



United Nations Office for Project Services



**ASIAN INFRASTRUCTURE
INVESTMENT BANK**



THE WORLD BANK
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Ministry of Health
Republic of Maldives

BILLS OF QUANTITIES

Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives

Supported and Funded by: The World Bank

DECEMBER 2023

Rv1

BILLS OF QUANTITIES
Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives
Supported & Funded By: The World Bank
SUMMARY

#	Description	Amount
		USD
Bill No. 01	Preliminaries	
Bill No. 02	Building Civil Works	
Bill No. 03	Water Supply, Sewerage & Drainage Work	
Bill No. 04	Electrical Installation	
Bill No. 05	ELV System	
Bill No. 06	VRV/VRF Type Air Conditioning System	
Bill No. 07	Fire Protection And Fire Detection	
Bill No. 08	Elevator	
Bill No. 09	Medical Gas System	
Bill No. 10	External Works	
Bill No. 11	Day works.	
	Sub Total - 1	
	DDT - Discount (if any)	
	Sub Total - 2 -(Grand Total)	
	ADD - % GST (if applicable)	
	Grand Total	

Amount in Word:

United States Dollar

Tenderer's GST Reg No. -

Name of Tenderer :

Address :

Signature and Seal :

Witnesses :-

1. Signature : 2. Signature :

Name: Name:

Address : Address

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United Nations Office for Project Services



BILLS OF QUANTITIES

BILL NO. 01 - PRELIMINARIES

Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives

Supported & Funded By: The World Bank

DECEMBER 2023

Rv1

BILLS OF QUANTITIES BILL NO. (01) - PRELIMINARIES Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives					
Item	Description	Qty	Unit	Rate USD	Amount USD
	<p>BILL NO. 01: PRELIMINARIES</p> <p>Notes</p> <p>If the Engineer is of the opinion that any item in this section has not been fully attended by the Contractor, the Engineer may adjust amounts quoted by the Contractor for the items concerned.</p> <p>The Tenderer is required to visit the site of the proposed work, as it is his responsibility to ascertain the conditions governing access to the site, the external working space, storage area etc.,</p> <p>Cost and expenses in connection with any other preliminary item which is not listed below, but is necessary for the due completion of works, is deemed to be included in the tender rates.</p> <p>Mechanical plant and equipment which emits excessive noise, smoke, fumes, obnoxious gases etc., will not be allowed to be 'used in the Site, unless otherwise essentially required and without the prior approval of the Engineer.</p> <p>The contractor shall be responsible for any loss or damage to the works, existing structures, adjoining structures and unfixed materials.</p> <p>The contractor shall be responsible for providing necessary lighting, watchmen, and other suitable security measures during construction until handing over.</p>		<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>		

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Item	Description	Qty	Unit	Rate USD	Amount USD
	<p>If no price has been stated against any item hereunder the Contractor will not be entitled to claim any money for such items even though he is obliged to execute the work or provide services described therein. Preliminary items priced by the Tenderer are deemed to include the cost of unpriced items.</p> <p>The Tenderer shall read, understand and acquaint himself with the requirements in the Conditions of Contract Parts I & II, General Specification of Work, particular Specification of work, Tender Drawings, Instruction to Tenderers, Bidding Data, Tender Form, Appendix to Tender and preamble notes. It is the Tenderer's responsibility to see that his price include for complying with all the above requirements whether specifically referred to in this bills of quantities or otherwise.</p> <p>Cost and expenses in connection with providing of any protective netting, fencing, screens, barricades, railing, walk ways at site and any other safety precautions to the required standard, is deemed to be included in the tender rates unless otherwise measured separately.</p>		Note		
A	Fixed Charges		Note		
A1.1	Allow for setting out of works on levelled ground, in accordance with drawings liaise with client to establish exact boundaries and other written information given by the Engineer and obtain written approval from the Relevant Government authorities for setting out, street and building lines before commencements of construction. Also to make an maintain permanent bench marks of the setting out and obtain of C.O.C from the Local Authority. The checking of any setting out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the accuracy thereof.	1	item		
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
A1.2	Allow for supplying temporary electricity for the Works and facilities of the contractor, engineer, contractor's staff and security lighting including connection, distribution system for the work, internal arrangements and all payment to the authorities for connections. It is the responsibility of the Contractor to ensure steady and uninterrupted power supply to Works. The Contractor shall not be entitled to claim and the Employer shall not pay cost incurred by the Contractor for using electric power generators or for using other alternative power supply method in case there happened to be disruptions to normal power supply due to any reason.	1	item		
A1.3	Allow for supply of water connection for the works including drinking water, and paying all charges and other expenses in connection with the supply from water mains or any other alternative method of water supply, storage and distribution. It is the sole responsibility of the contractor to ensure steady, uninterrupted adequate supply of water required for main contract and nominated sub contract work.	1	item		
A1.4	Allow for providing telephone and facsimile facilities to the Engineer's site office and the Contractor's site office.	1	item		
A1.5	Allow for providing and maintenance of name board and advertising board to the specifications and as directed by the Engineer. Refer detail drawing .	1	item		
A1.6	Allow for constructing, and dismantling (after practical completion of work) a temporary site office of approximately 350 sq.ft (32.5 M ²) with This space should have electricity, drinking water, internet data connection, air conditioning, two office tables, two chairs, a lockable cupboard, drawing table etC. to accommodate the Project Manager and the Site Engineer of the Employer. This is a temporary facility for Employers use and it remains property of the contractor. <i>(office layout and list of facilities should be submitted by the bidder along with his Tender)</i>	1	item		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
A1.7	Allow for constructing, and dismantling (after practical completion of work) a temporary site office of adequate size with required facilities for the contractor's site management staff in accordance with the plans prepared by the Contractor and approved by the Engineer. <i>(office layout and list of facilities should be submitted by the Tender along with his tender)</i>	1	item		
A1.8	Allow for constructing temporary building or buildings in accordance with the plans to be prepared by the Contractor and approved by the UNOPS Engineer to accommodate the following; (i) Workers' rest room, canteen facilities (ii) Toilet and wash areas, <i>The price shall include for construction and dismantling of above, on completion.</i> <i>Facilities to workman shall conform to the latest Public Health and Industrial Regulations.</i>	1	item		
			Note		
			Note		
A1.9	Allow for temporary hoarding and fencing with GI sheet covering or as approved to cover the contractor's office, yard and Engineer's office premises, 1.8m high (QTY Provisional)	100	m		
Page Total Carried to Collection					

Rv1

Item	Description	Qty	Unit	Rate USD	Amount USD
	Bonds & Guarantees				
A1.10	Allow lump sum for provide and maintain a performance guarantee to the value equal to 10% of the contract price from a bank acceptable to the Employer.	1.00	item		
A1.11	Allow lump sum for provide and maintain a mobilization advance payment guarantee to the value <u>as specified in the Conditions of Contract</u> , from a bank acceptable to the Employer.	1.00	item		
A1.12	Allow lump sum for obtain and maintain insurance policies issued by an insurance organization in Sri Lanka acceptable to the Employer conforming the requirement stipulated in the Conditions of Contract. The insurance policies shall be valid up to the period as stipulated in the conditions of contract.	1.00	item		
A1.13	Allow for all cost in connection with preparing samples for testing , making arrangements for testing of materials, goods etc., as stipulated in the Specification, obtaining test reports & submitting same to the Engineer's Representative. (This item intends to cover all expenses.)	1	item		
A1.14	Allow for removal of rubbish and debris cleaning and clearing up site on completion , leaving all in good order in handing over.	1	item		
A1.15	Allow for preparing and submitting to Engineer in sufficient number of copies the Programme of work referred to in the Conditions of Contract.	1	item		
	Time-Related Charges				
A1.16	All payments to the authorities or the fuel cost for the Generators, for the full consumption of electricity for the works, contractor's site office & the Engineer's site office. (Ref. Item No. 1.2).	12	Month		
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
A1.17	Maintain the water supply facilities (provided under Item No. 1.3), including making payments for bills and other monthly charges to any other organization in connection with the satisfactory supply of water for the purpose of the works and for the facilities for Engineer's representative, Contractor's site staff and the workers.	12	Month		
A1.18	Maintain the telephone facilities (provided under Item No. 1.4), including making payments for bills and other monthly charges to any other organization in connection with the provision of telephone / internet / email facility for the Engineer's site office and the Contractor's site office.	12	Month		
A1.19	Allow for maintaining daily records in the manner required by the Engineer to indicate factual details of: <i>(i) Number of workmen in different categories and the number of Foremen.</i> <i>(ii) Particulars of materials and goods brought to the site.</i> <i>(iii) Particulars of machinery & equipment brought to or taken out of site.</i> <i>(iv) Rain fall records.</i> <i>(v) Any other important records.</i>	12	Month		
Page Total carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
A1.20	Allow for maintaining site . The Contractor shall be responsible for maintaining the site in clean and orderly fashion at all times and during the entire contract period. Materials, casing etc., shall be kept neatly stacked on the site with all access-ways kept clear. All dust, debris and rubbish etc., arising out of his own works shall be continually cleared and removed from the site. The Engineer's Representative shall make a percentage of the monthly rate or shall completely suspend the monthly amount if the contractor's maintenance found to be unacceptable. The burning of rubbish and debris on site will not be allowed under any circumstances. The Contractor is to make certain that his workmen do not burn anything on site.	12	Month		
A1.21	Allow for maintaining a temporary site office with required facilities for the unops site management staff (Refer item no. 1.6 above).	12	Month		
A1.22	Allow for maintaining a temporary site office with required facilities for the contractor's site management staff (Refer item no. 1.7 above).	12	Month		
A1.23	Allow for maintenance of Workers' rest room , canteen facilities and Toilet and wash areas. Employing workmen to clean and maintain wet areas including toilets, wash areas, kitchen etc. (Item No. 1.8 above), supplying adequate drinking water, water for washing purposes, soap detergent etc., for average 50 persons per day throughout the period of construction.	12	Month		
A1.24	Allow for submission of three (03) copies of progress reports each with five (05) photographs monthly covering all major activities taken place during that period and adequate no of photograph to monitor the progress.	12	Month		
Page Total carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
A1.25	Submission of one copy of weekly and monthly break-up programme to the Engineer's Representative for progress monitoring purposes.	12	Month		
A1.26	Allow for providing all necessary safety measures to workmen. The bidder should submit his comprehensive safety plan with description and number in each safety device and other safety equipment proposed. The Engineer's Representative has the right to pay.	12	Month		
A1.27	Allow for employing suitably qualified and experienced technical personnel on full time basis for contract and proper execution of contract work at the site. The Contractor shall employ such technical personnel as specified in the Conditions of Contracts.	12	Month		
A1.28	Allow for updating, implementing & monitoring the project Health & Safety, Social and Environment plan including regular H&S activities, daily site inductions, weekly inspections, daily reporting as per the direction of UNOPS Engineer.	12	Month		
Page Total carried to Collection					
	<u>COLLECTION</u> Total of Page No: 3 Total of Page No: 4 Total of Page No: 5 Total of Page No: 6 Total of Page No: 7 Total of Page No: 8 Total of Page No: 9				
1	Preliminaries	To Summary			USD



United Nations Office for Project Services



BILLS OF QUANTITIES

BILL NO. 02 - BUILDING CIVIL WORKS

Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives

Supported & Funded By: The World Bank

DECEMBER 2023

RV1

BILLS OF QUANTITIES
BILL NO. 02 - BUILDING CIVIL WORKS
Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives

SUMMARY

	Description	Amount
2A	Excavation and Earth Work	
2B	Concrete Work	
2C	Masonry Work	
2D	Water Proofing	
2E	Structural Metal Works	
2F	Roof Covering	
2G	Metal Work	
2H	Suspended ceiling and partition	
2J	Glazing	
2K	Floor Wall & Ceiling Finishes	
2L	Painting	
2M	Miscellaneous Works	
TOTAL CARRIED TO GRAND SUMMARY		

BILLS OF QUANTITIES BILL NO. 02 - BUILDING CIVIL WORKS Emergency Construction of Patient Wards at Kulhudhuffushi Island in Maldives					
Item	Description	Qty	Unit	Rate USD	Amount USD
2A	BILL NO. 02 - BUILDING CIVIL WORKS				
	Excavation and Earth Work				
	Unless other wise stated & measured separately, Rate shall include for;				
	a) back filling with selected excavated material & consolidating. Surface treatment; compaction before filling / foundation.				
	c) any additional excavation for working space.				
2A1	Site Clearing				
2A1.1	Clearing and preparation of the site including cutting down & uprooting unwanted trees and removal of top soil up to a depth of 150mm and extend up to 3m beyond the outer walls of the building & disposed off as directed.	1250	m ²		
2A1.2	Allow for shifting the existing underground power and data cables away from the site of proposed building as per the direction of UNOPS Engineer.	1	Pro. Sum		10,000.00
2A1.2.a	Contractor's Over Head and Profit		%		
2A2	Excavation & Earthwork Supports				
2A2.1	Excavation for column foundation maximum depth up to 1.0m commencing from existing ground level in any material except rock requiring blasting and part return fill in and ram and removal of surplus as directed.	165	m ³		
2A2.2	Excavation for Ground beam maximum depth up to 1.0m commencing from existing ground level in any material except rock requiring blasting and part return fill in and ram and removal of surplus as directed.	27	m ³		
2A2.3	Excavation for lift well maximum depth up to 2m commencing from existing ground level in any material met with except rock requiring blasting, part return fill for back filling and ram and removal of surplus as directed.	16	m ³		
2A2.4	Earth work supports to all faces of excavation, as appropriate, with timber planks and props driven to ground. (Qty provisional) Payment will be made only the systems is physically done at site to the approval of the Engineer.	640	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2A2.5	Steel Shoring system , approved by the Engineer, with steel sheets supported by structural steel member framework (Qty provisional). Payment will be made only the systems is physically done at site to the approval of the Engineer.	14	m ²		
2A3	Disposal				
2A3.1	Allow provisional sum for disposal of surface water keeping all excavations and other working areas free from rain / ground water and percolating water by pumping or otherwise until completion of works.	1	item		
2A4	Filling				
2A4.1	Filling under floors & ramp with approved selected earth available at site . Rate shall include for spreading, watering and well ramming in 150mm layers. (QTY provisional)	139	m ³		
2A4.2	Filling under floors & ramp, site etc. with gravel or other approved quality imported filling material . Rate shall include for spreading, watering and well ramming in 150mm layers. (Qty provisional)	139	m ³		
2A5	Anti termite treatment				
2A5.1	Anti - termite treatment to building area to an approved specialist contractor's specification and technical literature under re-chargeable method (Rate to include for 10 years warranty to be issued in the name of the client).	921	m ²		
	Page Total Carried to Collection				
	<u>COLLECTION</u> Total of Page No: 11 Total of Page No: 12				
	Total of Earth Excavation carried to the Summary.				

Item	Description	Qty	Unit	Rate USD	Amount USD
2B	Concrete Work				
	Rate shall include for depositing, handling, hoisting into position, vibrating, curing etc. and making good after removal of formwork etc.	Note			
	Reinforcement & Form work paid for separately unless otherwise specified in the item	Note			
	Rate shall include for supplying and laying of gauge 1000 polythene on ground, where concrete is in direct contact with ground, before pouring concrete unless other wise measured separately.	Note			
2B1	In Situ Concrete				
	Up to Ground floor level				
	Grade 15 concrete (maximum aggregate size 20mm) poured into ground in following:				
	<u>50mm thick mass concrete under:</u>				
2B1.1	Under column footing	165	m ²		
2B1.2	Under ground beam	100	m ²		
2B1.3	Under plinth beam	83	m ²		
2B1.4	Under Block wall	128	m ²		
2B1.5	Under Staircase foundation	2.00	m ²		
	<u>75mm thick mass concrete under:</u>				
2B1.6	Under Lift foundations.	11	m ²		
	Grade 30 RCC concrete (20mm aggregate) poured in to formwork.				
2B1.7	100mm thick Slab on ground	93	m ³		
2B1.8	Ramp, 280mm thick Slab to slope less than 150°	2	m ³		
2B1.9	Slab thickening	3	m ³		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	Grade 30 RCC concrete (20mm aggregate) poured in to formwork.				
2B1.10	Column footing	58	m ³		
2B1.11	Staircase base and shaft	1.0	m ³		
2B1.12	Column shaft	10	m ³		
2B1.13	In Ground beam	34.0	m ³		
2B1.14	In Plinth beam	19.0	m ³		
2B1.15	Lift foundation	5	m ³		
2B1.16	In Lift shaft	3.0	m ³		
	From Ground floor level to First floor level				
	Grade 15 mass concrete (20mm aggregate) poured in to formwork.				
2B1.17	Mass concrete filling in bath room area	7	m ³		
	Grade 30 RCC concrete (20mm aggregate) poured in to formwork.				
2B1.18	Columns, sectional area up to 0.1m ²	2	m ³		
2B1.19	Columns, sectional area above 0.1m ²	26	m ³		
2B1.20	Beams, sectional area up to 0.1m ²	1	m ³		
2B1.21	Beams, sectional area above 0.1m ²	70	m ³		
2B1.22	150mm thick first-floor slab	61	m ³		
2B1.23	175mm thick first-floor slab	87	m ³		
2B1.24	200mm thick lift walls	7	m ³		
	Lintels in following sizes				
	Rv1				
2B1.25	Size 100 x 100 mm	3	m ³		
2B1.26	Size 150 x 100 mm	1	m ³		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2B1.27	Size 200 x 100 mm	1	m ³		
2B1.28	Staircase steps and waist	6	m ³		
2B1.29	Staircase landing	2	m ³		
2B1.30	Walls and base of flower trough including ledge beam	17.00	m ²		
2B1.31	Canopy	3.00	m ³		
	Power Trowel finish in Concrete				
	" Extra over " for cutting in concrete in thickness 150mm and 175mm in Grade 30 plastic concrete with approved type floor hardener, machine cut to receive troweled finish				
2B1.32	In First floor	515	m ²		
	From First floor level to Terrace level				
	Grade15 mass concrete (20mm aggregate) poured in to formwork.				
2B1.33	Mass concrete filling in bath room area	6	m ³		
	Grade 30 RCC concrete (20mm aggregate) poured in to formwork.				
2B1.34	Columns, sectional area up to 0.1m ²	2	m ³		
2B1.35	Columns, sectional area above 0.1m ²	8	m ³		
2B1.36	Beams, sectional area up to 0.1m ²	3	m ³		
2B1.37	Beams, sectional area above 0.1m ²	21	m ³		
2B1.38	150mm thick terrace-floor slab	23	m ³		
2B1.39	In lift walls	6	m ³		
	Lintels in following sizes				
2B1.40	Size 100 x 100 mm	2	m ³		
2B1.41	Size 150 x 100 mm	1	m ³		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2B1.42	Size 200 x 100 mm	1	m ³		
2B1.43	Staircase steps and waist	2	m ³		
2B1.44	Staircase landing	1	m ³		
2B1.45	Canopy	5	m ³		
	From Terrace slab level to Roof slab (over stair case) level				
	Grade 30 RCC concrete (20mm aggregate) poured in to formwork.				
2B1.46	150mm thick staircase cover slab (roof slab)	4	m ³		
2B1.47	Beams, sectional area up to 0.1m ²	3	m ³		
2B1.48	Beams, sectional area above 0.1m ²	3	m ³		
2B1.49	Columns	4	m ³		
	Page Total Carried to Collection				
	<u>COLLECTION</u> 2B1 - In Situ Concrete Total of Page No: 13 Total of Page No: 14 Total of Page No: 15 Total of Page No: 16				
	Total of concrete carried to the collection.				

Item	Description	Qty	Unit	Rate USD	Amount USD
2B2	Form Work				
	Rate for form work to be included for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, wetting and any surface treatment before and after placing of concrete.				
	<i>Basic finish Form Work (according to ICTAD classification)</i>				
	Up to Ground floor level				
2B2.1	Sides of column footing	122	m ²		
2B2.2	Sides of staircase base and shaft	5	m ²		
2B2.3	Sides of column shaft	107	m ²		
2B2.4	Sides of ground beams, height \geq 300mm	278	m ²		
2B2.5	Sides of plinth beams, height \geq 300mm	125	m ²		
2B2.6	Sides of lift foundation	6	m ²		
2B2.7	Sides of lift shaft	27	m ²		
2B2.8	Sides of ground slab, thickness \leq 150mm	143	m		
2B2.9	Sides of ramp slab, thickness \leq 150mm.	3	m		
	<i>Plain finish Form Work (according to ICTAD classification)</i>				
	From Ground floor level to First floor level				
2B2.10	Sides of columns	305	m ²		
2B2.11	Sides and soffit of beams	613	m ²		
2B2.12	Sides of first floor slab, height \leq 300mm.	145	m		
2B2.13	Soffit of first-floor slab	778	m ²		
2B2.14	Soffit of landings	3	m ²		
2B2.15	Soffit of stair flights	8	m ²		
2B2.16	Sides of stair landings, height \leq 300mm.	2	m		
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
2B2.17	Sides of stair flights, height \leq 300mm.	8	m		
2B2.18	Sides of stair risers, height \leq 300mm.	30	m		
2B2.19	Sides and soffits walls and base of flower trough including ledge beam	81.00	m ²		
2B2.20	Sides and soffits of canopy	24.00	m ²		
2B2.21	Sides of lift walls	68	m ²		
2B2.22	Sides of lintels	34	m ²		
	From First floor level to terrace level				
2B2.23	Sides of columns	104	m ²		
2B2.24	Sides and soffit of beams	232	m ²		
2B2.25	Sides of Terrace-floor slab , height \leq 300mm.	69	m		
2B2.26	Soffit of Terrace-floor slab	103	m ²		
2B2.27	Soffit of landings	3	m ²		
2B2.28	Soffit of stair flight	8	m ²		
2B2.29	Sides of stair landings, height \leq 300mm.	5	m		
2B2.30	Sides of stair flights, height \leq 300mm.	8	m		
2B2.31	Sides of stair risers, height \leq 300mm.	30	m		
2B2.32	Sides of lift walls	60	m ²		
2B2.33	Sides of lintels	22	m ²		
	From Terrace slab level to Roof slab (over stair case) level				
2B2.34	Sides of columns	35	m ²		
2B2.35	Sides and soffits of beams	40	m ²		
2B2.36	Soffit of staircase cover slab	26	m ²		
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
	<u>COLLECTION</u> 2B2 - Formwork Total of Page No: 17 Total of Page No: 18				
	Total of Form works carried to the collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
2B3	<p>Reinforcement</p> <p>Rate to include for supplying, cleaning, cutting, bending, fabricating, placing and the provision of all necessary temporary fixings and supports etc. including binding wires, bends, hooks, tying wires, ms chairs, distance blocks, steel separators / spacers etc. (designed laps are included in quantities)</p> <p>It shall be the responsibility of the Contractor to calculate the actual reinforcement requirement based on the construction drawings before placing the purchase order.</p> <p>Tor steel reinforcement (to BS 4449 and characteristic strength $f_y = 460\text{N/mm}^2$) Mild steel reinforcement (to BS 4449 and characteristic strength $f_y = 250\text{N/mm}^2$)</p> <p>Up to Ground Floor Level</p> <p>2B3.1 Column footing 3,480 kg</p> <p>2B3.2 Staircase base and shaft 113 kg</p> <p>2B3.3 Column shaft 900 kg</p> <p>2B3.4 Ground beams 2,298 kg</p> <p>2B3.5 Plinth beams 2,000 kg</p> <p>2B3.6 Lift foundation 375 kg</p> <p>2B3.7 Lift shaft 450 kg</p> <p>2B3.8 Ground floor slab 5580 kg</p> <p>From Ground floor level to First floor level</p> <p>2B3.9 Columns 2,385 kg</p> <p>2B3.10 Beams 11,360 kg</p> <p>2B3.11 First-floor slab 14,060 kg</p> <p>2B3.12 Lift Walls 1,050 kg</p>				
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
2B3.13	Stairs and landings	800	kg		
2B3.14	Walls and base of flower trough including ledge beam	1,520.00	kg		
2B3.15	Canopy	155.00	kg		
2B3.16	Lintels	550	kg		
	From First floor level to Terrace level				
2B3.17	Columns	1,440	kg		
2B3.18	Beams	3,840	kg		
2B3.19	Terrace-floor slab	2,530	kg		
2B3.20	Lift Walls	444	kg		
2B3.21	Stairs and landings	200	kg		
2B3.22	Canopy	151.00	kg		
2B3.23	Lintels	440	kg		
	From Terrace slab level to Roof slab (over stair case) level				
2B3.24	Columns	810	kg		
2B3.25	Beams	1,200	kg		
2B3.26	Staircase cover slab	440	kg		
	Page Total Carried to Collection				
	<u>COLLECTION</u> 2B3 - Reinforcement Total of Page No: 20 Total of Page No: 21				
	Total of Reinforcement carried to the collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
2B4	Other Concrete Items				
	<u>Joints</u>				
	Expansion joints provide at locations as detailed on the drawings or if not detailed at intervals of not more than 9m in any direction.	Note			
2B4.1	Provision of expansion floor joint (type A) in ground slab filled with approved compressible filler board & approved type sealant all as per the specification and detail drawing	1050	m		
2B4.2	Provision of expansion floor joint (type B) in ground slab filled with approved compressible filler board & approved type sealant all as per the specification and detail drawing		m		Rate only
2B4.3	Provision of movement joints/structural separation joint as instructed & joint with backer rods & fill with approved type sealant and approved type compressible filler board as per the specification and detail drawing.	130	m		
2B4.4	Provision of construction joint as instructed after chipping and cleaning the surfaces all as per the specification and detail drawing		m		Rate only
	Water bar				
2B4.5	Supply and fixing of 3mm thick 150mm wide mild stell water bar fixing to lift wall as per detail drawing				
	In lift walls	10	m		
	Vanity counters				
	Vanity counters , including necessary reinforcement and formwork, as per detail.				
2B4.6	Ground floor	1	m ³		
2B4.7	First floor	1	m ³		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2B4.8	Sill around windows Ground floor	69	m		
2B4.9	First floor	84	m		
	Stifner columns around doors and windows				
	Stifner column side of window , size 200 x 200 mm in cross section, including necessary reinforcement and formwork, as per detail drawing.				
2B4.10	Ground floor	69	m		
2B4.11	First floor	79	m		
	Stifner column side of door , size 125 x 100 mm in cross section, including necessary reinforcement and formwork, as per detail.				
2B4.12	Ground floor	348	m		
2B4.13	First floor	88	m		
	Stifner column side of door , size 200 x 200 mm in cross section, including necessary reinforcement and formwork, as per detail.				
2B4.14	Terrace floor	5	m		
	Page Total Carried to Collection				
	<u>COLLECTION</u>				
	2B4 - Miscellaneous				
	Total of Page No: 22				
	Total of Page No: 23				
	Total of Miscellaneous works carried to the collection.				

Item	Description	Qty	Unit	Rate USD	Amount USD
	<u>COLLECTION</u>				
	<u>2B: CONCRETE WORK</u>				
2B1	IN SITU CONCRETE				
2B2	FORMWORK				
2B3	REINFORCEMENT				
2B4	MISCELLANEOUS				
2B	Concrete Work	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2C	Masonry Work				
	Rate shall include for lifting, handling, weighting all rough and fair cutting, plumbing angles, normal straight cutting, forming rebated reveals and raking out joints for plastering.	Note			
	Rate shall include for reinforced concrete vertical and horizontal stiffeners for all 200mm and 100mm wall exceeding 3m length and 3m in height unless other wise measured separately.	Note			
2C1	Block Masonry Work				
	Up to DPC level				
2C1.1	200mm thick walls in standard size approved type precast solid cement blocks in cement sand mortar (1:5) for foundation walls	128	m ²		
2C2	Block Work				
	100mm thick walls in standard size approved type precast solid cement blocks in cement sand mortar (1:5) for foundation walls				
2C2.1	From ground floor level to first floor level	590	m ²		
2C2.2	From first floor level to Terrace floor level	181	m ²		
	200mm thick walls in standard size approved type precast solid cement blocks in cement sand mortar (1:5) for foundation walls				
2C2.3	From ground floor level to first floor level	247	m ²		
2C2.4	From first floor level to Terrace floor level	355	m ²		
2C2.5	Above Terrace level	91	m ²		
2C	Masonry Work	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2D	Water Proofing				
	Notes: Contractor shall refer to the detail drawings and specifications before pricing.	Note			
	Contractor is supposed to furnish all technical details, samples and any other related literature available along with the quotations, to the Engineer for his approval.	Note			
	Water proofing treatments to be done by a specialized supplier and provide a 10 year Guarantee acceptable to the Engineer, & supplier to be approved by the Engineer before the procurement.	Note			
	<u>Rate shall include for:</u>				
	Water proofing treatments, over well cleaned and exposed structural floors in toilet, roof slab with crystalline cement based material approved by the Engineer.	Note			
	Applying of water proofing to walls up to a minimum height of 1000mm from the floor.	Note			
	Applying 1:3 Cement sand rendering protective screed thickness not less than 12mm, angle fillets, surface finished with smooth neat cement finish and maintaining of necessary slopes for the floors.	Note			
2D1	Damp Proof Membrane				
2D1.1	Horizontal damp proof membrane girth > 300mm; consisting of gauge 1000 polythene membrane laid on compacted earth filling (measured) in ground floor measured net. The rate shall include for laps & wastage.	921	m ²		
2D2	On RCC toilet floors, horizontal, width > 300mm				
2D2.1	Ground Floor	71	m ²		
2D2.2	First Floor	56	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2D3	On toilet walls, vertical height \leq 1500mm				
2D3.1	Ground Floor	108	m ²		
2D3.2	First Floor	75	m ²		
2D4	On balcony, horizontal, width > 300mm				
2D4.1	balcony slab at first floor level	69	m ²		
2D4.2	Membrane type water proofing system to flower trough walls and bases, as specified and as per the manufacturer's specifications and covered the water proofed area with neat cement rendering.	79	m ²		
2D4.3	Approved type water proofing system on canopy slabs with cement rendering laid to slope in all floors.	41	m ²		
2D5	On Terrace slab and slab over staircase				
	Waterproofing over roof slab consisting of , 25mm thick including levelling screed, waterproofing membrane, 15mm thick protective screed, 40mm thick concrete with 50x50x3mm GI mesh and 15mm thick screed over concrete bed and 20mm thick (minimum) semi-rough cement rendering laid to slope to achieve required finish , all as per the specifications and as per detail drawing				
2D5.1	On Terrace slab (Titanium-Cement Cut Polished finish measured separately)	166	m ²		
2D5.2	On Slab over staircase	26	m ²		
2D6	On Lift well				
2D6.1	Membrane type water proofing system to lift walls and bases, including protective board and 25mm cover, as specified and as per the manufacturer's specifications.	14	m ²		
Page Total Carried to Collection					

Rv1

Item	Description	Qty	Unit	Rate USD	Amount USD
	b.5] Cutting to size and shape and joints in the running length.	Note			
	b.6] Grinding to a smooth finish, unless otherwise required.	Note			
	b.7] Machine drilled bolt, holes, bolts, nuts and washers, cleats, shoe and gusset plates and all other connections.	Note			
	b.8] All structural steel members shall be finally finished to in accordance with the C5-M environment requirements	Note			
2E1	Fabricating and erecting framed structures				
	<u>U Beams</u>				
2E1.1	500x200x89.7 kg/m "UB" Columns as per drawings ref. 23553-01-TN-ST-FR-3501 and specifications. Rate shall include for supply & installation of all material including all specials such as MS plates, shoe plate,bolts, fabrication, erection, drilling, welding, handling, transport & painting as specified.	3.10	t		
2E1.2	500x200x89.7 kg/m "UB" as per drawings ref. 23553-01-TN-ST-FR-3501 and specifications. Rate shall include for supply & installation of all material including all specials such as MS plates, shoe plate,bolts, fabrication, erection, drilling, welding, handling, transport & painting as specified.	7.10	t		
2E1.3	300X150X32 kg/m "UB" as per drawings ref. 23553-01-TN-ST-FR-3501 and specifications. Rate shall include for supply & installation of all material including all specials such as MS plates, shoe plate,bolts, fabrication, erection, drilling, welding, handling, transport & painting as specified.	6.00	t		
2E1.4	250X125X25.7 kg/m "UB" as per drawings ref. 23553-01-TN-ST-FR-3501 and specifications. Rate shall include for supply & installation of all material including all specials such as MS plates, shoe plate,bolts, fabrication, erection, drilling, welding, handling, transport & painting as specified.	1	t		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2E1.5	<p><u>Bracing</u></p> <p>Supplying and fixing of 3.5mm thick, 114mm dia hollow tube bracings to structural steel UB sections, rate shall include for 10mm thick MS plates and all other necessities to complete the working order as per detail drawings with final finish as specified.</p>	1.90	t		
2E1.6	<p>Lipped Channel Purlins</p> <p>Supplying & fixing of Galvanized high tensile Purlins (PU) (Lipped Channel, No.C15019 High Tensile (fy=450Mpa) Pre Galvanized (Z350-350g/m²) on concrete beams, steel section (measured separate) fixed with and including 6mm thick steel plate welded to "U" beam, and M12 bolts, sag rods for additional bridging all as per detail drawings, and painting as specified.</p>	939	m		
2E1.7	<p>Solar Structure supported Purlins</p> <p>Supplying & fixing of Galvanized high tensile Purlins (PU) (Lipped Channel, No.C10019 High Tensile (fy=450Mpa) Pre Galvanized on roofing sheet, steel section (measured separate) fixed all as per detail drawings.</p>	309	m		
	Page Total Carried to Collection				
	<p><u>COLLECTION</u></p> <p>Total of Page No: 29</p> <p>Total of Page No: 30</p>				
2E	Structural Metal Works	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2F	Roof Covering & Roof Plumbing				
	Rate shall include for;				
	(a) All, rivets, nails, clips, strips and the like and delivering and fixing in position.	Note			
	(b) Zn Al steel shall be complying with AS 1397 (550 Mpa minimum yield stress, 40 µm minimum coating mass shall be used.	Note			
	Roof Plumbing (measured under plumbing works)	Note			
2F1	Roof Covering				
2F1.1	0.47 mm thick Zn/ZL sheet roof covering from an approved specialist supplier fixed on Galvanized iron lipped channel purlin frame work with heat insulation, (GI purlins and heat insulation measured separately) and with good quality self trapping screws with EPDM washers all as per detail drawings.	786	m ²		
3F1.2	Supply & Installation 50mm thick Heat insulation foil with double sided laminating of aluminum foil fixed to roof frame work (measured separately) including GI mesh and necessary fixing accessories, all as per detail and manufacturer's specifications. (Samples should be approved by the Engineer).	786	m ²		
3F1.3	0.47 mm thick Zn/AL Ridge capping from an approved specialist supplier fixed on roofing sheet as per detail drawings. (Samples should be approved by the Engineer).	34.00	m		
3F1.4	0.47 mm thick Zn/AL roof flashing (main flashing & second flashing) from an approved specialist supplier fixed on roofing sheet and wall with metal drive pins as per detail drawings. (Samples should be approved by the Engineer).	24.00	m		
2F	Roof Covering & Roof Plumbing	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2G	Metal Work				
	The work shall include supply, fabricate and installation of doors, windows and partitions as per the given drawings & specifications.	Note			
	Aluminum framework shall be out of extrusions of Al/Mg/Si Alloy designation 6080 or 6063 with powder coated surface finish having a minimum coating thickness of 60-80 microns as per the respective specification and the drawings.	Note			
	Aluminum door sections, unless specified otherwise in the drawings or specifications, shall be as follows:				
	Sash				
	- 65mm x 40mm minimum outer rail				
	- 100mm x 40mm minimum bottom rail				
	- 90mm x 40 mm minimum lock rail				
	Frame - 80mm x 40mm minimum outer frame	Note			
	Windows sections unless specified otherwise in the drawings or specifications shall be of,				
	Outer frame - 45mm x 25mm minimum Sash Outer rail - <u>80mm x 40mm</u> minimum	Note			
	It shall be the Contractor's responsibility to check the sizes of all openings on site, prior to fabrication.	Note			
	The contractor shall submit shop drawings for the approval of the Engineer, prior to fabrication.	Note			
	The contractor shall refer to all relevant specifications and drawings prior to pricing and it shall be his responsibility to complete the said works to the entire satisfaction of the Engineer at no additional cost.	Note			
	All samples shall be provided for approval by the Engineer prior to purchase of material.	Note			
	Frame sizes shall be as shown on the drawings.				
	<u>Rates for all door and windows shall unless otherwise measured separately include for:</u>				
	All necessary locks and ironmongery of approved make as specified to match the doors and windows.	Note			

Item	Description	Qty	Unit	Rate USD	Amount USD
	Approved weather strip, mastic sealant, pointing, caulking, jointing, backing etc., as specified.	Note			
	<u>5mm thick clear float glass or glass as appropriate to suit the respective doors and windows unless specified otherwise in the drawings and specifications, stainless steel screws, rawl plugs, neoprene gaskets, Aluminum hinges and stainless steel bar hinges, fabrication and installation etc.</u>	Note			
	Door locks of English make or better, stainless steel push plates / kick plates, stainless steel door handles and appropriate door closers, unless specified otherwise in the drawings and schedules.	Note			
	Insect mesh to be fixed to the aluminium louver panels where specified	Note			
	Provisions of floor hinges, where swing doors has been specified.	Note			
	Providing sundry items related to the door & windows where necessary as a Architectural Feature to the door or window.	Note			
2G1	Frameless Glass Doors				
	Fully glazed double swing door & air curtain, Type D1 size 1800x2100mm high overall comprising of 02 nos of 10.38mm thick, 2 hrs fire rated safety (laminated) glazed sashes, including approved type door lock & all necessary ironmongery, as per detail drawing & as specified.				
2G1.1	In ground floor	3.78	m ²		
	Fully glazed single swing door, Type D9 size 550x2100mm high overall comprising of 01 nr of 10.38mm thick 2 hrs fire rated tempered glazed sash with approved type door lock & all necessary ironmongery, as per detail drawing & as specified.				
2G1.2	In ground floor	13.86	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	Aluminum Framed Doors				
	Powder coated Aluminum framed half glazed single door, Type D2 size 1000x2100mm high overall comprising 6.38 mm safety (laminated) glazed sash including approved door lock & all necessary ironmongery, as per detail drawings & as specified.				
2G1.3	In ground floor	37.80	m ²		
2G1.4	In first floor	6.30	m ²		
	Powder coated Aluminum framed louvered single door, Type D3 size 1000x2100mm high overall with approved type door lock & all necessary ironmongery as per detail drawings & as specified.				
2G1.5	In ground floor	12.60	m ²		
2G1.6	In first floor	4.20	m ²		
	Powder coated Aluminum framed louvered single sash door, Type D4 size 1050x2100mm high overall with approved type door lock & all necessary ironmongery, as per detail drawings & as specified.				
2G1.7	In Ground floor	4.41	m ²		
2G1.8	In first floor	4.41	m ²		
	Powder coated Aluminum framed louvered single sash door, Type D5 size 700x2100mm high overall fixed with approved type door lock & all necessary ironmongery, as per detail drawing and as specified.				
2G1.9	In ground floor	5.88	m ²		
	Powder coated Aluminum framed glass double swing door, Type D6 size 1500x2100mm high overall comprising 02 nr of 6.38 mm safety (laminated) frosted glass fixed with approved type door lock & all necessary ironmongery, as per detail drawing & as specified.				
2G1.10	In Ground floor	22.05	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2G1.11	In first floor Powder coated Aluminum framed sliding door, Type D7 size 1000x2100mm high overall comprising of door frame, with approved door lock & all necessary ironmongery, as per detail drawing & as specified.	12.60	m ²		
2G1.12	In Ground floor Powder coated Aluminum framed glass double swing door, Type D8 size 1250x2100mm high overall comprising 02 nr of 6.38 mm safety (laminated) frosted glass, approved door lock & all necessary ironmongery, as per detail drawings & as specified.	31.50	m ²		
2G1.13	In Ground floor Powder coated Aluminum framed single door, Type D10 size 700x2100 mm high overall comprising of approved door lock & all necessary ironmongery, as per detail drawings & specified.	36.75	m ²		
2G1.14	In ground floor	5.88	m ²		
2G1.15	In first floor	8.82	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	Fire Door Aluminium fire rated double door type FD1 , size 1500x 2400 mm high overall, two (2) hour fire rated comprising of steel top and bottom rails and stiles, including vision panel (6mm thick borosilicate fire rated clear glass) as per specifications, necessary door locks & other accessories, all as per the detail drawings and international standards, to the approval of the Engineer and finishing as specified.				
2G1.16	In first floor Aluminium fire rated single door type FD2 , size 1200x 2400 mm high overall, two (2) hour fire rated comprising of steel top and bottom rails and stiles, including vision panel (6mm thick borosilicate fire rated clear glass) as per specifications, necessary door locks & other accessories, all as per the detail drawings and international standards, to the approval of the Engineer and finishing as specified	7.20	m ²		
2G1.17	In first floor	5.76	m ²		
3G1.18	In Terrace floor	2.88	m ²		
2G2	Windows & Fanlights Powder coated Aluminum framed glazed window type W1 , size 2500x1100mm high overall, comprising of 6.38mm thick safety (laminated) glass top hunged and fixed panel with all necessary ironmongery & accessories, as per detail drawings and as specified.				
2G2.1	In Ground floor	33.00	m ²		
2G2.2	In first floor	11.00	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	Powder coated Aluminum framed glazed window type W2 , size 1950x1100mm high overall, comprising of 6.38mm thick safety (laminated) glass top hunged and fixed panel with all necessary ironmongery & accessories, as per detail drawings & as specified.				
2G2.3	In Ground floor	4.29	m ²		
2G2.4	In first floor	2.15	m ²		
	Powder coated Aluminum framed glazed window type W3 , size 2850 x 1100mm high overall, comprising of 6.38mm thick safety (laminated) glass top hunged and fixed panel with all necessary ironmongery & accessories, as per detail drawings & finished as specified.				
2G2.5	In Ground floor	6.27	m ²		
	Powder coated Aluminum framed glazed window type W4 , size 900x1100mm high overall, comprising of 6.38mm thick safety (laminated) glass top hunged and fixed panel with all necessary ironmongery & accessories, as per detail drawings and finished as specified.				
2G2.6	In Ground floor	2.97	m ²		
	Powder coated Aluminum framed glazed and louvered window type W5 , size 3400x800mm high overall, comprising of 6.38mm thick safety (laminated) glass top hung openable sashes , all necessary ironmongery & accessories, as per detail drawings & finished as specified.				
2G2.7	In first floor	27.20	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2G2.8	<p>Powder coated Aluminum framed glazed window type W6, size 1500x800mm high overall, comprising of 6.38mm thick safety (laminated) glass top hung and fixed panel with all necessary ironmongery & accessories, as per detail drawings & as specified.</p> <p>In first floor</p>	2.40	m ²		
2G2.9	<p>Fanlight</p> <p>Powder coated (sea breeze resistant) Aluminum framed fanlight type FL1, size 900x1000mm high overall, comprising of 6mm thick float glass top hung and louvered panel, all necessary ironmongery & accessories, as per detail drawings & as specified.</p> <p>In Ground floor</p>	4.50	m ²		
2G2.10	<p>Powder coated(sea breeze resistant) Aluminum framed fanlight type FL2, size 600x 1000mm high overall, comprising of 6mm thick float glass top hung and louvered panel, all necessary ironmongery & accessories, as per detail drawings & as specified.</p> <p>In first floor</p>	4.80	m ²		
2G3	<p>Fixed Glass</p> <p>Powder coated(sea breeze resistant) Aluminum framed fixed glass type FG1, size 7200X2400mm high overall, comprising of 6.38mm thick safety (laminated) glass fixed panel including top hung openable sashes and fixed panel , with all necessary ironmongery & accessories, as per detail drawings & as specified.</p>				
2G3.1	<p>In first floor</p>	17.28	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2G3.2	<p>Powder coated(sea breeze resistant) Aluminum framed fixed glass type FG2, size 3500X2600mm high overall, comprising of 6.38mm thick safety (laminated) glass fixed panel including top hung openable sashes and fixed panel , all necessary ironmongery & accessories, as per detail drawings & as specified.</p> <p>In first floor</p>	9.10	m ²		
2G3.3	<p>Powder coated(sea breeze resistant) Aluminum framed fixed glass type FG3, size 6940x2600mm high overall, comprising of 6.38mm thick safety (laminated) glass fixed panel including top hung openable sashes and fixed panel , all necessary ironmongery & accessories, as per detail drawings & as specified.</p> <p>In first floor</p>	16.66	m ²		
2G3.4	<p>Powder coated(sea breeze resistant) Aluminum framed fixed glass type FG4, size 1150x2400mm high overall, comprising of 6.38mm thick safety (laminated) glass fixed pane with all necessary ironmongery & accessories, as per detail drawings & finished as specified.</p> <p>In first floor</p>	2.76	m ²		
2G3.5	<p>Powder coated(sea breeze resistant) Aluminum framed fixed glass type FG5, size 2350x600mm high overall, comprising of 6.38mm thick safety (laminated) glass fixed pane with all necessary ironmongery & accessories, as per detail drawings & finished as specified.</p> <p>In ground floor</p>	2.82	m ²		
2G3.6	<p>In first floor</p>	2.76	m ²		
2G4	<p>Hand Rail</p> <p>Balcony hand rail</p> <p>Supplying & fixing of Galvanized iron balcony hand rail fixed to block masonry walls all as per detailed drawings. Rate shall include for all necessary welding, cutting, embedding, floor anchors and finishing as specified.</p>				
2G4.1	<p>In first floor</p>	54	m		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	Terrace guard rail Supplying & fixing of 200mm high Galvanized iron terrace guard rail fixed to block masonry walls all as per detailed drawings. Rate shall include for all necessary welding, cutting, embedding, floor anchors and finishing as specified. (EHR1, EHR2, EHR3)				
2G4.3	In terrace floor	21	m		
	External Staircase Hand Rail Supplying & fixing of 900mm high Galvanized iron stair case balustrade fixed concrete steps all as per detailed drawings. Rate shall include for all necessary welding, cutting, embedding, floor anchors and finishing as specified.				
2G4.4	In ground floor	35	m		
	Internal Staircase Hand Rail Supplying & fixing of Galvanized iron stair case hand rail fixed block masonry wall all as per detailed drawings. Rate shall include for all necessary welding, cutting, embedding, floor anchors and finishing as specified.				
2G4.4	In ground floor	13	m		
2G4.5	In first floor	13	m		
2G5	Aluminium Composite panel Cladding Rate for Aluminium Composite panel cladding work, shall include for submission of shop drawings and additional area for recesses and projections including joints in excess of plan area, any additional architectural fixings/fittings and all other necessary items for the completion of cladding work (All areas are measured on plan)	Note			
Page Total Carried to Collection					

Rv1

Rv1 Rv1

Rv1

Item	Description	Qty	Unit	Rate USD	Amount USD
	Supply and fixing of approved type Aluminium composite panel wall cladding in approved colour with GI frame work from an approved supplier fixed to external sides of the building all as per drawing.				
2G5.1	In ground floor	391	m2		
2G5.2	In first floor	350	m2		
2G5.3	In terrace floor	69	m2		
	" Extra over " for supply and fixing of approved type aluminium composite panel wall cladding in approved colour with GI frame work from an approved supplier on internal faces, width ≤ 300 mm, on brick / concrete surfaces				
2G5.4	In ground floor	207	m		
2G5.5	In first floor	241	m		
2G5.6	In terrace floor	12	m		
2G5.7	Roof Fascia Supplying & fixing of approved type Aluminium composite panel roof fascia in approved colour fixed to galvanized iron lipped channel "C" purlin frame work (measured separately) with additional supporting members in both sides (internally & externally) with self trapping screws all as per drawings and specifications.	300	m2		
	Supplying & fixing of approved type Aluminium composite panel window Cladding fixed Over and either side of the window with necessary frame work all as per detail drawings and specifications				
2G5.8	In ground floor	52	m2		
2G5.9	In first floor	15	m2		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2G5.10	Supplying & fixing of approved type Aluminium composite panel Column Cladding fixed to columns with necessary frame work all as per detail drawings and specifications In ground floor	19	m2		
2G5.11	Supply and fixing of approved type and size GI Box bar one end fixed to roof fascia and other end fixed to block masonry wall all as per detail drawing In first floor	94	m		
	Page Total Carried to Collection				
	<u>COLLECTION</u> Total of Page No: 33 Total of Page No: 34 Total of Page No: 35 Total of Page No: 36 Total of Page No: 37 Total of Page No: 38 Total of Page No: 39 Total of Page No: 40 Total of Page No: 41 Total of Page No: 42				
2G	Metal Work	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2H	Partitions & Suspended Ceilings				
	The work shall include supply, fabricate and installation of ceiling system, complete with approved frame work system and to be finished as per the respective specification and the drawings.	Note			
	The contractor shall submit shop drawings for the approval of the Architect & Engineer, prior to fabrication.	Note			
	The contractor shall refer to all relevant specifications and drawings prior to pricing and it shall be his responsibility to complete the said works to the entire satisfaction of the Engineer at no additional cost to the Employer.	Note			
	All samples, catalogues and any relevant technical literature shall be provided for Engineer's approval prior to purchase of material.	Note			
	The contractor shall take the physical measurements before fabrication of the partitions and submit the necessary shop drawings for approval.	Note			
	Rates shall include for;				
i	Hoisting and fixing in position, drilling and making good.	Note			
ii	Brass Nails, Brass screws, glue, rawl plugs etc.,.	Note			
iii	Cutting and wastage	Note			
iv	Providing shadow wall angles where required	Note			
v	<u>Providing aluminum powder coating to steel grids system.</u>	Note			
2H1	Partition Dry Wall Partition Supply and fixing of 120mm thick, 2 hour fire rated Aluminium framed Dry wall partitions, fixed to structure, all as per detail drawings and Specification. Rate shall include for all other accessories required to complete the partitions in working order.				
2H1.1	In ground floor	507	m2		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	Supply and fixing of high pressure laminated partition (HPL) all as per detail drawing with all other accessories as required to complete as per detail drawings and specification. (Toilet area)				
2H1.2	In ground floor	35	m2		
2H1.3	In first floor	26	m2		
	"Extra over" for partition door, Type D10 Size 700x2100mm high overall comprising of door frame, approved door lock & all necessary ironmongery, as per detail drawing & as specified in HPL partition.				
2H1.4	In ground floor	4	Nr		
2H1.5	In first floor	6	Nr		
2H2	Suspended Ceiling				
	Supply and fixing of angel, approved type Acoustic control angle timber ceiling or equivalent , fixed to roof frame work with additional members all as per detail drawings. Rate shall include for additional requirements for forming voids and additional members for fixing of light fittings.				
2H2.1	In first floor	515	m ²		
	Suspended Gypsum Board ceiling, with 9mm thick gypsum boards from an approved supplier fixed to an approved type Aluminium frame work all as per detail drawing and specification. Rate shall include for additional requirements for forming voids and fixing of additional members for fixing of light fittings and final finish with one coat of primer and two coats of emulsion paint.				
2H2.2	In ground floor	168	m ²		
	Supply and fixing of 3mm thick internal aluminum steel panel ceiling with aluminum frame fixed to suspended slab all as per details and specifications.				
2H2.3	In ground floor	598	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2H2.4	In first floor Supply and fixing of decorative standard lift ceiling , supported on and including approved grid system frame work, hung from structure, all as per detail drawings. Rate shall include for additional requirements for forming access panels and forming voids for led light fittings .	240	m ²		
2H2.5	In lift lobby in ground floor	17	m ²		
2H2.6	In first floor Supply and fixing of decorative weather proof artificial timber shade eve , supported on and including approved grid system frame work, hung from structure, all as per detail drawings Rate shall include for additional requirements for forming access panels.	48	m ²		
2H2.7	In lift Car	4	m ²		
	Page Total Carried to Collection				
	<u>COLLECTION</u> Total of Page No: 43 Total of Page No: 44 Total of Page No: 45				
2H	Partitions & Suspended Ceilings	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2J	Glazing The work shall include supply, fabricate and installation of glazing system, complete with approved frame work system and to be finished as per the respective specification and the drawings. The contractor shall submit shop drawings after taking the physical measurements at site for the approval of the Architect & Engineer, prior to fabrication. The contractor shall refer to all relevant specifications and drawings prior to pricing and it shall be his responsibility to complete the said works to the entire satisfaction of the Engineer at no additional cost to the Employer. All samples, catalogues and any relevant technical literature shall be provided for Engineer's approval prior to purchase of material. The thickness of the glass shall be as approved Rates shall include for; Hoisting and fixing in position, drilling and making good. Brass Nails, Brass screws, glue, rawl plugs, stainless steel spider fittings, hinges, locks or any other accessories etc.,. Cutting and wastage Providing shadow wall angles where required Providing aluminum powder coating to steel grids system.	Note Note Note Note Note Note Note Note Note			
2J1	Glazing Supply and fixing of glazing system, fixing to RCC floor / wall / column / masonry wall with all necessary accessories and hardnesses, as per detail drawings & schedules and finished as specified. Rate shall include for application of finishes and all other accessories required to complete working order.				
2J1.1	In ground floor	10	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
2J1.2	<p>"Extra over" for fully glazed double swing door & air curtain, Type D1 Size 1800x2100mm high overall comprising of 02 nos of 10.38mm thick 2 hrs fire rated safety (laminated) glass sashes to be fixed with fixed glass and the top piece of glass including approved door lock, & all necessary ironmongery, as per detail drawing & schedules and final finish as specified.</p> <p>In ground floor</p> <p>Glazed Partition</p> <p>Supply and fixing of glazed partition with tempered glass and spider fittings all as per detail drawing with all other accessories as required to complete the glazed partition</p>	3.8	m ²		
2J1.3	From ground floor to first floor	43	m ²		
2J1.4	From first floor to terrace level	34	m ²		
2J1.5	<p>"Extra over" for fully glazed double swing door & air curtain, Type D1 Size 1800x2100mm high overall comprising of 02 nos of 10.38mm thick 2 hrs fire rated safety (laminated) glass sashes to be fixed with fixed glass and the top piece of glass including approved door lock, & all necessary ironmongery, as per detail drawing & schedules and final finish as specified.</p> <p>In ground floor</p>	3.8	m ²		
	Page Total Carried to Collection				
	<p><u>COLLECTION</u></p> <p>Total of Page No: 46</p> <p>Total of Page No: 47</p>				
2J	Glazing	To Summary			

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Item	Description	Qty	Unit	Rate USD	Amount USD
2K	Floor Wall & Ceiling Finishes				
	The contractor is advised to refer to the specification prior to pricing of this section of work	Note			
	The rate for all finishing shall include for all temporary rules, screeds, grounds etc. for raking out joints of new brick work or hacking new concrete for key, internal & curved angles, joints between different surfaces arises quirks, inter sections between curved or irregular surfaces, etc. and all making good around pipes, sanitary fittings & and the like.	Note			
	The rate for all wall plastering shall include for chicken mesh where necessary in plastering the surfaces in different material together etc. to avoid cracks	Note			
	All samples shall be provided for approval by the Engineer prior to purchase of materials.	Note			
2K1	FLOOR FINISHES				
	<u>In Situ Floor Finishes</u>				
	20mm thick cement rendering in cement and sand (1:3), finished by machine cut receive cut cement finish all as to the specification and the detail drawings				
2K1.1	In Slab over staircase	26	m ²		
	Titanium-Cement cut floor, in approved colour, fixed with straight joints with approved type adhesive both ways in colored grout including 25mm thick cement and sand 1:3 screed bedding on concrete steps.				
2K1.2	In terrace floor	166	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	<p><u>Granite</u></p> <p>Supply and lay of 600x300mm rough granite stone fixed with approved type adhesive on 32mm thick cement & sand bed on concrete floors all as per detail drawings. Rate shall include for supply and laying of 32mm thick cement and sand 1:3 screed on concrete floor.</p>				
2K1.3	At Entrance steps & ramps	58	m ²		
	<p>Supply and lay of 300x600mm polished granite stone, fixed with approved type adhesive on 32mm thick cement & sand bed on concrete floor all as per detail drawings Rate shall include for supply and laying of mm thick cement and sand 1:3 screed on concrete floor</p>				
2K1.4	In ground floor	169	m ²		
2K1.5	In first floor	14	m ²		
	<p>Supply and lay of 300x600mm polished granite stone, fixed with approved type adhesive on 32mm thick cement & sand bed on concrete slab. Rate shall include for supply and laying of mm thick cement and sand 1:3 screed on concrete slab unless otherwise specified below.</p>				
2K1.6	In lift car inside on metal surface (without concrete bed)	4	m ²		
	<p>Supply and lay of 300x1200mm polished granite stone with groves at edge curved to form nosing, fixed with approved type adhesive on 32mm thick cement & sand bed on concrete tread all as per detail drawing. Rate shall include for supply and laying of 32mm thick cement and sand (1:3) screed on concrete floor. (ST01)</p>				
2K1.7	In ground floor to first floor - Stair tread, 300mm wide	26	m		
2K1.8	In first floor to second floor - Stair tread, 300mm wide	26	m		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	<p>All floor tiles shall be heavy duty suitable for public areas and approved by the Engineer/Architect</p> <p>Porcelain Tiling</p> <p>Glazed homogeneous porcelain floor tiles, as approved by the Architect, size 600x600, approved colour, fixed with straight joints with approved type adhesive both ways in colored grout to match with the tile and including 25mm thick cement and sand 1:3 screed bedding on concrete floors.</p>				
2K1.9	In ground floor.	630	m ²		
2K1.10	In first floor.	204	m ²		
	<p>Non-slip homogeneous porcelain floor tiles, as approved by the Architect, size 300x600 approved colour, fixed with straight joints with approved type adhesive both ways in colored grout to match with the tile and including 25mm thick cement and sand 1:3 screed bedding on concrete floors.</p>				
2K1.11	In ground floor	71	m ²		
2K1.12	In first floor	56	m ²		
	<p>Glazed porcelain floor tiles, as approved by the Architect, size 165x1200mm approved colour, fixed with straight joints with approved type adhesive both ways in colored grout to match with the tile and including 25mm thick cement and sand 1:3 screed bedding on concrete floors.</p> <p>Internal Staircase</p>				
2K1.13	In ground floor to first floor - Stair riser, 165mm high	30	m		
2K1.14	In first floor to terrace level - Stair riser, 165mm high	30	m		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	External Staircase				
2K1.15	In ground floor to first floor - Stair riser, 165mm high	60	m		
	Supply and lay of 300x1200mm non slip porcelain tile with grooves at edge curved to form nosing , fixed with approved type adhesive on 32mm thick cement & sand bed on concrete tread all as per detail drawing. Rate shall include for supply and laying of 32mm thick cement and sand (1:3) screed on concrete floor.				
2K1.16	In ground floor to first floor - Stair tread, 300mm wide	56	m		
	Vinyl Flooring				
	Supply fixing of approved quality VINYL flooring from an approved supplier on power troweled finished floor (Power troweled finish measured separately).				
2K1.17	In first floor.	515	m ²		
2K2	<u>SKIRTING</u>				
	100mm high polish granite tile skirting , in polished tiles or equivalent as specified by the Architect, all as per detail and to the approval of the Engineer				
2K2.1	In ground floor	160	m		
2K2.2	In first floor	3	m		
	100mm high glazed homogeneous porcelain tile skirting , in glazed tiles or equivalent as specified by the Architect, all as per detail and to the approval of the Engineer				
2K2.3	In ground floor	382	m		
2K2.4	In first floor	83	m		
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
2K2.5	<p>100mm high non-slip homogeneous porcelain tile skirting, in glazed tiles or equivalent as specified by the Architect, all as per detail and to the approval of the Engineer</p> <p>In ground floor</p>	102	m		
2K2.6	<p>100mm high Vinyl skirting, as specified by the Architect, all as per detail and to the approval of the Engineer</p> <p>In first floor</p>	88	m		
2K3	<p>WALL PLASTERING (External)</p> <p>20mm thick cement & sand (1:5) plaster finished semi rough with wood float on external faces, width \leq 300mm on brick / concrete surfaces</p>				
2K3.1	<p>In terrace floor to roof level (sides)</p> <p>20mm thick cement & sand (1:5) plaster finished semi rough with wood float on external faces, width \geq 300mm on brick / concrete surfaces</p>	38	m		
2K3.2	<p>In terrace floor to roof level</p>	42	m ²		
2K4	<p>WALL PLASTERING (Internal)</p> <p>15mm thick cement sand (1:5) plaster finished smooth or approved equivalent on internal faces, width \leq 300mm, on brick / concrete surfaces, reveals</p>				
2K4.1	In ground floor to first floor	596	m		
2K4.2	In first floor to terrace floor	349	m		
2K4.3	In terrace floor to roof level	12	m		
2K4.4	From first floor to Terrace floor	3	m ²		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
	15mm thick cement sand (1:5) plaster finished smooth or approved equivalent on internal faces , width > 300mm in followings:				
2K4.5	From ground floor to first floor	1990	m ²		
2K4.6	From first floor to Terrace floor	839	m ²		
2K4.7	Above Terrace	43	m ²		
2K5	Wall Finishes (Internal)				
	Granite/Tile				
	Granite finish in lift front wall				
	Supply and lay of 300x600mm polished granite stone , fixed with an approved type adhesive on 32mm thick cement & sand backing on concrete wall or all as per detail drawings Rate shall include for supply and laying of mm thick cement and sand 1:3 screed on concrete wall				
2K5.1	In ground floor level	6	m ²		
2K5.2	In first floor level	6	m ²		
	Granite finish on lift inside wall				
	Supply and lay of 300x600mm polished granite stone , fixed with an approved type adhesive on 32mm thick cement & sand backing on concrete wall or all as per detail drawings Rate shall include for supply and laying of mm thick cement and sand 1:3 screed on concrete wall				
2K5.3	Lift car	17	m ²		
Page Total Carried to Collection					

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Item	Description	Qty	Unit	Rate USD	Amount USD
	Tile finish on internal walls				
	Wall tiles, Ceramic glazed tile, size 300x600mm, approved quality and colour, fixed with straight joints both way in colored grout to match, on and including 12mm. thick cement and sand 1:3 screed backing up to 1500mm height from floor level				
2K5.4	In ground floor level	208	m ²		
2K5.5	In first floor level	96	m ²		
	Wall tiles, Ceramic glazed tile, size 300x600mm, approved quality and colour, fixed with straight joints both way in colored grout to match, on and including 12mm. thick cement and sand 1:3 screed backing up at 600mm height with granite top counter				
2K5.6	Ground floor level	2	m ²		
2K5.7	First floor level	5	m ²		
	Wall lining				
	Supply and fixing of approved type wall lining to internal side of meeting room to receive acoustic properties,				
2K5.8	In first floor level	314	m ²		
2K6	<u>Ceiling Finishes-Plastering (Internal)</u>				
	12mm thick cement sand (1:5) plaster finished smooth or approved equivalent on internal faces , width ≤ 300mm in followings:				
2K6.1	Side of terrace slab, thickness up to 150mm	38	m		
	<u>12mm thick cement sand (1:5) plaster finished smooth or approved equivalent on internal faces, width > 300mm in followings:</u>				
	<u>Slopping soffit and waist of staircase and landing</u>				
2K6.2	From ground floor to first floor	11	m ²		
	Page Total Carried to Collection				

Item	Description	Qty	Unit	Rate USD	Amount USD
2K6.3	From first floor to Terrace floor level	11	m ²		
2K6.4	From terrace floor to roof floor level	16	m ²		
2K6.5	Side of terrace slab, thickness up to 150mm	38	m		
2K7	Ceiling Finishes-Plastering (External) 20mm thick cement sand 1:5 rough plaster finished on top of sunshade concrete surfaces in following				
2K7.1	From ground floor to first floor	100	m ²		
2K8	Forming weather drip all as per detail drawing				
2K8.1	In roof terrace floor	18	m		
2K8.2	In slab over staircase	15	m		
	Page Total Carried to Collection				
	<u>COLLECTION</u> Total of Page No: 48 Total of Page No: 49 Total of Page No: 50 Total of Page No: 51 Total of Page No: 52 Total of Page No: 53 Total of Page No: 54 Total of Page No: 55				
2K	Floor Wall & Ceiling Finishes	To Summary			

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Item	Description	Qty	Unit	Rate USD	Amount USD
2L	<p>Painting</p> <p>Rate shall include for preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, removing & replacing door and window, furniture, and cleaning windows etc. upon completion.</p> <p>Unless specified otherwise or measured separately, rate shall include for</p> <p>Preparing wall surface including cleaning, smoothing, knotting, stopping, and patching up the uneven surfaces using wall putty/ suitable coating.</p> <p>Preparation of slab soffits by grinding the joints to make even, cleaning the surfaces and making up levels with approved type putty/suitable coating and sand papering as necessary.</p> <p>Applying of approved type total coat/skim coat or approved equivalent base coat to internal walls, columns and slab soffits including surfaces of beam as per the Engineering's instructions.</p>				
2L1	<p>Wall (External)</p> <p>Prepare and apply one coat of alkali-resistant primer and two coats of approved weather shield paint of approved colour on semi-rough plastered surfaces, including walls, columns (attached / isolated), beams in following:</p>				
2L1.1	<p>Width \leq 300 mm</p> <p>on reveals and stringers</p> <p>Prepare and apply one coat of alkali-resistant primer and two coats of approved weather shield paint of approved colour on semi-rough plastered surfaces, including walls, columns (attached / isolated), beams in following:</p>	100	m		
Page Total Carried to Collection					

Rv1

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Item	Description	Qty	Unit	Rate USD	Amount USD
2L1.2	Above terrace floor level Prepare and apply one coat of alkali-resistant primer and two coats of approved weather shield paint of approved colour on semi-rough plastered surfaces , including walls, columns (attached / isolated), beams in following: Width > 300 mm Under side and soffit of the staircase	42	m ²		
2L1.3	Ground floor level	100	m ²		
2L2	Wall (Internal) Prepare and apply, wall putty one coat of primer and two coats of approved emulsion paint to plastered surfaces , including walls, columns (attached / isolated), beams in following. Width ≤ 300 mm on reveals and stringers				
2L2.1	Ground floor level	596	m		
2L2.2	First floor level	349	m		
2L2.3	Above terrace floor level Prepare and apply, wall putty one coat of primer and two coats of approved emulsion paint to plastered surfaces , including walls, columns (attached / isolated), beams in following. Width > 300 mm	12	m		
2L2.4	Ground floor level	1990	m ²		
2L2.5	First floor level	839	m ²		
2L2.6	Above terrace floor level Sides and sloping soffit of the staircase	43	m ²		
2L2.7	Ground floor level	11	m ²		
Page Total Carried to Collection					

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Item	Description	Qty	Unit	Rate USD	Amount USD
2L2.8	First floor level Concrete surface prepare and apply skim, one coat of primer and two coats of emulsion paint of approved colour and quality for internal faces of the following.	11	m ²		
2L2.9	Above terrace floor level	16	m ²		
	Page Total Carried to Collection				
	<u>COLLECTION</u> Total of Page No: 56 Total of Page No: 57 Total of Page No: 58				
2L	Painting	To Summary			

Item	Description	Qty	Unit	Rate USD	Amount USD
2M	Miscellaneous Works				
2M1.1	Supply and fixing of approved types Nurse's station counters all as per detail drawings	1	item		Deleted
2M1.2	Supply and fixing of laminated type plastic Trolley guards from an approved supplier all as per detail drawings	150	m		
2M1.3	Supply fabricate and fixing of 2850 mm(length) x 600mm(width) x 800mm(high) (overall size) treated mahogany timber pantry cupboards with mahogany doors, granite work top and 600mm high tile in wall as shown in detail drawing. Rate shall include for final finish, all necessary locks and ironmongery of approved make and submission of shop drawings to the approval of the Engineer.	3	nr		
3M	Miscellaneous	To Summary		USD	



BILLS OF QUANTITIES
BILL NO. 03 - WATER SUPPLY AND DRAINAGE WORKS

DECEMBER 2023

Rv1

BILLS OF QUANTITIES BILL NO. 03 - BUILDING PLUMBING SERVICES SUMMARY		
	Description	Amount (USD)
3A	PLUMBING	
3B	COLD WATER	
3C	SEWER & WASTE WATER	
3D	SANITARY FITTINGS	
3E	EXTERNAL DRAINAGE SYSTEMS	
3F	STORM WATER DRAINAGE	
TOTAL CARRIED TO GRAND SUMMARY		

BILLS OF QUANTITIES BILL NO. 03 - BUILDING PLUMBING SERVICES					
Item	Description	Qty	Unit	Rate USD	Amount USD
3A	<p>BILL NO. 03 - BUILDING PLUMBING SERVICES</p> <p><u>PLUMBING</u></p> <p><u>Notes:</u> Contractor shall refer to the drawings, specifications, notes, measurement & rate clauses and trade preambles before pricing.</p> <p>Unplasticised polyvinyl chloride (uPVC) pipes shall be used in the plumbing installation and they must conform in every respect to the requirements of the SLS 147 or BS 4514.</p> <p>All fittings and pipe specials used in the plumbing installation shall be suitable and compatible with all respects to the pipe line to which fittings and specials are fixed.</p> <p>All sanitary fittings supplied shall be provided with a minimum 25 years warranty, issued jointly and severally by the local supplier and the manufacturer.</p> <p>All taps & accessories shall be chromium plated manufactured in Europe or Japan or approved equivalent and shall have a minimum 5 years' warranty.</p> <p>Unless otherwise measured separately, rates for plumbing work shall include for:</p> <p>(a) Complying with the relevant British or any other standard as given under the specifications and with the regulations of the Local Authority and or any other relevant authorities.</p> <p>(b) Cutting and waste of pipes etc., and joining pipes.</p> <p>(c) All specials such as elbows, bends, tees, junctions, plugs, reducers and similar pipe fittings except for valves which will be measured separately.</p> <p>(d) Connecting pipes to sanitary fixtures and appliances.</p>				

Item	Description	Qty	Unit	Rate USD	Amount USD
	<p>(e) Casing to brick walls etc. and making good all works disturbed.</p> <p>(f) Necessary screws, nails sockets, connection back nuts standard pipe fixing or supporting clips, saddles, brackets, holder bats, straps etc.</p> <p>(g) Connecting of different types of pipes.</p> <p>(h) Supply , installation, testing and disinfection after completion.</p> <p>(i) Submitting shop drawings where necessary.</p> <p>(j) Excavation, backfilling, disposal of surplus soil for items which were specifically mentioned.</p> <p>(k) All shop fabrication work, marking, delivery, unloading, hoisting, erecting and fixing as per detail drawings.</p> <p>(l) Members of any length.</p> <p>(m) Cutting or forming holes, mortises, chases or the like and making good</p> <p>(n) Cutting to size and shape and joints in the running length.</p> <p>(p) Grinding to a smooth finish, unless otherwise required.</p> <p>(q) Pipe penetrations through floor slabs or beams where necessary.</p> <p>(r) All necessary accessories, threaded & grooved fittings unless otherwise measured separately.</p> <p>(s) Sundry items related to the work where necessary as required by the Engineer.</p> <p>Rates for sanitary fittings shall include for:-</p> <p>(a) Fittings such as taps, waste water outlet, internal overflows etc. and supporting brackets, incidental materials for fixing, unless otherwise measured separately.</p>				

Item	Description	Qty	Unit	Rate USD	Amount USD
3A1.1	(b) Assembling, jointing together fixing components parts, and jointing to pipes including necessary coupling and for leaving perfectly clean and in perfect working order on completion.				
	(c) Jointing and connecting of pipes to sanitary fittings.				
	(d) Supply, installation, testing and commissioning of the entire installation work.				
	(e) Making good of the work disturbed.				
	(f) Submitting samples for the approval by the Engineer.				
	(g) Protecting the works.				
	Rates for drainage work shall include for :-				
	(a) Laying of pipes to falls.				
	(b) Excavation, backfilling, disposal of surplus soil				
	(c) All pipe specials such as bends, junctions, elbows, tees etc.				
	(d) Connection to sides of manholes etc.				
	(e) Providing sleeves etc., when pipes pass through walls, foundations etc.				
	(f) Giving notices, obtaining permits, paying fees, fixing, testing and commissioning etc.				
	connecting water distribution system in the building to the existing water distribution system at the land.	1.00	item		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
3B	<u>COLD WATER</u>				
3B2	<u>DISTRIBUTION PIPES</u> Type 1000uPVC pipe with all necessary specials laid in water distribution system buried in brick walls / floor or clipped to any location where necessary. Rate shall include for necessary fittings.				
3B2.1	20mm diameter	250.00	m		
3B2.2	25mm diameter	100.00	m		
3B2.3	32mm diameter	50.00	m		
3B2.4	40mm diameter	20.00	m		
3B2.5	63mm diameter	100.00	m		
3B3	<u>ANCILLARIES</u> Gate Valves Gate valve shall be brass "Pegler" manufactured UK or "KITZ"- Japan.				
3B3.1	Gate valve for 20mm pipe	33.00	nr		
3B3.2	Gate valve for 25mm pipe	16.00	nr		
3B3.3	Gate valve for 32mm pipe	3.00	nr		
	PRV PRV shall be brass "Pegler" manufactured UK or approved equivalent. PRV valve for 63 mm pipe	1.00	nr		
3B4	Hot Water Installation Notes: Hot water supply Pipes, Valves shall be as manufactured in Italy, UK, Germany, Japan, Australia or as approved by the Engineer. Contractor shall furnish minimum 5 year comprehensive warrantee severally and jointly with the manufacturer and the supplier, for all equipment fittings and the entire installation				
3B4.1	Supply and installation 20 liters electric hot water geyser and all other necessary fittings and accessories complete to working order as per the Drawings and Technical Specifications.	15.00	nr		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
3B4.2	Poly Propylene pipe work and fittings , including all connections and supports 18 mm Pipe work and fittings	90.00	m		
Page Total Carried to Collection					

Item	Description	Qty	Unit	Rate USD	Amount USD
3B	<u>COLLECTION</u>				
	<u>COLD WATER</u>				
	Total of Page No: 63				
	Total of Page No: 64				
	Total of Page No: 65				
3B	Total of Cold water to Summary				