p> <p>The following works are contained in the 1st floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	23.00		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	2.34		
D	Ground floor cover .	M ³	92.96		
E	Beams at Ground floor cover .	M ³	12.97		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	2907.61		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	10806.11		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	387.75		
G	6mm. Dia. Do at beams .	Kg.	626.67		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	366.88		
B	Enternal walls	M ²	413.09		
	TOTAL CARRIED TO COLLECTION				
	<u>CARPENTERY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings.				
A	Floor mounted kitchen.	No.	1		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u> Provide and apply 4mm thick industrial waterproofing membrane to the following:				
A	Floors of toilets, kitchen and flowerbeds.	M ²	49.37		
	TOTAL CARRIED TO COLLECTION				
	<u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings . <u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes				
A	Type D-1 size 2000 x 2200mm	No.	-		
B	Type D-2 size 1200 x 2200mm	No.	1		
C	Type D-3 size 1000 x 2200mm	No.	18		
D	Type D-4 Size 800 x 2200mm	No.	6		
E	Type D-6	No.	2		
	<u>WINDOWS</u> Aluminum glazed windows in the following types:				
F	Type W7 size 1600 x 3000 mm.	No.	1		
G	Type W2 size 1200 x 1200 mm.	No.	10		
H	Type W3 size 600 x1200 mm.	No.	9		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacation of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	50.5		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u>				
	<u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	394.96		
B	On all external walls.	M ²	428.56		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	247.3		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	33.37		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.				
D	Marble tiles 300 x 600 x 20mm around lift walls and stair case shear walls .	M ²	-		
E	Ceramic tiles 200 x 300mm in kitchen and toilets.	M ²	97.78		
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Marble skirting in flats and main lobby	LM	181.18		
G	Marble skirting 100 x 300 x 20mm in staircases.	LM	-		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
H	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No.	18		
I	Marble risers 20mm thick	No	20		
J	300x600x30 mm. Marble tiles at landings.	M ²	3.44		
K	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	36.16		
L	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
M	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u> A Emulsion paint (washable) walls , and lobby . B Ditto but as roof paint <u>EXTERNAL SURFACES</u> C Epoxy paint on walls, fascias, D Ditto but as roof paint				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	9		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	9		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	9		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u>				
	Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	9		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u>				
	Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	-		
B	50mm dia. U.P.V.C. waste pipe.	LM	23.76		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM	-		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
D	Manholes of various sizes and invert levels.	No.	-		
	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.				
E	Gully traps size 300 x 300mm.	No.	-		
	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .				
F	Floor traps size 150 x 150mm.	No.	-		
	Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .				
G	85mm dia. UPVC rain water pipes.	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following.</p> <p><u>HOSE REEL:</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	9		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	12		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	41		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	25		
I	20 amp for water heater.	No.	11		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	13		
K	8"dia. exhaust fans.	No.	10		
	<u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
L	Complete installation for the ground floor.	Job			
M	Telephone socket.	No.	11		
	<u>T.V</u> Provide and install T.V cables and wires complete in every respect for the entire T.V system for the flats including, conduits, internal cables, lead-in-ducts to cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.				
N	Complete installation for the ground floor.	Job			
O	T.V socket.	No.	11		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 3**1st FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u></p> <p>The following works are contained in the roof floor :</p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.11		
B	R.C. Shear walls.	M ³	-		
	<p>Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
C	Roof floor cover .	M ³	10		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				
A	16 mm. Dia. Do at slab cover.	Kg.	194.4		
B	12 mm. Dia. Do at shear walls, cover slab.	Kg.	685.01		
C	8 mm. Dia. Do at cols. Shear walls, slab cover.	Kg.	-		
D	6mm. Dia. Do at beams .	Kg.	37.6		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	One Brick wall.	M ²	185.93		
	TOTAL CARRIED TO COLLECTION				
	<u>THERMAL AND MOISTURE PROTECTION</u>				
	Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and tows layers of polythene sheets.				
A	At roof cover slab and terrace	M ²	92.96		
	TOTAL CARRIED TO COLLECTION				
	<u>DOORS & WINDOWS</u>				
	Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .				
	<u>DOORS</u>				
	Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes .				
A	Type D-2 size 1200x 2200mm.	No	-		
B	Type D-3 size 1000 x 2200mm	No.	1		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FINISHES</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal walls.	M ²	48		
B	On all external walls.	M ²	185.93		
C	Roof plaster	M ²	9.66		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect . Terrazzo tiles 250x250 x 25mm internal and external .</p> <p><u>SKIRTING</u></p> <p>Provide and fix in position the following 100mm high skirting, all complete.</p>				
A		M ²	92.96		
B	terrazzo skirting .	L.M	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :</p> <p><u>INTERNAL SURFACES</u></p> <p>A Emulsion paint (washable) in walls and free standing columns.</p> <p>B Ditto but as roof paint .</p> <p><u>EXTERNAL SURFACES</u></p> <p>C Epoxy paint on walls, fascias.</p>				
		M ²	-		
		M ²	9.66		
		M ²	185.93		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS:</u></p> <p>Provide the following sanitary fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and risers, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
C	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	110mm dia. U.P.V.C. soil pipe.	LM	-		
B	75mm dia. U.P.V.C. waste pipe.	LM	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	<p>Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .</p> <p>150mm dia. U.P.V.C. soil pipe.</p>	LM	-		
D	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p> <p>Manholes of various sizes and invert levels.</p>	No.	-		
E	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	-		
F	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	-		
G	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) slandered all complete in every respect the entire electrical system for the roof floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for roof Floor.	No.	-		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
B	1200 mm long double fluorescent lamps complete with reflectors.	No.	20		
C	Ceiling lamps .	No.	4		
D	Out door lamp .	No	-		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
E	15 amp outlet for general use.	No.	4		
F	20 amp for water heater.	No.	-		

BILL OF QUANTITIES No: 3**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
METAL WORK		
CARPENTERY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING		
AIR CONDITIONING		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR GUEST HOUSE

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	ROOF. FLOOR SUMMARY		
4	1 ST FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>MOSQUE</u>				
	<u>EXCAVATION AND EARTH WORK</u>				
A	Excavate for strip foundation trench, 50cm wide & 80cm deep, water and ram bottom of trench with clearance for working area for shuttering.	M ³	11.4		
B	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	152.05		
C	Ditto and ditto (2500 – 3500)	M ³	60.82		
D	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	391.55		
E	Provide, mix and lay in position plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	60.82		
	TOTAL CARRIED TO COLLECTION				
	<u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u>				
	<u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u>				
	<u>PLAIN CONCRETE</u>				
	Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following:				
A	Under Footing.	M ²	60.82		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u>				
	<u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following :				
B	In foundations.	M ³	26.37		
C	In short columns.	M ³	4.8		
D	Beams .	M ³	19.49		
E	Main Staircase and Enterances steps	M ³	49.3		
F	Grade slab (flat slab).	M ³	418.26		
	TOTAL CARRIED TO COLLECTION				
	<u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. Do in foundations, cols, shear walls.	Kg.	-		
B	22 mm. Dia. do in Foundation, cols, shaer walls.	Kg.	-		
C	20 mm. Dia.do in foundation and cols.	Kg.	-		
D	18 mm. Dia. Do in Foundation and cols.	Kg.	-		
E	16 mm. Dia. Do in Grade slab cover and beams.	Kg.	2682.12		
F	12 mm.Dia.Do in basedment cover, shear walls and retaining walls	Kg.	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
G	10 mm. Dia. Do in col. Shear walls and slab cover and retaining walls.	Kg.	-		
H	6 mm. Dia. Do in beams.	Kg.	224.32		
	TOTAL CARRIED TO COLLECTION				
	<u>MASONRY WORK:</u>				
	<u>BRICK WORK</u>				
	Using rock granite, lay rock work in layers, fill in with smaller rocks and rawgravel grouting well watered and compacted to fill trench to natural grade level and cast grade 20 concrete lining on top of granite layers.	M ³	12		
A	Provide and construct 2- brick thick wall on top of lining to a depth of 40cm in (4:1) cement /sand mortar and render internally and externally.	LM	36.72		
B	Ditto and ditto but one brick	LM	-		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1**MOSQUE SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTIO				
	<p><u>REINFORCED CONCRETE</u> Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	13.20		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	2.34		
D	Ground floor cover .	M ³	-		
E	Beams at Ground floor cover .	M ³	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u> Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	2494.26		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	4365.92		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	127.65		
G	6mm. Dia. Do at beams .	Kg.	184.437		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	460.9		
B	Enternal walls	M ²	163.8		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p> <p>Floors of toilets, kitchen and flowerbeds.</p>	M ²	-		
	TOTAL CARRIED TO COLLECTION				
A	<p><u>DOORS & WINDOWS</u></p> <p><u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings .</p> <p><u>DOORS</u></p> <p>Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes .</p> <p>Type D-7 size 1420 x 2200mm</p>	No.	3		
B	Type D-3 size 1000 x 2200mm	No.	2		
C	Type D-4 size 800 x 2200mm	No.	6		
	<p><u>WINDOWS</u></p> <p>Aluminum glazed windows in the following types:</p>				
A	Type W8 size 1450 x 4100 mm.	No.	24		
B	Type W3 size 600 x 1200 mm.	No.	6		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacion of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	170.4		
B	On all external walls.	M ²	683		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	418.26		
B	Ceramic Tiles in Bath Room	M ²	24		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
C	Marble skirting in flats and main lobby	LM	51		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the staircase :				
D	Marble treads 30mm thick. for main stair case, Mezz stair case, Bank staff staircase.	No.	18		
E	Marble risers 20mm thick	No	20		
F	300x600x30 mm. Marble tiles at landings.	M ²	3.44		
G	Ditto for main interances of main lobby 3550mm trade length , 30mm thick .	No	36.16		
H	Ditto for risers 20mm thick	No.	5		
	<u>PAVEMENTS:</u> Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones in the following :				
I	Along the sides and in front of the building.	M ²	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :</p> <p><u>INTERNAL SURFACES</u></p> <p>A Emulsion paint (washable) walls , and lobby .</p> <p>B Ditto but as roof paint</p> <p><u>EXTERNAL SURFACES</u></p> <p>C Epoxy paint on walls, fascias,</p> <p>D Ditto but as roof paint</p>				
		M ²	212.7		
		M ²	-		
		M ²	683		
		M ²	24		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u> <u>PLUMBING & DRAINAGE</u> <u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	-		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class showers on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	2		
D	Stainless steel kitchen sink with single bowl and drain on all floors.	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Provide and construct under ground concrete water tank of 6000 gal . Capacity installed in basement floor including all pipes connections for inlet and outlet and with level sensor connected pumps . Also rate shall include for water proofing at water tank Base and standing walls . All complete and approved by the consultant .	Job			
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electric water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
A	Water heater 50 litre capacity fixed above false ceiling in kitchens.	No.	1		
	TOTAL CARRIED TO COLLECTION				
	<u>DRAINAGE</u> Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	10.26		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
C	<p>Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .</p> <p>150mm dia. U.P.V.C. soil pipe.</p>	LM	-		
D	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p> <p>Manholes of various sizes and invert levels.</p>	No.	-		
E	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	-		
F	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	-		
G	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
TOTAL CARRIED TO COLLECTION					

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p> <p>Split Units 45000</p>	No.	8		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	2		
B	DB for bank and lobby.	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	24		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	46		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	2		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	19		
I	20 amp for water heater.	No.	11		

BILL OF QUANTITIES No: 2**GROUND FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
ELECTRICAL INSTALLATION		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MEZZ. FLOOR</u></p> <p>The following works are contained in the Mezz. floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u> Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	At veranda.	M ³	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	-		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Stair case .	M ³	-		
D	Ground floor cover .	M ³	-		
E	Beams at Ground floor cover .	M ³	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	25 mm. Dia. do at cols & shear walls.	Kg.	-		
B	22 mm. Dia. do, at cols,	Kg.	-		
C	20 mm. Dia.do at cols.	Kg.	-		
D	16 mm. Dia. Do at cols, shear walls , slab cover .	Kg.	1007.39		
E	12 mm. Dia. Do at shear walls, slab cover.	Kg.	2557.12		
F	8 mm. Dia. Do at shear walls, slab cover.	Kg.	-		
G	6mm. Dia. Do at beams .	Kg.	169.29		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	-		
B	Enternal walls	M ²	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<u>Aluminum Partision Work</u> Provide and fix in position best quatitiy Aluminum sections to the staisfacion of the Arch . and fix complete in Bank hall including 6 inch. transperant glazing & doors as shown on the drawings .	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. beads:				
A	On all internal walls.	M ²	-		
B	On all external walls.	M ²	-		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :				
A	Porcelain tiles 400x400 in sides spaces	M ²	155		
B	Ceramic tiles 500x500 in veranda.	M ²	-		
C	Ceramic Tiles in Bath Room	M ²	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p> <p>Split Units 45000</p>	No.	3		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p>				
A	SMDB for ground floor.	No.	-		
B	DB for bank and lobby.	No.	-		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	6		
E	(40w) flourscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	20		
F	(180w) indecandescent light fxtures in halls chandeliers of approved .	No.	-		
G	(40w) chargeable light fixture (wall or ceiling mounted) 2.8m above FF level	No.	-		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
H	15 amp outlet for general use.	No.	10		
I	20 amp for water heater.	No.	4		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Celing and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
J	Ceiling fans 1400 mm .	No	3		
K	8"dia. exhaust fans.	No.	-		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2**MEZZ. FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
AIR CONDITIONING SYSTEM		
ELECTRICAL INSTALLATION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
01	<p><u>ROOF FLOOR</u></p> <p>Provide materials including steel (I - sections), using hot-rolled steel conforming to (ASTM A572M-GRADE 345 or equivalent) with a minimum yield strength of 345 kN/cm², manufacture and fabricate steel I –section girders, about 22,00 c/c length, apply priming paint coat.</p> <p>- Girders shall be provided with MS. (weldable) plate to be mounted on top of the R.C. columns as per Drawing(M-S06) and the relevant drawings and details.</p> <p>- Steel bolt to be used shall be (M20X500mm) anchor bolts. (High Strength Bolts)</p> <p>-Purlins shall be steel (z) sections with strut clips.</p> <p>-Steel frame shall have appropriate wind bracing. (All fabrication and erection of framing shall be in conformity with the manufacturing Co. Instruction, and to the complete satisfaction of the Consultant.</p>	No.	2		
02	Provide all materials and install roof sheeting cladding panels-ZA 0.5mmthick Type (s) UNP,UN 50mm thick.	M ²	425		
03	provide all materials and erect gypsum-board panels as suspended ceiling hung from purlins by means of adequate wires all complete as to the satisfaction of the Consultant.	M ²	441		
	TOTAL CARRIED TO COLLECTION				

ESTIMATION FOR MOSQUE

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	MEZZFLOOR SUMMARY		
5	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION		

OITE M	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>KINDERGARTEN</u></p> <p><u>Building Type(KG):From Building No.(01) Thru(05)</u></p> <p><u>EXCAVATION AND EARTH WORK</u></p> <p>Excavate for strip foundation trench, 50cm wide & 80cm deep, water and ram bottom of trench, with clearance for working area for shuttering.</p>	M ³	66		
B	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	20		
C	Ditto and ditto (2500 – 3500)	M ³	8		
D	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	207		
E	Ditto and ditto but 20cm deep under external pavement “interlock” bricks in layers as ditto.	M ³	20		
F	Provide, mix and lay inposition plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	8		
	TOTAL CARRED TO COLLECTION				
	<u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following:</p> <p>Under Footing.</p>	M ²	7.84		
	TOTAL CARRIED TO COLLECTION				
B	<p><u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u></p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix,lay in position and consolidate reinforced concrete grade 30,rate shall include formwork costs, reinforcement bars measured separately in the following:</p> <p>In foundations.</p>	M ³	3.15		
C	In short columns & G. Beams.	M ³	25		
	TOTAL CARRIED TO COLLECTION				
A	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p> <p>16 mm. Dia. Do in foundations, cols,</p>	Kg.	295.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
B	12 mm.Dia.Do in foundations, cols,	Kg.	—		
C	10 mm. Dia. Do in col.	Kg.	—		
D	6 mm. Dia. Stirrups Do in beams.	Kg.	50		
	TOTAL CARRIED TO COLLECTION				
	<u>MASONRY WORK:</u>				
	<u>BRICK WORK</u>				
	Using rock granite, lay rock work in layers, fill in with smaller rocks and rawgravil grouting well watered and compacted to fill trench to natural grade level and cast grade 20 concrete lining on top of granite layers.	M ³	27		
A	Provide and construct 2- brick thick wall on top of lining to adepth of 40cm in (4:1) cement /sand mortar and render internally and externally.	LM	160		
B	Ditto and ditto but one brick	LM	12		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1
KINDERGARTEN SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p> <p>Under floor tiles.</p>				
A		M ³	210		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.3		
B	Shear walls.	M ³	-		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Beams at Ground floor cover slab & G.Beams.	M ³	18.5		
D	Ground floor Cover slab	M ³	30		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>REINFORCEMENT BARS</u>				
	Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. do at cols & shear walls.	Kg.	—		
B	22 mm. Dia. do, at cols,	Kg.	—		
C	20 mm. Dia.do at cols.	Kg	—		
D	16 mm. Dia. Do at cols, Ground Beams, suspend slab, slab cover.	Kg.	1954		
E	12 mm. Dia. Do at Beams, suspend slab cover & stair case.	Kg.	1415		
F	10 mm. Dia. Do at Ground Beams, slabs cover & suspend slab.	Kg.	2055		
G	8mm. Dia. Do at beams & cols.	Kg.	—		
H	6mm. Dia. Do at beams & cols.	Kg.	297		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	251.5		
B	Enternal walls	M ²	80		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen and flowerbeds.	M ²	48		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings. Rate shall include cost of MS flat protective grille (fully painted) in addition to wiremesh & Insect screen layers on all glazed vents.</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-2 size 1200 x 2200mm	No.	-		
B	Type D-3 size 1000 x 2200mm	No.	7		
C	Type D-4 size 800 x 2200mm	No.	6		
	<p><u>WINDOWS</u></p> <p>Aluminum glazed windows in the following types:</p>				
D	Type W1 size 2400 x 1200 mm.	No.	12		
E	Type W2 size 1200 x 1200 mm.	No.	-		
F	Type W4 size 1800 x1200 mm.	No.	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
G	Type W6 size 1200 x 600 mm.	No.	6		
	TOTAL CARRIED TO COLLECTION				
	<p><u>FINISHES</u> <u>REFER TO DIVISION :(9)</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>	ML			
A	On all internal walls.	M ²	364.5		
B	On all undersides of concrete soffits	M ²	235		
C	On all external walls.	M ²	215		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect:</p>				
A	Porcelain tiles 400x400 in sides spaces	M ²	130		
B	Ceramic tiles 500x500 in veranda.	M ²	120		
C	Ceramic Tiles in Bath Room	M ²	16		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
D	<p><u>WALL TILING:</u></p> <p>Provide and fix in position the following wall tiles all complete in every respect.</p> <p>Ceramic tiles 300 x 300mm in kitchen and toilets.</p>	M ²	36.8		
E	<p><u>SKIRTING</u></p> <p>Provide and fix in position the following 100mm high skirting, all complete.</p> <p>Porcelain skirting at Out side areas.(at veranda)</p>	LM	35		
F	<p>Porcelain skirting in internals walls</p>	LM	140		
G	<p><u>PAVEMENTS:</u></p> <p>Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones inside the Boundery Walls in the following:</p> <p>Along the sides and in front of the building over rawgravil filling 250mm thick. 7cm thick interlock bricks.</p>	M ²	100		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular the type of finish in accordance with specification and manufacturer's recommendation and apply the required finishing coats on the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable)	M ²	300.5		
B	Gloss enamel paint to part of walls as indicated	M ²	-		
C	Ditto but as roof paint	M ²	212		
	<u>EXTERNAL SURFACES</u>		297.5		
D	Epoxy paint on walls, fascias, at veranda .	M ²			
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work, all up to the limits of external walls of the speet compartments or kitchen...&s.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class shower on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	2		
A	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
C	Package domestic water booster system connected to underground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
D	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			
E	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u>				
	Provide, install, test and commission electrical water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>DRAINAGE</u></p> <p>Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :</p>				
A	100mm dia. U.P.V.C. soil pipe.	LM	10		
B	50mm dia. U.P.V.C. waste pipe.	LM	5		
	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p>				
C	Manholes of various sizes and invert levels.	No.	-		
D	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.	No.	-		
E	Gully traps size 300 x 300mm.	No.	-		
F	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .	No.	-		
G	Floor traps size 150 x 150mm.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
H	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	4		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock. The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	1		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	2		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p> <p>Window Types 18000</p>	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u> For all out door fixtures, use (all weather resistant) items</p>				
A	SMDB	No.	2		
B	DB	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	27		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	12		
	<p><u>(POWER OUTLETS)</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
F	15 amp outlet for general use.	No.	10		
G	20 amp for water heater.	No.	8		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Celing and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
H	Ceiling fans 1400 mm .	No	6		
J	8"dia. exhaust fans.	No.	4		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
ELECTRICAL INSTALLATION		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u> <u>BLOCK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:</p>				
A	One Brick wall at barbat	M ²	100		
	<p><u>THERMAL AND MOISTURE PROTECTION</u> Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and two layers of polythene sheets.</p>				
A	At roof cover slab and terrace	M ²	232		
	TOTAL CARRIED TO COLLECTION				
	<p><u>FINISHES</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal sides.	M ²	90		
B	On all external sides.	M ²	90		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect .</p>				
A	Trazzo tiles 400 x 400 x 40mm in all external Balcony	M ²	64		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following:</p>				
	<u>INTERNAL SURFACES</u>				
A	Emulation spaint on walls, fascias.	M ²	-		
	<u>EXTERNAL SURFACES</u>				
B	Epoxy paint on walls, fascias.	M ²	90		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
A	Provide and fix in position (8000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.	Job			
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
C	Package domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	-			
D	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	-			

BILL OF QUANTITIES No: 4**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
WATER SUPPLY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR KINDERGARTEN

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>SHOP</u>				
	<u>EXCAVATION AND EARTH WORK</u>				
A	Excavate to design depth & width for strip foundation with clearance for working area for shuttering.	M ³	-		
B	Excavate for column pits to require depth approximatly (2500) mm with clearance for working area for shuttering.	M ³	90		
C	Ditto and ditto(2500 – 3500)	M ³	36		
D	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	215		
E	Provide, mix and lay inposition plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	36		
	TOTAL CARRIED TO COLLECTION				
	<u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following:</p> <p>Under Footing.</p>	M ²	35.7		
	TOTAL CARRIED TO COLLECTION				
B	<p><u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u></p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p> <p>In foundations.</p>	M ³	16.5		
C	<p>In short columns & G. Beams.</p>	M ³	20		
	TOTAL CARRIED TO COLLECTION				
A	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p> <p>16 mm. Dia. Do in foundations, cols,</p>	Kg.	562.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
B	12 mm.Dia.Do in foundations, cols,	Kg.	25		
C	10 mm. Dia. Do in col.	Kg.	—		
D	6 mm. Dia. Stirrups Do in beams.	Kg.	130		
	TOTAL CARRIED TO COLLECTION				
	<p><u>MASONRY WORK</u> <u>BRICK WORK</u></p> <p>Provide and materials, excavate for foundation, 80cms depth x 50cms width, compact bottom trench, lay granite,stone layers to fill trench and grout in raw gravel layers to a depth of 40cms, construct lining layer in (6:3:1) concrete, build in 50cms depth 35cms brickwork in (4:1) c\s plaster and motar up to (10)cms above matural grade Level, all complete and backfill. Construct (4:2:1) R.C. grade beam 35x35cms reinforced with 3Ø16 bottom rebars & 3 Ø12 top rebars and Ø8@15 links, cast using appropriate formwole all to the satisfaction of Consultant.</p>				
A	Provide & lay grane stone inside excavated trenches, grout with raw granel filling between the stones after watering all complete in layers of 25cm thickness	M ²	-		
B	Provide and lay grade (20) concrete lining layer on the last layer & some to level	Job			
C	Provide and build in (6:1) c\s mortar 4 courses of brick work (25cms wide & 30cms.deep) all complete	LM	-		
D	Brick work at retaining walls.	M ²	80		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1**SHOP SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p> <p>Under floor tiles.</p>				
A		M ³	150		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	3.6		
B	Shear walls.	M ³	—		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Beams at Ground floor cover slab & G.Beams.	M ³	16.5		
D	Ground floor Cover slab	M ³	18.5		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>REINFORCEMENT BARS</u>				
	Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. do at cols & shear walls.	Kg.	—		
B	22 mm. Dia. do, at cols,	Kg.	—		
C	20 mm. Dia.do at cols.	Kg	—		
D	16 mm. Dia. Do at cols, Ground Beams, suspend slab, slab cover.	Kg.	3750		
E	12 mm. Dia. Do at Beams, suspend slab cover & stair case.	Kg.	1022		
F	10 mm. Dia. Do at Ground Beams, slabs cover & suspend slab.	Kg.	1910		
G	8mm. Dia. Do at beams & cols.	Kg.	—		
H	6mm. Dia. Do at beams & cols.	Kg.	600		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	130		
B	Enternal walls	M ²	30		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>THERMAL AND MOISTURE PROTECTION</u></p> <p><u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen and flowerbeds.	M ²	10		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u></p> <p><u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings. Rate shall include cost of MS flat protective grille (fully painted) in addition to wiremesh & Insect screen layers on all glazed vents.</p> <p><u>DOORS</u></p> <p>Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-2 size 1200 x 2200mm	No.	1		
B	Type D-3 size 1000 x 2200mm	No.	3		
C	Type D-4 size 800 x 2200mm	No.	2		
	<p><u>WINDOWS</u></p> <p>Aluminum glazed windows in the following types:</p>				
D	Type W1 size 2400 x 1200 mm.	No.	-		
E	Type W2 size 1200 x 1200 mm.	No.	-		
F	Type W4 size 1800 x1200 mm.	No.	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
G	Type W6 size 1200 x 600 mm.	No.	2		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u> <u>REFER TO DIVISION :(9)</u>				
	<u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:	ML			
A	On all internal walls.	M ²	180		
B	On all undersides of concrete soffits	M ²	150		
C	On all external walls.	M ²	130		
	TOTAL CARRIED TO COLLECTION				
	<u>TILING</u> <u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect:				
A	Porcelain tiles 400x400 in sides spaces	M ²	95.5		
B	Ceramic tiles 500x500 in veranda.	M ²	45		
C	Ceramic Tiles in Bath Room	M ²	8		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
D	<p><u>WALL TILING:</u></p> <p>Provide and fix in position the following wall tiles all complete in every respect.</p> <p>Ceramic tiles 300 x 300mm in kitchen and toilets.</p>	M ²	6.5		
E	<p><u>SKIRTING</u></p> <p>Provide and fix in position the following 100mm high skirting, all complete.</p>	LM			
F	<p>Porcelain skirting at Out side areas.(at veranda)</p> <p>Porcelain skirting in internals walls</p>	LM	45		
G	<p><u>PAVEMENTS:</u></p> <p>Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones inside the Boundary Walls in the following:</p> <p>Along the sides and in front of the building over sand filling 250mm thick. 7cm thick inter lock tiles</p>	M ³	62		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular the type of finish in accordance with specification and manufacturer's recommendation and apply the required finishing coats on the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable)	M ²	180		
B	Gloss enamel paint to part of walls as indicated	M ²	-		
C	Ditto but as roof paint	M ²	150		
	<u>EXTERNAL SURFACES</u>		130		
D	Epoxy paint on walls, fascias, at veranda .	M ²			
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS:</u></p> <p>Provide the following sanitary fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and risers, all internal cold and hot water pipes . and all related builder's work, all up to the limits of external walls of the speet compartments or kitchen...&s.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	2		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	2		
C	First class shower on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	2		
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
C	Package domestic water booster system connected to underground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
D	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			
E	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job	1		
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u> Provide, install, test and commission electrical water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>DRAINAGE</u></p> <p>Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :</p>				
A	100mm dia. U.P.V.C. soil pipe.	LM	5		
B	50mm dia. U.P.V.C. waste pipe.	LM	4.5		
	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p>				
C	Manholes of various sizes and invert levels.	No.	-		
D	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.	No.	-		
E	Gully traps size 300 x 300mm.	No.	-		
F	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .	No.	-		
G	Floor traps size 150 x 150mm.	No.	2		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
H	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	4		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock. The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	1		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	4		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 24000	No.	4		
B	Window Types 18000	No.	1		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION</u> <u>BOARDS</u> For all out door fixtures, use (all weather resistant) items</p>				
A	SMDB	No.	2		
B	DB	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	22		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	6		
	<p><u>(POWER OUTLETS)</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
F	15 amp outlet for general use.	No.	6		
G	20 amp for water heater.	No.	4		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>FANS</u> Celing and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.				
H	Ceiling fans 1400 mm .	No	7		
J	8"dia. exhaust fans.	No.	2		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
ELECTRICAL INSTALLATION		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>ROOF FLOOR</u>				
	<u>BRICK WORK</u> Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	One Brick wall at barbat	M ²	50		
	<u>THERMAL AND MOISTURE PROTECTION</u> Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and two layers of polythene sheets.				
A	At roof cover slab and terrace	M ²	175.5		
	TOTAL CARRIED TO COLLECTION				
	<u>FINISHES</u>				
	<u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:				
A	On all internal sides.	M ²	45		
B	On all external sides.	M ²	60		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect .</p>				
A	Trazzo tiles 400 x 400 x 40mm in all external Balcony	M ²	150		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following:</p>				
	<u>INTERNAL SURFACES</u>				
A	Emulsion spaint on walls, fascias.	M ²	-		
	<u>EXTERNAL SURFACES</u>				
B	Epoxy paint on walls, fascias.	M ²	60		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p style="text-align: center;"><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
A	Provide and fix in position (8000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.	Job			
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
C	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	-			
D	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	-			

BILL OF QUANTITIES No: 4**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
WATER SUPPLY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR SHOP

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>CLUB</u>				
	<u>Building Type(C1)</u>				
	<u>EXCAVATION AND EARTH WORK</u>				
A	Excavate for strip foundation trench, 50cm wide & 80cm deep, water and ram bottom of trench, with clearance for working area for shuttering.	M ³	30		
B	Excavate for column pits to require depth approximatly (2500) mm , with clearance for working area for shuttering.	M ³	306.5		
C	Ditto and ditto (2500-3500)	M ³	122.6		
D	Excavate to design depth & width for swimming pool with clearance for working area for shuttering.	M ³	316		
E	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations.	M ³	950		
F	Provide, mix and lay inposition plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	122.6		
	TOTAL CARRED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u></p> <p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following:</p> <p>Under Footing.</p>				
A		M ²	270		
	TOTAL CARRIED TO COLLECTION				
	<p><u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u></p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix,lay in position and consolidate reinforced concrete grade 30,rate shall include formwork costs, reinforcement bars measured separately in the following:</p> <p>In foundations.</p> <p>In short columns.</p>				
B		M ³	61.3		
C		M ³	11.4		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p> <p>16 mm. Dia. Do in foundations, cols,</p> <p>12 mm.Dia.Do in foundations, cols,</p>				
A		Kg.	5205		
B		Kg.	—		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	10 mm. Dia. Do in col.	Kg.	—		
D	6 mm. Dia. Stirrups Do in beams.	Kg.	555.5		
	TOTAL CARRIED TO COLLECTION				
	<p><u>MASONRY WORK:</u></p> <p><u>BRICK WORK</u></p> <p>Using rock granite, lay rock work in layers, fill in with smaller rocks and rawgravil grouting well watered and compacted to fill trench to natural grade level and cast grade 20 concrete lining on top of granite layers.</p> <p>Provide and construct 2- brick thick wall on top of lining to adepth of 40cm in (4:1) cement /sand mortar and render internally and externally.</p> <p>Ditto and ditto but one brick</p>	<p>M³</p> <p>LM</p> <p>LM</p>	<p>10</p> <p>30.6</p> <p>30.75</p>		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1**CLUB SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p>				
A	Under floor tiles.	M ³	142		
B	At enterances.	M ³	31.3		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	15.4		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
B	Ground floor susbend slab	M ³	98.7		
C	Ground floor cover	M ³	212.2		
D	Beams at outdoor Bath & slab cover	M ³	15.35		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>REINFORCEMENT BARS</u>				
	Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	16 mm. Dia. Do at cols, Ground Beams, suspend slab, slab cover.	Kg.	18900		
B	12 mm. Dia. Do at Beams, suspend slab cover & stair case.	Kg.	13140		
C	10 mm. Dia. Do at Ground Beams, slabs cover & suspend slab.	Kg.	440		
D	8mm. Dia. Do at beams & cols.	Kg.	548.2		
E	6mm. Dia. Do at beams & cols	Kg.	1170		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrance under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	369.5		
B	Enternal walls	M ²	392.1		
C	1 ½ Brick wall at Boundery & bed, bath room	M ²	235.3		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>CARPENTRY AND JOINERY</u> Provide and fix in position the following kitchen cabinets including shutters, shelves, tops, furniture and all accessories. All complete as per drawings Floor mounted kitchen.</p>	No.	1		
	TOTAL CARRIED TO COLLECTION				
A	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u> Provide and apply 4mm thick industrial waterproofing membrane to the following: Floors of toilets, kitchen and flowerbeds.</p>	M ²	120		
	TOTAL CARRIED TO COLLECTION				
A	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u> Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings . Rate shall include cost of MS flat protective grille (fully painted) in addition to wiremesh & Insect screen layers on all glazed vents.</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>	No.	2		
B	Type D-2 size 1200 x 2200mm	No.	3		
C	Type D-3 size 1000 x 2200mm	No.	7		
D	Type D-4 size 800 x 2200mm	No.	22		
	<p><u>WINDOWS</u> Aluminum glazed windows in the following types:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
E	Type W2 size 1200 x 1200 mm.	No.	2		
F	Type W3 size 600 x 1200 mm.	No.	4		
G	Type W4 size 1800 x1200 mm.	No.	2		
H	Type W5 size 3900 x 1200 mm.	No.	6		
J	Type W6 size 1200 x 600 mm.	No.	3		
	TOTAL CARRIED TO COLLECTION				
	<p><u>Aluminum Partision Work</u></p> <p>Provide and fix in position best quantity Aluminum sections to the satisfaction of the Arch. and fix complete as and where indicated in Drawings including 6mm. transparent glazing & doors as shown on the drawings</p>	M ²	30		
	TOTAL CARRIED TO COLLECTION				
	<p><u>SUNDRIES</u></p> <p><u>SWIMMING POOL:</u> <u>Important Note</u></p> <p>The Contractor shall provide the Consultant with a "<u>Schedule of Equipment</u>" and comprehensive wiring and operation diagrams of all equipment, operations and systems proposals and shall obtain his written approval before placing orders</p> <p>Provide all materials required, tools, equipment and construct all in accordance with the Specifications and Drawings #(C1-01), (C1-02) and the revicions, and with particular emphasis on the Specifications for Mechanical works and the related items:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	Reinforced Concrete Swimming Pool, of the Recirculating type, with over all dimension of (7m)X(17m). The Composition of the required works is generally, but not limited to the following:				
B	Reinforced concrete in base and walls, rates include cost of reinforcing bars (60m ³) with approved water-proofing materials	Job			
C	Internal application of porcelain tiles in addition to no-slip porcelain tile treatment in adjoining pool apron	Job			
D	Diatomite Filter all complete with filter element, steel valves, pipes, headloss recorders, pumps, heaters, compressors, watersofteners, stainless steel drains, skimmers with appropriate valves. Approximate dimension of filter is (Ø2.5m), water main supply and recirculation pipe works.	Job			
E	Waste water disposal cesspoot complete of R.C. shoe beam, brickwall rendered internally and R.C. cover slab with Manhole cover and frame	Job			
F	All the other related work, all complete to the satisfaction of the Specifications and the Consultant.	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FINISHES</u> <u>REFER TO DIVISION :(9)</u></p> <p><u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal walls.	M ²	1155		
B	On all undersides of concrete soffits	M ²	510		
C	On all external walls.	M ²	475		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u> Provide and lay in position the following floor tiles all complete in every respect :</p>				
A	Porcelain tiles 400x400 in sides spaces	M ²	350		
B	Ceramic tiles 500x500 in veranda.	M ²	50		
C	Ceramic Tiles in Bath Room	M ²	120		
	<p><u>WALL TILING:</u> Provide and fix in position the following wall tiles all complete in every respect.</p>				
D	Ceramic tiles 300 x 300mm in kitchen and toilets .	M ²	180.7		
E	Ceramic tiles 400 x 300mm in swimming pool	M ²	130		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>SKIRTING</u> Provide and fix in position the following 100mm high skirting, all complete.				
F	Porcelain skirting at side areas.(at outdoor entrance)	LM	13.5		
G	Porcelain skirting in internals walls	LM	1153.7		
	<u>STAIRCASE</u> Provide and fix in position the following treads and risers for the outdoor steps. :				
H	Marble treads 30mm thick. for main entrance steps,	No	10		
I	Marble risers 20mm thick	No	10		
J	Skirting 10mm thick100 high	No	10		
	TOTAL CARRIED TO COLLECTION				
	<u>PAINTING</u> Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following : <u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable) in internal walls .	M ²	1155		
B	Ditto but as roof paint .	M ²	510		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<u>EXTERNAL SURFACES</u> Epoxy paint on walls, fascias, at outdoor sides .	M ²	475		
B	Ditto but as roof soffits paint at veranda	M ²	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work, all up to the limits of external walls of the speet compartments or kitchen...&s.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	4		
C	First class shower basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery 80x80cm, enamel-coated steel shower tray, all complete with water mixer, faucets, rose, all home plated.	No.	10		
D	Stainless steel kitchen sink with double bowl and drainer on all floors, all as ditto	No.	1		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
A	<p>Provide and fix in position (6000,8000,10000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.</p>	-			
B	<p>Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.</p>	Job			
C	<p>Package domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.</p>	Job			
D	<p>Heavy duty uPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.</p>	Job			
E	<p>Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.</p>	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	TOTAL CARRIED TO COLLECTION				
	<p><u>WATER HEATERS</u></p> <p>Provide, install, test and commission electrical water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.</p>	No.	-		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DRAINAGE</u></p> <p>Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :</p>				
A	100mm dia. U.P.V.C. soil pipe.	LM	62.5		
B	50mm dia. U.P.V.C. waste pipe.	LM	13.40		
	Provide, install and test soil and waste pipework buried in ground at required levels, including excavating trench, laying and joining pipes, sand beds, concrete chairs, back filling, compaction and carting away excess excavated soil at veranda .				
C	150mm dia. U.P.V.C. soil pipe.	LM			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
D	<p>Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing</p> <p>Manholes of various sizes and invert levels.</p>	No.	10		
E	<p>Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.</p> <p>Gully traps size 300 x 300mm.</p>	No.	5		
F	<p>Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .</p> <p>Floor traps size 150 x 150mm.</p>	No.	4		
G	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	-		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following</p> <p><u>HOSE REEL</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock. The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	2		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixture, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p>				
A	Split Units 45000	No.	6		
B	Split units 24000	No.	9		
C	Window Types 18000	No.	2		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> <u>SDG</u>
	<p><u>ELECTRICAL INSTALLATION</u> Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION</u> <u>BOARDS</u> For all out door fixtures, use (all weather resistant) items</p>				
A	SMDB	No.	2		
B	DB	No.	1		
	<p><u>LIGHTING</u> Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	6		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	26		
E	(40w) fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	8		
F	(40w) double fluorscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	37		
	<p><u>POWER OUTLETS</u> Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
G	15 amp outlet for general use.	No.	20		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
H	20 amp for water heater. <u>FANS</u> Ceiling and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.	No.	-		
I	Ceiling fans 1400 mm .	No	10		
J	8"dia. exhaust fans. <u>TELEPHONES</u> Provide and install telephone cables and wires complete in every respect for the entire telephone system for bank hall and main reception for the flats including, conduits, internal cables, lead-in-ducts to telephone room, cable trays, channels, flexible hose, etc. All complete with power conduits, earthing and to the full satisfaction of the Consultant.	No.	5		
K	Complete installation for the ground floor.	Job			
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BRICK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
ELECTRICAL INSTALLATION		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u></p> <p>The following works are contained in the roof floor :</p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns and tie beams.	M ³	8.5		
	TOTAL CARRIED TO COLLECTION				
	<p><u>BLOCK WORK</u></p> <p>Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:</p>				
A	One Brick wall.	M ²	670		
	TOTAL CARRIED TO COLLECTION				
	<p><u>THERMAL AND MOISTURE PROTECTION</u></p> <p>Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and two layers of polythene sheets.</p>				
A	At roof cover slab and terrace	M ²	630		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FINISHES</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all external walls and Free standing columns as polygon section.	M ²	550		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect .</p>				
A	Terrazzo tiles 250x250 x 25mm internal and external .	M ²	630		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following :</p> <p><u>EXTERNAL SURFACES</u></p>				
A	Epoxy paint on walls, fascias.	M ²	550		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>METAL WOK</u> <u>ROOF OF SWIMMING POOL</u></p> <p>Provide all materials, tools, fabricate according to Specifications of Metal Works and drawings and fix into position all complete with priming coat and (3) finishing coats:</p>				
A.1	<p>(4No) Ms. Trusses each (13m) long each complete with bottom chords and top chords each of Ms (76x76x6.4mm) weldable steel, (64x64x6.4mm) struts and 12mm thick gusset plates and base plates anchored to column tops complete as per drawings</p> <p>(Note: Columns have different heights)</p>	Job	1		
A.2	<p>(z-section) galvanized steel purlins with the appropriate plates to accommodate forewing of trusses & roof sheeting, with appropriate wind bracings (Total length 350ml)</p>	Job	1		
A.3	<p>Galvanized steel sheeting, with approved rockwool (sandwich) panels, formed and fixed to the purlins in (a.2) above (Total Area 340m²)</p>	Job	1		
A	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p> <p>Provide and fix in position 2 No.(10000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.</p>	Job			

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
B	Provide and fix in position Approved of 2000 gal. Capacity for kitchens supply and 4000 gal . Capacity for toilets supply , all installed complete on Roof of the building including R.C bases , all pipe connection for inlet and out let , valves , float – operted valve , level sensor control connected to pumps , also rate include for tanks insulation .	Job			
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	Job			
D	Pachage domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 14**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
BLOCK WORK		
THERMAL AND MOISTURE PROTECTION		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
METAL WOK		
WATER SUPPLY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR CLUB

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>HEALTH CENTER</u></p> <p><u>Building Type(H):From Building No.(01) Thru(05)</u></p> <p><u>EXCAVATION AND EARTH WORK</u></p>				
A	Excavate for strip foundation trench, 50cm wide & 80cm deep, water and ram bottom of trench, with clearance for working area for shuttering.	M ³	66		
B	Excavate for column pits to require depth approximatly (2500) mm, with clearance for working area for shuttering.	M ³	20		
C	Ditto and ditto (2500-3500)	M ³	8		
D	Backfilling by selected materials not exceeding 250mm including watering and compaction. To adjust the level under plain concrete and under suspended slab and after Reinforcement concrete at foundations	M ³	207		
E	Ditto and ditto but 20cm deep under external pavement "interlock" bricks in layers as ditto.	M ³	20		
F	Provide, mix and lay inposition plain concrete grade 10 as Backfilling at foundation under plain concrete grade 20 for foundation from (2500 – 3500)	M ³	8		
	TOTAL CARRIED TO COLLECTION				
	<u>CONCRETE WORKS (REFER TO DIVISION (3): CONCRETE WORK)</u>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>SUBSTRUCTURE CONCRETE WITH SULPHATE RESISTING CEMENT</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following:</p> <p>Under Footing.</p>	M ²	7.85		
	TOTAL CARRIED TO COLLECTION				
B	<p><u>SUPER STRUCTURE CONCRETE WITH ORDINARY PORTLAND CEMENT</u></p> <p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix,lay in position and consolidate reinforced concrete grade 30,rate shall include formwork costs, reinforcement bars measured separately in the following:</p> <p>In foundations.</p>	M ³	3.15		
C	In short columns & G. Beams.	M ³	25		
	TOTAL CARRIED TO COLLECTION				
A	<p><u>REINFORCEMENT BARS</u></p> <p>Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:</p> <p>16 mm. Dia. Do in foundations, cols,</p>	Kg.	295.5		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
B	12 mm.Dia.Do in foundations, cols,	Kg.	-		
C	10 mm. Dia. Do in col.	Kg.	-		
D	6 mm. Dia. Stirrups Do in beams.	Kg.	50		
	TOTAL CARRIED TO COLLECTION				
	<p><u>MASONRY WORK:</u></p> <p><u>BRICK WORK</u></p> <p>Using rock granite, lay rock work in layers, fill in with smaller rocks and rawgravil grouting well watered and compacted to fill trench to natural grade level and cast grade 20 concrete lining on top of granite layers.</p>				
A	Provide and construct 2- brick thick wall on top of lining to a depth of 40cm in (4:1) cement /sand mortar and render internally and externally.	LM	185		
B	Ditto and ditto but one brick	LM	24		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 1
HEALTH CENTER SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
EXCAVATION AND EARTH WORK		
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
MASONARY WORK		
THERMAL AND MOISTURE PROTECTION		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>GROUND FLOOR</u></p> <p>The following works are contained in the Ground floor :</p> <p><u>CONCRETE WORKS</u></p> <p><u>PLAIN CONCRETE</u></p> <p>Provide, mix and lay in position plain concrete grade 20 in 100mm thick layer in the following :</p> <p>Under floor tiles.</p>				
A		M ³	220		
	TOTAL CARRIED TO COLLECTION				
	<p><u>REINFORCED CONCRETE</u></p> <p>Provide, mix, lay in position and consolidate reinforced concrete grade 30, rate shall include formwork costs, reinforcement bars measured separately in the following:</p>				
A	Columns .	M ³	1.3		
B	Shear walls.	M ³	—		
	Provide, mix, lay in position and consolidate reinforced concrete grade 25, rate shall include formwork costs, reinforcement bars measured separately in the following:				
C	Beams at Ground floor cover slab & G.Beams.	M ³	22		
D	Ground floor Cover slab	M ³	32.4		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>REINFORCEMENT BARS</u>				
	Provide , cut, bend and lay in position reinforcement bars grade 460 in the following:				
A	25 mm. Dia. do at cols & shear walls.	Kg.	—		
B	22 mm. Dia. do, at cols,	Kg.	—		
C	20 mm. Dia.do at cols.	Kg	—		
D	16 mm. Dia. Do at cols, Ground Beams, suspend slab, slab cover.	Kg.	2110		
E	12 mm. Dia. Do at Beams, suspend slab cover & stair case.	Kg.	1677.5		
F	10 mm. Dia. Do at Ground Beams, slabs cover & suspend slab.	Kg.	2265		
G	8mm. Dia. Do at beams & cols.	Kg.	—		
H	6mm. Dia. Do at beams & cols.	Kg.	338		
	TOTAL CARRIED TO COLLECTION				
	<u>BLOCK WORK</u>				
	Provide and construct block walls in cement and sand motar, including anchoring to adjacent concrete elements, reinforcing with expandiate or approved equal metal mesh every four cources and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:				
A	External walls	M ²	279.5		
B	Enternal walls	M ²	95.5		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>THERMAL AND MOISTURE PROTECTION</u> <u>REFER TO DIVISION (7)</u></p> <p>Provide and apply 4mm thick industrial waterproofing membrane to the following:</p>				
A	Floors of toilets, kitchen and flowerbeds.	M ²	96		
	TOTAL CARRIED TO COLLECTION				
	<p><u>DOORS & WINDOWS</u> <u>REFER TO DIVISION (8)</u></p> <p>Provide and fix in position the following doors and windows including frames, furniture, glazing and all complete as per drawings. Rate shall include cost of MS flat protective grille (fully painted) in addition to wiremesh & Insect screen layers on all glazed vents.</p> <p><u>DOORS</u> Steel factory fabricated doors and frames including hardware sets and door accessories, anchors, fittings, weldings, sashes</p>				
A	Type D-3 size 1000 x 2200mm	No.	10		
B	Type D-4 size 800 x 2200mm	No.	12		
	<p><u>WINDOWS</u></p> <p>Aluminum glazed windows in the following types:</p>				
C	Type W1 size 2400 x 1200 mm.	No.	12		
D	Type W2 size 1200 x 1200 mm.	No.	-		
E	Type W4 size 1800 x1200 mm.	No.	-		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
F	Type W6 size 1200 x 600 mm.	No.	12		
	TOTAL CARRIED TO COLLECTION				
	<p><u>FINISHES</u> <u>REFER TO DIVISION :(9)</u></p> <p><u>PLASTER WORK</u></p> <p>Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>	ML			
A	On all internal walls.	M ²	384.5		
B	On all undersides of concrete soffits	M ²	260		
C	On all external walls.	M ²	297.5		
	TOTAL CARRIED TO COLLECTION				
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect:</p>				
A	Porcelain tiles 400x400 in sides spaces	M ²	130		
B	Ceramic tiles 500x500 in veranda.	M ²	120		
C	Ceramic Tiles in Bath Room	M ²	32		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
D	<p><u>WALL TILING:</u></p> <p>Provide and fix in position the following wall tiles all complete in every respect. Ceramic tiles 300 x 300mm in kitchen and toilets.</p>	M ²	75.0		
E	<p><u>SKIRTING</u></p> <p>Provide and fix in position the following 100mm high skirting, all complete. Porcelain skirting at Out side areas.(at veranda)</p>	LM	35		
F	<p>Porcelain skirting in internals walls</p>	LM	140		
G	<p><u>PAVEMENTS:</u></p> <p>Provide all materials and lay in position interlock pavement 60mm deep including concrete kerbstones inside the Boundery Walls in the following: Along the sides and in front of the building over rawgravil filling 250mm thick. 7cm thick interlock bricks.</p>	M ²	100		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular the type of finish in accordance with specification and manufacturer's recommendation and apply the required finishing coats on the following:</p>				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>INTERNAL SURFACES</u>				
A	Emulsion paint (washable)	M ²	384.5		
B	Gloss enamel paint to part of walls as indicated	M ²	-		
C	Ditto but as roof paint	M ²	260		
	<u>EXTERNAL SURFACES</u>		297.5		
D	Epoxy paint on walls, fascias, at veranda .	M ²			
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>MECHANICAL</u></p> <p><u>PLUMBING & DRAINAGE</u></p> <p><u>SANITARY FITTINGS & FIXTURES:</u></p> <p>Provide the following sanitary fixture fittings, all to the approval of the Consultant, plug and screw to concrete or brick work background including all accessories. Rate shall include for all necessary temporary fixing, etc. in position and the removal and re-fixing to suit other trades. Rate shall also include for all water, waste and soil pipes between fittings and the external wall of the Bathroom & Kitchen compartments, all internal cold and hot water pipes . and all related builder's work, all up to the limits of external walls of the speet compartments or kitchen...&s.</p>				
A	First class water closets on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	8		
B	First class hand wash basins on all floors complete with all fittings and accessories, quality, type, size, make and colour shall be approved before delivery.	No.	13		
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
C	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
D	Package domestic water booster system connected to underground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	Job			
E	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	Job			
F	Pipework from roof tanks to water meters for individual floors located on roof and including meters, all valves, sleeves, clips, etc. Also include for insulation of all pipes exposed to direct sun.	Job			
	TOTAL CARRIED TO COLLECTION				
	<u>WATER HEATERS</u>				
	Provide, install, test and commission electrical water heaters, glass lined made of steel cylinder horizontal type complete with insulating jacket and including all pipes from fresh water supply and delivery lines to all sanitary fittings and sinks in rigid and insulated hot water pipes. Pressure tested to the satisfaction of the Consultant. Rate shall include for all electric connections.				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<u>DRAINAGE</u>				
	Provide, install and test soil, waste and vent pipework fixed to concrete or brickwork, including all bends, junctions, supports, accessories, access doors, rodding eyes, wire balloons etc. All complete to the full satisfaction of the consultant :				
A	100mm dia. U.P.V.C. soil pipe.	LM	20		
B	50mm dia. U.P.V.C. waste pipe.	LM	10		
	Provide all materials, excavate for and construct the following manholes with 75mm thick plain concrete blinding, 100mm thick reinforced concrete base, walls and cover, complete with benching, plaster, waterproofing and heavy duty cast iron tight cover with frame fixed to R.C. wall side Manholes shall be to the various sizes and invert levels and rates shall include for testing				
C	Manholes of various sizes and invert levels.	No.	-		
D	Provide all materials and construct the following gully traps set in mass concrete, all complete as for the manholes above.	No.	-		
E	Gully traps size 300 x 300mm.	No.	-		
F	Provide and install floor traps cast into concrete slab, including all connections. In kitchens and toilets in all floors .	No.	-		
G	Floor traps size 150 x 150mm.	No.	4		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
H	<p>Provide and install the following rain water drain pipes including floor drains cast into concrete slabs and all connecting and fixing accessories. Also include for waterproofing around floor drains at roof .</p> <p>85mm dia. UPVC rain water pipes.</p>	LM	4		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>FIRE FIGHTING</u></p> <p>Provide, install and test Fire Fighting System as per drawings to the full satisfaction of the Consultant and complete in every respect in accordance with the Civil Defence requirements. Rate shall be for the complete System including but not limited to the following</p> <p><u>HOSE REEL:</u></p> <p>Provide all materials and install (2½") fire-fighting hose reel of an approved type and make (100 Ft long) complete with riser mains and value of an approved make. Rate shall include cost of cabinet comprised of aluminium frame and glazed door with 6 mm glass and tanperproof lock. Cabinet shall be about (90x120 cms) wit and additional lower shalf to house fire extinguisher with a sepanate lock.</p> <p>The glazing shall be inscribed clerly with the letter (H) in red paint, all complete to the manufacturer's instructions and to the satisfaction of the Consultant. Rate shall include cost of piping from the Fire-fighting water supply and the related works.</p>				
A		No.	1		
B	Fire alarm system glass point and alarm bell all complete in every respect at stair case.	No.	1		
C	6 lbs dry powder portable fire extinguisher at hall.	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
A	<p><u>AIR CONDITIONING</u></p> <p>Supply, installation, gas charging, testing and commissioning of any of the following including (condensing units mounted on wall brackets or on surface as per site requirements) with extended liquid, vapour lines (different lengths), PVC condensate drain pipe of proper size run on surface, through walls, complete with material hardware, fittings, fixure, masonry work such as cutting of grooves, holes etc. and making the damages good with cement plaster, fillings, painting complete in all respects as per site conditions and directed by the Engineer-in-Charge (MITSUBISHI, LG, ORIENT, HAIER, DAWLANCE, SUPER GENERAL) :</p> <p>Window Types 18000</p>	No.	6		
	TOTAL CARRIED TO GRAND SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ELECTRICAL INSTALLATION</u></p> <p>Provide all materials, equipment and fittings and install, test and commission – according to (IEC) and grounding according to (IEEE) standered all complete in every respect the entire electrical system for the Ground floor in accordance with the specification, drawings and the NEC requirements. All complete to the full satisfaction of the Consultant including cables, wires, conduits, trays, trunking and all accessories and connections. Also including but not limited to the following items.</p> <p><u>MAINS AND DISTRIBUTION BOARDS</u></p> <p>For all out door fixtures, use (all weather resistant) items</p>				
A	SMDB	No.	2		
B	DB	No.	1		
	<p><u>LIGHTING</u></p> <p>Light fixtures complete with lamps, supports, switches, conduits, wiring etc. and connection.</p>				
C	Wall light.	No.	-		
D	Ceiling lamps (60w) incandescent with forsted glass cemi circular cover	No.	27		
E	(40w) flourscent light fixture (wall or ceiling mounted) 2.8m above FF level	No.	12		
	<p><u>(POWER OUTLETS)</u></p> <p>Socket outlets complete with switched sockets, conduits, wiring, etc. and connections.</p>				
F	15 amp outlet for general use.	No.	10		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
G	20 amp for water heater. <u>FANS</u> Celing and Exhaust fans complete with supports, switches, conduits, wiring etc. and connection.	No.	8		
H	Ceiling fans 1400 mm .	No	6		
J	8"dia. exhaust fans.	No.	4		
	TOTAL CARRIED TO COLLECTION				

BILL OF QUANTITIES No: 2
GROUND FLOOR SUMMARY

DESCRIPTION	AMOUNT SDG	REMARK
PLAIN CONCRETE		
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
CARPENTRY AND JOINERY.		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
ALUMINUM PARTISIONS WORK		
PLASTER WORK		
TILING WORK		
FALSE CEILING WORK		
PAINTING WORK		
ELECTRICAL INSTALLATION		
SANITARY FITTINGS WORK		
WATER SUPPLY WORK		
WATER HEATERS WORK		
DRAINAGE SYSTEM WORK		
FIRE FIGHTING SYSTEM		
AIR CONDITIONING SYSTEM		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>ROOF FLOOR</u> <u>BLOCK WORK</u> Provide and construct block walls in cement and sand mortar, including anchoring to adjacent concrete elements, reinforcing with expanded metal mesh every four courses and damp proof membrane under walls in ground floor and under walls adjacent to bathrooms, kitchens and balconies on all floors, in the following:</p>				
A	One Brick wall at barbat	M ²	122		
	<p><u>THERMAL AND MOISTURE PROTECTION</u> Prepare the roof cover slab, provide and lay roof protection including sand-cement screed 4mm. thick. And water proofing membrane, thermal insulation of expanded polystyrene, and insulation board or foam concrete and two layers of polythene sheets.</p>				
A	At roof cover slab and terrace	M ²	280		
	TOTAL CARRIED TO COLLECTION				
	<p><u>FINISHES</u> <u>PLASTER WORK</u> Provide mix and apply 20mm thick cement sand plaster 1:6 as specified on the following surfaces. Rate shall include for providing and fixing approved metal mesh at all joints between concrete and block work and at all joints between surfaces of different materials and corner beads:</p>				
A	On all internal sides.	M ²	112		
B	On all external sides.	M ²	112		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT SDG
	<p><u>TILING</u></p> <p><u>FLOOR TILING:</u></p> <p>Provide and lay in position the following floor tiles all complete in every respect .</p>				
A	Trazzo tiles 400 x 400 x 40mm in all external Balcony	M ²	112		
	TOTAL CARRIED TO COLLECTION				
	<p><u>PAINTING</u></p> <p>Provide all materials, clean and prepare the surface and apply the required sealer, primer and under coat for every particular type of finish in accordance with the specification and manufacturer's recommendation and apply the required finishing coats on the following:</p>				
	<u>INTERNAL SURFACES</u>				
A	Emulation spaint on walls, fascias.	M ²	-		
	<u>EXTERNAL SURFACES</u>				
B	Epoxy paint on walls, fascias.	M ²	120		
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY.	RATE	<u>AMOUNT</u> SDG
	<p><u>WATER SUPPLY</u></p> <p>Provide, install, test and leave in full working condition the following water supply items all complete with accessories according to the specifications and to the full satisfaction of the Consultant.</p>				
A	Provide and fix in position (10000 Liters) capacity, plastic water tanks to be mounted on the top roof on concrete plinths (according to Manufacturers instructions). Rate shall include cost of piping, fixing, valves, floatoperational valves and all the related works, complete to the satisfaction of the Specifications and consultants.	Job			
B	Connection of incoming water main supply pipe line to underground water tank with heavy duty UPVC pipes including all necessary fittings, valves, water meter, pits, chambers and access covers.	-			
C	Package domestic water booster system connected to anderground water tank comprising two pumps, all pipes work, valves, pressure gauges, drains, electrical connections, control panel and all complete to the full satisfaction of the consultant.	-			
D	Heavy duty UPVC water pipe main riser connecting between booster pumps and water tanks on roof complete with valves and all connecting and fixing accessories.	-			

BILL OF QUANTITIES No: 4**ROOF FLOOR SUMMARY**

DESCRIPTION	AMOUNT SDG	REMARK
REINFORCED CONCRETE		
REINFORCEMENT BARS		
BLOCK WORK		
THERMAL AND MOISTURE PROTECTION		
DOORS AND WINDOWS		
PLASTER WORK		
TILING WORK		
PAINTING WORK		
WATER SUPPLY WORK		
SUB TOTAL CARRIED TO GRAND SUMMARY		

ESTIMATION FOR HEALTH CENTER

BQ No	DESCRIPTION	AMOUNT (SDG)	REMARK
1	SUB – FLOOR SUMMARY		
2	GROUND FLOOR SUMMARY		
3	ROOF. FLOOR SUMMARY		
	TOTAL OF ESTIMATION CARRIED TO SUMMARY		

**ESTIMATION FOR KOSTI THERMAL POWER PLANT
RESIDENTIAL COMPLEX**

BQ No	DESCRIPTION	NO.OF UNITS	AMOUNT (SDG)	TOTAL AMOUNT
1	SITE WORKS SUMMARY	1		
2	SENIOR HOUSES SUMMARY	5		
3	ENGINEERS FLATS SUMMARY	10		
4	TECHENISIONS FLAT SUMMARY	10		
5	GUEST HOUSE SUMMARY	5		
6	MOSQUE SUMMARY	1		
7	KINDERGARTEN SUMMARY	1		
8	SHOPING CENTER SUMMARY	1		
9	CLUB SUMMARY	1		
10	HEALTH CENTER SUMMARY	1		
	TOTAL OF ESTIMATION			