



**STATE BANK OF PAKISTAN  
SBP BANKING SERVICES CORPORATION (BANK)**

**TENDER DOCUMENTS**

**VOLUME – IV**

**PRICE BID**

**FOR**

**CONSTRUCTION OF SBP NEW OFFICE BUILDING**

**AT**

**GUJRANWALA**

LETTER OF PRICE BID

Name of Contract: Construction of SBP New Office Building at Gujranwala

To:

Director/Head
Engineering Department
State Bank of Pakistan SBP, BSC
1st Floor SBP Bolton Market Building
M.A. Jinnah Road, Karachi

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB)9;
(b) The total price of our Bid, excluding any discounts offered in item (c) below is:
Rs. \_\_\_\_\_
(c) The discounts offered and the methodology for their application are:
Rs. \_\_\_\_\_
(d) Our Bid shall be valid for a period of 180 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
(e) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
(f) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed and we do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the works.
(g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
(h) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bidding Data.
(i) If awarded the contract, the person named below shall act as Contractor's Representative.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

Address.....



## PREAMBLE TO BILL OF QUANTITIES

### P1 Measurement

- (a) Each measurement shall be taken to the nearest 10mm (or 1/2") i.e. 5mm (or 1/4") and over shall be regarded as 10 mm (or 1/2") and less than 5mm (or 1/4") shall be disregarded. This rule shall not apply to any dimensions stated in description and also to thickness.
- (b) Where minimum deductions of voids are dealt with in the Measurement Clauses of the Specifications, they shall refer only to openings or voids which are within the boundaries of measured areas. Openings or voids which are at the boundaries of measured areas shall always be the subject of deduction irrespective of size.
- (c) Where classification is given as being between two limiting dimensions, the interpretation shall be as exceeding the first dimension and not exceeding the second.
- (d) Junctions between straight and curved work shall in all cases be deemed to be included with the work in which they occur.

### P2 Quantities

- (a) The tenderer may determine himself the correctness of quantities and application of the individual items of works as per Drawings Specifications and Contract Documents.
- (b) The Quantities contained in the Bill of Quantities are approximate estimated quantities and liable to be changed (increase/decrease) or omitted when the work is actually executed. The Employer / Engineer is authorized to delete any item of work or vary quantities of any item of the Bill of Quantities, and is also authorized to include any number of new items in accordance with Contract Conditions. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.
- (c) No claim for the payment will be admissible on account of anticipated profit or variation in overhead expenditures for the Works not actually performed nor will any adjustment in the tendered unit rate set forth in the Bill of Quantities be made because of any increase or any decrease in the quantities indicated therein.
- (d) Quantities shall be billed to the nearest two places of decimals. Tonne shall be equal to 1000 kg.
- (e) Quantities of laid items requiring compaction, shall be the final compacted values and not the bulk or wastage.

### P3 Reference to Specification

Where a Clause of the Specification is referred to in the description of any pay item, it shall be deemed to be the principal clause only, other relevant provisions of the Specification shall also be applicable.



#### P4 Rates and prices

- (a) The rates and prices shall be full and comprehensive compensation for everything furnished and done to execute and complete the Works and remedy any defects therein in conformity with the Contract Documents.
- (b) Rates shall be with use of Ordinary Portland grey Cement in all Works, unless described otherwise in the pay items of Bill of Quantities.
- (c) Rates and prices quoted shall include all costs of providing openings for crossing pipes, conduits or sleeves in embankments.
- (d) The Contractor shall have to coordinate with Employer's workers or other Contractors working on behalf of the Employer; and fix, install, hold for fixing, insert and concrete around supplied poles, pipes & drains & traps, conduits and accessories and relating to computer networking, floor outlets, and afford full access and usage of available ladders, platforms and scaffolds etc. and Tender Costs shall be deemed to cover any costs involved for these services.
- (e) A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
- (f) If none of the rates or prices against each item are entered in the priced Bill of Quantities, however total sum / cost is entered against complete Bill of Quantities or sub-part of Bill of Quantities, the rate or price of each item would be taken from the Engineer's estimate which would be subsequently increased or decreased keeping in view over all variation of bid price of complete Bill of Quantities or sub-part of Bill of Quantities (as the case may be) with respect to Engineer's Estimate.
- (g) Bidder must be registered with Punjab Revenue Authority (PRA). If bidder is not registered then upon payment, 100% deduction of PRA Tax will be made as per applicable laws. **State Bank is not to be treated as Government Entity for this purpose therefore 100% applicable tax will be recovered.**

#### P5 Descriptions

The descriptions of pay items in the Bill of Quantities are brief and do not describe general directions, conditions and limitation of work, location and place of work, applicable methods, means to be adopted, type and quality of material, use of tools, plant, and machinery. For full details, refer to Specifications and Drawings.

In case of variations between the descriptions of pay items in the Specifications and descriptions in the Bill of Quantities, the descriptions in the Bill of Quantities shall prevail.

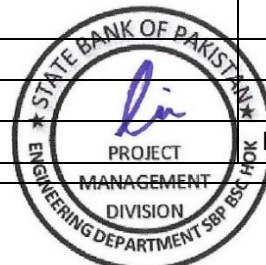
- P6 The Tenderer shall not make any additions or alterations in the tender documents. Tenders with additions or alterations shall be liable to rejection.
- P7 BOQ shall be read in conjunction with Conditions of Contract, Technical Specifications and Drawings.
- P8 All the Equipments that is to be offered, selected or installed in the works should has an official representative of manufacturers in Pakistan.





**P9** Variety of the items are available in the market with diverse price range. Therefore, in order to have uniformity in the quoted bid prices by the prospective bidders, base rates are provided. Any fluctuation in market rates of material during execution of work shall not be payable. Any adjustment in Prices shall be paid as per Appendix-C to Bid and Sub-Clause 70.1 of Conditions of Contract.

Item No.	Material	Base Price
C-41	Thatta stone 12" x 18" x 1" (305 mm x 457 mm x 25 mm)	Rs. 2,421/ Sq.m
C-42	Thatta stone 18" x 18" x 1" (457 mm x 457 mm x 25 mm)	Rs. 2,798/Sq.m
C-43	Thatta stone work Beading (gollas) 3" x 18" x 1"(76 mm x 457 mm x 25 mm)	Rs. 273/m.
C-44	Curve Thatta stone Patti of 18" length, flat from one side and curve from other side such that the Patti width varies from 3" to 7"	Rs. 3,586/Sq.m- Rs. 5,738/Sq.m
C-54	Granite tiles / slab glazed / unglazed 24" x 24" x 3/4"	Rs. 20,444/Sq.m & Rs. 19,368/Sq.m
C-55	Granite tiles / slab glazed / unglazed 24" x 6" x 3/8"	Rs. 11,029/Sq.m & Rs. 9,953/Sq.m
C-56	Granite tiles glazed / unglazed 12" x 12" x 3/4"	Rs. 20,444/Sq.m & Rs. 19,368/Sq.m
C-57	Granite tiles glazed / unglazed 12" x 36" x 3/4"	Rs. 20,444/Sq.m & Rs. 19,368/Sq.m
C-58	Granite tiles glazed / unglazed 9" x 36" x 3/4"	Rs. 20,444/Sq.m & Rs. 19,368/Sq.m
C-59	Pre-Polished Granite slab 36"-48" x 12" x 3/4"	Rs. 20,444/Sq.m
C-60	Pre-Polished Granite slab 18"-24" x 6" x 3/4"	Rs. 20,444/Sq.m
C-61	Pre-Polished Granite slab 48"-60" x 12" x 3/4"	Rs. 20,444/Sq.m
C-62	Pre-Polished Granite slab 24"-30" x 6" x 3/4"	Rs. 20,444/Sq.m
C-63	Pre-Polished Granite slab 72" x 16" x 3/4"	Rs. 20,444/Sq.m
C-64	Pre-Polished Granite slab 36" x 6" x 3/4"	Rs. 20,444/Sq.m
C-65	Pre-Polished Granite slab 3" x 36" x 3/4"	Rs. 20,444/Sq.m
C-66	Pre-Polished Granite slab 12" x 48" x 1/2"	Rs. 11,029/Sq.m
C-67	Pre-Polished Granite slab 12"-24" x 48" x 3/8"	Rs. 31,324/Sq.m
C-68	Pre-Polished Granite slab 60" x 24" x 3/4"	Rs. 20,444/Sq.m
C-69	Pre-Polished Granite slab 24" x 24" x 1/2"	Rs. 23,896/Sq.m
C-70	Pre-Polished Granite slab 24" x 48" x 3/4"	Rs. 20,444/Sq.m
C-71	Pre-Polished Granite slab 12" x 36" x 3/8"	Rs. 11,029/Sq.m
C-72	Pre-Polished Granite slab 111" x 24" x 3/4"	Rs. 20,444/Sq.m
C-73	Marble Slab 12" x 36" x 3/4"	Rs. 7,532/Sq.m
C-74	Marble Slab 18" x 18" x 3/4"	Rs. 19,368/Sq.m
C-75	Marble Slab 18" x 6" x 3/4"	Rs. 7,532/Sq.m
C-76	Marble tiles 12" x 24" x 1/2"	Rs. 3,228 /Sq.m
C-77	Marble tile 12" x 36" x 3/4"	Rs. 7,532/Sq.m
C-78	Porcelain tiles matt finish in any colour / print / texture 12" x 24"	Rs. 4,500/ Sq.m
C-79	Porcelain tiles glazed/unglazed in any colour / print / texture 12" x 12"	Rs. 2,750/ Sq.m
C-80	Porcelain tiles matt finish in any colour / print / texture 12" x 24"	Rs. 4,500/ Sq.m
C-81	Porcelain tiles motive matt finish in any colour / print / texture 12" x 24"	Rs. 7,0000/ Sq.m
C-82	Glazed Tiles 12" x 24"	Rs. 1,700/ Sq.m
C-83	Ceramic Tiles 12" x 24"	Rs. 1,700/ Sq.m
C-97	C.P. brass screws vip Romeo type lock (imported)	Rs.7,000-15,000/ Each



## CONSTRUCTION OF SBP NEW OFFICE BUILDING AT GUJRWALA

## SUMMARY OF COST

Sr. No.	Component of Works	Cost of Works (Rs.)
1	Civil Works (C)	
2	Vault & Security Doors (V)	
3	Plumbing Works (P)	
4	Electrical Works (E)	
5	Lift Works (L)	
6	HVAC Works (H)	
7	Building Management System (BMS) Works (B)	
8	Fire Protection System Works (FF)	
9	Surveillance & Communication System Works (SC)	
10	Security, Traffic Sign & Miscellaneous Works (S)	
11	Operation & Maintenance Services (O&M)	
Total (Rs.)		
Rebate @ _____% (if any)		
Amount Less Rebate (Rs.)		
<b>Amount in Words:</b>		

**Note:** The bidder shall carry over the Total Price Bid to Letter of Price Bid Page LPB-1

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

Address .....

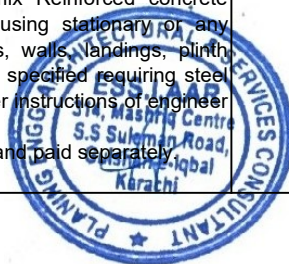


**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Civil Works**

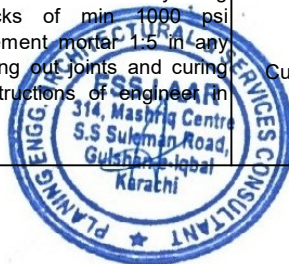
S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			<b>1</b>	<b>2</b>	<b>3 = 1 x 2</b>
C-1	Dismantling lime or cement concrete in foundation or under floor basement, plinth and ground floor and disposing of surplus material etc. complete and as per instructions of Engineer in charge.	Cum	52.74		
C-2	Dismantling R.C.C. including separating reinforcement from concrete in foundation, basement, plinth and ground floor including stacking at site and disposing of unserviceable material etc. complete and as per instructions of Engineer in charge.	Cum	198.31		
C-3	Demolition of existing security guard room with washroom size 12'-0" x 12'-0" x 10'-0" including taking out pre-cast roof slab, steel door size 3'-0" x 6'-0", steel window 3'-0" x 3'-0", brick masonry, flooring, plaster, all plumbing and electrical fixtures etc. complete and as per instructions of engineer in charge.	Job	1.00		
C-4	Dismantling all types of wire fencing or netting including winding the wires in rolls and rolling the netting and stacking serviceable material and disposing of unserviceable material as directed by the engineer in charge	Meter	1911.10		
C-5	Taking out existing heavy steel gate including all accessories in ground floor and stacking properly at site etc. complete and as per instructions of engineer in charge	Each	1.00		
C-6	Excavation for raft foundations, underground tanks and septic tanks (rectangular, square or any other shape) in all kinds of soil particularly sandy silt, and clayey soil, Saturated or unsaturated removed at some distance from excavated pit so that other activities can be done etc. complete and as per instructions of Engineer in charge	Cum	19180.57		
C-7	Disposal of excavated soil 10km radius from site as per direction of engineer in charge.	Cum	19180.57		
C-8	Providing and fixing close timbering in foundation trenches, drains, underground tanks, wells, septic tanks, and soak pits etc., including strutting and depth exceeding 15 feet (4.5 R.m) and up to 20 feet (6. RM) etc. complete and as per instruction of engineer in charge.	Sqm	1775.57		
C-9	Bailing or pumping out sub-soil water during excavation, concreting, cast in situ concrete or masonry work in foundation etc. including all labour, use of pumps, plants etc. complete and as per instructions of Engineer in charge. (The net quantity raised to be paid for). The lift not to exceed 8 Meters. Conversion factor 1000 Liters = One Cum	Cum	74428.69		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-10	Supplying earth from approved outside sources from within radius of 5 mile including digging, loading and unloading and filling in foundation trenches, plinth or under floor, etc. including breaking clods, dressing, watering and consolidation by ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction at any depth etc. complete and as per instructions of engineer in charge.	Cum	4838.86		
C-11	Providing Anti -termite treatment by spraying /sprinkling /spreading Heptachlor 0.5% Emulsion as an overall pre - construction treatment both vertically and horizontally etc. complete and as per instructions of engineer in charge.	Sqm	7268.63		
C-12	Providing and laying C.C 1:4:8 in foundation, basement and plinth including form work, compacting, curing and removal of form work etc. complete and as per instructions of engineer in charge	Cum	875.13		
C-13	Providing and laying C.C 1:3:6 in foundation, basement and plinth including form work, compacting, curing and removal of form work etc. complete and as per instructions of engineer in charge	Cum	346.81		
C-14	Providing and laying Ready mix Reinforced concrete 3000 Psi cylindrical strength using stationary or any other pumps, as in roof, slabs, walls, landings, plinth beams, rafts and bands etc. as specified requiring wooden shuttering etc. complete & as per instructions of engineer in charge. Reinforcement to be measured and paid separately.				
	(a) Foundation	Cum	39.52		
	(b) Columns	Cum	58.61		
	(c) Beams & Slabs	Cum	114.52		
C-15	Providing and laying Ready mix Reinforced concrete 4000 Psi cylindrical strength using stationary or any other pumps, as in roof, slabs, walls, landings, plinth beams, rafts and bands etc. as specified requiring wooden shuttering etc. complete & as per instructions of engineer in charge. Reinforcement to be measured and paid separately.				
	(a) Raft	Cum	3171.61		
	(b) Retaining Walls & Columns	Cum	2506.81		
	(c) Slabs, Beam & Staircases	Cum	2878.86		
C-16	Providing and laying Ready mix Reinforced concrete 6000 Psi cylindrical strength using stationary or any other pumps, as in roof, slabs, walls, landings, plinth beams, rafts and bands etc. as specified requiring steel shuttering etc. complete & as per instructions of engineer in charge. Reinforcement to be measured and paid separately.				



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	(a) Raft	Cum	807.64		
	(b) Walls	Cum	383.04		
	(c) Roof Slab	Cum	269.21		
C-17	Providing and laying (4 inch thick) 1:2:4 pre-cast, RCC slab including hoisting, setting and jointing etc. complete and as per instructions of engineer in charge.	Sqm	6.94		
C-18	AQUAFIN-LATEX-M Admixture added to concrete mix in quantities 2% by mass of cement during mixing and as per direction of engineer in charge.	KG	24556.61		
C-19	Retarding (BAS7-700 or Equivalent) Admixture added to concrete mix in quantities 2% by mass of cement during mixing and as per direction of engineer in charge.	KG	24556.61		
C-20	SBR for construction joint (new to old concrete bond) as specified and as per direction of engineer in charge.	Liters	179.97		
C-21	Providing and fixing swell bar in key joints of construction joint including labour, adhesive etc. complete and as per instructions of engineer in charge.	Meter	57.86		
C-22	Providing and laying deformed (minimum yield point 60,000 psi) reinforcement bars with & including the cost of straightening, cutting, bending, binding, placing in position in all kinds of RCC work in foundation, basement, plinth and any floor of building and as per direction of engineer in charge.	Kg	1762366.15		
C-23	Supply and fix flat iron of 70mm width and 6mm thickness grade HD in vault slab, wall including cutting, bending, binding and placing reinforcement in position and as per drawings/directions of engineer in charge.	Kg	240884.24		
C-24	Providing and fixing M.S bars of required dia of grade 40 at required spacing as per approved design including welding as required in any floor in any depth etc. complete and as per instructions of engineer in charge.	Kg	78684.96		
C-25	Providing and laying pre-cast solid blocks masonry using 6"x8"x12" size pre-cast blocks of min 1000 psi compressive strength set in cement mortar 1:5 in any floor superstructure including scaffolding, raking out joints and curing etc. complete and as per instructions of engineer in charge.	Cum	1196.90		
C-26	Providing and laying pre-cast solid blocks masonry using 4"x8"x12" size pre-cast blocks of min 1000 psi compressive strength set in cement mortar 1:5 in any floor including scaffolding, raking out joints and curing etc. complete and as per instructions of engineer in charge.	Cum	120.79		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-27	Providing and laying pre-cast hollow blocks masonry using 6"x8"x12" size pre-cast blocks of min 1000 psi compressive strength set in cement mortar 1:5 in any floor including scaffolding, raking out joints and curing etc. complete and as per instructions of engineer in charge.	Cum	273.39		
C-28	Providing and laying 1st class bricks masonry, 9" thick set in cement mortar 1:5 in any floor including scaffolding, raking out joints and curing etc. complete and as per instructions of engineer in charge.	Cum	337.76		
C-29	1/2" (13 mm) thick cement plaster 1:4 including making edges, corners, and curing etc., complete and as per instructions of engineer in charge.	Sqm	27997.27		
C-30	3/4" (19 mm) thick cement plaster 1:4 including making edges, corners, and curing etc., complete and as per instructions of engineer in charge.	Sqm	5515.79		
C-31	1/2" (13 mm) thick cement plaster 1:2 with water proofing agent pudlo (5 lbs. per bag of Cement) including making edges, corners, and curing etc., complete and as per instructions of engineer in charge.	Sqm	6331.50		
C-32	1/2" (13 mm) thick cement plaster 1:4 with water proofing agent pudlo (5lbs per bag of Cement) including making edges, corners, and curing etc., complete and as per instructions of engineer in charge.	Sqm	254.54		
C-33	Making cement plaster pattas /band around straight or curved openings and around the edges of windows and opening with fine finishes as directed by engineer in charge.	Meter	1849.09		
C-34	Painting one coat with alkali resisting paint of approved make and shade to plastered surface etc. including sand papering the surface etc. complete and as per instructions of engineer in charge.	Sqm	27913.24		
C-35	Painting two coats of plastic emulsion paint of approved make and shade to walls and ceiling including cleaning, and sand papering the surface etc. complete and as per instructions of engineer in charge.	Sqm	19045.65		
C-36	Painting plastered surface with enamel paint of approved make and shade two coats at any height in any floor etc complete and as per instruction of engineer in charge.	Sqm	7747.66		
C-37	Painting three coats with weather shield paint of approved shade and make on plaster surface (External) and including the cost of cleaning the surface, sand papering at any height in any floor etc. complete and as per instructions of engineer in charge.	Sqm	156.28		





S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-38	Distemping with poly vinyl distemper of approved make and shade in two coats over and including the cost of one priming coat of lime wash including sand papering, dusting, and filling the holes, cracks and inequalities, if any, at any height in any floor etc. complete and as per instructions of engineer in charge.	Sqm	189.69		
C-39	Preparing the surface and painting with matt finish including rubbing the surface with bathy (Silicon carbide rubbing brick) filling the voids with zinc/chalk/plaster of Paris mixture, applying first coat premix making the surface smooth and then painting 3 coats with matt finish of approved make etc.: complete	Sqm	1018.17		
C-40	Painting three coats of thermo plastic paint (for road marking) of approved make and shade etc. complete and as per instructions of engineer in charge.	Sqm	62.86		
C-41	Providing & Fixing Thatta stone 12" x 18" x 1" (305 mm x 457 mm x 25 mm) machine cut resize as required including sand blasting at elevation, fixing with High strength bond & stainless steel screws (3" long) provided at every third course vertically and at a corner of each stone c/c horizontally at any height of building etc. complete, design and pattern as per approved drawings and instructions of engineer in charge.	Sqm	5956.88		
C-42	Providing & Fixing Thatta stone 18" x 18" x 1" (457 mm x 457 mm x 25 mm) machine cut resize as required including sand blasting at elevation, fixing with High strength bond & stainless steel screws (3" long) provided at every third course vertically and at a corner of each stone c/c horizontally at any height of building etc. complete, design and pattern as per approved drawings and instructions of engineer in charge.	Sqm	218.78		
C-43	Providing & Fixing Thatta stone work Beading (gollas) 3" x 18" x 1" (76 mm x 457 mm x 25 mm) machine cut resize as required including sand blasting at elevation, fixing with High strength bond etc. complete, design and pattern as per approved drawings and instructions of engineer in charge.	Sqm	346.50		
C-44	Providing & Fixing Curve Thatta stone Patti of 18" length, flat from one side and curve from other side such that the Patti width varies from 3" to 7" including sand blasting at elevation, fixing with High strength bond etc. complete, design and pattern as per approved drawings and instructions of engineer in charge.	Sqm	300.41		
C-45	Providing & applying colour crete wall surface to provide, durable crust and aesthetics having thickness up to 1/4" (6.4 mm) 1:1:2 (1 white cement mixed with pigment, 1 marble powder and 2 marble chips zero No.) with specified colour having water, fire and termite resistance Complete as per Instruction of engineer in charge.	Sqm	78.47		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-46	Supply and fix Galvanized angle iron 2" x 2" x 1/8" thick for Thatta stone on above openings (Door & Window) including nuts, bolts etc. complete and as per approved design and instructions of engineer in charge.	Meter	188.19		
C-47	Providing and laying 2 inches (50 mm) thick Screed Bed with cement concrete 1:2:4 using graded screened bajri of 3/4 inch (19 mm) and down gauge and Acetylene black (Calcium Carbide) including compacting, curing form work and its removal etc. complete and as per instructions of engineer in charge.	Sqm	4182.47		
C-48	Providing and laying C.C topping of 2 inches (50 mm) thick 1:2:4 cement concrete using graded screened bajri 3/4 inch (19 mm) and down gauge in any floor laid in panels including form work, consolidation, finishing, and curing etc. complete and as per instructions of engineer in charge.	Sqm	8580.38		
C-49	Providing and laying gravel 3/4" to 1-1/2" size under floors including packing with spawls and chips and consolidating etc. complete.	Cum	474.40		
C-50	Providing and laying, CC Type "A," (1:2:4) with Power float Screed bed 75 mm thick in panel of 10'x10' where joint is filled with hot bitumen mixed with fine sand on bond breaking material as specified.	Sqm	4182.47		
C-51	Providing and laying, 50 mm thick GRANOLITHIC layer floor in panels of 6'x6', such that concreting (including iron swarf 12% by Weight of cement in concrete of ratio 1:2:4) will be done for 38mm concrete and spreading 12mm mortar (1:2 1 cement 2 gravel) on top of green concrete including curing of floor etc. complete. Grinding using machine will be done to make the surface smooth after curing etc. complete.	Sqm	1373.54		
C-52	Providing and laying, 50 mm thick GRANOLITHIC layer floor in panels of 6'x6', such that concreting of ratio 1:2:4 will be done for 38mm and spreading 12mm mortar (1:2 1 cement 2 gravel) on top of green concrete including curing of floor etc. complete. Grinding using machine will be done to make the surface smooth after curing etc. complete.	Sqm	1351.40		
C-53	Providing and laying, 13 mm thick GRANOLITHIC layer skirting such that concreting (ratio 1:2) will be done for 13mm thickness for skirting. including curing and making the surface smooth of skirting etc. complete.	Sqm	160.67		
C-54	Providing and laying approved Quality Granite tiles / slab glazed / unglazed (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 24" x 24" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified. & Instruction by engineer in charge.	Sqm	4002.93		



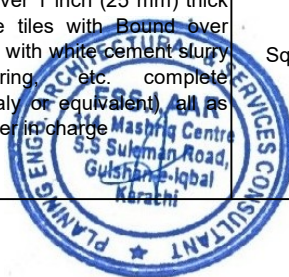
S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-55	Providing and laying approved Quality Granite tiles / slab glazed / unglazed (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 24" x 6" x 3/8" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	297.14		
C-56	Providing and laying approved Quality Granite tiles glazed / unglazed (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 12" x 12" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	271.75		
C-57	Providing and laying approved Quality Granite tiles glazed / unglazed (sado grey, Sado White, cherry pink, cherry brown, steel gray, silver pearl or approved equivalent) 12" x 36" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	167.22		
C-58	Providing and laying approved Quality Granite tiles glazed / unglazed (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 9" x 36" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	30.10		
C-59	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 36"-48" x 12" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	72.31		
C-60	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 18"-24" x 6" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	37.00		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-61	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 48"-60" x 12" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	119.38		
C-62	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 24"-30" x 6" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	65.24		
C-63	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 72" x 16" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing & washing the tiles with white cement slurry including curing, rubbing and polishing etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction of engineer in charge	Sqm	120.17		
C-64	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 36" x 6" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing & washing the tiles with white cement slurry including curing, rubbing and polishing etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction of engineer in charge	Sqm	41.56		
C-65	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 3" x 36" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	43.24		
C-66	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 12" x 48" x 1/2" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified & Instruction by engineer in charge	Sqm	407.68		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-67	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 12"-24" x 48" x 3/8" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	48.21		
C-68	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 60" x 24" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	16.63		
C-69	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 24" x 24" x 1/2" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	2.29		
C-70	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 24" x 48" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	97.55		
C-71	Providing and laying approved Quality Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 12" x 36" x 3/8" of approved design machine polished Complete as in floors, steps, walls and etc., including chamfering ,Cutting ,polishing etc. over 1/2 inch (13 mm) thick base of cement mortar 1:3 setting of tiles in bound over mortar base including filling the joints and washing the tiles with white cement slurry curing etc. complete, (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction of engineer in charge	Sqm	444.95		
C-72	Providing and laying approved Quality Pre-Polished Granite slab (sado grey, Sado White, cherry pink, cherry brown, steel grey, silver pearl or approved equivalent) 11" x 24" x 3/4" on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	7.99		





S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-73	Providing and laying 12" x 36" x 3/4", Marble Slab (Grade Supreme Doodhia or approved equivalent) of approved design machine polished Complete as in floors, steps, walls and etc., including chamfering ,Cutting ,polishing etc. over 1/2 inch (13 mm) thick base of cement mortar 1:3 setting of tiles in bound over mortar base including filling the joints and washing the tiles with white cement slurry curing, finishing, cleaning and polishing etc. in internal work complete as per instruction of engineer in charge	Sqm	978.17		
C-74	Providing and laying 18" x 18" x 3/4", Marble Slab (Ziarat White or approved equivalent) of approved design machine polished Complete as in floors, steps, walls and etc., including chamfering ,Cutting ,polishing etc. over 1/2 inch (13 mm) thick base of cement mortar 1:3 setting of tiles in bound over mortar base including filling the joints and washing the tiles with white cement slurry curing, finishing, cleaning and polishing etc. in internal work complete as per instruction of engineer in charge.	Sqm	540.75		
C-75	Providing and laying 18" x 6" x 3/4", Marble Slab (Ziarat White or approved equivalent) of approved design machine polished Complete as in floors, steps, walls and etc., including chamfering ,Cutting ,polishing etc. over 1/2 inch (13 mm) thick base of cement mortar 1:3 setting of tiles in bound over mortar base including filling the joints and washing the tiles with white cement slurry curing, finishing, cleaning and polishing etc. in internal work complete as per instruction of engineer in charge.	Sqm	27.39		
C-76	Providing and laying, 1/2" thick Zia rat White Marble tiles or approved equivalent 12" x 24" in walls and floors, laid and jointed in white / coloured cement (1:2) including 1/2" thick and 1-1/2" wide marble patty or any size as per flooring pattern as dividing strip in floors. rubbing, chemical polishing, complete.	Sqm	218.16		
C-77	Providing and laying approved quality marble tile 12" x 36" x 3/4" (Grade-A) on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with bond over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete all as specified & as per Instruction by engineer in charge.	Sqm	3.34		
C-78	Providing and laying Porcelain tiles matt finish in any colour / print / texture 12" x 24" (PORCELAIN Serial No ZE36GL5) on floors, laid with dry bond (Stile bond) over existing floor including jointing the tiles with joint filler of approved quality etc. complete and as per instructions of engineer in charge.	Sqm	11.90		
C-79	Providing and laying Porcelain tiles glazed/unglazed in any colour / print / texture 12" x 12" (Master Porcelain Tile Serial No LPF 27-101) on walls and floors, laid with dry bond (Stile bond) over existing floor including jointing the tiles with joint filler of approved quality etc. complete and as per instructions of engineer in charge.	Sqm	12.86		





S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-80	Providing and laying Porcelain tiles matt finish in any colour / print / texture 12" x 24" (PORCELAIN Serial No AS36PP40 UAE Porcelain, Imported) on walls, laid with dry bond (Stile bond) over existing floor including jointing the tiles with joint filler of approved quality etc. complete and as per instructions of engineer in charge.	Sqm	16.30		
C-81	Providing and laying Porcelain tiles motive matt finish in any colour / print / texture 12" x 24" Spanish imported on walls, laid with dry bond (Stile bond) over rough plaster including jointing the tiles with joint filler of approved quality etc. complete and as per instructions of engineer in charge.	Sqm	3.26		
C-82	Providing and laying Glazed Tiles 12" x 24" UAE imported in any colour / print / texture on walls and floors on rough plaster of 1/2" thick cement mortar 1:2 (1 cement and 2 sand) including jointing and washing the tiles with white cement slurry a matching colour (by using pigment in white cement) and curing etc. complete and as per instruction of engineer in charge.	Sqm	110.44		
C-83	Providing and laying Ceramic Tiles 12" x 24" in any colour / print / texture on walls laid over rough plaster of 1/2" thick cement mortar 1:2 (1 cement and 2 sand) including jointing and washing the tiles with white cement slurry a matching colour (by using pigment in white cement) and curing etc. complete and as per instruction of engineer in charge.	Sqm	22.09		
C-84	Providing and making Granite pattas/band (Indus red) 3/8" thick and 6" width straight or curved on floor laid over 1 inch (25 mm) thick cement mortar 1:2 setting the tiles with Bound over cement mortar, jointing the tiles with white cement slurry and nosing including curing, etc. complete (Imported/Local-origin China, Italy or equivalent) all as specified.& Instruction by engineer in charge	Sqm	6.08		
C-85	Providing and laying, CC Paving stone, 50 mm thick in natural colour, as in floors, ramps etc., any Reference and any shape, are fixed using 1:4 mortar 3/4" thick and slurry of cement as the practice adopted in tiles ,granite or marble as per drawing and instruction engineer in charge.	Sq.m	377.35		
C-86	Providing and laying, CC Paving stone, 80 mm thick in natural colour, as in floors, drive-way, walk-way etc., any reference and any shape, are fixed using 1:4 mortar 3/4" thick and slurry of cement base and slurry of cement as the practice adopted in tiles ,granite or marble as per drawing and instruction engineer in charge.	Sqm	2480.76		
C-87	Providing and laying Precast PCC kerb stone 18" x 12" x 6" obtained from approved quarry, chisel dressed on top and sides, laid in C.C 1:2:4 and joints filled with cement mortar 1:4 including cost of excavation and back filling of excavated stuff etc. complete and as per instructions of engineer in charge.	Meter	30.73		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-88	Providing and fixing 2 inches (50 mm) thick solid core 1st class Burma Teak wood panel door shutters, fixed over best quality Burma Teak wood frame 2 inches width as per wall thickness as per approved drawing, manufactured with machines complete with all necessary fitting as per Drawings and instruction of engineer in charge Also for this item chowkhat for this door will be 8" wide or width of masonry 2" thick Burma teak and with beading at both sides of door around chowkhat of width upto 4 inch or more as given in drawing and engineer in charge	Sqm	7.43		
C-89	Providing and fixing 1-1/2 inch (38 mm) thick best quality Burma teak wood shutters original fully paneled with same wood, joints should be fixed with wooden nails including best quality teak wood frames and all brass mongery etc. complete and as per instruction of engineer in charge.				
	(a) D1 (2.5' x 8')	Sqm	9.29		
	(b) D2A (3' x 7')	Sqm	5.85		
	(c) D2 (3' x 8')	Sqm	37.91		
	(d) D3 (3.5' x 8')	Sqm	7.80		
	(e) D4 (4' x 8')	Sqm	41.62		
	(f) D5 (5' x 8')	Sqm	11.15		
C-90	Providing and fixing 1-1/2 inch (38 mm) thick best quality Deodar wood shutters original fully paneled with same wood, joints should be fixed with wooden nails including best quality deodar wood frames and all brass mongery etc. complete and as per instruction of engineer in charge.				
	(a) D1 (2.5' x 7')	Sqm	21.13		
	(b) D2 (3' x 7')	Sqm	7.80		
	(c) D3 (3.5' x 7')	Sqm	18.21		
	(d) D4 (4' x 7')	Sqm	2.60		
C-91	Providing and fixing chicken netting of approved quality and mesh with best quality deodar wood beading up to one square inch (6.45 SqM.) in section of approved design with iron screws etc. complete and as per instructions of engineer in charge				
	(a) D2 (3' x 7')	Sqm	5.85		
	(b) D4 (4' x 7')	Sqm			



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-92	Providing and fixing 1-1/2 inches (38 mm) thick best quality Burma teak wood shutters partly paneled and partly glazed with tempered glass panes 5 mm thick (Tariq, Ghani or Equivalent), including best quality teak wood frames and brass hinges and all brass mongery etc. complete and as per instruction of engineer in charge				
(a)	GD1 (2.5' x 8')	Sqm	16.73		
(b)	GD2 (3' x 8')	Sqm	40.14		
(c)	GD3 (3.5' x 8')	Sqm	57.28		
(d)	GD4 (4' x 8')	Sqm	47.57		
(e)	GD5 (5' x 8')	Sqm	48.31		
(f)	GD6 (6' x 8')	Sqm	35.68		
(g)	GD1A (2.5' x 7')	Sqm	14.62		
C-93	Providing and fixing 1-1/2 inches (38 mm) thick best quality deodar wood folding partition fully paneled with same wood as required etc. complete and as per instruction of engineer in charge.	Sqm	5.20		
C-94	Providing and fixing 1/2" thick 2'x2' wood panel 4 sides all covered by 3/4" x 2" Wooden base frame wood and above that another panel of 2'x9" of 1/2" thick Burma teak and again covered by 3/4" x 2" base frame. These two panels are separated by 1-1/2" x 1-1/2" wood beading and also one more such beading at top" including fixing as per drawings and instruction of engineer in charge.	Sqm	84.33		
C-95	Providing and fixing 1-1/2 inch (38 mm) thick 1st Class Burma Teak wood beading Patti 3/4" x 9" inches of required shape fixed with screws, perforated in corners if required including the top and bottom wooden gola as per drawing, in any floor. Complete as per instruction of engineer in charge.	Meter	443.80		
C-96	French wood polishing complete in all respect on New work	Sqm	803.86		
C-97	Providing and fixing with C.P. brass screws vip Romeo type lock (imported) of approved design, cutting wood etc. complete with two operating keys, as per direction of the engineer-in-Charge.	Each	48.00		
C-98	Providing and fixing handle lock with machine of Khaas or approved equivalent.	Each	109.00		
C-99	Providing and fixing approved quality push bar panic exit lock Latch stainless steel 5/8" throw backset 2-3/4" dogging feature strikes adjustable with slotted holes for adjustment as per instruction of engineer in charge.	Each	8.00		



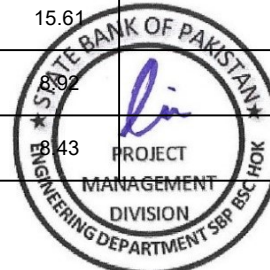
S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-100	Supply and fix, 12mm thick tempered Glass (Ghani, Tariq float or equivalent) door in any size including all necessary accessories i.e. pivot machine, S.S handle, D lock etc. as specified & as per instruction of engineer in charge	Sqm	29.45		
C-101	Supply and fix, 19mm thick Glass door with fixed glass panels in any size including all necessary accessories i.e. pivot machine, S.S handle, D lock etc. as specified & as per instruction of engineer in charge	Sqm	9.42		
C-102	Providing and fixing SS glass frame such that at the front a 12mm glass with opening is fixed to frame and glass of 8mm tempered and frosted at two sides of counter where at back 8mm clear glass also fixed with S.S frame where as a door is not included in this item etc. complete as per approved drawing and instruction of engineer in charge.	Each	14.00		
C-103	Providing, fabricating and fixing in position, steel door comprising of about 1.5" thick panel made from 1"x1" sq. steel bars provided at about 8" distance (total 7 vertical bars & 11 horizontal bars), with 14SWG GI skin sheet on both sides and concrete in-fill between the bars and between the steel bars mesh and skin sheets, with full length hinge made from 25mm dia. steel shaft & heavy duty sockets welded with the door leaf & with the door frame made from minimum 3mm thick hot rolled steel sheet according to the width of the wall, with one see through bullet proof glass panel of 4"x4" size with swinging type flip cover made from 14SWG GI Sheet, one tower bolt at bottom made from 1" dia. steel shaft and heavy duty sockets welded over panel and one grouted in floor, three (03) Al-drops made from 1" dia. steel shaft & heavy duty sockets welded to the door panel and grouted in the wall, one handle made from 1" dia. welded to the internal steel bars mesh of the door panel, with one heavy duty hydraulic/spring type wheel set and allied accessories, approved best quality locking arrangement, all painted with approved quality red oxide primer and enamel paint, complete in all respects as per site requirements and as directed by the Engineer in-charge. The vendor will have to submit the drawings, specifications, and other documents for approval of the Bank before fabrication & installation of the doors.				
	(a) Size 8' x 8'	Each	1.00		
	(b) Size 3' x 8'	Each	4.00		
	(c) Size 3.5' x 8'	Each	2.00		
	(d) Size 5' x 8'	Each	2.00		
	(e) Size 6' x 8'	Each	1.00		
	(f) Size 5' x 7'	Each	1.00		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-104	Providing, fabricating and fixing in position, steel door comprising of about 1.5" thick panel made from 1"x1" sq. steel bars provided at about 8" distance (total 7 vertical bars & 11 horizontal bars), with 14SWG GI skin sheet on both sides and concrete in-fill between the bars and between the steel bars mesh and skin sheets, with full length hinge made from 25mm dia. steel shaft & heavy duty sockets welded with the door leaf & with the door frame made from minimum 3mm thick hot rolled steel sheet according to the width of the wall, with one see through bullet proof glass panel of 4"x4" size with swinging type flip cover made from 14SWG GI Sheet, one tower bolt at bottom made from 1" dia. steel shaft and heavy duty sockets welded over panel and one grouted in floor, three (03) Al-drops made from 1" dia. steel shaft & heavy duty sockets welded to the door panel and grouted in the wall, one handle made from 1" dia. welded to the internal steel bars mesh of the door panel, with one heavy duty hydraulic/spring type wheel set and allied accessories, approved best quality locking arrangement, all painted with approved quality red oxide primer and enamel paint, complete in all respects as per site requirements and as directed by the Engineer in-charge. The vendor will have to submit the drawings, specifications, and other documents for approval of the Bank before fabrication & installation of the doors.				
	(a) Size 6' x 8'	Each	4.00		
	(b) Size 3' x 8'	Each	5.00		
	(c) Size 5' x 8'	Each	2.00		
	(d) Size 4' x 8'	Each	3.00		
C-105	Providing and fixing double leaf steel doors made to crittal or equivalent standard and of approved sections fully panelled with M. S. Sheet of 18 gauge painted with coats of red oxide paint and enamel paint including using approved brass section oxidized fittings, iron lugs, including cutting holes and making good damages to walls etc. complete as required and as per instructions of engineer in charge.				
	(a) Main Gate 10' x 8'	Each	1.00		
	(b) Main Gate 5' x 8'	Each	1.00		
C-106	Providing and fixing heavy type steel gates with teak wood planks of 1" thick made to crittal or equivalent standard and of approved sections painted with coats of red oxide paint including using approved brass section oxidized fittings, iron lugs, including cutting holes and making good damages to walls etc. complete as required and as per instructions of engineer in charge.				
	(a) Main Gate No.1	Each	1.00		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	(b) Main Gate No.2	Each	1.00		
C-107	Providing and fixing machine operated rolling shutters made of M. S. bars mesh with all accessories and fitting and encased in G.I. box complete with brackets, arrangement for inside and outside locking with operation handles, cutting holes and making good damages to walls etc. painting two coats of red oxide paint on M.S. section etc. complete as required in any floor.				
	(a) RSH-2 (8' x 9'-6")	Each	1.00		
	(b) RSH-4 (21'-6" x 22'-3")	Each	1.00		
C-108	Providing & fixing of approved quality in-ward openable sound proof uPVC doors in white colour made from 60mm x 60mm frame and 60mm x 100mm sash double glazed with 5mm thick tempered glass with 8mm air space between the two glass panels vacuumed with argon gas with best quality door hinges and door lock etc. complete in all respects as per site requirements, specifications, instructions of the manufacturer and as directed by the Engineer In-charge.				
	(a) D1A (2.5' x 7')	Sqm	74.78		
	(b) D1B (2.5' x 8')	Sqm	14.91		
C-109	Providing and fixing in position Fixed, with 5 mm thick (Tariq or Ghani or equivalent) glass panel fixed in best quality Burma Teak wooden frame complete with all necessary fitting as per Door window Schedule Drawings and instruction of engineer in charge.				
	(a) W1 (6' X 6')	Sqm	36.79		
	(b) W1A (6' X 5.67')	Sqm	6.32		
	(c) W2 (5' X 6')	Sqm	61.32		
	(d) W2A (5' X 5.67')	Sqm	21.07		
	(e) W3 (3' X 6')	Sqm	33.44		
	(f) W4 (2.5' X 6')	Sqm	56.47		
	(g) W5 (2' X 4.5')	Sqm	0.84		
	(h) G1A (18' X 5.67')	Sqm	9.48		
	(i) G2 (14' X 6')	Sqm	15.61		
	(j) G3 (8' X 6')	Sqm	8.92		
	(k) G3A (8' X 5.67')	Sqm	8.43		

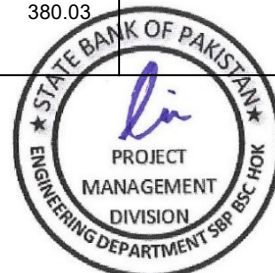




S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-110	Providing and fixing fully glazed aluminum Fixed windows box section 101.76mm x 44.50mm and 2mm thick including the cost of glass pan, aluminum fittings, with all accessories cutting hole etc. and making good damages to walls etc. complete as required in any floor as per direction of engineer-in-charge				
(a)	W2B (5'-0" X 6'-0")	Sqm	17.28		
(b)	V2A (5'-0" X 2'-0")	Sqm	0.93		
C-111	Providing & fixing of approved quality in-ward open able or fixed as per the drawing sash type sound proof uPVC windows in white colour made from minimum 2mm thick imported (Winmark or other approved Turkish or approved origin) uPVC sections duly strengthened with 2mm thick MS sheet sections reinforcement, using frame made from minimum 70mm thick section and minimum 100mm size sash, double glazed with one 5mm thick and other 8mm thick both fully tempered clear glass panels with at least 8mm air space between the two glass panels vacuumed with argon gas, with best quality imported spacers and moisture absorbent chemicals, best quality rubbers, brushes, gaskets/EPDM, tapes, stoppers, thermal breaks, gears, approved quality & design uPVC handles, locks, latches, hinges and other hardware required, including repairing of jambs where required with mortar comprising of cement, sand & latex based bonding agent of approved make, sealing with approved quality silicone, complete in all respects as per requirements, specifications, instructions of the manufacturer and as directed by the Engineer In-charge.				
(a)	W1 (6' x 6')	Sqm	13.38		
(b)	W2 (5' x 6')	Sqm	20.87		
(c)	W3 (3' x 6')	Sqm	3.34		
(d)	W4 & W4A (2'-6" x 6')	Sqm	168.61		
(e)	W6 (4' x 4')	Sqm	36.64		
(f)	W7 (1.5' x 4')	Sqm	8.42		
(g)	G3 (8' x 6')	Sqm	50.00		
(h)	V1 (2'-6" x 2')	Sqm	21.78		
(i)	V2 & V2a (5' x 2')	Sqm	7.91		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-112	Providing and fixing fully glazed Silver anodized aluminum sliding door with frame as per British standard manufactured by Lucky, Alcop, Krudson, Pakistan cable and A.C.P. (fixing through their approved fabricators), Deluxe model section, 76.2mm x 38.1mm and 1.6mm thick including the cost of 5mm thick tempered glass, aluminum fittings, with all accessories cutting hole etc. and making good damages to walls etc. complete as required in any floor as per direction of engineer-in-charge	Sqm	5.20		
C-113	Providing and fixing double glazed Silver anodized aluminum Sliding windows as per British standard manufactured by Lucky, Alcop, Krudson, Pakistan Cables and A.C.P. (fixing through their approved fabricators), Executive model section double or single glazed 101mm x 37mm and 2mm thick including the cost of 5mm thick tempered glass, aluminum netting ,fitting, with all accessories cutting hole etc. and making good damages to walls etc. complete as required in any floor as per direction of engineer-in-charge.				
	(a) W2 (4' X 5')	Sqm	3.72		
	(b) W3 (5' X 5')	Sqm	16.26		
	(c) W4 (4' X 5')	Sqm	7.43		
	(d) W5 (8' X 5')	Sqm	3.72		
C-114	Providing and fixing fully glazed aluminum side hung windows box section 101.76mm x 44.50mm and 2mm thick including the cost of glass pan, aluminum fittings, with all accessories cutting hole etc. and making good damages to walls etc. complete as required in any floor as per direction of engineer-in-charge				
	(a) W1 (2' X 6.5')	Sqm	2.42		
	(b) W1 a(2' X 5')	Sqm	3.72		
	(c) V1 (2' X 2')	Sqm	2.97		
C-115	Providing and fixing iron grill of any size with required section of flat iron as per approved design including Welding all sides of the section at the junction and fixing sunk screws etc. complete as required at any floor as per direction of engineer incharge.	Kg	6995.34		
C-116	Applying one coat of red oxide paint of approved make including scraping and sand papering the surface etc. complete and as per instructions of engineer in charge.	Sqm	396.19		
C-117	Painting iron work after red oxide base with synthetic enamel paint of approved make and shade two coats over at any height in any floor etc. complete and as per directions of engineer in charge.	Sqm	380.03		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-118	Providing and fixing iron grills with required section of flat iron, angle iron and round bars of 1" dia as per approved design including fixing with Welding using Electrodes etc. complete as required in drawing any floor etc. complete and as per instructions of engineer in charge.	Sqm	293.62		
C-119	Supply and fix, gypsum ceiling 600 mm x 600 mm x 7.5 mm thick, including PVC film at front and metallic foil past at back side complete including all necessary fitting as per drawings and instruction of engineer in charge.	Sqm	2880.20		
C-120	Providing and fixing gypsum board 1/2" (12.5 mm) thick with wire nails to wooden frame to receive gypsum plaster finishing coat in any floor height including cost of wooden frame and all necessary fitting etc. complete as per drawings and instruction of engineer in charge.	Sqm	148.29		
C-121	Providing and fixing Chicken mesh of at least 12BWG, as per approved design including welding all sides of the section at the junction and fixing with sunk iron screws, painting two coats of red oxide paint etc. complete as required in any floor	Sqm	293.62		
C-122	Supplying and fixing S.S Monkey Ladder rungs made up of 1" dia G.I pipes with epoxy protective coating fixed in RCC walls with 4" dia 1/4" thick M.s plate and 5/8" dia galvanized rawl bolts for under ground / over head water tank as per approved design and direction of the Engineer-in-Charge complete.	Each	30.00		
C-123	Providing a coat of bitumen emulsion on walls and floor as specified and as per instructions of engineer in charge.	Sqm	514.91		
C-124	Providing and fixing Kitchen Exhaust Hood of approved design and size (Fotile or Equivalent) as specified and as per instructions of engineer in charge.	Each	1.00		
C-125	Providing and laying mild steel perforated grating over drain as per direction of the Engineer-in-Charge complete	Kg	459.82		
C-126	Providing and laying, 4mm thick Torch Bonding Water Proofing Membrane (Dermabit) with self adhesive side lap 75mm, end lap 100 mm, including primer and 200 micron polythene sheet over membrane etc. complete as specified & as per direction of engineer in charge.	Sqm	7825.71		
C-127	Providing and laying layer of heavy duty polythene sheet of 300 micron under floors for water proofing laid as per specifications and instructions of the engineer in charge.	Sqm	130.59		
C-128	Providing and fixing of rubber 3 bubbles water stopper 275 mm to 300 mm wide in vertical or horizontal including cutting and jointing etc.	Meter	551.10		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-129	Providing and fixing 1:2:4 precast reinforced cement concrete jali upto 3 inches (75 mm) thick in required shape including form works and its removal, compacting and curing including the cost of reinforcement and using mortar 1:3 CS ratio 1/2" thick fixing jali in any floor etc. complete and as per instructions of engineer in charge	Sqm	5.94		
C-130	Providing and fixing 1/2 inch (13mm) thick MDF sheets (like Lasani etc.) false ceiling including the cost of hanging arrangements etc., complete and as per instructions of engineer in charge	Sqm	301.91		
C-131	Providing, fabricating and fixing, Staircase no. 1 as detail in drawing no. S=23 and S=24 and as per technical specifications and directions + approval of Engineer in charge.	Each	1.00		
C-132	Providing, fabricating and fixing, Staircase no. 2 as detail in drawing no. S=25 and S=26 and as per technical specifications and directions + approval of Engineer in charge.	Each	1.00		
C-133	Providing and fixing M.S spiral staircase of 5'-0" dia and upto 10 feet height as per drawings and instructions of engineer in charge	Each	3.00		
C-134	Front Column of Main Building, Identified as Detail Column-01 in Drawing A-18 Executing entire work of Column-02 having diameter of 2' 2" at top and 2' 5.5" at bottom. Thus providing reinforcement, its placement, pouring concrete, using steel formwork, also casting Gothic type column shapes at top & bottom using concrete and steel form work, Thus completing the entire column excluding paint or any texture. Steel formwork used to have fine finish thus no plaster will be done after pouring of concrete. All execution of above work will be as per direction & approval of engineer in charge.	Job	1.00		
C-135	Front Column of Main Building, Identified as Detail Column-02 in Drawing A-18 Executing entire work of Column-02 having diameter of 3' 4" at top and 3' 11.5" at bottom. Thus providing reinforcement, its placement, pouring concrete, using steel formwork, also casting Gothic type column shapes at top & bottom using concrete and steel form work, Thus completing the entire column excluding paint or any texture. Steel formwork used to have fine finish thus no plaster will be done after pouring of concrete. All execution of above work will be as per direction & approval of engineer in charge	Job	1.00		
C-136	Providing and fixing best quality 4 drawers fire proof Cabinet 24" deep 400°C 2 hours rating etc. complete as per drawing, Specification & instruction of engineer in charge. (must be imported manufactured by security equipment manufacturer)	Each	18.00		





S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-137	Providing and-fixing best quality MDF Laminate Imported Shutter 3/4" thick in Cup board/Office Cabinet Vertical Depth 2'-0" and 1/2" MDF Plain or white with Partial wood battens 1-1/2" x 1" fixed in walls with screws and glue etc. as required etc. complete as per direction of engineer incharge	Sqm	26.46		
C-138	Providing and fixing S.S. pipe railing, comprising, vertical posts of 1-1/2" x 1-1/2" S.S Square tube and horizontal bracing of 3/4" x 3/4" S.S. Square tube and teak wood railing 3" x 2" at top as per design including cost of specials, bends, threading, cutting and making good damages on the floor or wall of any kind etc. at any floor. complete as per instruction of the Engineer-in-Charge	Meter	256.25		
C-139	Providing and fixing S.S. pipe railing, comprising, vertical posts of 1-1/2" x 1-1/2" S.S Square tube and horizontal bracing of 3/4" x 3/4" S.S. Square tube and deodar wood railing 3" x 2" at top as per design including cost of specials, bends, threading, cutting and making good damages on the floor or wall of any kind etc. at any floor. complete as per instruction of the Engineer-in-Charge	Meter	14.94		
C-140	Providing and fixing S.S. pipe railing, comprising, vertical posts of 1-1/2" x 1-1/2" S.S Square tube and horizontal bracing of 3/4" x 3/4" S.S. Square tube as per design including cost of specials, bends, threading, cutting and making good damages on the floor or wall of any kind etc. at any floor. complete as per instruction of the Engineer-in-Charge	Meter	20.78		
C-141	Providing teak wood wall mounted rail of size 6"x 3/4 " which is fixed on a base of wood of size 3-1/2" x1-1/4 " and 1' long and a gap of 1' fixed at wall such that for a length of 10 measured include the total length =5' and executive as per direction of engineer incharge	Meter	291.26		
C-142	Providing and laying flexible polyvinyl chloride (PVC) paneled 48" X 24" (1219 mm X 610mm)of approved make and shade in any floor including top and wooden beading fixing with approved as per drawings and instruction of engineer in charge.	Sqm	84.73		
C-143	Providing and fixing best quality 4 drawers fire proof Cabinet 24" deep 400°C 2 hours rating etc. complete as per drawing, Specification & instruction of engineer in charge. (must be imported manufactured by security equipment manufacturer)	Each	81.00		
C-144	Supply and fix, Mirror, rectangular shape and pattern, size 6' x 3'(1828mm x 914mm x 5mm thick) Imported (mirror foreign made Belgium super) with plastic frame, any colour, edges ground, complete, fixed to concrete, brick, stone or wood work	Each	8.00		
C-145	Providing and-fixing best quality MDF Laminate Imported Shutter 3/4" thick in shelves or almirahs and 1/2" MDF Plain or white with Partial wood battens 1-1/2" x 1" fixed in walls with screws and glue etc. as required etc. complete as per direction of engineer incharge	Sqm	173.51		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-146	Providing and-fixing best quality MDF Laminate Imported Shutter 3/4" thick in Cup board/Office Cabinet (Vertical Depth 1'-6") shelves or almirahs and 1/2" MDF Plain or white with Partial wood battens 1-1/2" x 1" fixed in walls with screws and glue etc. as required etc. complete as per direction of engineer incharge.	Sqm	98.31		
C-147	Manufacturing providing shoe rake for mosque in MDF sheet of size white lamination with Burma teak Goal at front for shoe of at least 40 people as per approved design and direction of engineer in charge.	Sqm	4.49		
C-148	Providing and laying Khaprail tiles 15" x 8" x 1-1/2" of approved design and shade laid on sloppy slab & shades in cement mortar 1:2 etc. complete and as per directions of Engineer in charge.	Sqm	236.49		
C-149	Supplying and fixing S.S Monkey Ladder rungs made up of 1" dia G.I pipes with epoxy protective coating fixed in RCC walls with 4" dia 1/4" thick M.s plate and 5/8" dia galvanized rawl bolts for under ground / over head water tank as per approved design and direction of the Engineer-in-Charge complete.	Each	3.00		
C-150	Providing & fixing C.I Cover & Frame 2' x 2' weight	Each	4.00		
C-151	Supply and fixing 3'-0" dia Convex Mirror, Imported (mirror foreign made) including fixed to concrete, brick, stone or wood work necessary fitting including as per drawings and instruction of engineer in charge.	Each	4.00		
C-152	Roof treatment of vault slab with 3" thick PCC 1:3:6 screeding, 200 micron thick polythene sheet, 4mm thick water proofing membrane and 1/2" thick CS slurry with SBR (3 liters per bag or as per directions of the manufacturer) etc. complete and as per instructions of engineer in charge.	Sq.m	865.09		
C-153	Roof treatment of roof slabs with heat insulation tiles with expansion joints filled with asphalt bitumen mixed with sand @ 90 Lbs. per Cft. (1443 Kg/Cum.) of sand, 1.5" thick CS mortar 1:5, 3" thick PCC 1:3:6 screeding, 200 micron thick polythene sheet, 4mm thick water proofing membrane and 1/2" thick CS slurry with SBR (3 liters per bag or as per directions of the manufacturer) etc. complete and as per instructions of engineer in charge.	Sqm	1637.80		
C-154	Roof treatment of slabs below toilets with 3" thick PCC 1:3:6 screeding, 200 micron thick polythene sheet, 4mm thick water proofing membrane and 1/2" thick CS slurry with SBR (3 liters per bag or as per directions of the manufacturer) etc. complete and as per instructions of engineer in charge.	Sqm	117.52		
C-155	Supply and fix purlins, hips and the like, main and cross beams or grids with angle cleats or other connecting plates, cut to dead length where required including welding, painting with red oxide paint, nuts, bolts etc. complete and as per instructions of engineer in charge.	Kg	684.80		





S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
C-156	Providing and fixing 18 B.W.G. corrugated galvanized iron sheets with galvanized iron hooks, bolts, nuts, limpets and bitumen washers etc. without valleys and ridges (excluding the cost of frame work) in any floor etc. complete and as per instructions of engineer in charge	Sqm	75.16		
C-157	Providing and fixing 1:2 precast reinforced Post Romeo style 5" dia and upto 2' height in required shape including the cost of reinforcement, in any floor etc. complete and as per instruction of engineer in charge.	Each	55.00		
C-158	Providing and fixing 2 inch thick heavy duty cork sheet of approved design and size around generator pad including cutting and fixing etc. complete as per drawings and as per direction of engineer in charge	Sqm	11.30		
C-159	Supplying and Stacking , approved Garden Soil (Sweet Earth) free from salt grass root, pebble fine dressed for grassing breaking colds up to any thickness and disposal of rubbish from site within three chain.	Cum	52.36		
C-160	Supplying. Live Dacca Grass in Slabs	Sqm	236.54		
C-161	Supplying and Stacking, well decayed cow dung manure from approved sources on the prepared bed mixing the same breaking clods fine dressing for grassing removal / disposal of rubbish from site within three chain.	Cum	5.58		
C-162	Providing chain link of 3" dia stainless steel bar and 1/2" dia stainless steel chain fixed in cement concrete floor as per design and drawing with locking arrangements including painting 2 coats with approved paint complete (excluding the cost of cement concrete floor).	Kg	242.06		
C-163	Fabrication supply and installation of under ground M.S. diesel tank of capacity 4000 Gallon made of 6mm thick heavy gauge sheet steel with all necessary accessories, safety valves as per the requirement of local explosive inspector, complete fuel pipe line system up to day tank installed inside the generator room, explosion proof fuel pump, digging and refilling of the size required for under ground storage tank, with 1 coat bitumen including sand filling and RCC encasing, cost of complete automatic system for filling of daily tank, all required accessories, etc. complete in all respects as directed by engineer in charge. Contractor shall be responsible to fulfill all obligations of local explosive inspector and obtain N.O.C. if required.	Each	1.00		
C-164	Constructing soak pit of 9'-6" dia (outer) with 9" thick brick wall and 30 feet deep from R.L in circular shape filled with crushed stone/ boulders upto 20 feet including all materials, labour, loading, unloading and cartage of material etc. complete and as per direction of engineer in charge.	Each	1.00		
<p><b>TOTAL COST OF CIVIL WORKS (Rs):</b></p>  					

**Construction of SBP New Office Building at Gujranwala  
Bill of Quantities**

**Vault & Security Doors Works**

S.No	DESCRIPTION	Unit	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
V-1	Supply of Single leaf vault door with clear size of 1500mm x 2500mm conforming to latest EN 1143-1 Standard Grade XI and having 2 Nos Class D High Security Locks (01 No. Mechanical type and 01 Nos Electronic type) conforming to latest EN 1300 Standard along with grille gate & lock. The door shall be equipped with electric power backup (UPS) system of at least 10 minutes, user friendly handle, light to use, burglary resistant, noise reducing and durable, comprising EN or approved equivalent hardware, including the cost of civil and electrical work and any other necessary works required, complete in all respects and as directed by the Engineer and as per specification and drawings.	Each	5		
V-2	Supply of Single leaf vault door for Air-Conditioning Ducts to be fixed in the wall of strong room /vault with clear size of 600 x 900 mm conforming to latest EN 1143-1 Standard Grade XI and having 2 Nos Class D High Security Locks (01 No. Mechanical type and 01 Nos Electronic type) conforming to latest EN 1300 Standard. The door shall be equipped with electric power backup (UPS) system of at least 10 minutes, user friendly handle, light to use, burglary resistant, noise reducing and durable, comprising EN or approved equivalent hardware, including the cost of civil and electrical works and any other necessary works required, complete in all respects and as directed by the Engineer and as per specification and drawings.	Each	4		
V-3	Installation, Testing & commissioning of Vault doors as per item no 1 including all taxes, cost of all necessary works etc complete in all respect as per direction & approval of Engineer in charge.	Each	5		
V-4	Installation, Testing & commissioning of Vault doors as per item no 2 including all taxes, cost of all necessary works etc complete in all respect as per direction & approval of Engineer in charge	Each	4		
V-5	Supplying and fixing of security doors (Babar or Other as approved by Engineer in charge) heavy duty, door's run on heavy duty hinge's with ball bearing in hinge , double control banking standard lock's with duplicate set of key's supplied, color steel grey hammer finish all standard specifications extra heavy door. 1/8" thick plate which is bullet proof and cannot be drilled easily. fireproof fibre gen board will be filled for 1 hour fireproofing etc complete and as per approval of Engineer in charge.				
	(a) 6'-0" x 8'-0"	Each	2		
	(b) 5'-0" x 8'-0"	Each	1		
	(c) 4'-0" x 8'-0"	Each			



S.No	DESCRIPTION	Unit	QTY	Unit Rate	Amount
				Rs.	Rs.
			1	2	3 = 1 x 2
<b>TOTAL COST OF VAULT &amp; SECURITY WORKS (Rs):</b>					



**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Plumbing Works**

S.No	Description	Unit	Quantity	Unit Rate (Rs.)		Amount (Rs.)
				1	2	
				3 = 1 x 2		
P-1	Providing G.I. pipes, specials and clamps including fixing, cutting and fitting including the cost of breaking through walls and roofs, painting 2 coats after cleaning the pipe with white zinc paint with pigment to match the colour of the building in any floor etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Metre	11.83			
	(b) 2 inches (50mm) dia	Metre	714.71			
	(c) 1-1/2 inches (40mm) dia	Metre	34.34			
	(d) 1 inches (25mm) dia	Metre	371.78			
	(e) 3/4 inches (20mm) dia	Meter	35.84			
P-2	Providing and fixing Class-150 Globe valves screwed at both ends with steel handle etc. complete and as per instructions of engineer in charge.					
	(a) 1 inches (25mm) dia	Each	61.90			
	(b) 2 inches (50mm) dia	Each	26.00			
	(c) 1-1/2 inches (40mm) dia	Each	3.00			
P-3	Providing G.I. pipes, specials and clamps including fixing, cutting and fitting including the cost of breaking through walls and roofs, painting 2 coats after cleaning the pipe with white zinc paint with pigment to match the colour of the building in any floor etc. complete and as per instructions of engineer in charge.					
	(a) 1-1/2 inches (40mm) dia	Meter	83.97			
	(b) 1 inches (25mm) dia	Meter	201.32			
	(c) 3/4 inches (20mm) dia	Meter	38.05			
P-4	Providing and fixing Class-150 Globe valves screwed at both ends with steel handle etc. complete and as per instructions of engineer in charge. 1 inches (25mm) dia	Each	47.00			
P-5	Providing and Fixing Gas Geyser of 30 gallon capacity, with thermostat, safety valve etc. complete and as per instructions of engineer in charge.	Each	3.00			
P-6	Providing and Fixing Gas Geyser of 55 gallon capacity, with thermostat, safety valve etc. complete and as per instructions of engineer in charge.	Each	5.00			
P-7	Providing and fixing 30" long and 3/4" dia, approved quality chrome plated towel rail complete with brackets fixed with 1/2" (25mm) long C.P brass screws and rawl plug etc. complete and as per instructions of engineer in charge.	Each	54.00			



S.No	Description	Unit	Quantity	Unit Rate (Rs.)		Amount (Rs.)
				1	2	
						$3 = 1 \times 2$
P-8	Providing and fixing Soap / sponge tray of approved shape pattern and size, complete with plugs, screws etc. complete and as per instructions of engineer in charge.	Each	55.00			
P-9	Providing and fixing Toilet paper holder of approved shape pattern and size, with plugs, screws etc. complete and as per instructions of engineer in charge.	Each	48.00			
P-10	Providing and fixing uPVC Soil and Waste Pipe with specials and clamps including fixing, cutting and fitting including the cost of breaking through walls and roofs etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Meter	437.34			
	(b) 4 inches (110mm) dia	Meter	242.37			
P-11	Providing and fixing uPVC Elbow (90 degree) including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Each	160.92			
	(b) 4 inches (110mm) dia	Each	75.97			
P-12	Providing and fixing socket including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Each	10.00			
	(b) 4 inches (110mm) dia	Each	6.00			
P-13	Providing and fixing uPVC Equal Tee including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Each	25.00			
	(b) 4 inches (110mm) dia	Each	43.00			
P-14	Providing and fixing uPVC Yee Tee including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Each	114.00			
	(b) 4 inches (110mm) dia.	Each	32.56			
P-15	Providing and fixing uPVC Vent Pipe including cutting and fitting including the cost of painting 2 coats after cleaning the pipe with white zinc paint with pigment to match the colour of the building in any floor etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Meter	46.38			
	(b) 4 inches (110mm) dia	Meter	25.28			
P-16	Providing and fixing uPVC Vent Cowl including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge.					
	(a) 3 inches (75mm) dia	Each	0.00			

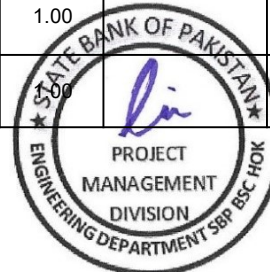


S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	(b) 4 inches (110mm) dia	Each	13.00		
P-17	Providing and fixing of ball valve with plastic Ball screwed for iron etc. complete and as per instructions of engineer in charge				
	(a) 3" inch (75 mm) dia	Each	4.00		
	(b) 4" inch (110 mm) dia	Each	4.00		
P-18	Providing and fixing 3 inch (75 mm) dia end cap for Waste Pipe etc. complete and as per instructions of engineer in charge.	Each	49.00		
P-19	Providing and fixing 4 inch (110 mm) dia end cap for Soil Pipe etc. complete and as per instructions of engineer in charge.	Each	34.00		
P-20	Supply and fix, Wash Basin with pedestal, glazed ware, Imported (like Porta, Marachi or equivalent) in white / Ivory colour, one hole, complete with waste pipe coupling, CP chain and plug and pedestal etc. (except mixer) best quality, fixed to concrete, brick, stone or wood work.	Each	27.00		
P-21	Supply and fix Pedestal less wash basin 75cm x 45cm of Porta, Marachi or its equivalent including all fitting accessories but excluding the cost of mixing tap etc. complete.	Each	25.00		
P-22	Supply and fix, Disabled bath wash basin, glazed ware, Imported (like Porta, Marachi or equivalent) in white / Ivory colour, one hole, complete with waste pipe coupling, CP chain and plug, automatic mixer etc. best quality, fixed to concrete, brick, stone or wood work as per instruction of engineer in charge	Each	1.00		
P-23	Supply and fix, Disabled WC apparatus, European Pattern, complete (coupled set), comprising closet 13 lit flushing cistern glazed, in white colour, seat cover, rails ,handle etc. complete set ( IFO Porta, Marachi or equivalent,) fixed to concrete , brick ,stone or wood work, best quality, as per instruction of engineer in charge	Each	2.00		
P-24	Supply and fix Urinal Basin best quality (imported Porta, Marachi or equivalent) complete in all respects	Each	4.00		
P-25	Supply and fix, WC apparatus, European Pattern, complete (coupled set), comprising closet 13 lit flushing cistern glazed, in white colour, seat cover, complete set ( IFO Porta, Marachi or equivalent, width not less than 380 mm) fixed to concrete , brick ,stone or wood work, best quality, as per instruction of engineer in charge	Each	38.00		
P-26	Supply and fix, WC Asiatic pattern white colour including foot rest, full( Porta, Marachi or equivalent) 13 lit flushing cistern, low down (plastic), flush pipe etc. fixed to concrete, brick, stone, or wood work, best quality, as per instruction of engineer in charge	Each	16.00		
P-27	Supplying & fixing Muslim Shower with double Bib cock & ring Pipe etc. complete imported Quality like Grohe, master, Clever or equivalent)	Each	54.00		
P-28	CP Mixer, fancy head, (Grohe, master, Clever or equivalent) pattern and shape, screw down, high pressure, lettered Hot and cold with long screw channels and fly nuts complete, supply and fixing.	Each	61.00		
P-29	Providing and Fixing liquid soap of 0.5 liter capacity approved quality with all accessories etc. complete and as per instruction of engineer in charge	Each	55.00		





S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
P-30	Providing and Fixing Hand Dryer as per approved quality of Siemens, Hair or its equivalent etc. complete and as per instruction of engineer in charge	Each	33.00		
P-31	Providing and fixing in position nylon connections complete with 1/2" dia brass stop cock with pair of brass nuts and lining joints to nylon connection.	Each	168.00		
P-32	P/F 24"x36" beveled edge mirror of Belgium glass complete with 1/8" thick hard board and C.P screws fixed to wooden pleat (a) Standard pattern.	Each	56.00		
P-33	Providing and fixing uPVC Elbow with door (90 degree) including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge.				
	(a) 3 inches (75mm) dia	Each	46.19		
	(b) 4 inches (110mm) dia	Each	27.49		
P-34	Providing and fixing uPVC Access /door tee including Z joint and Rubber ring etc. complete and as per instructions of engineer in charge. 4 inches (110mm) dia	Each	1.00		
P-35	Providing & fixing M.S clamps of the approved design to 75mm (3") including the cost of cutting and making good to wall or M.S bolts and nuts, 3" into wall including pipe distance pieces extra painting to match the colour of the building.	Each	100.00		
P-36	Providing & fixing M.S clamps of the approved design to 110mm (4") including the cost of cutting and making good to wall or M.S bolts and nuts, 4" into wall including pipe distance pieces extra painting to match the colour of the building.	Each	132.00		
P-37	Providing & fixing S.S floor trap(Stainless Steel or approved by engineer in charge) with 110mm dia inlet and 110mm dia outlet of the approved self cleaning design with a UPVC Grating with or without a vent arm including cost of making requisite number of holes in walls plinth and floor for pipe connections and making good cement concrete 1:2:4.	Each	114.00		
P-38	S/Fixing long bib-cock of superior (Grohe, master, Clever or equivalent) quality with CP head 1/2" dia	Each	16.00		
P-39	Supplying & fixing 18" x 18" RCC gully trap with 4" outlet complete with 4" thick 1:4:8 C.C for bed and 3" thick Precast RCC plank etc. Complete as per instruction of engineer in charge	Each	17.00		
P-40	Supplying and fixing Centrifugal Pumping set complete with AC, electric motor driven, 400 volts, 3 phase, 50 cycles, 1 hp, mounted on a common channel base, total head 25/30 M	Each	10.00		
P-41	Providing and fixing 1 hp suction pump 1-1/4" x 1-1/4" suction/delivery etc. complete as per instruction of engineer in charge	Each	2.00		
P-42	Supplying and fixing Centrifugal Pumping set complete with AC, electric motor driven, 400 volts, 3 phase, 50 cycles, 5 hp, mounted on a common channel base, total head 25/30 M	Each	2.00		
P-43	Supplying and fixing sludge pump 2 Hp with discharge capacity of 8000 liter/min.	Each	1.00		
P-44	Providing and fixing 2 hp suction pump 2" x 1-1/2" suction/delivery etc. complete as per instruction of engineer in charge	Each	2.00		



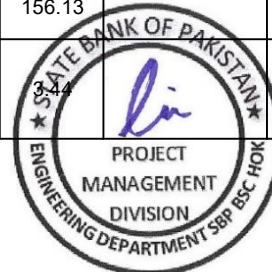
S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
P-45	Providing & fixing 24" x 18" x 8" sinks complete with & including the cost of C.I or W.I brackets 6 inches built into walls, 1-1/2" rubber plug & chrome plated brass chain 1/2" CP brass washer 1-1/2" dia malleable iron or CP brass trap with malleable iron of brass union & making requisite number of holes in wall, plinth & floor for pipe connection & making good in cement concrete 1:2:4 (Grohe, Master, Clever or equivalent)	Each	3.00		
P-46	Supply and fix, Disabled bath wash basin, glazed ware, Imported (like Porta, Marachi or equivalent) in white / Ivory colour, one hole, complete with waste pipe coupling, CP chain and plug, automatic mixer etc. best quality, fixed to concrete, brick, stone or wood work as per instruction of engineer in charge	Each	2.00		
P-47	Supplying & fixing Shower with double Bib cock & ring Pipe etc. complete imported Quality like Grohe, master, Clever or equivalent)	Each	8.00		
P-48	Providing and fixing uPVC rain water down pipe with specials and clamps including fixing, cutting and fitting including the cost of breaking through walls and roofs etc. complete and as per instructions of engineer in charge. 3 inches (75mm) dia	Each	102.41		
P-49	Supply and fix, Disabled WC apparatus, European Pattern, complete (coupled set), comprising closet 13 lit flushing cistern glazed, in white colour, seat cover, rails ,handle etc. complete set ( IFO Porta, Marachi or equivalent,) fixed to concrete , brick ,stone or wood work, best quality, as per instruction of engineer in charge	Each	1.00		
P-50	Providing and Fixing Electric Geyser of 10 liter capacity, with thermostat, safety valve etc. complete and as per instructions of engineer in charge.	Each	5.00		
P-51	Providing and fixing 3/4 inch (20 mm) dia ball valve with plastic Ball screwed for iron etc. complete and as per instructions of engineer in charge	Each	18.00		
<b>GAS SUPPLY</b>					
P-52	Providing G.I. pipes, specials and clamps including fixing, cutting and fitting including the cost of breaking through walls and roofs, painting 2 coats after cleaning the pipe with white zinc paint with pigment to match the colour of the building in any floor etc. complete and as per instructions of engineer in charge.				
	(a) 3 inches (75mm) dia	Meter	33.08		
	(b) 2 inches (40mm) dia	Meter	148.01		
	(c) 1 inches (25mm) dia	Meter	109.55		
	(d) 3/4 inches (20mm) dia	Meter	88.85		
P-53	Providing and fixing shut off valves crewed at both ends with steel handle etc. complete and as per instructions of engineer in charge.				
	(a) 3 inches (75 mm) dia	Each	2.00		
	(b) 2 inches (50 mm) dia	Each	1.00		
	(c) 1 inches (25 mm) dia	Each	1.00		
	(d) 3/4 inches (20mm) dia	Each	1.00		



S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
P-54	Providing and fixing 1/2 inches (13 mm) dia. gun metal valves with wheels threaded or flanged ends with rubber washers, standard (Pattern).etc. complete and as per instructions of engineer in charge.	Each	12.00		
P-55	Providing G.I. pipes, specials and clamps including fixing, cutting and fitting including the cost of breaking through walls and roofs, painting 2 coats after cleaning the pipe with white zinc paint with pigment to match the colour of the building in any floor etc. complete and as per instructions of engineer in charge.				
	(a) 2-1/2" (63mm)	Meter	5.49		
	(b) 3/4 inches (20mm) dia	Meter	3.43		
P-56	Providing and fixing 2-1/2 inches (63 mm) dia. gun metal valves with wheels threaded or flanged ends with rubber washers, standard (Pattern).	Each	2.00		
P-57	Providing and fixing 3 inches (75 mm) dia shut off valves crewed at both ends with steel handle etc. complete and as per instructions of engineer in charge.	Each	2.00		
P-58	Providing and fixing 1/4" dia flexible pipe for connection from nozzle to stove/chullah etc. complete and as per instructions of engineer in charge.	Meter	6.10		
P-59	Supplying and fixing 2 burners Chullah of approved quality and size etc. complete and as per instructions of engineer in charge.	Each	3.00		
P-60	Supplying and fixing 3 burners Chullah of approved quality and size etc. complete and as per instructions of engineer in charge.	Each	1.00		
P-61	Supplying and fixing single burners Chullah (Large Size) of approved quality and size etc. complete and as per instructions of engineer in charge.	Each	4.00		
P-62	Supplying and fixing tandoor oven of approved quality and size etc. complete and as per instructions of engineer in charge.	Each	1.00		
P-63	Supplying and fixing 5 burners Hob of approved quality and size etc. complete and as per instructions of engineer in charge.	Each	1.00		
	<b>WATER SUPPLY</b>				
P-64	Sub-soil boring of 304 mm dia in all kinds of soil to required depth etc. complete and as per instructions of engineer in charge.	Meter	182.88		
P-65	Supplying and Pouring of Gravel of required grade, in annular space between blind pipe/strainer and bore hole according to specifications for 300 mm dia blind pipe/strainer.	Meter	182.88		
P-66	Providing and fixing uPVC pressure pipe 2 inches (50mm) dia Class E complete with solvent cement joint including the cost of breaking through walls and roofs (excl excavation) etc. complete and as per instructions of engineer in charge.	Meter	229.87		
P-67	Providing and fixing Class-150 Globe valves screwed at both ends with steel handle etc. complete and as per instructions of engineer in charge. 2 inches (50mm) dia	Each	3.00		
P-68	Pumping set submersible, with AC electric motor driven, 400 V, 3 phase, 50 cycles, complete with pump, motor, cable, column pipes, motor control unit, pump capacity 0.5 cusec upto 97 M head, pump setting 60M with 6 hp motor, 2900 rpm, supply and fixing.	Each	2.00		
P-69	Supply and fixing, u-PVC pipe complete with Z joint and rubber ring, all as specified				



S.No	Description	Unit	Quantity	Unit Rate (Rs.)		Amount (Rs.)
				1	2	3 = 1 x 2
	(a) 12" (304mm) dia	Meter	182.88			
	(b) 8" (204mm) dia	Meter	182.88			
P-70	Supply and fixing, u-PVC Socket complete in all respect as specified					
	(a) 12" (304 mm) dia	Each	30.00			
	(b) 8" (204 mm) dia	Each	30.00			
P-71	Supply and fix, u-PVC Half Perforated pipe 2" (50mm) dia complete with Z joint and rubber ring including Geo Textile wrap all as specified.	Meter	24.38			
<b>SEWERAGE</b>						
P-72	Excavation for trenches and drains in all kinds of soil particularly sandy silt/silt, and back filling the excavated material all round the trenches including breaking clods, watering, consolidation by ramming in layers not exceeding 9 inches etc. complete and as per instructions of Engineer in charge	Cum	124.38			
P-73	Supplying stacking and filling coarse sand of approved quality from outside sources in foundation, trenches, plinth or under floor, etc. including dressing, watering and consolidation by ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction and lift upto 5 feet (1.52 m).	Cum	1.00			
P-74	Providing and laying C.C 1:3:6 in foundation, basement and plinth including form work, compacting, curing and removal of form work etc. complete and as per instructions of engineer in charge	Cum	47.60			
P-75	Supplying & fixing RCC of sizes as specified man hole complete with 4" thick 1:4:8 C.C for bed and 6" thick Precast RCC plank etc. Complete as per instruction of engineer in charge					
	(a) 2' x 2' x 2'	Each	31.00			
	(b) 2' x 2' x 3.75'	Each	8.00			
P-76	Supplying & fixing RCC grease trap of sizes as specified complete with 4" thick 1:4:8 C.C for bed and 3" thick Precast RCC plank etc. Complete as per instruction of engineer in charge					
	(a) 3' x 3' x 10'	Each	1.00			
	(b) 3' x 3' x 7'	Each	1.00			
P-77	Supply and fixing, u-PVC pipe complete with Z joint and rubber ring, all as specified					
	(a) 6" (152mm) dia	Meter	129.85			
	(b) 9" (228mm) dia	Meter	61.19			
	(c) 12" (304mm) dia	Meter	156.13			
P-78	Providing and laying pea gravel 3/8" and up gauge under floors including packing with spawls and chips and consolidating etc. complete.	Cum	3.44			



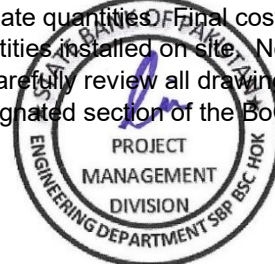
S.No	Description	Unit	Quantity	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
P-79	Providing and laying gravel 3/4" to 1-1/2" size under floors including packing with spawls and chips and consolidating etc. complete.	Cum	20.63		
P-80	Supplying and fixing submersible pump complete set for tube well, with AC electric motor driven, 400 V, 3 phase, 50 cycles, complete with pump, motor, cable, column pipes, motor control unit, pump capacity 0.5 cusec upto 97 M head, pump setting 60M with 20 hp motor, 2900 rpm etc. complete and as per instructions of engineer in charge.	Each	2.00		
P-81	Supplying and fixing submersible pump complete set for tube well, with AC electric motor driven, 400 V, 3 phase, 50 cycles, complete with pump, motor, cable, column pipes, motor control unit, pump capacity 0.5 cusec upto 97 M head, pump setting 60M with 1hp motor, 2900 rpm etc. complete and as per instructions of engineer in charge.	Each	3.00		
<b>TOTAL COST OF PLUMBING WORKS (Rs):</b>					



**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Electrical Works**

**PRICING PREAMBLES**

- a) This Contract Document, consisting of Tender Specifications, Bill of Quantities and Tender Drawings are the property of SBP and shall be returned on the date of Tender submission even if the Contractor chooses not to participate in the Tender. Any reproduction or transmission of this Contract document without prior explicit approval of SBP is illegal and may be subject to legal action.
- b) All pages of the BoQ and specifications shall be signed and stamped by the authorized representative of the Contractor. Only the signed and stamped copy of the BoQ shall be entertained and considered part of the Contract. A soft copy of the BoQ shall be provided to facilitate the process of costing. Any change in the BoQ text from the original shall be deemed as breach of contract and liable for penalty.
- c) All items shall to be executed as per specifications, drawings, and as directed by the Consultant/Engineer, and shall confirm to the latest edition of the IEEE wiring regulations. Contractor shall test relevant installation to be witnessed by Electrical Consultant and or Client representative and provide all relevant test reports.
- d) Samples of all items including but not limited to shop drawings for DB's, raceways, back boxes, outlets for switch sockets and voice/data, cables etc., shall to be got approved by the Consultant / Engineer prior to installation.
- e) Any item not mentioned herein but necessary for the completion of works to the satisfaction of the owner/client shall be deemed to be part of the appropriate electrical works. Details of such works shall be submitted for Consultant/Engineer's approval before start of work.
- f) All works related to active IT equipment, including but not limited to provision of PRI, ISDN, POTS lines, installation and configuration of routers/switches etc., inter office /WAN connectivity, internet / remote / radio link etc. are excluded from the scope of this contract, unless specifically stated in the BoQ.
- g) NoC for all electrical works shall be obtained from relevant authorities before project handing over. Costs for obtaining approvals shall be quoted separately.
- h) Quotations shall be based on the approved equipment list / supplier. Deviations, if any, shall have to be got approved prior to installation works. Any discrepancy found shall be rectified / replaced at the cost of the contractor.
- i) Any conflict between the wiring standards and instructions as per drawings, specifications or Consultant instructions shall be immediately brought to the notice of the Consultant for appropriate consideration.
- j) Vendor's recommendation, if different from that specified in BoQ/Specifications shall be submitted for review and approval prior to equipment purchase.
- k) Contractor cost shall be inclusive of all applicable Govt. taxes.
- l) This BoQ is indicative of the item requirements and approximate quantities. Final cost of contract shall be determined upon verification of items and respective quantities installed on site. No price escalation or quantity variations shall be entertained. Contractor shall carefully review all drawings and develop his own quantity sheet and indicate any missing items in the designated section of the BoQ with all relevant details.





- m) All items quoted for against this Contract shall be new and of latest make /model. Any outdated, obsolete or end-of-life products shall be replaced with alternate models from the same manufacturer and gotten approved from the Client or his representative (Architect, Consultant) during the bidding process. The Client or his representative shall have the right to ask for replacement of any item, with similar or better specification, which is found faulty or substandard or is a subject of discrepancy not clarified during the bidding process.
- n) In case of discrepancy between any BoQ item, Drawings or Specifications, it is the responsibility of the Contractor to bring it to the notice of the Engineer who shall be the sole authority to clarify the discrepancy, issue any resolution.



**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Electrical Works**

Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
<b>A</b>	<b>BASIC ELECTRICAL REQUIREMENTS</b>				
	Particular Notes: a) See pricing preambles / General Instruction b) Contractor shall submit and get approved the shop drawings prior to start of work on site. Both, shop drawings and as-built drawings shall be submitted on hard copy format prior to submission of final copies in soft and hard copy formats				
E-A-1	Development and provision of As Built Drawings' in AutoCAD 2004 format on non-erasable media (CD-R/DVD-R) and two hard copies (white paper) on appropriate paper size.				
	i Main Building	Job	1		
	ii Security Office	Job	1		
	iii Bungalow	Job	1		
	iv External Works	Job	1		
E-A-2	Obtaining / sanctioning electrical load of approximately 1MW from GEPCO, (official charges/fee will be paid directly by Employer upon production of demand note), including all legal formalities, on behalf of the client	Job	1		
E-A-3	Obtaining NOC/approval certificate for entire electrical installation works (excluding gensets) at the proposed building including all wiring installations, from Electric Inspector, Gujranwala Region office (official inspection charges/fee will be paid separately upon production of receipt, in addition to price quoted above)	Job	1		
	<b>A - Total Cost of Basic Electrical Requirements:</b>				
<b>B</b>	<b>BASIC ELECTRICAL MATERIAL &amp; METHODS</b>				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	<u>Particular Notes:</u> a) See pricing preambles / General Instruction b) Separate back boxes shall be used for Emergency / UPS circuits for normal light / power wiring c) Wiring shall be done with appropriate color codes as per latest edition of IEEE wiring regulations				
E-B-1	Providing and fixing of following point wiring with single core PVC insulated 450/750 volt grade copper conductors, including green/yellow CPC in appropriate size PVC conduit rigid (class B)/flexible, clipped to the surface, or concealed in structure or in already-laid trunking, including sheet steel back-box, connectors and all accessories, 10A gang switch, fan dimmer, 2 way switch, bell push, ceiling rose, sheet steel back-box, fan hook, connectors etc., 1.0mmsq 3-core flexible PVC/PVC cord upto fixture, etc., for;				
(a)	DB / UPS-DB to switch / relay / dimmer (including wiring between switching units on same circuit) with 2x2.5mmsq conductors and 2.5mmsq CPC				
	i. Main Building	Nos.	113		
	ii. Bungalow	Nos.	12		
	iii. External Works	Nos.	10		
(b)	Light / exhaust / fan to switch with 2x1.5mmsq conductors and 1.5mmsq CPC				
	i. Main Building	Nos.	749		
	ii. Bungalow	Nos.	110		
	iii. External Works	Nos.	20		
(c)	Same as item 1(b) above, but light point, from point to point				
	i. Main Building	Nos.	1638		
	ii. Bungalow	Nos.	65		
	iii. External Works	Nos.	75		



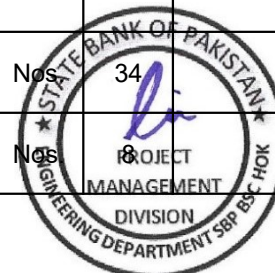
Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
(d)	Same as item 1(b) above, but bell point to bell push and bell push to nearest lighting circuit				
	i. Bungalow	No.	1		
(e)	Same as item 1(a) above (circuit wiring), but non switched emergency light point wiring from DB to 1st light point / motion sensor				
	i. Main Building	Nos.	16		
	ii. Bungalow	No.	1		
	iii. External Works	Nos.	3		
(f)	Same as item 1(e) above but light point, from point to point				
	i. Main Building	Nos.	130		
	ii. Bungalow	Nos.	9		
	iii. External Works	Nos.	6		
(g)	DB to light point with 2x2.5mmsq conductors and 2.5mmsq green/yellow CPC				
	i. Main Building	Nos.	8		
	ii. Bungalow	No.	1		
(g')	DB to External light point with 2x4.0mmsq conductors and 4.0mmsq green/yellow CPC, including excavation and backfill (if required)				
	i. External Works	Nos.	8		
(h)	Same as item 1(f) above but light point, from point to point				
	i. Main Building	Nos.	164		
	ii. Bungalow	Nos.			
(h')	Same as item 1(g) above but light point, from point to point				



Item No.	Description	Unit	Qty	Unit Rate	Amount
			1	(Rs.)	(Rs.)
			2	3 = 1 x 2	
	i. External Works	Nos.	52		
	(i) Same as item 1(a) above but control wiring between push button for contractor control of lights and DB with 3x1Cx2.5 sq.mm conductors				
	i. Main Building	Nos.	26		
	ii. External Works	Nos.	5		
	(j) Fixture to fixture wiring with 3Cx1.0mmsq flexible conductors				
	i. Main Building	Nos.	26		
	(k) Fixture to fixture wiring with 3Cx2.5mmsq flexible conductors				
	i. External Works	Nos.	5		
E-B-2	Providing and fixing of switch socket-outlet point wiring with single core PVC insulated 450/750 volt grade copper conductors, including green/yellow CPC in appropriate size PVC conduit rigid (class B)/flexible, clipped to the surface, or concealed in structure or in already-laid trunking, including sheet steel back-box, connectors etc., and all accessories, as follows:				
	(a) From DB to 5/15A switch socket outlet point with 2x2.5mmsq conductors and 2.5mmsq green/yellow CPC				
	i. Main Building	Nos.	45		
	ii. Bungalow	Nos.	10		
	iii. External Works	Nos.	4		
	(b) 5/15A switch socket outlet, point to point with 2x2.5mmsq conductors and 2.5mmsq green/yellow CPC				
	i. Main Building	Nos.	309		
	ii. Bungalow	Nos.	45		
	iii. External Works	Nos.	11		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
(c)	From DB to 13A flat pin (simplex / duplex) switch socket outlet point with 2x4 mmsq conductors + 4 mmsq as isolated earth.				
	i. Main Building	Nos.	53		
(d)	Same as above but point to point with 2x2.5mmsq conductors + 2.5mmsq as isolated earth				
	i. Main Building	Nos.	147		
(e)	DB to 15A round pin switch socket outlet point with 2x4mmsq conductors + 4mmsq CPC				
	i. Main Building	Nos.	31		
	ii. Bungalow	Nos.	5		
	iii. External Works	Nos.	8		
(f)	5/13/15A adjacent outlet with 2x2.5mmsq conductors + 2.5mmsq CPC + 2.5mmsq CPC (isolated earth with 13A sockets)				
	i. Main Building	Nos.	26		
	ii. Bungalow	Nos.	10		
(g)	From DB to 15/20A spur outlet point with 2x4.0mmsq conductors and 4.0mmsq green/yellow CPC				
	i. Main Building	Nos.	18		
E-B-3	Providing and fixing of 20 amp isolator wiring for AC, including wiring between isolator and indoor AC unit with single core PVC insulated 450/750 volt grade copper conductors, including green/yellow CPC in appropriate size PVC conduit rigid (class B)/flexible, clipped to the surface, or concealed in structure or in already-laid trunking, including sheet steel back-box and all accessories, as follows:				
(a)	From DB to 20A isolator point with 2x4.0mmsq conductors and 4.0mmsq green/yellow CPC				
	i. Main Building	Nos.	34		
	ii. Bungalow	Nos.	18		

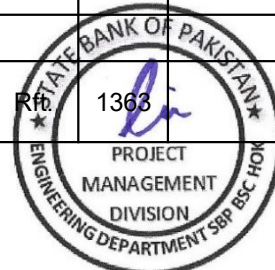




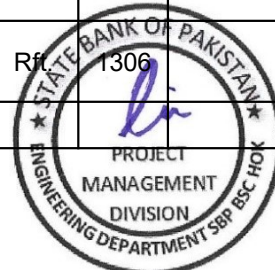
Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	iii. External Works	Nos.	2		
	(b) From DB to 20A isolator point with 4x4.0mmsq conductors and 4.0mmsq green/yellow CPC				
	i. Main Building	Nos.	14		
	ii. Bungalow	No.	1		
E-B-4	Providing and fixing of Industrial socket-outlet / isolator point wiring with single core PVC insulated 450/750 volt grade copper conductors, including green/yellow CPC in appropriate size PVC conduit rigid (class B)/flexible, clipped to the surface or in already-laid trunking, including sheet steel back-box, connectors etc., and all accessories, as follows:				
	(a) From DB to Industrial socket outlet / isolator point with 2x6.0mmsq conductors and 6.0mmsq green/yellow CPC				
	i. Main Building	Nos.	8		
	ii. External Works	Nos.	5		
	(b) From DB to Industrial socket outlet / isolator point with 2x10.0mmsq conductors and 10.0mmsq green/yellow CPC				
	i. Main Building	Nos.	7		
	(c) From DB to Industrial socket outlet / isolator point to point with 4x6.0mmsq conductors and 6.0mmsq green/yellow CPC				
	i. Main Building	Nos.	9		
	ii. External Works	Nos.	5		
	(d) From DB to Industrial socket outlet / isolator point to point with 4x16.0mmsq conductors and 16.0mmsq green/yellow CPC				
	i. Main Building	Nos.	4		
	(e) From DB to Industrial socket outlet / isolator point with 4x10.0mmsq conductors and 10.0mmsq green/yellow CPC				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. External Works	Nos.	5		
<b>B - Total Cost of Electrical Material and Methods:</b>					
<b>C</b>	<b>WIRING</b>				
	<u>Particular Notes:</u> a) See pricing preambles / General Instruction b) Bus bar vendor shall be responsible for coordinating the installation requirements at Transformer and Panel ends with appropriate vendor				
E-C-1	Supply, installation and commissioning of PVC insulated PVC sheathed non armoured / armoured copper conductor cable 600/1000 V grade in already laid raceway as per details shown on drawings to various SMDB's DBS, including all fixing, jointing & termination accessories, designation labels at both ends etc., in the following sizes (Actual length of cable shall be measured at site by the contractor before placing the order with the manufacturer, however approximate length of cable are shown herewith)				
	(a) 4C x 150mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	0		
	(b) 4Cx95mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	160		
	(c) 4Cx70mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	605		
	(d) 4Cx50mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	30		
	(e) 4Cx35mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	170		
	ii. Bungalow	Rft.	280		
	(f) 4Cx16mmsq Cu/PVC/PVC				
	i. Main Building	Rft.			



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. Bungalow	Rft.	165		
	iii. External Works	Rft.	300		
(g)	4C x 10mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	1840		
	ii. External Works	Rft.	100		
(h)	4C x 6mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	355		
	ii. External Works	Rft.	80		
(i)	4Cx70mmsq Cu/PVC/PVC (FR Cable)				
	i. Main Building	Rft.	360		
(j)	4Cx25mmsq Cu/PVC/PVC (FR Cable)				
	i. Main Building	Rft.	96		
(k)	4Cx10mmsq Cu/PVC/PVC (FR Cable)				
	i. Main Building	Rft.	56		
(l)	4C x6mmsq Cu/PVC/PVC (FR Cable)				
	i. Main Building	Rft.	24		
(m)	3C x 6mmsq Cu/PVC/PVC				
	i. Main Building	Rft.	100		
(n)	3C x 4mmsq Cu/PVC/PVC				
	i. Bungalow	Rft.	50		
E-C-2	Providing, fixing and connecting up of PVC insulated 450/750V grade copper conductor cable, in already laid raceway including all fixing, jointing & termination accessories, etc., in the following sizes:				
(a)	1C x 70mmsq PVC				
	i. Main Building	Rft.	1306		
(b)	1C x 35mmsq PVC				



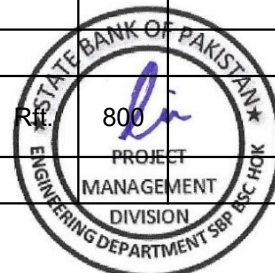
Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. Main Building	Rft.	208		
(c)	1C x 25mmsq PVC				
	i. Main Building	Rft.	272		
(d)	1C x 16mmsq PVC				
	i. Main Building	Rft.	3062		
	ii. Bungalow	Rft.	240		
	iii. External Works	Rft.	600		
(e)	1C x 10mmsq PVC				
	i. Main Building	Rft.	3792		
	ii. External Works	Rft.	200		
(f)	1C x 6mmsq PVC				
	i. Main Building	Rft.	630		
	ii. External Works	Rft.	160		
(g)	1C x 4mmsq PVC				
	i. Main Building	Rft.	480		
	ii. External Works	Rft.	200		
<b>C - Total Cost of Wiring:</b>					
<b>D</b>	<b>RACEWAY</b>				
E-D-1	Supply, installation of following PVC / light duty GI / enameled steel conduit to be recessed in walls / floors / surface, as required at site and as shown on the drawing including accessories steel pull wires, complete in all respects;				
(a)	60mmx60mm PVC channel (Adamjee Dura Duct or equivalent)				
	i. Main Building				
(a')	75mm dia (class B)				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. External Works	Rft.	100		
(b)	50mm dia (class B)				
	i. Main Building	Rft.	1730		
	ii. Bungalow	Rft.	165		
	iii. External Works	Rft.	150		
(c)	38mm dia (class B)				
	i. Main Building	Rft.	2130		
	ii. Bungalow	Rft.	50		
	iii. External Works	Rft.	200		
(d)	25mm dia (class B)				
	i. Main Building	Rft.	770		
	ii. Bungalow	Rft.	50		
(e)	20mm dia (class B)				
	i. Main Building	Rft.	300		
(f)	20mm dia flexible PVC conduit				
	i. Main Building	Rft.	1635		
	ii. Bungalow	Rft.	35		
(f')	25mm dia flexible PVC conduit				
	i. External Works	Rft.	1600		
(g)	20mm dia flexible GI pipe				
	i. Main Building	Rft.	335		
	ii. External Works	Rft.	300		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
E-D-2	Providing and laying of RCC/PVC raceway, buried 600mm below grade at road crossing, including excavation, sand bedding, back-filling, accessories, manholes, pull wire, bends, boxes etc. and all accessories in the following sizes (internal dia):				
(a)	150mm dia (class E)				
	i. Main Building	Rft.	100		
	ii. External Works	Rft.	100		
(b)	75mm dia (class E)				
	i. Main Building	Rft.			
(c)	100mm dia (class D)				
	i. Main Building	Rft.	300		
	ii. External Works	Rft.	200		
(d)	75mm dia (class D)				
	i. Main Building	Rft.	279.3		
	ii. Bungalow	Rft.	280		
	iii. External Works	Rft.	350		
(d')	50mm dia (class D)				
	i. External Works	Rft.	350		
<b>D - Total Cost of Raceway:</b>					
<b>E</b>	<b>CABLE TRAY / TRUNKING /LADDER</b>				
E-E-1	Providing and fixing of 16 SWG, power coated, perforated, sheet steel cable trays complete with all installation accessories including angle iron support of size 1-1/2"x1-1/2"x1/8", MS round bars of 1/2" dia, nuts, bolts etc., complete in all respects in the following sizes;				
(a)	300mmx75mm with cover				
	i. Main Building	Rft.	800		
(b)	150mmx75mm with cover				





Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. Main Building	Rft.	824.2		
E-E-2	Providing and fixing of 16 SWG, non perforated, powder coated sheet steel cable trunking complete with all installation accessories including angle iron support of size 1-1/2"x1-1/2"x1/8", MS round bars of 1/2" dia, nuts, bolts etc., complete in all respects in the following sizes;				
	(a) 300mmx75mm (multi compartment) with cover				
	i. Main Building	Rft.	720		
	ii. External Works	Rft.	450		
	(b) 150mmx75mm with cover				
	i. Main Building	Rft.	440		
	ii. External Works	Rft.	300		
<b>E - Total Cost of Cable Tray / Trunking / Ladder:</b>					
<b>F</b>	<b>BUSBAR</b>				
E-F-1	Supply, of insulated, weather proof (IP 65) Bus Bar Riser including, bends, joints, bi-metallic flanges, hangers, TEE's, Elbows and all mounting and fixing & termination accessories, designation labels at both ends etc., in the following sizes;				
	(a) 1500A TP+N+E, Aluminum [From Trafo-1 to LT Panel-1] including flexible connection with Transformer and LT Panel (4 Bar with integral Earth)	Rft.	14		
	(b) 1500A TP+N+E, Aluminum [From Trafo-2 to LT Panel-2] including flexible connection with Transformer and LT Panel (4 Bar with integral Earth)	Rft.	23		
	(c) 1250A TP+N+1/2E+IE, Aluminum [From LT Panel to SMDB Roof Main Building), including flange connection on both ends, Horizontal and vertical elbows (4 Bar with integral Earth)	Rft.	240		
	(d) 1000A TP+N+E, Aluminum [From LT Panel to MCC-HVAC Main Building Basement) including flange connection on both ends, Horizontal and vertical elbows (4 Bar with integral Earth)	Rft.	430		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
(e)	250A Tap-off	Nos.	4		
(f)	160A Tap-off	No.	1		
(g)	125A Tap-off	No.	1		
(h)	100A Tap-off	No.	1		
(i)	60A Tap-off	No.	1		
(j)	30A Tap-off	Nos.	3		
E-F-2	Installation, Testing & Commissioning of bus bar system, including provision of 3D drawing and all test reports etc. complete in all respects	Job	1		
<b>F - Total Cost of Busbar:</b>					
<b>G</b>	<b>WIRING - MV</b>				
E-G-1	Supply, installation, connecting up, testing and commissioning of PVC insulated PVC sheathed non armoured / armoured Copper conductor MV cable 15kV grade in already laid raceway as per details shown on drawings from WAPDA Substation / Owner Main MV panel to MV Panel / Transformer, including designation labels at both ends etc., in the following sizes.  Note: (Actual length of cable shall be measured at site by the contractor before placing the order with the manufacturer, however approximate length of cable are shown herewith)				
(a)	185mmsq 11kV, 3-core cable (Al/XLPE/PVC/SWA/PVC)	Rft.	900		
<b>F - Total Cost of Wiring MV:</b>					
<b>H</b>	<b>WIRING ACCESSORIES</b>				
	<u>Particular Notes:</u> a) See pricing preambles / General Instruction				
E-H-1	Providing and fixing following rating 250 volt switch socket outlet and all mounting accessories				



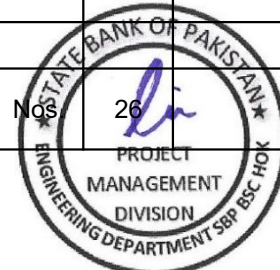
Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
(a)	3 pin, 5 Amp, 250 volt switch socket outlet				
	i. Main Building	Nos.	334		
	ii. Bungalow	Nos.	55		
	iii. External Works	Nos.	5		
	(a') 3 pin, 13 Amp, Universal, 250 volt switch socket outlet				
	i. External Works	Nos.	5		
(b)	3 pin, 13 Amp, flat pin, 250 volt switch socket outlet				
	i. Main Building	Nos.	284		
	ii. External Works	Nos.	10		
(c)	3 pin, 13 Amp, flat pin, 250 volt duplex switch socket outlet				
	i. Main Building	Nos.	53.92		
(d)	3 pin, 15 Amp, 250 volt switch socket outlet				
	i. Main Building	Nos.	90		
	ii. Bungalow	Nos.	10		
(e)	16 Amp, SPN+E industrial socket outlet				
	i. Main Building	Nos.	9		
	ii. External Works	Nos.	5		
(f)	32 Amp, SPN+E industrial socket outlet				
	i. Main Building	Nos.	8		
	ii. External Works	Nos.	5		
(g)	16 Amp, TPN+E industrial socket outlet				
	i. Main Building	Nos.	8		
(h)	63 Amp, TPN+E industrial socket outlet				
	i. Main Building	Nos.	4		



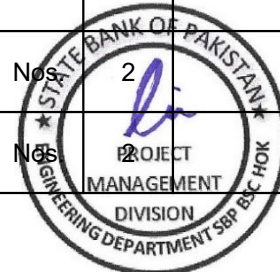
Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. External Works	Nos.	5		
	(i) 20 Amp, 250 volt, double pole isolator switch with neon indication				
	i. Main Building	No.	21		
	ii. Bungalow	Nos.	8		
E-H-2	Providing and fixing following rating SP&N 250 / TP&N 500 volts weather proof load break switches / isolator, including whether proof sheet steel enclosure and all mounting accessories				
	(a) 20A, 250V, SP&N				
	i. Main Building	Nos.	13		
	ii. Bungalow	No.	1		
	iii. External Works	Nos.	2		
	(b) 20A, 500V, TP&N				
	i. Main Building	Nos.	8		
	ii. External Works	Nos.	2		
	(c) 32A, 500V, TPN+E				
	i. Main Building	No.	1		
E-H-3	Providing and fixing following rating 250 volt bell/bell push and all mounting accessories				
	(a) Bell				
	i. Bungalow	No.	1		
	(b) Bell Push				
	i. Bungalow	No.	1		
E-H-4	Providing and fixing following rating 250 volt fans/exhaust fans including appropriate size mounting rods and all mounting accessories;				
	(a) 56" sweep ceiling fan				
	i. Main Building				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. Bungalow	Nos.	11		
	iii. External Works	Nos.	6		
(b)	48" sweep ceiling fan				
	i. Main Building	Nos.	24		
	ii. External Works	Nos.	2		
(c)	Wall bracket fan				
	i. Main Building	Nos.	26		
	ii. Bungalow	Nos.	6		
	iii. External Works	Nos.	2		
(d)	10" plastic exhaust fan for toilet				
	i. Main Building	Nos.	17		
	ii. Bungalow	Nos.	8		
(e)	12" metallic exhaust fan for toilet / kitchen				
	i. Main Building	Nos.	11		
	ii. External Works	Nos.	8		
E-H-5	Providing and fixing underfloor / ceiling mounted pull boxes (PVC/16swg powder coated sheet steel) with cover and knockouts for cable entry, including all mounting accessories etc. complete in all respects				
(a)	12"x12" ceiling mount pull box (PVC)				
	i. Main Building	Nos.	26		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	3		
(b)	12"x12" floor mount pull box (Sheet Steel)				
	i. Main Building	Nos.	26		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	4		
E-H-6	Providing and fixing of following floor technology boxes (Clipsal / MK type) with hinged cover and provision for outlets (A, B, C types etc.), <b>without</b> socket outlets but including all mounting accessories etc. complete in all respects.				
	(a) 4 outlet box				
	i. Main Building	Nos.	33		
	ii. External Works	Nos.	2		
<b>H - Total Cost of Wiring Accessories:</b>					
<b>I</b>	<b>LIGHT FIXTURES</b>				
	Particular Notes: a) See pricing preambles / General Instruction b) Fluorescent fixtures should be compatible with and fit exactly into the false ceiling c) All lamps shall be color 84 or cool white unless otherwise stated or instructed by Architect / Consultant d) Ballast shall be of electronic type as indicated e) Exit light fixtures shall be LED type				
E-I-1	Providing and fixing following type of LED / fluorescent / compact fluorescent, Metal halide lamp or incandescent fixtures or as per lighting fixture schedule installed on surface or on false ceiling or pendant mounted, with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer, complete in all respects				
	(a) Fixture A1: Recessed type LED Down Light fixture including 15 W LED lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.			





Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	(b) Fixture A2: Recessed type LED Down Light fixture including 12 W LED lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	60		
	iii. External Works	Nos.	2		
	(c) Fixture A3: Recessed type LED Down Light fixture including 26 W LED lamp				
	i. Main Building	Nos.	1087		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
	(d) Fixture A4: Recessed type LED Down Light fixture including 15 W LED lamp				
	i. Main Building	Nos.	102		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
	(e) Fixture A5: Surface mounted Highbay Lighting fixture with 50W LED Lamp				
	i. Main Building	Nos.	14		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
	(f) Fixture B1: Wall mounted Bracket light fixtures with 6W LED lamp				
	i. Main Building	Nos.	4		
ii. Bungalow	Nos.	25			



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	iii. External Works	Nos.	2		
(g)	Fixture B2: Wall mounted Wall light fixtures with 15W LED lamp				
	i. Main Building	Nos.	32		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
(h)	Fixture B3: Wall mounted Bracket light fixtures with 23W LED lamp				
	i. Main Building	Nos.	55		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	50		
(i)	Fixture B4: Wall mounted LED bulk head light fixture with 20W LED lamp (Weather proof type)				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	15		
	iii. External Works	Nos.	2		
(j)	Fixture B5: Wall mounted LED Gate light fixture with 12 W LED lamp (Weather proof type)				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	10		
	iii. External Works	Nos.	2		
(k)	Fixture B6: Wall mounted Exterior type LED Wall light fixture with 12W LED lamp (Weather proof type)				
	i. Main Building	Nos.			



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. Bungalow	Nos.	20		
	iii. External Works	Nos.	2		
(l)	Fixture B7: Wall mounted LED Shell light fixture with 9W LED lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	20		
	iii. External Works	Nos.	2		
(m)	Fixture B8: Wall mounted LED Mirror light fixture with 6W LED lamp				
	i. Main Building	Nos.	46		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
(n)	Fixture B9: Wall mounted LED Mirror light fixture with 12W LED lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	8		
	iii. External Works	Nos.	2		
(o)	Fixture B10: Wall mounted LED Driveway light fixture with 20W LED lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.			



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
(p)	Fixture C1: Surface / Recessed type 2'x2' LED Flat Panel with 42W LED lamp				
	i. Main Building	Nos.	247		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
(q)	Fixture C2: General purpose batten luminaire with 1x18 watts LED lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	50		
	iii. External Works	Nos.	2		
(r)	Fixture C3: Surface mounted weatherproof light fixture with 20W LED lamp				
	i. Main Building	Nos.	44		
	ii. Bungalow	Nos.	20		
	iii. External Works	Nos.	25		
(s)	Fixture C4: Surface mounted weatherproof light fixture with 2x18W LED lamp				
	i. Main Building	Nos.	44		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
(t)	Fixture D1: Surface mounted Chandelier Light fixture (as approved by Architect) including 150 W LED lamps (dimnable, warm white)				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. Main Building	Nos.	8		
	ii. Bungalow	Nos.	3		
	iii. External Works	Nos.	2		
(u)	Fixture E1: Surface mounted LED Security light 100W with sensor				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	15		
(v)	Fixture F1: Pole mounted LED light fixture with 60W lamp				
	i. Main Building	Nos.	4		
	ii. Bungalow	Nos.	2		
(v')	Fixture F1: Pole mounted LED light fixture with 70W lamp				
	i. External Works	Nos.	55		
(w)	Fixture G1: Recessed /False ceiling / surface mounted rechargeable battery-operated (3hrs) maintained type Directional / Exit 3W LED light (as approved by Architect)				
	i. Main Building	Nos.	113		
	ii. Bungalow	Nos.	10		
	iii. External Works	Nos.	2		
(x)	Fixture G2: Surface mounted rechargeable battery-operated (3hrs) non-maintained type Emergency light with 10W LED lamp				
	i. Main Building	Nos.	67		

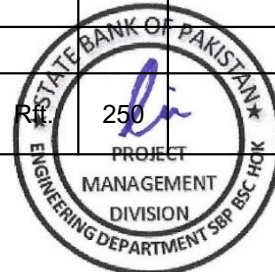


Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	2		
<b>I - Total Cost of Light Fixtures:</b>					
<b>J</b>	<b>EARTHING SYSTEM</b>				
	Particular Notes: a) See pricing preambles / General Instruction b) All earth pits are to be connected with each other in parallel at test point in pit c) All earth pits shall also be connected to the main earth point d) Depth of earth plate / rod shall be as indicated on relevant drawing				
E-J-1	Supply, installation, & connecting up of Rod type earth electrodes (refer drawing SBPG-G-EL-02A) including earth electrode ( in 3 equal sections), GI pipe, earthing cable up to earth point in pit, including clamps inspection chamber heavy duty C.I. Cover, bore, Chemical, etc. and all accessories, complete in all respects				
	i. Main Building	Nos.	6		
	ii. Bungalow	Nos.	2		
	iii. External Works	Nos.	10		
E-J-2	Supply, installation and connecting up of main earth bar, including lugs, bolts, washers etc. and all mounting accessories as follows;				
(a)	450mm x 50mm x 20mm				
	i. Main Building	Nos.	2		
(b)	300mm x 50mm x 20mm				
	i. Main Building	Nos.	7		
(c)	300mm x 50mm x 5mm				
	i. Main Building	No.	2		
	ii. Bungalow				





Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	(d) 200mm x 25mm x 10mm				
	i. Main Building	Nos.	2		
E-J-3	Providing, fixing and connecting up of PVC insulated 450/750V grade copper conductor earth cable (green), in already laid raceway including all fixing, jointing & termination accessories, etc., in the following sizes:				
	(a) 1C x 95mmsq Cu/PVC				
	i. External Works	Rft.	300		
	(a') 1C x 70mmsq Cu/PVC				
	i. Main Building	Rft.	410		
	ii. Bungalow	Rft.	20		
	iii. External Works	Rft.	450		
	(b) 1C x 35mmsq Cu/PVC				
	i. Main Building	Rft.	160		
	(c) 1C x 25mmsq Cu/PVC				
	i. Main Building	Rft.	80		
	ii. External Works	Rft.	100		
	(d) 1C x 16mmsq Cu/PVC				
	i. Main Building	Rft.	600		
E-J-4	Providing, fixing & connecting of stranded hard-drawn bare copper wire, clipped to surface/raceway with tie-clip or cable ties, including all jointing and termination accessories, cable lugs, crimps etc., in the following sizes:				
	(a) 70mmsq (3/0 SWG)				
	i. Main Building	Rft.	800		
	ii. External Works	Rft.	350		
	(b) 50mmsq (1/0 SWG)				
	i. Main Building	Rft.	250		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. External Works	Rft.	150		
(c)	16mmsq (8 SWG)				
	i. Main Building	Rft.	300		
	ii. External Works	Rft.	80		
E-J-5	Testing and commissioning of the entire earthing system and making necessary rectifications to achieve the necessary results ( $\leq 1$ ohm).				
	i. Main Building	Job.	1		
	ii. Security Office	Job.	1		
	iii. Bungalow	Job.	1		
<b>J - Total Cost of Earthing System:</b>					
<b>K</b>	<b>LIGHTNING PROTECTION SYSTEM</b>				
E-K-1	Supply, installation, & connecting up Rod type earth electrodes with 3/4" dia copper rod 10ft long ( in 3 equal sections) connected with 2x70mmsq Bare copper conductor in 50mm GI pipe class up to earth connecting point in pit, including clamps inspection chamber heavy duty C.I. Cover etc. and all accessories, complete in all respects and as per drawing				
	i. Main Building	Nos.	12		
	ii. Bungalow	Nos.	2		
E-K-2	Supply, installation of lightening protection terminal 1 m long, installed as and where shown on drawings on the roof, complete with fixing arrangement, connecting / cad welding with copper tape/conductor, brass, nuts, bolts, complete in all respects				
	i. Main Building	Nos.	13		
	ii. Bungalow	No.			



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
E-K-3	Supply, installation and connecting up of 25x3mm copper tape along the periphery of the building, on the roof, including all fixing clamps, cad welding and accessories etc. complete in all respects				
	i. Main Building	Rft.	1600		
	ii. Bungalow	Rft.	230		
E-K-4	Supply, installation and connecting up of 70mm Bare copper conductor clamped with rebar as down conductor, including all fixing clamps, earth test links and connecting to the earth pits, and accessories etc. complete in all respects.				
	i. Main Building	Rft.	240		
	ii. Bungalow	Rft.	80		
E-K-5	Bonding of reinforcement steel bars of underground foundation pad (retaining walls, column footings) with CAD welding, and welded copper connection with main earthing cable including all accessories, complete in all respects.				
	i. Main Building	Job	2		
	ii. Bungalow	Job	1		
	iii. External Works	Job.	1		
E-K-6	Supply, installation of earth Connecting points (outside pit) consisting of Copper plate to be installed as and where shown on drawings on the wall, complete with fixing arrangement, brass, nuts, bolts, complete in all respects to facilitate connections of incoming copper strip and outgoing CPC"s.				
	i. External Works	Nos.	12		
E-K-7	Providing & fixing of substation main earth bar, with 450mm x 50mm x 20mm copper bar with terminals, insulator supports, lugs, bolts, etc., including bonding to rebars of foundation structure				
	i. External Works	Nos.	2		



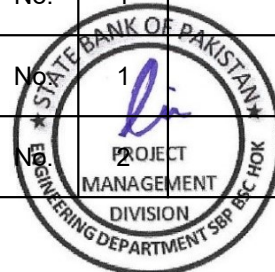
Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
<b>K - Total Cost of Earthing &amp; Lightning Protection System:</b>					
<b>L</b>	<b>MISCELLANEOUS ITEMS</b>				
	Particular Notes: a) See pricing preambles / General Instruction				
E-L-1	Supply, installation & connecting up of electric hand-drier, with photo-electric switch.				
	i. Main Building	Nos.	15		
E-L-2	Providing and fixing following type outlets (Clipsal / MK type) installed in wall, partition, in already laid floor boxes, etc. including all mounting accessories etc. complete in all respects.				
	(a) V Type outlets (including VGA, Video and Audio jacks with appropriate plugs/connectors)				
	i. Main Building	Nos.	23		
E-L-3	Providing and fixing underfloor RCC Man hole / Hand Hole, including heavy duty CI cover and all installation accessories etc. complete in all respects				
	(a) 600x600x1000mm Man Hole				
	i. Main Building	Nos.	2		
	ii. External Works	Nos.	8		
	(b) 450x450x600mm Hand Hole				
	i. Main Building	Nos.	6		
	ii. Bungalow	No.	1		
	iii. External Works	Nos.	12		
E-L-4	Supply, installation and connecting up of push button for contactor control in recessed / surface mounted weather proof 16 SWG sheet steel enclosure with hinged lockable cover including all mounting accessories (8 buttons per enclosure).				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. Main Building	Nos.	7		
	ii. External Works	Nos.	6		
E-L-5	Tenderer to specify any other work not mentioned herein but necessary for the completion of electrical works to the satisfaction of the Owner/Client/Consultant /Engineer. Tenderer to provide details of all such works prior to start of installation.				
	i. Main Building	Job.			
E-L-6	Supply, Installation of light duty ,wall mounted, GI Pole arm for pole mounted light fixtures including all mounting accessories etc. complete in all respects.	Nos.	6		
E-L-7	Supply, Installation of light duty ,conical 4m GI Pole for pole mounted / street light fixtures including concrete foundation, all mounting accessories etc. complete in all respects.	Nos.	10		
<b>L - Total Cost of Miscellaneous items</b>					
<b>M</b>	<b>SWITCHGEAR</b>				
	Particular Notes: a) See pricing preambles / General Instruction b) Short-circuit ratings to IEC 947-2, Icu/Ics at 415V c) All components (ELCBs, Contactors etc.) are to be provided with backup protection d) DBs of incoming size 100A or less may be provided with cascading				
E-M-1	Supply, installing, testing & commissioning of following distribution boards ( made of 16 SWG sheet steel ) with hinged doors and locks, including bus bars of tin plated copper conductor for phases, neutral and ground, of short circuit rating as mentioned below and all TP MCCBs shall also have minimum ultimate interrupting capacities (Icu) as mentioned in the drawings or more.  <b>NOTE:</b> The contractor shall take the dimensions of the site, prepare the shop drawing of DB / Panel and approval from the Consultant before manufacturing.				
<b>I. MAIN BUILDING</b>					
(a)	<b>BASEMENT - 02</b>				
	i. DB-B2-01 (Recessed)				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. DB-BV-01 (Recessed) [Vault Area]	No.	1		
	iii. DB-BV-02 (Recessed) [Vault Area]	No.	1		
	iv. MFDB-BV [Vault Area]	No.	1		
	v. CDB	No.	2		
(b)	<b>BASEMENT - 01</b>				
	i. DB-B1-01 (Recessed)	No.	1		
	ii. MFDB-B	No.	1		
	iii. CDB	No.	1		
(c)	<b>GROUND FLOOR</b>				
	i. MFDB-GF	No.	1		
	ii. DB-GF-01 (Recessed)	No.	1		
	iii. DB-GF-02 (Recessed)	No.	1		
	iv. DB-GF-BR (Recessed)	No.	1		
	v. DB-GF-SH (Recessed)	No.	1		
	vi. DB-GF-BPAS (Recessed)	No.	1		
	vii. CDB	No.	2		
(d)	<b>MEZZANINE FLOOR</b>				
	i. MFDB-MZ	No.	1		
	ii. DB-MZ-SDB1 (Recessed)	No.	1		
	iii. DB-MZ-SDB2 (Recessed)	No.	1		
	iv. DB-GF-SDB3 (Recessed)	No.	1		
	v. DB-MZ-CR (Recessed)	No.	1		
	vi. CDB	No.	2		





Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				2	3 = 1 x 2
(e)	<b>1st FLOOR</b>				
	i. MFDB-FF	No.	1		
	ii. DB-FF-01 (Recessed)	No.	1		
	iii. DB-FF-02 (Recessed)	No.	1		
	iv. DB-FF-GD (Recessed)	No.	1		
	v. DB-FF-GM (Recessed)	No.	1		
	vi. DB-FF-HL (Recessed)	No.	1		
	vii. CDB	No.	2		
(f)	<b>Roof</b>				
	i. MFDB-Roof	No.	1		
	ii. DB-Roof (Recessed)	No.	1		
<b>II.</b>	<b>SECURITY OFFICE</b>				
(a)	DB-SO-G1	No.	1		
(b)	DB-SO-G2	No.	1		
(c)	DB-SO-B	No.	1		
(d)	DB-SO-M	No.	1		
(e)	CDB-SO	No.	1		
<b>III.</b>	<b>BUNGALOW</b>				
(a)	MDB-BL (Surface)	No.	1		
(b)	DB-GF (Recessed)	No.	1		
(c)	DB-FF (Recessed)	No.	1		
<b>IV.</b>	<b>External Works</b>				
(a)	<b>MV SWITCHGEAR</b>				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	Supply, installing, testing & commissioning of following MV Switchgear equipment (as per WAPDA approved specifications, including connecting up with existing MV panels, all mounting accessories etc. complete in all respects NOTE: The contractor shall take the dimensions of the site, prepare the shop drawing of DB / Panel and approval from the Consultant before manufacturing.				
	i. Supply, installation & connecting up 630A motorized VCB Panel including CT & Pt (as per WAPDA Specifications), complete in all respects.	Nos.	7		
(b)	<b>LV SWITCHGEAR</b>				
	Supply, installing, testing & commissioning of following distribution boards ( made of 16 SWG sheet steel ) with hinged doors and locks, including bus bars of tin plated copper conductor for phases, neutral and ground, of short circuit rating as mentioned below and all TP MCCBs shall also have minimum ultimate interrupting capacities (Icu) as mentioned in the drawings or more. <b>NOTE:</b> The contractor shall take the dimensions of the site, prepare the shop drawing of DB / Panel and approval from the Consultant before manufacturing.				
	i. DB-EXT-1 (surface, weatherproof)	No.	1		
	ii. DB-EXT-2 (surface, weatherproof)	No.	1		
	iii. DB-EXT-3 (surface, weatherproof)	No.	1		
	iv. DB-BMS (surface, weatherproof)	No.	1		
	v. DB-WAPDA	No.	1		
	vi. Type Tested LT-PANEL-1 & 2 (including bus coupler)	No.	1		
	vii. Type Tested 400 KVAR PFI PANEL	Nos.	2		
	<b>M - Total Cost of Switchgear:</b>				
N	<b>FIRE ALARM SYSTEM (ADDRESSABLE)</b>				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	<p><u>Particular Notes:</u></p> <p>a) See pricing preambles / General Instruction</p> <p>b) FACP shall have capability to be connected to the building BMS and /or provide appropriate signal to turn off central air-conditioning and / or dedicated air-conditioning system</p> <p>c) 2 complete sets of Manufacturers recommended Operations and Maintenance manuals shall be submitted prior to commissioning of the system</p>				
E-N-1	Providing and fixing wiring of fire alarm system from fire alarm control panel, to initiating/indicating devices, with single core PVC insulated or vendor recommended cable installed in appropriate size conduit (anti corrosive painted 16 S.W.G.MS), complete with all accessories, as follows:				
	(a) From fire alarm control panel to manual break glass/smoke/heat detector/Multi detector with 2Cx1.5mmsq shielded (or vender recommended) cable				
	i. Main Building	Nos	6		
	ii. External Works	No.	1		
	(b) From initiating / indicating device to device with 2Cx1.5mmsq shielded (or vendor recommended) cable				
	i. Main Building	Nos	259		
	ii. External Works	Nos.	9		
	(c) From fire alarm control panel to electronic sounder with 2Cx1.5mmsq shielded (or vender recommended) cable				
	Main Building	Nos	7		
	External Works	No.	1		
E-N-2	Supply, installation & connecting up of following Analogue Addressable Fire Alarm Control Panel (FACP) / Repeater Panel (RP), including termination, complete with all features and accessories etc., complete in all respects				
	(a) 2 loop Addressable FACP with fiber loop card				
	i. Main Building	No.	2		
	(a') Master Fire Alarm Control Panel With Ethernet connectivity				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. External Works	No.	1		
	(b) 1 loop Addressable FACP with fiber loop card				
	i. Main Building	Nos	3		
	ii. External Works	No.	1		
E-N-3	Supply, installation and connecting up of following detectors, with base, including EOL resistors / Line Isolators, termination and all accessories complete in all respects.				
	(a) Addressable Photoelectric smoke detector				
	i. Main Building	Nos	205		
	ii. External Works	No.	1		
	(b) Addressable multi detector				
	i. Main Building	Nos	18		
	ii. External Works	Nos.	6		
	(c) Addressable Heat detector				
	i. Main Building	Nos	9		
	(d) Addressable manual 'break glass station (Resettable type)				
	i. Main Building	Nos	29		
	ii. External Works	Nos.	2		
	(e) Addressable Electronic Sounder with strobe				
	i. Main Building	Nos	33		
	ii. External Works	Nos.	2		
	(f) Loop Isolator				
	i. Main Building	Nos	13		
	ii. External Works	Nos	2		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
E-N-4	Testing and commissioning of the entire fire alarm system including system certification from Principle and training of owner representative, complete in all respects				
	i. Main Building	Job	1		
	ii. External Works	Job	1		
E-N-5	Any other item not mentioned above, but required for the satisfactory installation and commissioning of the FA System, (Tenderer to submit details of such items along with the tender)				
	i. Main Building	Job	1		
E-N-6	Testing and commissioning of the entire fire alarm system including system certification from Principle and training of owner representative, complete in all respects				
	i. Security Building	Job	1		
<b>N - Total Cost of Fire Alarm System:</b>					
<b>O PUBLIC ADDRESS SYSTEM (IP BASED)</b>					
	Particular Notes: a) See pricing preambles / General Instruction b) FACP shall have capability to be connected to the building BMS and /or provide appropriate signal to turn off central air-conditioning and / or dedicated air-conditioning system c) 2 complete sets of Manufacturers recommended Operations and Maintenance manuals shall be submitted prior to commissioning of the system				
E-O-1	Providing , fixing and connecting up of following wiring for sound system components with 2Cx2.5mmsq shielded / vendor recommended cable, installed in appropriate size class B PVC conduit rigid / flexible, clipped to the surface, or concealed in structure or in already-laid trunking, including cutting, chasing, making good, connectors etc., and all accessories, as follows:				
	(a) Wiring from amplifier to speaker / volume control				
	i. Main Building	Job	1		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	ii. External Works	Nos.	2		
(b)	Same as item 1a but from speaker / volume control to speaker				
	i. Main Building	Nos	81		
	ii. External Works	Nos.	8		
E-O-2	Supply, installation and connecting up of following mixer amplifier / PA System Components including all mounting accessories etc. complete in all respects				
(a')	Master Control Station				
	i. External Works	No.	1		
(a)	120W 2 Zone Mixer Amplifier with Controller (IP Based)				
	i. Main Building	Nos	4		
	ii. External Works	No.	1		
(b)	30W Volume control				
	i. Main Building	Nos	5		
	ii. External Works	No.	1		
(c)	Microphone with gooseneck stand including flexible cable with plug				
	i. Main Building	No	2		
	ii. External Works	No.	1		
(d)	6W tapping type false ceiling mounted speakers				
	i. Main Building	Nos	61		
	ii. External Works	Nos.	2		
(e)	6W tapping type surface mounted speakers				
	i. Main Building	Nos	22		
	ii. External Works	No.	4		
(f)	30W surface mounted Horn type speakers				

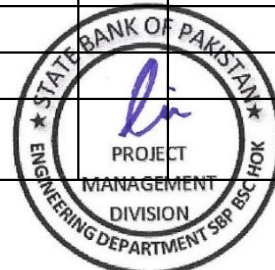
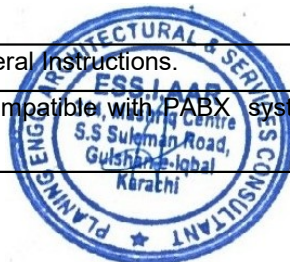




Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
	i. External Works	Nos.	2		
E-O-3	Programming, Commissioning and Testing of the entire audio system, including coordinating with vendor for PA system for shop drawings, installation supervision.				
	i. Main Building	Job	2		
	ii. External Works	Job	1		
E-O-4	Any other item not mentioned above, but required for the satisfactory installation and commissioning of the PA System, including interfacing with FACP (Tenderer to submit details of such items along with the tender)				
	i. Main Building	Job	2		
	ii. External Works	Job	1		
<b>O - Total Cost of Public Address System:</b>					
<b>P</b>	<b>C.A.T.V. SYSTEM</b>				
	<u>Particular Notes:</u>				
	a) See pricing preambles / General Instruction				
E-P-1	Wiring of following television antenna system in appropriate size conduit rigid / flexible, clipped to the surface, or concealed in structure or in already-laid trunking, including cutting, chasing, making good, sheet steel back-box for isolator and all mounting accessories, as follows				
	(a) RG-11 backbone coaxial cable from service provide tap-off point to M-TVJB on ground floor				
	i. Main Building	Rft.	709.1		
	ii. Bungalow	Rft.	330		
	(b) RG-6 coaxial cable from M-TVJB on ground floor to TVJB / floor splitter (Typical Floor)				
	i. Main Building	Rft.	355		
	ii. Bungalow	Rft.	60		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
(c)	TV point from splitter in TVJB to television outlet with RG-6 coaxial cable				
	i. Main Building	No	27		
	ii. Bungalow	Nos	8		
E-P-2	Providing, fixing and connecting up of following CATV junction boxes, as per television riser schematic, including sheet steel 16 SWG junction box (M/TVJB) of appropriate size with hinged cover, including termination at both ends, all tap-off's, splitters, components etc., including mounting and all accessories, complete in all respects.				
(a)	M-TVJB				
	i. Main Building	No	1		
	ii. Security Office	No	1		
	iii. Bungalow	No	1		
(b)	TVJB				
	i. Main Building	No	5.455		
	ii. Bungalow	No	1		
E-P-3	Providing and fixing of following type wall television outlet with 75 Ohm RF connector, including face plate matching with adjacent switch socket outlet with sleeve type labelling, identification tags and all accessories etc. complete in all respects.				
(a)	Single gang TV Antenna outlet				
	i. Main Building	No	28.27		
	ii. Bungalow	No	8		
<b>P - Total Cost of C.A.T.V. System:</b>					
<b>Q</b>	<b>TELEPHONE SYSTEM</b>				
	Particular Notes:				
	a) See pricing preambles / General Instructions.				
	b) Intercom system shall be compatible with PABX system components				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
E-Q-1	Wiring with following type cable in appropriate size conduit rigid / flexible, clipped to the surface, or concealed in structure or in already-laid trunking, including cutting, chasing, making good, sheet steel back-box for isolator and all mounting accessories, as follows				
(a)	2x25 pair Cat 5e backbone telephone cable from MDF (Main Building)	Rft.	0		
(b)	5 pair Cat 5e backbone telephone cable from Main Building TJB to Bungalow TJB	Rft.	330		
(c)	2x5 pair CAT 5e backbone telephone cable to/from TJB and PABX	Rft.	10		
(d)	Telephone point from TJB to CAT 6 outlet with 4 Pair Cat 6 UTP Cable	No.	8		
(e)	4 Pair Cat 5e UTP cable between intercom outdoor and indoor unit	No.	1		
E-Q-2	Providing, fixing and connecting up of following telephone junction boxes, as per telephone riser schematic, including sheet steel 16 SWG junction box (TJB) of appropriate size with hinged cover, including termination at both ends, IDC connectors, components etc., including mounting and all accessories, complete in all respects.				
(a)	50 pair MDF/TJB with space for surge arrestor	No.	1		
(b)	20 pair IDF-1F and IDF-2F	No.	0		
(c)	40 pair IDF-3F and IDF-4F	No.	0		
E-Q-3	Providing and fixing of following type wall telephone system components, with sleeve type labelling, identification tags and all accessories etc. complete in all respects.				
(a)	25 pair Telephone line surge arrestor	No.	0		
(b)	3x8 lines conventional PABX with all accessories	No.	1		
(c)	5 pair Telephone line surge arrestor	No.	1		
(d)	Door Intercom unit (indoor + outdoor units)	Set	1		
(e)	Electromagnetic lock with door Strike	No.	1		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
(f)	Power supply for intercom unit / door strike	No.	1		
(g)	Single gang Cat 6 outlet ( including Cat 6 I/O, face plate matching with adjacent switch socket outlet)	No.	8		
E-Q-4	Testing and commissioning of the entire telephone system	Job.	1		
<b>Q - Total Cost of Telephone System:</b>					
<b>R</b>	<b>POWER TRANSFORMER</b>				
	Particular Notes:				
	a) See pricing preambles / General Instructions				
	b) Short-circuit ratings to IEC 947-2, Icu/Ics at 415V				
	c) All components (ELCBs, Contactors etc.) are to be provided with backup protection				
E-R-1	Supply, installing, testing & commissioning of following Transformer (as per WAPDA approved specifications, including all mounting accessories etc. complete in all respects				
	(a) Cast Resin 11/0.415kV 1000kVA Dry type Star-Delta Transformer, with terminal cover, temperature alarm and trips and Canopy	Nos	2		
E-R-2	Supply, installing, testing & commissioning of wiring of Temperature sensing alarm / trips from transformer to MV / LV Switchgear with vendor recommended cable, in appropriate size painted GI pipe, including all accessories etc. complete in all respects	Jobs	2		
<b>R - Total Cost of Power Transformer:</b>					
<b>S</b>	<b>STANDBY POWER GENERATOR SYSTEM</b>				



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
	<p><u>Particular Notes:</u></p> <p>a) See pricing preambles / General Instructions</p> <p>b) Shop drawings for genset foundation as required to be made, control panel, day tank and piping etc., shall be submitted and got approved by the Consultant / Engineer upon confirmation of contract and prior to installation.</p> <p>c) Tenderer shall inform of any other implied work not mentioned below but necessary to make the standby power system completely operation. Details of all such works to be submitted prior to installation.</p> <p>d) Tenderer shall submit list of spare parts as mentioned in relevant items below along with the tender document</p> <p>e) Any required civil works requested below may be got done by civil works contractor. Electrical Contractor shall however coordinate all related activities.</p>				
E-S-1	Providing, installing and commissioning of 3 phase, 4 wire, 50Hz, 1500 RPM, 500 kVA continuous rating LV D.G. Set including weather proof acoustic canopy, silencer, 800A (Adj), TP MCCB, control panel and all control wiring connection with labelling and commissioning between D.G. Set and LT-Panel/Sync modules, and all accessories, etc., complete in all respects.	Nos.	2		
E-S-2	Same as item 1 but 33 KVA, 3 phase, auto start, canopied / silent Diesel Generator Set (Prime) with residential silencer and all required accessories, complete in all respects.	No.	1		
E-S-3	110 KVA, 3 phase, auto start, canopied / silent Diesel Generator Set (Prime) with residential silencer and all required accessories, complete in all respects.	No.	1		
E-S-4	Supply of 1000 operating hours spares for gensets (engine, alternator and panel). List of spares shall be provided.	Job	1		
E-S-5	Supply of additional spare parts recommended by manufacturer for 2 years operation of above mentioned gensets	Job	1		
E-S-6	Approval from Electric Inspector / Explosives inspector for entire Standby Power Generation System (official inspection charges/fee will be paid separately upon production of receipt, in addition to price quoted above).	Job	1		
E-S-7	Supply, installation, termination of vendor recommended control cablings, from generators to Sync Panel, in appropriate size raceway, including all related civil works (chiseling, chasing, and making good) etc., complete in all respects	Job	1		



Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
			1	2	3 = 1 x 2
E-S-8	Any other item not mentioned above, but required for the satisfactory installation and commissioning of the genset (Tenderer to submit details of such items along with the tender)	Job	1		
<b>S - Total Cost of Standby Power Generator System:</b>					
<b>T</b>	<b>PERIMETER ELECTRO FENCING</b>				
	<p><u>Particular Notes:</u></p> <p>a) See pricing preambles / General Instructions</p> <p>b) Shop drawings for perimeter electrical fencing, indicating location of support structures, control panels, and all wiring details etc., shall be submitted and gotten approved by the Consultant / Engineer upon confirmation of contract and prior to installation</p> <p>c) Tenderer shall submit a detailed BoQ of all items to be installed for an effective perimeter security along with shop drawings</p> <p>d) System shall be capable of communicating with a central BMS System</p> <p>e) Tenderer shall inform of any other implied work not mentioned below but necessary to make the electrical fencing work completely operation. Details of all such works to be submitted prior to installation.</p> <p>f) Tenderer shall submit conducting requirements and coordinate the same with other trades. Installation of conduits shall be got done with other related civil works</p>				
E-T-1	Providing, installing, testing and commissioning of perimeter electrical fencing, inclusive of all mounting accessories (stainless steel terminal posts, SS support posts, insulators, aluminum wires, nuts bolts, grounding wire), and all accessories, etc., complete in all respects. Min. 6 vertical runs of fencing wire shall be run. Length mentioned in the BoQ is linear perimeter length and indicative only. Vendor to accommodate for risers and drops and provide appropriate length of wires and related equipment	Rft.	1800		
E-T-2	Providing, installing, testing and commissioning of following components of electrical fencing, including all mounting and installation accessories, complete in all respects				
	(a) Fence Energizer	Nos.	2		
	(b) Rotary flasher with sounder (Outdoor type)	Nos.	0		
	(c) Keypad with charger	Nos.	1		





Item No.	Description	Unit	Qty	Unit Rate	Amount
				(Rs.)	(Rs.)
				1	2
(d)	Warning sign board	Nos.	40		
(e)	MS, weather-Proof enclosure off appropriate size for fence energizer	Nos.	2		
(f)	2Cx1.5sqmm Cu/PVC wire for signal, including appropriate size PVC raceway	Rft.	1500		
(g)	Other accessories for complete job	Job	1		
<b>T - Total Cost of Perimeter Electrical Fencing:</b>					
<b>TOTAL COST OF ELECTRICAL WORKS (Rs):</b> <b>(A+B+C+D+E+F+G+H+I+J+K+L+M+N+O+P+Q+R+S+T)</b>					



**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Bidding Instructions - Lift Works**

- a) This Bill of Quantities is to be read in conjunction with the Conditions of the Contract, Drawings and Specifications prepared by the Consultants, as being mutually explanatory.
- b) The bidders are required to fill in all sections of the BOQ, columns including all appendices. Bids not containing the above may be considered liable to rejection.
- c) All Bidders are advised to quote strictly as per specifications. Any alternative or deviations from specifications proposed shall be provided in the form of a separate quotation. Any Bid not quoting as per specifications may be considered liable to rejection.
- d) All equipment proposed to be supplied shall be strictly from the "List of Approved Suppliers and Manufacturers" and supported by suitable manufacturer's catalogue/literature etc. with the model selected with make, origin and performance data clearly marked. Also submit quoted equipment capacities at specified conditions. Any deviation shall be clearly highlighted on separate sheets with columns of specified & proposed. If more than one source of supply of equipment/material is indicated by the bidder, it is the Owner/Consultants discretion to choose the manufacturer of his own choice and not the discretion of the Bidder
- e) The quantities set out in the BOQ are the estimated quantities of the work and they are not to be taken as the actual and correct quantities of the work to be executed by the Contractor in fulfilment of the Contract. The Contractor shall be required to supply and install everything necessary to provide a complete operational system as specified and shown on the drawings and as per latest technical standards ( EN 81)
- f) All items mentioned in the Bill of Quantities (BOQ) shall be new and consist of furnishing all plant, labour, equipment, appliances and materials required for completing the items/works in strict accordance with relevant specifications as described in the Contract Documents and Drawings. .
- g) A price is to be entered against each item in the Bill of Quantities whether quantities are entered or not. Items against which no price is entered will be considered as covered by the other items in the Bill of Quantities. Prices shall be inclusive of delivery of material at site and at required floor
- h) Except as otherwise specifically provided for, all items in the Bill of Quantities are measured net, as fixed in place in accordance with the Drawings, and any allowance for waste shall be included in the price rate for that item.
- i) General direction and descriptions of works and materials given in the details, Drawings and Specifications are not necessarily repeated in the Bill of Quantities. Reference is to be made by the bidder to the details, Specifications and Drawings for their information and the same should be allowed for in their rates.



- j) In all cases where the Bill of Quantities items are not fully specific in respect of description or in respect of recommended manufacturers or suppliers, the bidder's attention is drawn to all the other Bid documents including Specifications and Drawings
- k) Generally the following shall be deemed to be included in the prices submitted with all items herein:
- i. Labour and all cost in connection therewith, materials, goods and all costs in connection therewith including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc.
  - ii. Erection, dismantling and removal on completion contractor's site offices, stores, accommodation.
  - iii. Waste of materials.
  - iv. General and other requirements of Condition of Contract & Technical Specifications.
  - v. Maintenance of work during maintenance period; supply of a set of "As Built Drawings", etc.
  - vi. Installing, fitting and fixing goods and materials in positions.
  - vii. Use of tools, plant and equipment.
  - viii. All overheads and profits including Income Tax Sales Tax, etc.
  - ix. Use of tools, plant and equipment.
  - x. All necessary cutting.
- l) All references to design details within item's description shall be interpreted to mean that such items shall include all work necessary for completion of the items regardless of trade except where specifically described otherwise
- m) The attention of the bidders is drawn to the fact that this Bill of Quantities is for use as a basis upon which the bidders will calculate their bid price. The bidders should ensure for themselves the adequacy of the items; quantities and descriptions contained therein completely defining the scope of the work as shown in the Drawings and Specifications.
- n) Where special risks, liabilities and obligations cannot be dealt with as above, then the additional moneys required by the bidder to cover such special risks, liabilities and obligations are to be separately stated in a letter accompanying the bid. Bidder shall list each and every clause number from the Conditions of Contract and the Specification that they wish to price in this way, together with the price in the Bid. Any risk, obligation or liability arising from any clause of the Conditions of the Contract or the Specifications or from the works detailed on the Drawings which has not been specifically priced in the said letter of the bidder shall be deemed to be included in the bid prices
- o) All Bids shall be accompanied by one additional copy of the main proposal and the priced BOQ marked 'DUPLICATE'.



- p) Where special risks, liabilities and obligations cannot be dealt with as above, then the additional moneys required by the bidder to cover such special risks, liabilities and obligations are to be separately stated in a letter accompanying the bid. Bidder shall list each and every clause number from the Conditions of Contract and the Specification that they wish to price in this way, together with the price in the Bid. Any risk, obligation or liability arising from any clause of the Conditions of the Contract or the Specifications or from the works detailed on the Drawings which has not been specifically priced in the said letter of the bidder shall be deemed to be included in the bid prices.
- q) The bidder shall also print the Bid document & duly seal & sign every page. No additions or deletion shall be made. If the Bid wishes to make additions to the BOQ, he shall do so on a separate sheet, which shall be clearly marked "ADDITIONS TO THE BOQ BY BIDDER". All such pages shall also be pasted in the Bid document, duly sealed & signed.
- r) Provisional Sums included and so designated in the BOQ if any, shall be expended in whole or in part at the direction and discretion of the Engineer/Employer/Consultant. The Contractor bill only received payment in respect of Provisional Sums if he has been instructed by the Engineer/Employer/Consultant to utilize such sums.
- s) The Contract shall be item rate contract.



## Construction of SBP New Office Building at Gujranwala

### Bill of Quantities

#### Lift Work

S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs	(Rs)
				2	3 = 1 x 2
<b>PART A - LIFT WORKS</b>					
Reference is made to Bidding Instructions to be carefully reviewed and followed by all Bidders. All lifts shall comply with latest technical standards EN-81:20					
Refer following documents prior to submitting quote					
a) Lift Schedule Rev_01					
b) Lift Technical Specifications					
c) Lift Appendices					
The lift shall be complete in all respect, including car, hoisting machine, counter weight, support brackets, embedded parts, access ladder, separator screen, trap door etc. Vendor shall submit (and get approved) shop drawings of all lift including lift shaft as					
L-A-1	Supply, installation, testing and commissioning of complete imported Passenger Lift of 1000 kg and 13 passengers capacity of 1.0m/sec Speed, including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc. all works as per latest technical standards ( EN 81) ,technical Specifications, Technical Schedule and Drawings; and Maintenance of Lifts with Spares parts for three year after completion certificate and take-over.				
	(a) Cost of Lift	No	1		
	(b) Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
L-A-2	Supply, installation, testing and commissioning of complete imported Passenger Lift of 1000 kg and 13 passengers capacity of 1.0m/sec Speed, including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc. all works as per latest technical standards ( EN 81) ,technical Specifications, Technical Schedule and Drawings; and Maintenance of Lifts with Spares parts for three year after completion certificate and take-over.				
	(a) Cost of Lift	No	1		
	(b) Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
L-A-3	Supply, installation, testing and commissioning of complete imported Passenger+Good Lift of 1250 kg and 16 passengers capacity of 1.0m/sec Speed, including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc. all works as per latest technical standards ( EN 81) ,technical Specifications, Technical Schedule and Drawings; and Maintenance of Lifts with Spares parts for three year after completion certificate and take-over.				

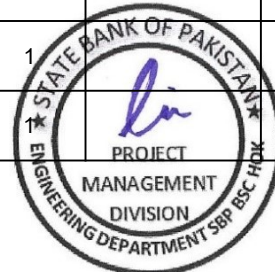


S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate Rs	Amount (Rs)
	a) Cost of Lift	No	1		
	b) Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
L-A-4	Supply, installation, testing and commissioning of complete imported Passenger+Good Lift of 1250 kg and 16 passengers capacity of 1.0m/sec Speed, including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc. all works as per latest technical standards ( EN 81) ,technical Specifications, Technical Schedule and Drawings; and Maintenance of Lifts with Spares parts for three year after completion certificate and take-over.				
	a) Cost of Lift	No	1		
	b) Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
L-A-5	Supply, installation, testing and commissioning of complete imported Passenger+Good Lift of 1250 kg and 16 passengers capacity of 1.0m/sec Speed, including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc. all works as per latest technical standards ( EN 81) ,technical Specifications, Technical Schedule and Drawings; and Maintenance of Lifts with Spares parts for three year after completion certificate and take-over.				
	a) Cost of Lift	No	1		
	b) Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
L-A-6	Supply, installation, testing and commissioning of complete imported Passenger+Good Lift of 1250 kg and 16 passengers capacity of 1.0m/sec Speed, including but not limited to, cartage, delivery, unloading, unpacking, returning packing, handling, hoisting to any height, lowering, octroi charges, income tax, sales tax etc. all works as per latest technical standards ( EN 81) ,technical Specifications, Technical Schedule and Drawings; and Maintenance of Lifts with Spares parts for three year after completion certificate and take-over.				
	a) Cost of Lift	No	1		
	b) Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
<b>TOTAL AMOUNT A - LIFT WORKS:</b>					
<b>PART B - MISCELLANEOUS WORKS</b>					
L-B-1	Lifts Monitoring & Recording software	Set			
L-B-2	Branded PC Core i7, 4 GB Ram, 500GB hard disk, DVD reader / writer, A4 size colour LaserJet (HP) printer	Lots			





S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate Rs	Amount (Rs)
L-B-3	Supply and installation of Servo Motor based Automatic Voltage Stabilizer, 3- Phase, 400V, 50Hz, +/- 15%, individually for all lifts and suitable for lift motor rating	Lot	1		
<b>TOTAL AMOUNT B - MISCELLANEOUS WORKS:</b>					
<b>PART C - LIST OF SPARE PARTS</b>					
L-C-1	<b>1000kG Passenger Lift</b>				
a)	Door drive motor	Set	1		
b)	Rollers/bearings for landing door	Set	1		
c)	Rollers/bearings for car door	Set	1		
d)	Guiding shoes on door	Set	1		
e)	Position Indicator units for landing	No	1		
f)	Guide shoes on car	Set	1		
g)	Guide shoes for counter weight	Set	1		
h)	Car push button	No	1		
i)	Landings push button	No	1		
j)	Proximity switches	No	1		
k)	Vital electronic PCB card	No	1		
l)	Electronic gong	No	1		
m)	Set of brake lining for main drive	Set	1		
n)	Switched mode power supply	Set	1		
o)	Main contactor	No	1		
p)	Landing door contact "fixed"	Set	2		
q)	Landing door contact "moving" part	Set	2		
r)	Car door contacts fixed & moving	Set	2		
s)	Sensor for car (full height light control)	Set	1		
t)	Landing door locking lever	Set	1		

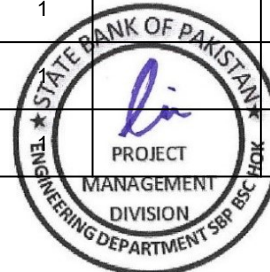


S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate Rs	Amount (Rs)
L-C-2	<b>1250kG Goods + Passenger Lift</b>				
	a) Door drive motor	Set	1		
	b) Rollers/bearings for landing door	Set	1		
	c) Rollers/bearings for car door	Set	1		
	d) Guiding shoes on door	Set	1		
	e) Position Indicator units for landing	No	1		
	f) Guide shoes on car	Set	1		
	g) Guide shoes for counter weight	Set	1		
	h) Car push button	No	1		
	i) Landings push button	No	1		
	j) Proximity switches	No	1		
	k) Vital electronic PCB card	No	1		
	l) Electronic gong	No	1		
	m) Set of brake lining for main drive	Set	1		
	n) Switched mode power supply	Set	1		
	o) Main contactor	No	1		
	p) Landing door contact "fixed"	Set	2		
	q) Landing door contact "moving" part	Set	2		
	r) Car door contacts fixed & moving	Set	2		
	s) Sensor for car (full height light control)	Set	1		
	t) Landing door locking lever	Set	1		
	<b>TOTAL AMOUNT C - LIST OF SPARE PARTS:</b>				
	<b>TOTAL COST OF LIFT WORKS (Rs) (PART A + PART B + PART C)</b>				



**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**HVAC Works**

S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-1	Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, operation and handing-over (as per manufacturer recommendation) of Electrical VFD/VSD Operated, Screw Chiller complete in all respects including all standard accessories Chilled & Cooling water inlet & outlet flanges, Vibration Isolators, Flow switch etc complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Manufacturer and Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, Operation and Handing-over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
CH - 01 (Capacity 300.0 Tons)					
(a)	Cost of Chiller.	No	1		
(b)	Cost of Installation, Testing & Commissioning, operation and handing over.	Job	1		
(c)	Cost of Spare Parts				
	i. Oil Filter and replacement gasket and O ring set.	Set	1		
	ii. Liquid Line Filter Dryer Core	Set	1		
	iii. Evaporator inlet Temperature Sensor	Set	1		
	iv. Evaporator outlet Temperature Sensor	Set	1		
	v. Hi-Pressure Transducer	Set	1		
	vi. Low-Pressure Transducer	Set	1		
	vii. Compressor Line Fuse	Set	1		
	viii. Control Primary Transformer protection fuse	Set	1		
	ix. Auxiliary Circuit protection fuse	Set	1		
	x. Phase Monitor protection fuse	Set	1		
	xi. Evaporator Heater Fuse	Set	1		
	xii. Electronic Expansion Valve with Sensor	Set	1		
	xiii. Oil Pressure Transducer	Set	1		
	xiv. Main Card of Microprocessor	Set	1		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	xv. One complete charge of Refrigerant Oil	Charge	1		
	xvi. One complete charge of Refrigerant R134a	Charge	1		
	xvii. Packing Kit	Set	1		
H-2	Supply, Assembling, Installation, Rigging, lifting, Placement, Testing, Commissioning and handing-over of CTI Certified and CTI Approved Cross-flow type Rectangular, Side In-Take, Top Discharge with internal piping, Cooling Tower complete in all respects with, interconnecting wiring for auto operation , inlet & outlet pipe connections, supply & installation of Temperature Controller for Cooling Tower Fan complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging ,lifting, Placement, Assembling, Testing, Commissioning, Operation and Handing-over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	CT-1 (For 300 Ton Chiller)				
(a)	Cost of Cooling Tower	No	1		
(b)	Cost of Installation, assembling, testing, commissioning, operation & handing over.	Job	1		
(c)	Cost of Spare Parts				
	i. Bearing (For each cooling tower)	Set	1		
	ii. Fan-Assembly (For each cooling tower)	No	1		
	iii. Fan Motor (For each type of rating)	No	1		
	iv. Fills (10 % of total cooling tower cap)	Set	1		
	v. Eliminator (10 % of total cooling tower cap)	Set	1		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-3	<p>Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning, Operation and handing-over (as per manufacturer recommendation) of Water/Smoke tube type Hot Water In-Line Heater with dual fuel (Natural Gas+ High Speed Diesel Oil) Operated Burner, forced draft fans with all sensors controls, burner management system at specified Capacity, automatic level controller complete in all respects including, all Mountings, Safeties, Automatic control, interlocking and Power wiring, RCC Foundation, M/S Structural supports, grouting, Insulation, Cladding with Skid mounted Feed water pump etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.</p> <p>HWSH-01 (Hot Water ENT/LVG Temperature Deg F:180/190 Deg F, Thermal Capacity 1500. MBH)</p> <p><b>Complete Job: Supply, Installation, Rigging ,lifting, Placement, Testing, Commissioning, Operation and Handing over.</b></p> <p><b>Manufactured By: Refer List of Recommended Manufacturers.</b></p>				
	HWSH-1				
	(a) Cost of Equipment.	Set	1		
	(b) Cost of Installation, Testing, Commissioning, operation & handing over.	Set	1		
	(c) Cost of Spare Parts.				
	i. Electronic probe type low water cutoff	Set	1		
	ii. Modulating Temperature Controller	Set	1		
	iii. Flow Switch	No	1		
	iv. Temp Sensor	No	1		
	v. Temp Sensor (Ext/Gas)	No	1		
	vi. Pressure Switch	No	1		
	vii. Fuse	Set	1		
	viii. Flame Detector	No	1		
	ix. Control Transformer	No	1		
	x. Pilot Solenoid valve	No	1		
	xi. Control Motor	No	1		
	xii. Shut-off Gas valve	No			
	xiii. Shut-off Diesel Oil valve	No			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	xiv. Pilot Regulator	No	1		
	xv. Other spare as recommend by manufacturer for two years normal operation.(if other than above)	Set	1		
H-4	Supply, Fabrication, installation and Insulation of Flue duct/Chimney for Exhaust Gas of Hot Water Storage Heater Round duct from Exhaust Manifold to atmosphere, by 16 SWG Mild Carbon Steel Sheet (PS1010/A36), insulated with 2" thick Rock wool, density 100 Kg/Cubic meter & then protected with 22 SWG, G.I sheet cladding including, high temperature expansion joint, back draft damper, duct connection, hangers & supports etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Fabrication, Installation and Handing over.</b> <b>Manufactured By: Pakistan.</b>				
	(a) Cost of Material.	Sq Ft	170		
	(b) Cost of Installation.	Sq Ft	170		
H-5	Supply, Installation, rigging, lifting & placement of Normal and Fresh Air Handling Units including Mixing Box, Filter + Filter Section, Cooling/Heating Coil, Blower Fan, industrial grade vibration isolator, Chilled water inlet & outlet connections, Drain Pan & Drain connection with U trap, Flexible Rubberized connector, duct connection etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Assembling, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	AHU (Different capacities)				
	(a) Cost of Fresh Air Handling Units + Local Material.	Nos	2		
	(b) Cost of Air Handling Units + Local Material.	Nos	10		
	(c) Cost of Assembling, Installation, operation, testing, commissioning & handing over.	Job	12		
	(d) Cost of Spare Parts.				
	i. Bearing set of Motor (For each set of AHU)	Set	12		
	ii. Blower Bearing and assembly (For each set of AHU)	Set	12		
	iii. Motor (1 Motor with each type of AHU)	Set	1		
	iv. VFD (1 VFD each type)	No			





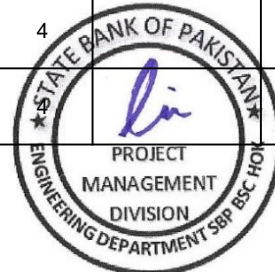
S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-6	Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning and Operation of Water Circulation pumps including matching flanges, nut bolts, RCC inertia block, industrial grade air cushion vibration isolators, inlet, outlet connections, drain connection etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Cost of Cooling Water Pumps (CWP-1,2) Flow: 910 US-GPM, Head: 108 Ft	Sets	2		
(b)	Cost of Primary Water Pumps (CHP-1,2) Flow: 644.73 US-GPM, Head: 80Ft	Sets	2		
(c)	Cost of Sec Chilled Water Pumps (CHP-3,4) with Spares. Flow: 644.73 US-GPM, Head: 129Ft	Sets	2		
(d)	Cost of Hot Water Pumps (HWP-1,2) Flow: 300 US-GPM, Head: 157 Ft	Sets	2		
(e)	Cost of Installation, Testing and Commissioning.	Job	8		
H-7	Supply, Installation, Rigging, lifting, Placement, Testing & Commissioning (as per manufacturer recommendation) of Sound Attenuator complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Cost of Attenuator, SA-1 [12,785 : Cfm, Size: 48"x22", 75db(A)-55db(A) ]	NO	1		
(b)	Cost of Attenuator, SA-2 [12,885 : Cfm, Size: 48"x24", 75db(A)-55db(A) ]	NO	1		
(c)	Cost of Attenuator, SA-3 [2,800 : Cfm, Size: 44"x14", 75db(A)-55db(A) ]	NO	1		
(d)	Cost of Attenuator, SA-4 [2,060 : Cfm, Size: 22"x14", 75db(A)-55db(A) ]	NO	1		
(e)	Cost of Attenuator, SA-5 [11,080 : Cfm, Size: 48"x20", 75db(A)-55db(A) ]	NO	1		
(f)	Cost of Attenuator, SA-6 [12,750 : Cfm, Size: 52"x20", 75db(A)-55db(A) ]	NO	1		
(g)	Cost of Attenuator, SA-7 [10,980 : Cfm, Size: 48"x20", 75db(A)-55db(A) ]	NO	1		



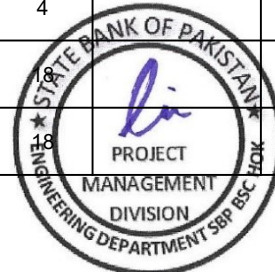
S.NO.	DESCRIPTION		UNIT	QTY	Unit Rate	Amount
					Rs.	Rs.
				1	2	3 = 1 x 2
	(h)	Cost of Attenuator, SA-8 [11,090 : Cfm, Size: 48"x20", 75db(A)-55db(A) ]	NO	1		
	(i)	Cost of Attenuator, SA-9 [10,280 : Cfm, Size: 48"x20", 75db(A)-55db(A) ]	NO	1		
	(j)	Cost of Attenuator, SA-10 [12,000 : Cfm, Size: 48"x20", 75db(A)-55db(A) ]	NO	1		
	(k)	Cost of Installation, Testing, Commissioning & Handing over.	Job	10		
H-8	Supply, Installation, rigging, lifting, placement, testing & commissioning of diesel storage cylindrical steel day tank, including in let out let piping connections, drain connection, air vent, level indicator, automatic refilling system, accordance to ASME code, etc. complete in all respects ready to operate as per schedule, specification, and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning and Handing over.</b>					
	(a)	Cost of Diesel Storage tank with all accessories. Storage capacity: 1000 Gallons	Set	1		
	(b)	Cost of Installation, rigging, lifting, placement, Testing, Commissioning & Handing over.	Job	1		
H-9	Supply, Installation, rigging, lifting & placement Fan Coil Units, including industrial grade vibration isolator, Digital temperature controller, two way modulating type valve with actuator, factory fitted ball valve, strainer, air vent, Chilled water inlet & outlet connections, drain connection with U trap, flexible rubberized connector, duct connection etc complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>					
	(a)	Cost of FCU-2.0, Chilled water operated Ceiling suspended Ducted with complete plenum fan Coil unit including wall mounted and cordless temperature controller with multispeed controller, Two way modulating valve, ball valves, strainer, globe valve + Local Material (Cooling Cap: 24,000 Btu/Hr, Air Flow: 700 Cfm)	Sets	3		
	(b)	Cost of Installation, Testing and Commissioning.	Nos	3		
	(c)	Cost of Spares				
	i.	Motor (With each FCU)	Set	1		
	ii.	Blower Assembly (With each type FCU)	Set	2		
	iii.	Two Way Valve Body with Actuator (With each type FCU)	Set	2		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	iv. Thermostat (With each type FCU)	Set	1		
	v. Air Filter (With each type FCU)	Set	1		
H-10	Supply, Installation, Rigging, Lifting, Placement, Testing, commissioning and Handing over of VRV Air conditioning units including In-Door Units+Out-Door Units, Refnet Joint, Wireless Remote Controller, Central Controller, BMS Central Controller with Software complete in all respects with inter connecting twisted wire, ready to operate including any other items.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	CU-1, Cooling Capacity.72,000 + Btu/Hr(Condensing Unit)	Set	1		
	i. AC-1.0, Cooling Capacity.12,000 Btu/Hr(Wall Mounted Decorative Evaporator Unit)	Set	3		
	ii. AC-1.5, Cooling Capacity.18,000 Btu/Hr(Wall Mounted Decorative Evaporator Unit)	Set	2		
(b)	CU-2 Cooling Capacity.84,000 + Btu/Hr(Condensing Unit)	Set	1		
	i. AC-2.5, Cooling Capacity.30,000 Btu/Hr(Wall Mounted Decorative Evaporator Unit)	Set	2		
	ii. AC-2.0, Cooling Capacity.24,000 Btu/Hr(Ducted, Fresh-Air Evaporator Unit)	Set	1		
(c)	CU-3 Cooling Capacity.60,000 + Btu/Hr(Condensing Unit)	Set	1		
	i. AC-2.5, Cooling Capacity.30,000 Btu/Hr Ceiling mounted Ducted Evaporator Unit including Plenum, Controls and Accessories.	Set	2		
(d)	CU-4 Cooling Capacity.60,000 + Btu/Hr(Condensing Unit)	Set	1		
	i. AC-1.5, Cooling Capacity.18,000 Btu/Hr(Wall Mounted Decorative Evaporator Unit)	Set	2		
	ii. AC-2.0, Cooling Capacity.24,000 Btu/Hr(Wall Mounted Decorative Evaporator Unit)	Set	1		
(e)	Complete Refrigerant Piping /Wiring (Suction+Liquid+Control Wiring)	Rft	180		
(f)	Power wiring of suitable type and size as per AC rating from nearest power DB to AC unit	Nos.	4		
(g)	Cost of Installation, Testing, Commissioning & Handing over.	Nos.			



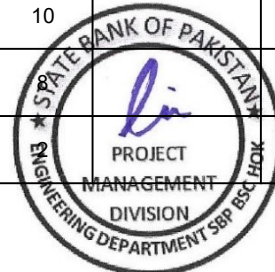
S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-11	Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning and Handing over of Split Type Air conditioning units including In-Door Units + Out-Door Units, Wireless Remote Controller, complete in all respects with inter connected wiring, ready to operate including any other items.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	AC-1, Cooling Capacity.12,000 Btu/Hr (Hi-Wall Mounted Decorative)	Nos	4		
(b)	AC-2, Cooling Capacity.24,000 Btu/Hr (Hi-Wall Mounted Decorative)	Nos	8		
(c)	AC-1, Cooling Capacity.12,000 Btu/Hr (Hi-Wall Mounted Decorative)	Nos	3		
(d)	AC-1.5, Cooling Capacity.18,000 Btu/Hr (Hi-Wall Mounted Decorative)	Nos	9		
(e)	AC-2.0, Cooling Capacity.24,000 Btu/Hr (Hi-Wall Mounted Decorative)	Nos	1		
(f)	AC-3.0, Cooling Capacity.36,000 Btu/Hr (Ceiling Cassette Type Decorative)	Nos	2		
(g)	AC-4.0, Cooling Capacity.48,000 Btu/Hr (Ceiling Cassette Type Decorative)	Nos	2		
(h)	Cost of Installation, Testing, Commissioning and Handing over.	Job	29		
(i)	Complete Refrigerant Piping (Suction+Liquid+Control Wiring) of suitable type and size as per AC rating and manufacturer recommendations	RFT	1160		
H-12	Supply, installation, testing & commissioning of Valve Accessories for AHU,s, FCU,s and branch connections complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Placement, Testing, Commissioning and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Gate Valve				
	i. 3/4 " dia size (Bronze Body, Screw Connection for Drain of AHU,s)	Nos.	0		
	ii. 1 " dia size (Bronze Body, Screw Connection)	Nos.	8		
	iii. 1 1/4 " dia size (Bronze Body, Screw Connection)	Nos.	6		
	iv. 1 1/2 " dia size (Bronze Body, Screw Connection)	Nos.	4		
	v. 2 " dia size (Bronze Body, Screw Connection)	Nos.			
	vi. 2 1/2 " dia size (M.I Body, Flanged Connection)	Nos.			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	vii. 3 " dia size (M.I Body, Flanged connection)	Nos.	4		
	viii. 4 " dia size (M.I Body, Flanged connection)	Nos.	6		
(b)	Strainers				
	i. 1 " dia size (Bronze Body, Screw Connection)	Nos.	4		
	ii. 1 1/4 " dia size (Bronze Body, Screw Connection)	Nos.	3		
	iii. 1 1/2 " dia size (Bronze Body, Screw Connection)	Nos.	1		
	iv. 2 " dia size (M.I Body, Flanged Connection)	Nos.	7		
	v. 2 1/2 " dia size (M.I Body, Flanged Connection)	Nos.	9		
	vi. 3 " dia size (M.I Body, Flanged connection)	Nos.	1		
(c)	Balancing Valve (with measuring nipples)				
	i. 1 " dia size (Bronze Body, Screw connection)	Nos.	4		
	ii. 1 1/4 " dia size (Bronze Body, Screw Connection)	Nos.	3		
	iii. 1 1/2 " dia size (Bronze Body, Screw Connection)	Nos.	2		
	iv. 2 " dia size (M.I Body, Flanged Connection)	Nos.	7		
	v. 2 1/2 " dia size (M.I Body, Flanged Connection)	Nos.	9		
	vi. 3 " dia size (M.I Body, Flanged Connection)	Nos.	2		
	vii. 4 " dia size (M.I Body, Flanged Connection)	Nos.	3		
(d)	Globe Valve				
	i. 1 " dia size (Bronze Body, Screw connection)	Nos.	4		
	ii. 1 1/4 " dia size (Bronze Body, Screw Connection)	Nos.	3		
	iii. 1 1/2 " dia size (Bronze Body, Screw Connection)	Nos.	1		
	iv. 2 " dia size (M.I Body, Flanged Connection)	Nos.	7		
	v. 2 1/2 " dia size (M.I Body, Flanged Connection)	Nos.	9		
	vi. 3 " dia size (M.I Body, Flanged Connection)	Nos.	1		
(e)	Auto Air Vent				
	i. 3 / 8" dia size for AHU,s	Nos.			
	ii. 1" dia size for Main Riser	Nos.			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	(f) Thermometer (Mercury Vari angle type)	Nos.	48		
	(g) Pressure Gauge, 4" Dial, Range 0 to 60 psig (Liquid Filled with Brass Gauge Cork including release port)	Nos.	48		
	(h) Ball Valve for Drain				
	i. 3/4" dia size (Bronze Body, Screw Connection for Drain of AHU,s)	Nos.	48		
H-13	Supply, installation, testing and commissioning of valve accessories including flanges, gasket, nuts & bolts etc. for above mentioned Pumps, Chiller, Cooling Tower, Main branches of chilled water lines complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Placement, Testing, Commissioning.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	(a) Flexible rubber connectors				
	i. 8" dia	Nos.	6		
	ii. 6" dia	Nos.	10		
	iii. 5" dia	Nos.	6		
	(b) Double Flanged wafer type Gear operated Butterfly Valve (Ductile Iron body, Bronze Disk, NBR Seat Ring, S.S Shaft)				
	i. 8" dia	Nos.	2		
	ii. 6" dia	Nos.	2		
	(c) Double Regulating Balancing Valve with measuring nipples(CFRV)				
	i. 8" dia	Nos.	2		
	ii. 6" dia	Nos.	1		
	iii. 5" dia	Nos.	2		
	iv. 3" dia	Nos.	1		
	(d) Gate Valve (PN 16, Rising Stem)				
	i. 8" dia	Nos	4		
	ii. 6" dia	Nos	10		
	iii. 5" dia	Nos			
	iv. 3" dia	Nos			

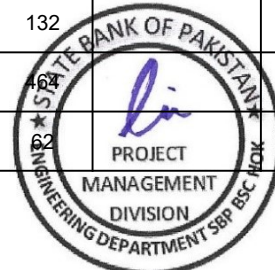




S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount	
				Rs.	Rs.	
				1	2	3 = 1 x 2
(e)	Check Valve (Wafer Type, Dual door, Ductile Iron body, Bronze Disk, NBR Seat, S.S Shaft)					
	i. 8" dia	Nos.	2			
	ii. 6" dia	Nos.	4			
	iii. 5" dia	Nos.	2			
	(f)	Check Valve (Swing Type)				
		i. 6" dia	Nos.	1		
		ii. 5" dia	Nos.	1		
	(g)	Strainers with 3/4" drain cock				
		i. 8" dia	Nos.	2		
		ii. 6" dia	Nos.	4		
	(h)	Globe Valve (PN 16, Rising Stem)				
		i. 8" dia	Nos	2		
		ii. 6" dia	Nos	4		
iii. 5" dia		Nos.	2			
(i)	Pressure Gauge, 4" Dial, Range 0 to 60 psig (Liquid Filled with Brass Gauge Cork including release port)	Nos.	6			
	(j) Compound Pressure Gauge, 4" Dial, Range 0 to 100 psig (Liquid Filled with Brass Gauge Cork including release port)	Nos	8			
(k)	Vari angle, Pipe Thermometer (Mercury type)	Nos.	10			
(l)	Ball Valve for Drain/Filling					
	i. 1" dia size (Screw connection)	Nos.	14			
(m)	Motorized Modulating Valve (Analogue in put and out put, with Differential pressure transmitters etc.)					
	i. 5" dia (For Condenser Water line)	Set	1			
	ii. 4" dia (For Chilled Water Line)	Set	1			
	iii. 3" dia (For Hot Water Line)	Set	1			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	(n) Motorized Double Flanged wafer type Gear operated Butterfly Valve (Ductile Iron body, Bronze Disk, NBR Seat Ring, S.S Shaft)				
	i. 6" dia	Nos.	4		
	(o) Automatic Air Vent with Ball valve - 1/2"	Nos.	8		
H-14	Supply, installation, testing and commissioning of SCH-40 M.S. Seamless ( <b>As per ASME &amp; API standard, With standard SCH 40 wall thickness &amp; weight</b> ) pipes, hanger, supports & fitting for Chilled Water, Hot Water & Cooling water circulation system, complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, lifting, Placement, Testing, Commissioning and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	(a) <b>For Chilled Water &amp; Hot Water System</b>				
	i. 3/4" Dia	Rft.	0.0		
	ii. 1" Dia	Rft.	121		
	iii. 1 1/4" Dia	Rft.	112		
	iv. 1 1/2" Dia	Rft.	388		
	v. 2" Dia	Rft.	400		
	vi. 2 1/2" Dia	Rft.	1014		
	vii. 3" Dia	Rft.	950		
	viii. 4" Dia	Rft.	1058		
	ix. 5" Dia	Rft.	226		
	x. 6" Dia	Rft.	447		
	xi. 8" Dia	Rft.	18		
	(b) <b>For Cooling Water System</b>				
	i. 4" Dia	Rft.	44		
	ii. 5" Dia	Rft.	0		
	iii. 6" Dia	Rft.	132		
	iv. 8" Dia	Rft.	464		
	v. 10" Dia	Rft.	464		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
			1	Rs.	Rs.
				2	3 = 1 x 2
H-15	Supply and installation of Pre Formed Polyurethane (Aluminum Foiled, 50 kg/m <sup>3</sup> density, 25mm thick for inside & 50 mm thick for out side up to 4" pipe and after 4" pipe 50mm thick for all ) for Chilled Water pipes, bends, tees, union, sockets, valves and Pre Formed Rockwool pipe(Aluminum Foiled, 100 kg/m <sup>3</sup> density, 75mm thick ) on specials protected with 16oz canvas cloth than paint with Anti fungus paint complete in all respects as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>  <b>Pre Formed Polyurethane (Aluminum Foiled, 50 kg/m<sup>3</sup> density, 50/25mm thick) on Chilled Water Piping.</b>				
(a)	3/4" Dia	Rft.	0.0		
(b)	1" Dia	Rft.	121		
(c)	1 1/4" Dia	Rft.	112		
(d)	1 1/2" Dia	Rft.	388		
(e)	v. 2" Dia	Rft.	400.0		
(f)	vi. 2 1/2" Dia	Rft.	1014		
(g)	vii. 3" Dia	Rft.	950		
(h)	viii. 4" Dia	Rft.	1058		
(i)	ix. 5" Dia	Rft.	226		
(j)	x. 6" Dia	Rft.	447		
(k)	xi. 8" Dia	Rft.	18		
H-16	Supply, Fabrication and installation of 26 Gauge G.I sheet metal cladding for Chilled Water pipes, bends, tees, union, sockets, valves & G.I Sheet metal ducts exposed to weather and in plant room complete in all respects.  <b>Complete Job: Supply, Fabrication, Installation</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	Chilled water piping and Hot Water Piping.	Sq ft	3700		



S.NO.	DESCRIPTION	UNIT	QTY		Unit Rate	Amount
					Rs.	Rs.
			1	2	3 = 1 x 2	
H-17	Supply, installation, testing & commissioning of Chemical dozing system for cooling tower, including 2 nos. automatic dozing pumps, Liquid Chemical tanks with level indicator, etc. complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant. <b>Complete Job: Supply, Installation, Rigging, Placement, Testing and Commissioning.</b> <b>Manufactured By: Refer List of Recommended Manufacturers.</b>	Set	1			
H-18	Supply, installation, testing, commissioning of By pass Chemical feeder with inlet / outlet connections for closed circuit chilled water system, including gate valves, funnel for chemical feeding complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant. <b>Complete Job: Supply, Installation, Rigging, Placement, Testing and Commissioning.</b> <b>Manufactured By: Refer List of Recommended Manufacturers.</b>	Set	1			
H-19	Supply and dozing of chemicals required for one year operation of Chilled Water & Cooling Water circuit including Initial Flashing Dozing, Initial Dozing & maintaining dozing for Two years plant operation as per instructions of Consultant. <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning &amp; Handing Over</b> <b>Manufactured By: Refer List of Recommended Manufacturers.</b>	Lot.	1			
H-20	Supply, installation, testing and commissioning of Valve accessories for Makeup water supply, Drain pipe and complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant. <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning &amp; Handing Over</b> <b>Manufactured By: Refer List of Recommended Manufacturers.</b>					
	(a) Ball Valve					
	i. 2" dia	Nos.	4			
	ii. 1 1/2" dia	Nos.	2			
	(b) Strainer					
	i. 2" dia	No.	4			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
			1	Rs.	Rs.
				2	3 = 1 x 2
H-21	Supply, Fabrication and installation of G.I Sheet Metal Machine Made Ducting for different sections of supply, return & exhaust air complete in all respects including plenums, splitter dampers, guide vanes, access door, transformation, plenums chambers compete in all respects  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	Refer Drawing No : AC-4, AC-5, AC-6, AC-7, AC-8, AC-9				
	(a) 20 Gauge	Sq Ft	6,000		
	(b) 24 Gauge, 22 Gauge	Sq Ft	36,646		
H-22	Supply and Installation of Aluminum Foil Fibre Glass (24 kg/m <sup>3</sup> density) insulation for G.I. sheet metal ducts of different sections for supply and return air wrapped with Aluminum tape protected with ASJ Vapour Barrier than painted with anti fungus paint compete in all respect.  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	(a) 1 1/2" Thick	Sq Ft	31,584		
H-23	Supply, installation, testing and commissioning of User-friendly Variable Frequency Converter with IP54(NEMA 12) enclosure, Compatible to interface the BMS system and able to configured with most common buses, Integrated AC choke for max protection and minimum harmonics including RFI filter, and self cooling system complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant  For Secondary Chilled water Pump Motor Set, 40 KW  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	(a) Cost of Equipment/Material.	Nos	2		
	(b) Cost of Installation, Testing, Commissioning & Handing over.	Nos	2		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-24	Supply, Installation, rigging, lifting & placement of Prop Fans ,Centrifugal Fans ,Cabinet type, fully G.I construction, as specified including Damper, industrial grade vibration isolator, flexible rubberized connector, duct connection etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	EF-1 (Cabinet Type, Flow. 120 Cfm, ESP 0.9 Inches H <sub>2</sub> O)	No	1		
(b)	EF-2 (Cabinet Type, Flow. 460 Cfm, ESP 0.8 Inches H <sub>2</sub> O)	No	1		
(c)	EF-3 (Cabinet Type, Flow. 460 Cfm, ESP 1.3 Inches H <sub>2</sub> O)	No	1		
(d)	EF-4 (Cabinet Type, Flow. 262 Cfm, ESP 0.9 Inches H <sub>2</sub> O)	No	1		
(e)	EF-5 (Cabinet Type, Flow. 460 Cfm, ESP 0.9 Inches H <sub>2</sub> O)	No	1		
(f)	EF-7 (Cabinet Type, Flow. 580 Cfm, ESP 1.2 Inches H <sub>2</sub> O)	No	1		
(g)	EF-8 (Cabinet Type, Flow. 300 Cfm, ESP 0.6 Inches H <sub>2</sub> O)	No	1		
(h)	EF-9 (Cabinet Type, Flow. 200 Cfm, ESP 0.6 Inches H <sub>2</sub> O)	No	1		
(i)	EF-10 (Cabinet Type, Flow. 250 Cfm, ESP 0.6 Inches H <sub>2</sub> O)	No	1		
(j)	EF-11 (Propeller Fan. Dia:12" 300 Cfm)	No	2		
(k)	EF-12 (Propeller Fan. Dia:12" 500 Cfm)	No	1		
(l)	EF-14 (Cabinet Type, Flow. 380 Cfm, ESP 0.8 Inches H <sub>2</sub> O)	No	1		
(m)	EF-15 (Cabinet Type, Flow. 180 Cfm, ESP 0.9 Inches H <sub>2</sub> O)	No	1		
(n)	EF-16 (Cabinet Type, Flow. 380 Cfm, ESP 0.9 Inches H <sub>2</sub> O)	Nos	2		
(o)	EF-17 (Cabinet Type, Flow. 180 Cfm, ESP 0.8 Inches H <sub>2</sub> O)	No	1		
(p)	EF-18 (Propeller Fan. Dia:30" 5000 Cfm) for Transformer Room & LT Room	Nos	4		
(q)	EF-19 (Cabinet Type, Flow. 8000 Cfm, ESP 1.6 Inches H <sub>2</sub> O)	No	1		
(r)	EF-20 (Cabinet Type, Flow. 880 Cfm, ESP 0.9 Inches H <sub>2</sub> O)	No	1		





S.NO.	DESCRIPTION		UNIT	QTY	Unit Rate	Amount
				1	Rs.	Rs.
					2	3 = 1 x 2
	(s)	EF-21 (Cabinet Type, Flow. 240 Cfm, ESP 0.6 Inches H <sub>2</sub> O)	No	1		
	(t)	EF-22 (Propeller Fan. Dia:12" 450 Cfm)	No	1		
	(u)	VF-1 (Cabinet Type, Flow. 280 Cfm, ESP 0.8 Inches H <sub>2</sub> O)	No	1		
	(v)	VF-2 (Cabinet Type, Flow. 7000 Cfm, ESP 1.8 Inches H <sub>2</sub> O)	No	1		
	(w)	VF-3 & 4 (Propeller Fan. Dia:30" 5500 Cfm) for Transformer Room & LT Room	Nos	4		
	(x)	VF 5-1, For Stair Well-1 (Cabinet Type,Flow:12,077Cfm, ESP:0.8 Inches H <sub>2</sub> O)	No	1		
	(y)	VF 5-2, For Stair Well-3 (Cabinet Type,Flow:12,077Cfm, ESP:0.8 Inches H <sub>2</sub> O)	No	1		
	(z)	VF 5-3, For Stair Well-4 (Cabinet Type,Flow:12,077Cfm, ESP:0.8 Inches H <sub>2</sub> O)	No	1		
	(aa)	VF 6-1, For Stair Well-2 (Cabinet Type,Flow:18,434Cfm, ESP:0.8 Inches H <sub>2</sub> O)	No	1		
	(ab)	VF 6-2, For Stair Well-5 (Cabinet Type,Flow:18,434Cfm, ESP:0.8 Inches H <sub>2</sub> O)	No	1		
	(ac)	VF 6-3, For Stair Well-6 (Cabinet Type,Flow:18,434Cfm, ESP:0.8 Inches H <sub>2</sub> O)	No	1		
H-25	Supply, Installation, Rigging, lifting & placement of AMCA Approved, Explosion Proof, Fire Resistant, Ducted ,Backward Curved Wheel Centrifugal Fans as specified including Damper, industrial grade vibration isolator, Flanged duct connection etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>					
	(a)	SM-EF-1(SWSI,CENTRIFUGAL,4600 CFM, ESP 1.2 Inches H <sub>2</sub> O)	No	1		
	(b)	Smoke Damper	No	3		
H-26	Supply and Installation of Aluminum fabricated, powder coated Grills, Diffusers and Registers for supply air, return air, exhaust air & fresh air of different sizes (Grade A ) complete in all respects with wooden frame (if required) supports and other accessories etc. as specified in the drawing.  <b>Complete Job: Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>					
	(a)	Supply Air Register (A-70 Series, Equivalent T&B)	No	1		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	(b) Supply Air Diffuser (ME Series, Equivalent T&B)	Lot.	1		
	(c) Return Air Diffuser (ME Series, Equivalent T&B)	Lot.	1		
	(d) Return Air Register (A 70 Series, Equivalent T&B)	Lot.	1		
	(e) Supply Air Linear Grill (Imperialine 4000 Series T&B) with Plenum, Butterfly Damper Flexible Connection, Gasket Etc.	Lot.	1		
	(f) Return Air Linear Grill (Imperialine 4000 Series T&B)	Lot.	1		
	(g) Exhaust Air Grill (A 70 Series, Equivalent T&B)	Lot.	1		
	(h) Exhaust Air Louver (with Bird Mesh & Rain Protection)	Lot.	1		
	(i) Fresh Air Louver (with Bird Mesh & Rain Protection)	Lot.	1		
	(j) Transfer Air Grill	Lot.	1		
	(k) Round Supply Air Jet Diffusers, Dia 350mm	Nos	12		
	(l) Exhaust Air Lover	Lot.	1		
	(m) Cost of Installation.	Job	1		
H-27	Supply and installation of Volume Control Damper and Fire Damper, Motorized Damper Complete in all respects ready to operate as per specification, drawings & as per instruction of Consultant  <b>Complete Job: Supply, Installation, Placement, Testing, Commissioning &amp; Handing Over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	(a) Cost of Volume Control Damper.	Lot.	1		
	(b) Cost of Volume Fire Damper.	Lot.	1		
	(c) Cost of Motorized Volume Control Damper.	Lot.	1		
	(d) Cost of Installation.	Job	1		



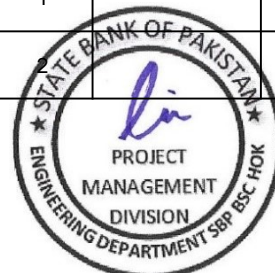
S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-28	Supply, installation, testing and commissioning of uPVC Drain pipe insulated with 1/2" thick rubber foam insulation, on specials protected with 16oz canvas cloth than paint with Anti fungus paint complete in all respects including clamps, bends, tees, drain plugs, drain traps, sockets, protection treatment, PVC tape wrapping complete in all respects ready to operate.  <b>Complete Job: Supply, Installation, Pressure Testing and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	1" Dia (uPVC, Class-B.)	Rft.	160		
(b)	1 -1/4" Dia (uPVC, Class-B.)	Rft.	220		
(c)	1-1/2" Dia (uPVC, Class-B.)	Rft.	199		
(d)	2" Dia (uPVC, Class-B.)	Rft.	290		
(e)	3" Dia (uPVC, Class-B.)	Rft.	160		
(f)	4" Dia (uPVC, Class-B.)	Rft.	200		
(g)	Floor Drain (Spigot Connection)	Nos	8		
H-29	Supply, Installation, rigging, Lifting, Placement, Testing, Commissioning, operation and Handing over (as per manufacturer recommendation) of Automatic Pressurization and Make-up Unit, suitable to maintaining the system under an adjustable Pressure range of 5-15 Psi, including Pre-Charge Pressure Tank Capacity 260 US Gallons, complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Manufacturer and Consultant. <b>For Chilled water Make-up System.(Cap: 260 US Gallons, Pressure Adjustment Range: 5 to 15.0 Psi)</b>  <b>Complete Job: Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Cost of Equipment & Material.	Set	1		
(b)	Cost of Installation, Testing and Commissioning.	Job	1		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-30	Supply, installation, testing and commissioning of Motor Control Centre, MCCs complete in all respects including weather proof sheet metal cabinet, bus bars, internal wiring, earth strip, connector strip, MCB, MCCB, control fuses, magnetic connector, overload relay, indication lights, voltmeter, ammeter, under/Over voltage, phase reversible, phase failure device, selector switch, related civil works etc. complete in all respects as per schedule, specifications, drawings & as per instructions of Consultant. Note: All Exposed to weather MCC shall comply IP 54  <b>Complete Job: Supply, Installation, Rigging, Lifting, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
Refer Drawing No: AC-13					
(a)	MCC-Central (Main Plant Room)	No	1		
(b)	MCC-1 (2nd-Basement)	No	1		
(c)	MCC-2 (1st-Basement)	No	1		
(d)	MCC-3 (Ground Floor)	No	1		
(e)	MCC-4 (Ground Floor)	No	1		
(f)	MCC-5 (Mezzanine Floor)	No	1		
(g)	MCC-6 (Mezzanine Floor)	No	1		
(h)	MCC-7 (First Floor)	No	1		
(i)	MCC-8 (Roof Floor)	No	1		
H-31	Supply, laying and installation of Power Cabling form MCC to different Air Handling Units, Air Conditioning Equipment, Ventilation and Exhaust Fans units, In-coming and out going Power supply shall be rated size as mentioned in drawing complete in all respects including connectors, tagging of cables, weather proof enclosure with isolator switch near each units, etc. ready to operate as per specification, drawings & instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Placement Testing, Commissioning, Operation and Handing over.</b>				
Refer Drawing No: AC-13					
(a)	Cost of Power Cable, 2nd-Basement MCC-Main Plant Room to All Equipment.	Job	1		
(b)	Cost of Power Cable, 2nd-Basement MCC-1 to All Equipment.	Job	1		
(c)	Cost of Power Cable, 1st-Basement	Job	1		



S.NO.	DESCRIPTION		UNIT	QTY	Unit Rate	Amount
					Rs.	Rs.
				1	2	3 = 1 x 2
	(d)	Cost of Power Cable, Ground Floor MCC-3.	Job	1		
	(e)	Cost of Power Cable, Mezzanine Floor MCC-4.	Job	1		
	(f)	Cost of Power Cable, Mezzanine MCC-5.	Job	1		
	(g)	Cost of Power Cable, First Floor MCC-6 .	Job	1		
	(h)	Cost of Power Cable, Roof Floor MCC-7.	Job	1		
	(i)	Automatic Control Wiring for AHUs, FCUs	Job.	1		
	(j)	Automatic Control Wiring for Building Management System, BMS interface communication system etc.	Job.	1		
	(k)	Automatic Control wiring for VFD control system for sec pumps, Cooling Towers, Speed Controlled Fans interface to Central BMS System etc.	Job.	1		
H-32	Supply, laying and installation of Cable tray for above mention cables form MCC to different Air Conditioning & Ventilation units complete in all respects including supports, angle iron frame, CC base etc. ready to operate as per specification, drawings & instruction of Consultant  Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning and Handing over.		Sq Ft	1,220		
H-33	Supply, installation, testing and commissioning of SCH-40 M.S. Seamless(As per ASME & API standard, With standard SCH 40 wall thickness & weight) pipes, hanger, supports & fitting for diesel transfer, complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning, Operation and Handing over.</b>					
	(a)	Pipe Dia. 2" (From Main Storage Tank to Day Storage Tank)	Rft	180		
	(b)	Pipe Dia. 1" (From Day storage tank to Hot Water Storage Heater.)	Rft	80		
	(c)	Pipe Dia. 1"(From Day storage tank to Fire Pump.)	Rft	40		
	(d)	Gate Valve Dia.2"	Nos	2		
	(e)	Gate Valve Dia.1"	Nos	2		
	(f)	Strainer Dia.2"	No	1		
	(g)	Strainer Dia.1"	No			

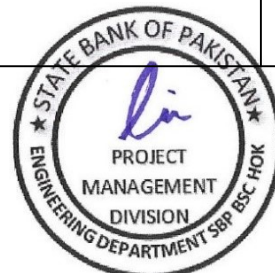


S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
H-34	Supply, installation, testing and commissioning of SCH-40 M.S. Seamless(As per ASME & API standard, With standard SCH 40 wall thickness & weight) pipes, hanger, supports & fitting for Natural Gas, complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning, Operation and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Pipe Dia. 1-1/2"	Rft	120		
(b)	Natural Gas Stop Cock Dia.1-1/2"	No	2		
(c)	Strainer Dia.1-1/2"	Nos	1		
H-35	Supply, installation, testing and commissioning of Medium weight G.I Piping (As per ASME & API standard, With standard for medium weight wall thickness & weight) pipes, hanger, supports & fitting for domestic water supply for make up water cooling tower, Drain of cooling tower, complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Placement and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Pipe Dia 1-1/2"	Rft	80		
(b)	Ball Valve 1-1/2"	Nos	2		
(c)	Strainer Dia.1-1/2"	Nos	4		
H-36	Supply and installation set of instruments complete in all respects as per schedule, specifications, drawings & as per instructions of Consultant.  <b>Complete Job: Supply, Installation, Placement and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Dial type duct mounted Thermometer (0 to 45 deg C)	Nos	24		





S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
			1	Rs.	Rs.
				2	3 = 1 x 2
H-37	Supply, installation, testing and commissioning of Electrical self generated steam humidifier for Fresh Air Handling Unit (Cap: 36 lb/hr) duct mounted type of required size and modulating capacity as per schedule including all accessories and fittings, Strainer, Valves, Drainer safety valves etc. complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant.  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>	Nos	2		
H-38	Supply, installation, testing and commissioning of insulated closed cylindrical centrifugal vertical type Air Separator of required size and capacity including S.S Air collector tube, Galvanized perforated 3/16" strainer, Expansion tank connection accessories and fittings, Strainer removal flange, Drainer etc. complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant. System Flow rate: 644.7 US Gpm, Operating Pressure rating. Max 80 Psi  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning &amp; Handing over</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>	Set	1		
H-39	Painting & Identification work on Ducting, Chilled Water Pipes, supports & hangers etc. complete in all respects as per specification & instruction of Consultant  <b>Complete Job: Supply, Painting, Tagging, Marking and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>	Job.	1		
H-40	Testing, balancing and commissioning of Air side of the system (from Independent Agency as per instruction of Consultant) complete in all respects as per schedule, specifications, drawings & as per instructions of Consultant.	Job.	1		
H-41	Testing, balancing and commissioning of water side of the system (from Independent Agency as per instruction of Consultant) complete in all respects as per schedule, specifications, drawings & as per instructions of Consultant.	Job	1		
H-42	Cost of One Month Test Run, after getting approval consultants on full load condition.	Job	1		
<b>TOTAL COST OF HVAC WORKS (Rs.):</b>					



**Construction of SBP New Office Building at Gujranwala  
Bill of Quantities  
Building Management System (BMS) Works**

S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
<b>A</b>	<b>BMS Works For HVAC System + Engineering Section</b>				
	Supply, Installation, Testing, Commissioning, Operation and Handing over, of un-limited components, equipments & material as Digital Automatic Control system as Standalone controller and Central Supervisory controlled/monitoring system for HVAC System, Gen-Set Power monitoring, HT Panel Monitoring, Sync Panel Power Monitoring, Power Factor Panel Power Monitoring, Phase Sequence Panel Monitoring, Automatic Diesel Fueling System, Plumbing Water Supply monitoring System including, weather proof enclosure with isolator switch near each units, including not limited, Direct Digital BACnet Field Controllers, Energy Analyser, Current Transducer, Temperature Sensor, etc ready to operate as per specification, drawings & instruction of Consultant.				
	<b>FOR ENGINEERING SECTION</b> Gen-Set Power Monitoring. HT Panel Monitoring. LT Panel Monitoring. Sync. Panel Power Monitoring. Power Factor Panel Power Monitoring Phase Sequence Panel Power Monitoring. Automatic Diesel Fueling to Generator Day Tank Elevators Fire Alarm Panel				
	<b>FOR HVAC SYSTEM</b> Air-Handling Units, with Power Monitoring. Fresh Air-Handling Units, with Power Monitoring. VFD/VSD Operated Screw Chillers Hot Water Heater. Cooling Water Pumps Primary Chilled Water Pumps Sec Chilled Water Pumps Cooling Tower Hot Water Circulation Pumps Stair Case Pressurization System Smoke Extraction System Area Monitoring & UPS - Cabinet & Data Center				
	<b>Complete Job: Supply, Installation, Rigging, Placement, Operation, Testing, Commissioning and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
B-A-1	<b>Standby Generator-Sets Power Monitoring</b> Energy Analyzer, Easy Logic VAF P & E Meter Current Transducer for Power Meter Direct Digital BACnet Field Controllers Electrical Local Control Panel				
(a)	Cost of Equipment/Material for Gen-Sets Power Monitoring	Jobs	2		
(b)	Cost of Installation, Testing & Commissioning	Jobs			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
B-A-2	<b>HT Panel Power Monitoring</b> Energy Analyzer, Easy Logic VAF P & E Meter. Current Transducer for Power Meter Direct Digital BACnet Field Controllers Electrical Local Control Panel				
	(a) Cost of Equipment / Material for HT Panel Monitoring.	Jobs	2		
	(b) Cost of Installation, Testing & Commissioning.	Jobs	2		
	(c) Bus Bar Temp Sensor	Sets	2		
B-A-3	<b>LT Panel Power Monitoring</b> Energy Analyzer, Easy Logic VAF P & E Meter. Current Transducer for Power Meter Direct Digital BACnet Field Controllers Electrical Local Control Panel				
	(a) Cost of Equipment/Material for LT Panel Monitoring.	Jobs	4		
	(b) Cost of Installation, Testing & Commissioning.	Jobs	4		
	(c) Bus Bar Temp Sensor	Sets	4		
B-A-4	<b>Sync Panel Power Monitoring</b> Energy Analyzer, Easy Logic VAF P & E Meter Current Transducer for Power Meter				
	(a) Cost of Equipment/Material for Sync. Panel Power Monitoring	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-5	<b>Power Factor Panel Monitoring</b> Energy Analyzer, Easy Logic VAF P & E Meter Current Transducer for Power Meter				
	(a) Cost of Equipment/Material for Power Factor Panel Power Monitoring	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-6	<b>Phase Sequence Panel Monitoring</b> Energy Analyzer, Easy Logic VAF P & E Meter Current Transducer for Power Meter				
	(a) Cost of Equipment/Material for Phase Sequence Panel Power Monitoring	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-7	<b>Automatic Diesel Fuel Monitoring</b> CT Switch 1 Amp Fixed Set Point (Pump Status) Relays (Pump Start/Stop) Level Switch for High/Low Alarm for Main Tank. Level Switch for High/Low Alarm for Gen-Set Tank. Ultrasonic Level Sensor for Main Diesel Tank. Direct Digital BACnet Field Controllers Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Automatic Diesel Fueling System	Job	1		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	(b) Cost of Installation, Testing & Commissioning.	Job	2		
	(c) Solenoid Valve 1"	Nos	2		
B-A-8	<b>Elevators</b> System controller for Integration Volt Free Contact (ON/OFF Status) Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Elevator Integration System	Job	4		
	(b) Cost of Installation, Testing & Commissioning.	Job	4		
B-A-9	<b>Stair Case Pressurization System</b> Automation Station. DPS Fan Status Differential Pressure Transmitter Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Staircase Pressurization System for Control & Monitoring.	Job	2		
	(b) Cost of Installation, Testing & Commissioning.	Job	2		
B-A-10	<b>Smoke Extraction System (Qty : 1 No for 3 Floors)</b> Automation Station DPS Fan Status Damper Actuator Rotary (0-10V, 24 V AC, 25Nm) Relay Module Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Smoke Extraction System for Control & Monitoring.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-11	<b>Area Monitoring &amp; UPS - Cabinet &amp; Data Center</b> Room Temperature/Humidity Sensors Automation Station Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Room Monitoring.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
	<b>HVAC System</b>				
B-A-12	<b>Air-Handling Units</b> Damper Motor Actuator (Supply Air, Return Air, Fresh Air) Duct Humidity Sensor (Return Air) Immersion Temp-Sensor+Brass Well Duct Temp-Sensor (Return Air, Supply Air) Differential Pressure Switch (Filter Status) Differential Pressure Switch (Fan Status) Smoke Detector Fire State (Supply Air) Two Way Modulating Valve + Actuator BACnet Field Controller Digital Display Sensor with Set Point Adjustment, Control Override and Controller Mode Function. Local Control Panel etc.				



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	(a) Cost of Equipment/Material for Air-Handling Units Control & Monitoring.	Jobs	10		
	(b) Cost of Installation, Testing & Commissioning.	Jobs	10		
B-A-13	<b>Fresh Air-Handling Units</b> Damper Motor Actuator (Supply Air) Immersion Temp-Sensor+Brass Well Differential Pressure Switch (Filter Status) Differential Pressure Switch (Fan Status) Two Way Modulating Valve + Actuator BACnet Field Controller Digital Display Sensor with Set Point Adjustment, Control Override and Controller Mode Function. Local Control Panel etc.				
	(a) Cost of Equipment/Material for Air-Handling Units Control & Monitoring.	Jobs	2		
	(b) Cost of Installation, Testing & Commissioning.	Jobs	2		
B-A-14	<b>Chiller Plant Room</b> Immersion Temperature Sensors for Chiller & Main header Immersion Temp-Sensor + Brass Well Water Flow Switch Temperature & Humidity Sensor Current Switch for Pumps & Cooling Tower Fans Pressure Sensor for Liquid Immersion temperature sensors. Water Pressure Sensor (For Sec-Pump) BACnet Field Controller Local Control Panel etc.				
	(a) Chiller (1 No) + 6 Pumps + cooling Tower + 2 Hot Water Pumps	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-15	<b>Hot Water Heater</b> Out Side Humidity/Temperature Sensor Flow Switch BACnet Field Controller Digital Display Sensor with Set Point Adjustment, Control Override and Controller Mode Function. Local Control Panel etc.				
	(a) Cost of Equipment/Material for Hot Water Heater	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-16	<b>Front End Equipment</b> Work Station And Server PC 16-Port network switch with rack Operation Software				
	(a) Cost of Equipment/Material for Front End Equipment.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
B-A-17	Supply, laying and installation of Power Cabling/Control Wiring from Panel to different components/Sensors , shall be rated size as mentioned in drawing complete in all respects including connectors, tagging of cables, weather proof enclosure with isolator switch near each units, etc. ready to operate as per specification, drawings & instruction of Consultant. 1. Automatic Control Wiring for Panel to Devices 2. Automatic Control Wiring for Building Management System, BMS interface communication system etc.				
	<b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning, Operation and Handing over.</b> <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
	(a) Cost of Equipment/Material for Wiring & Cabling etc.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-A-18	Cost of One Month Test Run, after getting approval consultants on full load condition.	Job	1		
B-A-19	Cost of 12 Month Operation and Maintenance after success full completion of test run.	Job	1		
<b>A - Total Cost of BMS Works For HVAC System + Engineering Section :</b>					
<b>B</b>	<b>Building Management Control &amp; Monitoring System For Fire Protection System + Security System</b>				
	Supply, Installation, Testing, Commissioning, Operation and Handing over, of Digital Automatic Control system as Standalone controller and Central Supervisory controlled/monitoring system for , Fire Protection System, Fire Tank ,Plumbing Water Supply monitoring System including, weather proof enclosure with isolator switch near each units, including not limited, Direct Digital BACnet Field Controllers, Energy Analyzer, Current Transducer, Temperature Sensor, etc. ready to operate as per specification, drawings & instruction of Consultant.  Automatic Water Filling System. Fire Pump Monitoring Fire Alarm System Integration. Fire Suppression System Integration. Fire Pump & System Integration. Gateway for Security System Integration Front End Equipment.  <b>Complete Job: Supply, Installation, Rigging, Placement, Testing, Commissioning and Handing over.</b>  <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
B-B-1	<b>Automatic Water Filling System-2 Sets (Over Head Tank +Under Ground Tank)</b> CT Switch 1 Amp Fixed Set Point (Pump Status) Relays (Pump Start/Stop) Level Switch for High/Low Alarm for Overhead Tank. Level Switch for High/Low Alarm for Under Ground Tank. Electronic Level Sensor for Water Tank.(1 No Under Ground, 1 No overhead) Direct Digital BACnet Field Controllers Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Automatic Water Filling System+ Over Head+ Under Ground Tank.	Jobs			





S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2 = 1 x 2
	(b) Cost of Installation, Testing & Commissioning.	Jobs	3		
B-B-2	<b>Fire Alarm System Integration</b> System controller for Integration Volt Free Contact (ON/OFF Status) Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Fire Alarm System Integration.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-B-3	<b>Fire Suppression System Integration</b> For Telephone Exchange, UPS-Data Cabinet G.Floor, UPS-Data Cabinet Mezz Floor, UPS-Room F. Floor, Server Room F.Floor & LT Room  System controller for Integration Volt Free Contact (ON/OFF Status) Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Fire Suppression System Integration.	Job	6		
	(b) Cost of Installation, Testing & Commissioning.	Job	6		
B-B-4	<b>Fire Pump System Integration</b> Ultrasonic Level Transmitter. DPS wet for Pump Status Pressure Sensor for Liquid (0-10V) 0-10 bar. With Pressure connection set. DDC Panel, Prewired with transformer etc. Automation station for 16 I/O (+ up to 24 TX I/O), BACnet/IP with universal module (DI, AI, AO 8 I/O) DDC Panel, Prewired with transformer etc.				
	(a) Cost of Equipment/Material for Fire Pump System Integration.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job	1		
B-B-5	<b>Gateway for Security System Integration</b> Gateway for System controller for Integration of RTU, BACnet MSTP on BACKnet/IP Volt Free Contact (ON/OFF Status) Electrical Local Control Panel				
	(a) Cost of Equipment/Material for Gateway for Security System Integration.	Job	2		
	(b) Cost of Installation, Testing & Commissioning.	Job	2		
B-B-6	<b>Front End Equipment</b> Work Station And Server PC 16-Port network switch with rack Operation Software				
	(a) Cost of Equipment/Material for Front End Equipment.	Job	1		
	(b) Cost of Installation, Testing & Commissioning.	Job			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
B-B-7	Supply, laying and installation of Power Cabling/Control Wiring from Panel to different components/Sensors, shall be rated size as mentioned in drawing complete in all respects including connectors, tagging of cables, weather proof enclosure with isolator switch near each units, etc. ready to operate as per specification, drawings & instruction of Consultant. 1. Automatic Control Wiring for Panel to Devices. 2. Automatic Control Wiring for Building Management System, BMS interface communication system etc.  <b>Complete Job: Supply, Installation, Rigging, Placement Testing, Commissioning, Operation and Handing over.</b> <b>Manufactured By: Refer List of Recommended Manufacturers.</b>				
(a)	Cost of Equipment/Material.	Job	1		
(b)	Cost of Installation, Testing & Commissioning.	Job	1		
B-B-8	Cost of One Month Test Run, after getting approval consultants on full load condition.	Job	1		
B-B-9	Cost of 12 Month Operation and Maintenance after success full completion of test run.	Job	1		
<b>B - Total Cost of BMS Works for Fire Protection System + Security System:</b>					
<b>TOTAL COST OF BMS Works (Rs):</b> <b>(A + B)</b>					

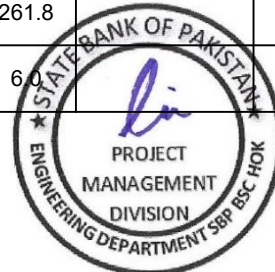


**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Fire Protection System Works**

S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
			1	Rs.	Rs.
				2	3 = 1 x 2
FF-1	<p>Supply, Installation, Rigging, Lifting, Placement, Testing and Commissioning of Fire Pump Set (UL Listed, FM Approved) confirming to NFPA-20 (Split case Pump with Electrical Motor, Pump with Diesel engine driver, Jockey Pump, with Suction &amp; Discharge headers and Controller complete in all respect ) Refer Technical Specification Section- 74:01,Pump shall have dry run protection and also shall have over run protection with all UL Liste &amp; FM approved valves, &amp; accessories including, electrical panal, matching flanges, nut bolts, RCC Foundation, industrial grade air cushion vibration isolators, inlet, outlet connections, drain connection etc complete in all respects ready to operate as per Schedule, Technical Specification,List of Approved Make, drawings and as per instruction of Consultant.</p> <p><b>Including all as follows, but not limited to,</b></p> <p>(a) O.S.Y Valve, with tamper switch.</p> <p>i. 50mm (6"Dia) Flanged End (Qty : 2 Nos,each pump)</p> <p>ii. 50mm (2"Dia) Flanged End (Qty : 1No for Jockey pump)</p> <p>iii. 150mm (6"Dia) Flanged End, Discharge Isolation Valve (Qty : 2 Nos,each pump)</p> <p>iv. 150mm (6"Dia) Flanged End, Discharge check Valve (Qty : 2 Nos,each pump)</p> <p>v. 0mm (2"Dia) Flanged End, Discharge check Valve (Qty : No,for jockey pump)</p> <p>vi. 50mm (2"Dia) Flanged End, Discharge Isolation Valve Qty : 1 No,for Jockey pump)</p> <p>vii. Anti-Vortex Plate assembly.</p> <p>(b) Liquid Filled Pressure Gauge with gauge cock and relief valve.</p> <p>(c) Air release valve.</p> <p>(d) Electrical Fire Pump Controller</p> <p>(e) Control cables &amp; connection to alarm system &amp; interface to BMS system.</p> <p>(f) Flow Meter on 150mm (6" Dia) line</p>				
	<p><b>For Main Building, Bungalow &amp; Flates</b></p> <p>i. Fire Pumps (F.P-1) with electrical + Diesel engine driver.  Flow: 750 US-GPM, Working Pressure, Up to 10 Bar  380-420 V AC/3Phase/50Hz</p> <p>ii. Jockey Pumps (F.P-1) with electrical driver.  Flow: 40 US-GPM, Working Pressure, Up to 10 Bar  380-420 V AC/3Phase/50Hz</p>				



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
	iii. Fuel System and Storage tank.				
	(a) Cost of Fire Pump Set + Jockey Pump Set + Fuel System and Storage Tank.	Set	1		
	(b) Cost of Installation, Testing and Commissioning.	Set	1		
FF-2	Supply, Installation, rigging, lifting & placement of Fire hose reel vertical cabinet, double compartment confirming to NFPA-20, NFPA-14 Refer Technical Specification Section-74:02, Recessed Type, size 64"x32"x12", Stainless Steel Dull Finish front, M/S Powder Coated back including 1" x100 Rft rubber Hose Reel assembly complete with 2-1/2"(63 mm) Landing Valve, Bronze body adjustable spray nozzle, Nozzle Guide, Valve, Automatic and Manual operation 180 deg swing type etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.				
	(a) Type: FHC (For Main Building)	Nos	18		
	(b) Cost of Installation and Commissioning.	Nos	18		
FF-3	Supply, installation, testing and commissioning of SCH-40 M.S and Seamless piping And Fittings ( <b>As per ASME &amp; API standard, With standard SCH 40 wall thickness &amp; weight</b> ) (UL Listed, FM Approved) confirming to NFPA-20, NFPA-14, NFPA-13 for above ground Fire Water piping & Grooved "Victaulic" Fitting, expansion joints, G.I hangers & supports for Fire Fighting system complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.				
	<b>Black Steel ASTM A 53 Schedule 40 category pipe</b>				
	(a) 25mm (1" Dia)	R-Mtr.	901.0		
	(b) 32mm (1-1/4" Dia)	R-Mtr.	51.6		
	(c) 40mm (1-1/2" Dia)	R-Mtr.	58.6		
	(d) 50mm (2" Dia)	R-Mtr.	149.3		
	(e) 65mm (2-1/2" Dia)	R-Mtr.	506.0		
	(f) 80mm ( 3" Dia)	R-Mtr.	114.7		
	(g) 110mm (4" Dia)	R-Mtr.	102.6		
	(h) 125mm (5" Dia)	R-Mtr.	111.0		
	(i) 160mm (6" Dia)	R-Mtr.	261.8		
	(j) 200mm (8" Dia)	R-Mtr.	60.0		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				2	3 = 1 x 2
FF-4	Supply, installation, testing and commissioning of Valves & Accessories (UL Listed, FM Approved) conforming to NFPA-14, NFPA-13 including flanges, nut & bolts & accessories, of required size complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant. Refer Drawing No-FP-10				
(a)	Out side screw & yoke (OS & Y) Gate Valve. 65mm (2-1/2" Dia)	No	1		
(b)	Out side screw & yoke (OS & Y) Gate Valve. 110mm (4" Dia)	No	1		
(c)	Out side screw & yoke (OS & Y) Gate Valve. 125mm (5" Dia)	Nos	4		
(d)	Out side screw & yoke (OS & Y) Gate Valve. 150mm (6" Dia)	Nos	3		
(e)	Out side screw & yoke (OS & Y) Gate Valve. 200mm (8" Dia)	Nos	1		
(f)	Y-Strainer with drain plug & connection. 200mm (8" Dia)	Nos	1		
(g)	Gauge Glass + Drain Valve, 25mm (1" Dia, PN-25)	Nos	16		
(h)	Liquid filled Pressure Gauge, Dial size 4" range (0-150Psi) with gauge cock & release port.	Nos	40		
(i)	Water application Pressure Reducing Valve for Sprinkler Water System, range in-let pressure-10bar & out let pressure up-to 4.8 bar.				
	i. 65mm (2-1/2" Dia)	Nos	2		
	ii. 80mm (3" Dia)	Nos	4		
	iii. 110mm (4" Dia)	Nos	2		
(j)	Flexible Coupling, Single Sphere, 65mm (2-1/2" Dia)	No	1		
(k)	Flexible Coupling, Single Sphere, 110mm (4" Dia)	No	1		
(l)	Flexible Coupling, Single Sphere, 125mm (5" Dia)	No	4		
(m)	Anti-Vortex Plate assembly.	Set	1		
FF-5	Supply, installation, testing & commissioning of Zone Control Valve Assembly with Inspection and Test Valve Assembly 25mm (1" Dia) c/w with test globe valve, site glass double window with fixing (UL Listed, FM Approved) accessories complete in all respects ready to operate, specifications, drawings and as per instructions of Consultant.				
(a)	ZCV, Zone Control Valve with Supervisory Switch For Main Building, 65mm (2-1/2" Dia)	Nos	2		

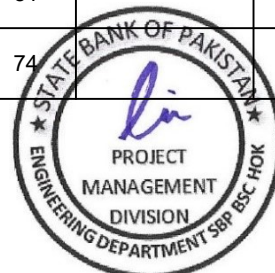


S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate		Amount
				Rs.	Rs.	Rs.
				1	2	3 = 1 x 2
	(b) ZCV, Zone Control Valve with Supervisory switch, For Main Building, 80mm (3" Dia)	Nos	4			
	(c) ZCV, Zone Control Valve with Supervisory switch, For Main Building, 110mm (4" Dia)	Nos	2			
FF-6	Supply, installation, testing & commissioning of Alarm check Valve Assembly with variable pressure trim retarding chamber, mechanical alarm gong, pressure switch & temper switch including all accessories complete in all respects ready to operate as per technical specifications, drawings and as per instructions of Consultant.					
	(a) 110mm (4" Dia)	Set	2			
	(b) 150mm (6" Dia)	Set	3			
FF-7	Supply, installation, testing & commissioning all necessary Chemical/Flushing connection assembly.	Lot	1			
FF-8	Supply, installation, testing and commissioning of Breaching Inlet conforming to NFPA-20, NFPA-14 with non return valve for Fire Department, 2way including Cabinet with break able glass, S.S Frame and Drain point , with chain and cap of required size complete in all respects ready to operate as per schedule, specifications, drawings and as per instructions of Consultant.					
	Size: 110mm x 65mm x 65mm (4" Dia x 2 1/2" Dia x 2 1/2" Dia)	Set	1			
<b>SPRINKLER SYSTEM</b>						
FF-9	Supply, installation, testing & commissioning of Sprinkler Head Pendent/Up-Right recessed center link type , male connection bronze finish "UL LISTED & FM APPROVED" Coverage 144 Sq-Ft including all fittings & accessories complete in all respects ready to operate as per technical specifications, drawings and as per instructions of Consultant.					
	(a) RED, 25mm (1" Dia) 68° C, quick response, PENDENT for Main Building.	Nos	325			
	(b) GREEN, 25mm (1" Dia) 80° C, quick response, Up-Right for Car Parking.	Nos	60			
<b>CLEAN AGENT SYSTEM</b>						
FF-10	Supply, installation, testing & commissioning, operation and handing over of Clean Agent System, NFPA 2001 "ANSUL SAPPHIRE Suppression System/ NOVEC 1230 System UL LISTED & FM APPROVED including unlimited components, equipment and material etc. required to complete the job ready to operate as per technical specifications, drawings and as per instructions of Consultant.					
	(a) Minimum Design Concentration: Class C hazard, time a safety factor of 1.35, 4.725% (by volume)at temp 70° F, Flooding Factor: 0.0429 W/V(lb/ft³) Including all as follows, but not limited to:					
	i. Ground Floor, Room Volume : 534.0 Cub-Ft	Set	1			





S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				2	3 = 1 x 2
	ii. Mezzanine Floor, Room Volume : 336.0 Cub-Ft	Set	1		
	iii. First Floor, Server Room Volume : 1,320.0 Cuf Ft	Set	1		
	iv. First Floor, UPS Room Volume : 1,431.5 Cuf Ft	Set	1		
	(b) For LT Room, Room Volume (Ground Floor) : 2,932.5 Cub-Ft Minimum Design Concentration: Class C hazard, time a safety factor of 1.35, 4.725% (by volume)at temp 120° F, Flooding Factor:0.0388 W/V(lb/ft <sup>2</sup> )	Set	1		
	(c) For Telephone Exchange Room, Room Volume : 2,920.0 Cub-Ft Minimum Design Concentration: Class C hazard, time a safety factor of 1.35, 4.725% (by volume)at temp 70° F, Flooding Factor: 0.0429 W/V(lb/ft <sup>2</sup> )	Set	1		
FF-11	Supply, installation of Automatic Air Vent 15mm (1/2)" I/d including Ball valve as per BSS including Ball Valve as per instructions of Consultant.	No	6		
	<b>EXTERNAL WORKS</b>				
FF-12	Supply, installation, testing & commissioning of pillar type Street Fire Hydrants with delivery outlet instantaneous female coupling and blank caps, Safety breakable Flange Stem & Sleeve, including all connection to have individual Valves with low and high point drain connection capable to drain as per NFPA guide lines, guard post, thrust joints, thrust block excavation & back filling and fittings etc. complete in all respects ready to operate as per technical specifications, drawings and as per instructions of Consultant.				
	(a) 110mm (4" Dia)	Nos	6		
FF-13	Supply, installation, testing & commissioning of external Fire Hose cabinet made of steel sheet 600mmx600mmx300mm (24"x24"x12") size, Solid Front with Single Jacket Fire Hose 65mm Dia x 30 meter length min 40 bar bursting pressure, with Bronze body adjustable spray nozzle, male & female coupling "UL LISTED & FM APPROVED, NFPA Standard" including all fittings etc. complete in all respects ready to operate as per technical specifications, drawings and as per instructions of Consultant.	Nos	6		
FF-14	Supply, installation, of Fire Extinguishers with fixing accessories complete in all respects ready to operate, specifications, drawings and as per instructions of Consultant.				
	(a) FX-1, Pressurized Water Extinguishers (Cap: 6Kg)	Nos	9		
	(b) FX-2, CO <sup>2</sup> Extinguishers (Cap:6Kg)	Nos	81		
	(c) FX-3, Dry Chemical Powder Extinguishers (Cap:6Kg)	Nos	74		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
			1	Rs.	Rs.
				2	3 = 1 x 2
FF-15	Supply, Fabrication, installation and Insulation of Flue duct/Chimney for Flue exhaust diesel engine operated fire pump, in 18 SWG Mild Carbon Steel Sheet (PS1010/A36), insulated with 2" thick Rock wool, density 100 Kg/Cubic meter & then protected with 24 SWG, G.I sheet cladding including, high temperature expansion joint, back draft damper, duct connection, hangers & supports etc. complete in all respects ready to operate as per schedule, specification, drawings and as per instruction of Consultant.  Dia 200mm (8 inches)	R-Mtr	15		
FF-16	Supply of all material, installation of all associated Civil works required for the Mechanical as required. The works include the formation of all holes for services to pass through etc. with sealing of 2hrs Fire barriers,	Job	1		
FF-17	Painting & Identification work on Pipes, supports, hangers and equipment etc. complete in all respects as per specification & instruction of Consultant	Job.	1		
FF-18	Making of Shop drawing and As Built drawings (on ACAD 2014), Documentation Technical / Operational Manual & LOG Book ( on Word & Excel format ) as per instruction of Consultant	Set	4		
<b>TOTAL COST OF FIRE PROTECTION SYSTEM WORKS (Rs):</b>					



**Construction of SBP New Office Building at Gujranwala**  
**Bill of Quantities**  
**Surveillance & Communication System Works**

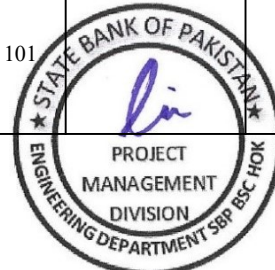
S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
<b>CCTV</b>					
SC-1	Camera general specifications: compression options H.265, H.265+, H.264+, H.264, min 120dB Wide Dynamic Range and Day/Night, 3D Digital Noise Reduction, IR range: min 30m, IP66 or above, IK10, min illumination 0.05 lux and 0 lux with IR on, outdoor/indoor, ONVIF and IP based, all cameras to have following Intelligent features as standard/built in. Motion, tripwire, intrusion, scene change and abandoned/missing object detection. Facial detection, people counting and heat mapping				
(a)	Surveillance camera 2 MP, 1/2.8" imager size, 2.8 mm lens, Dome T1B20	Pcs.	0		
(b)	Surveillance camera for indoor 2 MP, 1/2.8" imager size, 2.8 mm lens, Bullet B1B20	Pcs.	0		
(c)	Surveillance camera for external side 6MP, 1/2.9" to 1/3" imager size, 12 mm lens, Bullet IPC-HFW4631T-ZS	Pcs.	0		
(d)	Surveillance camera for surrounding area of building 2 MP, 1/2.9" to 1/3" imager size, PTZ SD6C230-THN	Pcs.	0		
(e)	Surveillance ANPR camera for Vehicles entry area in building 6 MP, 1/2.9" to 1/3" imager size. KEDACOM	Pcs.	0		
(f)	Surveillance camera 3 MP, 1/2.8" to 1/3" imager size, 2mm @F2.4, angle of view: 360°, fisheye	Pcs.	0		
SC-2	NVR for local video storage CCTV room 32 channel, 320 Mbps input rate, 4 channel @4K display, 2 HDMI, VGA, 64 TB storage, 2xGbE ports, AC 180-260 V Power supply, H.265+, H.265, H.264, MJPEG compression, people counting, heat map, face detection, 1 esata, 2 HDMI (up to 3840 x 2160 , Different Source), 1 VGA. NVR608-32-4K	Pcs.	0		
SC-3	Storage system for surveillance video Max 512 channel. Hybrid Platform with option for SSD and SAS Drives. Multi chassis system with Minimum 120,000 IOPS and 1.5 GB/s bandwidth per chassis. multiple nodes per Chassis. Intel Xeon CPU per node, 2x10 GE per node, dual redundant hot swappable power supply with PFC with 180-265VAC Input Voltage Total storage capacity of 500TeraByte Complete with racks, cabling and all accessories and relevant software licenses.	Pcs.	0		
SC-4	UPS for storage system, 10 kVA, Online double conversion, modular, hot swappable, input Voltage range 150-264V, input frequency 35-70 Hz, Output frequency 50Hz, upto 96% efficiency, THD <1.5%, PF at 100% load >= 98%.	Pcs.	0		
SC-5	UPS for NVR in CCTV room, 1 KVA, true online with 45 min back up time	Pcs.			



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
SC-6	Video Management Rack Server. Chassis with up to 8 x 2.5" SAS/SATA Hard Drives for 1CPU, Intel® Xeon® Silver 4108 1.8G, 8C/16T, 9.6GT/s, 11M Cache, Turbo, HT (85W) DDR4-2400, 16x2GB RDIMM, 2666MT/s, Dual Rank, 240GB SSD SATA Mix Use 6Gbps 512e 2.5in Hot-plug Drive, 2TB 7.2K RPM SATA 6Gbps 512n 2.5in Hot-plug Hard Drive, Windows Server® 2016, Standard, 16CORE, Factory Inst, No MED, NO CAL with Media Kit, Dual, Hot-plug, Redundant Power Supply (1+1), 495W. DSS7016D surveillance system CMS.	Pcs.	0		
SC-7	Video Management software scalable and modular, Extensible with plugins for overlays and ANPR, capable of managing min 500 cameras, with clustering support for redundancy, with media gateway, operations management, with options to integrate with third party storage solutions with investigate options	Pcs.	0		
<b>OPTICAL FIBRE CABLING</b>					
SC-8	Supply, Pulling, Testing & Commissioning, of Optical Fibre Cable 24-Core Single Mode ITU-T (G.655), support 10 Gig, Armoured, loose-tube, duct as per specifications with all necessary accessories as per requirement. Contech	Rm	297		
SC-9	Supply, Pulling, Testing & Commissioning of Optical Fibre Cable 6-Core Single Mode ITU-T (G.655), support 10 G, loose-tube, duct as per specifications with all necessary accessories as per requirement. (For internal network) Contech	Rm	1,000		
SC-10	Fibre ODF-48-Port, Supply, Install and Splice, 1U, 24-Port, Rack Mount, Fibre Patch Panel Loaded with SC adapters, SC Pigtailed, fibre adapter plate and Splice trays with all other accessories as per specifications and requirement. Contech	Pcs.	1		
SC-11	Supply and Install Optical Patch Cord SC to LC - 3 meter or as per required LC to SC, 9/125, Single mode, Simplex/Duplex Patch Cables. Contech	Pcs.	1,200		
SC-12	Supply and Fixing of <b>PoE Media Converter 02-port</b> (Manageable), 10/100/1000Base-T to 100/1000Base-X Fibre, as per specifications and requirement for CCTV Camera. TP Link	Pcs.	48		
SC-13	Supply and Fixing of <b>Media Converter 24-port</b> Chassis, 10/100/1000Base-T to 100/1000Base-X Fibre, as per specifications and requirement for CCTV Camera.	Pcs.	2		
SC-14	Supply & Installation of 24-Core Horizontal Fibre Optic Splice Closure (Splicing as per site requirement) with 2 in-out cable ports, Water proof (protection grade is IP 68), suitable for Manhole (with all other wall mounting accessories). The closure can be opened	Pcs.	7		
SC-15	Supply, Installation, Testing & Commissioning of <b>SEP 10G</b> (10/40Km).	Pcs.	48		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
<b>NETWORK EQUIPMENT</b>					
SC-16	Supply and Installation of Core Switch 24 port (Manageable). 24 SFP+ 10G ports and at least four QSFP ports. At least 2.56 Tbps throughput. With separate Control and Data Planes. Dual hot-swappable AC or DC power supplies to provide 1+1 redundancy. hot-swappable fan trays. Support for network virtualization, LAN and SAN	Pcs.	1		
SC-17	Supply and Installation of Ethernet Switch 48-port, L3 Fully Manageable, non blocking architecture, Switch having 48x10/100/1000Base-T ports with 4 SFP+ 10 GB Uplink ports 1 Rack-mountable, min 92 Gbps switching capacity, 16k MAC Addresses, 11. Support for Control Plane Prioritization (CPP) with dynamic link failover, support SNMP, SSH and SSL for secure management, with AMF MIB and SNMP traps;	Pcs.	8		
SC-18	Supply and Installation of PoE Switch with 16 full power PoE ports, minimum PoE budget of 350 Watts, 10/100/1000 Mbps ports with 2xcombo SFP Slots loaded, Rack-mountable, or as per requirement.	Pcs.	2		
SC-19	Supply and Fixing of <b>42U Rack</b> , Floor Standing, with lockable glass door, fine powder coated with fans and trays, must be imported with authorized distributor presence, must have rack mount PDU, in the package. with all accessories.	Pcs.	2		
SC-20	Access point Dual band 2.5Ghz and 5 Ghz for wireless devices	Pcs.	9		
SC-21	Supply and Fixing of <b>24U Rack</b> , wall mounted, with lockable glass door, fine powder coated with fans and trays, must be imported with authorized distributor presence, must have rack mount PDU, in the package. with all accessories.	Pcs.	6		
SC-22	Supply and Fixing of Telco Rack 42U Floor Standing, fine powder coated, must be imported with authorized distributor presence, must have rack mount PDU, in the package. with all accessories.	Pcs.	1		
<b>STRUCTURED CABLING</b>					
SC-23	Supplying and laying of CAT6A UTP Ethernet Cable 23AWG (0.57 mm), CM rated and UL listed, (Blue Colour), NSI,TIA,EIA, ISO Compliance-1G Support for 100meter and 10G support for 55 meter cables through PVC conduit / cable tray as shown in the drawing or otherwise as directed by the consultant, from server to SWITCH/ROUTER to Computer Data Sockets, as required to be completed in all respect.	Nodes	975		
SC-24	Supply and installation of Simplex data and Voice outlet on wall / furniture / partition with make Computer data socket with Single I/O (RJ 45) CAT6A, face plate and back box, as shown in the drawing or as per requirement, with chase cutting, mending good etc. as required completed in all respect.	Pcs.	5		
SC-25	Supply and installation of Duplex data and Voice outlet on wall / furniture / partition with make Computer data socket with Dual I/O (RJ 45) CAT6A, face plate and back box, as shown in the drawing or as per requirement, with chase cutting, mending good etc. as required completed in all respect.	Pcs.	101		



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
SC-26	Supply and installation of Patch Panel CAT6A 48 Port (fully loaded) with CAT6 I/O, with front/rear cable management ANSI, TIA, EIA, ISO Compliance Flame retardant –Must be UL Listed and should have side covers on cage nuts.	Pcs.	19		
SC-27	Supply and installation of Patch Panel CAT6A 24 Port (fully loaded) with CAT6 I/O, with front/rear cable management ANSI, TIA, EIA, ISO Compliance Flame retardant –Must be UL Listed and should have side covers on cage nuts.	Pcs.	8		
SC-28	Supply of Patch cord CAT6 UTP (1 meter) Machine punched, Stranded, ANSI,TIA,EIA, ISO Compliance with Gold over nickel plated contacts in Connector, must have anti snag mechanism- Must be UL Listed, from core switch to LAN Patch panel.	Pcs.	50		
SC-29	Supply of Patch cord CAT6 UTP (3 meter) Machine punched, Stranded, ANSI,TIA,EIA, ISO Compliance with Gold over nickel plated contacts in Connector, must have anti snag mechanism- Must be UL Listed, from wall outlet to devices.	Pcs.	168		
SC-30	Termination and Labelling of CAT 6A UTP cable on both end.	LS	1		
SC-31	Testing and commissioning of copper nodes with Fluke Network devices. Including submission of detailed test reports.	Pcs.	1		
<b>CONDUITING AND DATA &amp; SOCKETS</b>					
SC-32	Providing, fixing, testing & commissioning of waterproof floor outlet box (L259mm x W203mm x H84mm) Stainless steel box and Flanged Frame (cover) (L283mm x W225mm x H3mm) fixing to the conduit with lock, installed between every conduit joint, bends and access area, as per drawing, complete in all respect.	Pcs.	86		
SC-33	Supply & Installation of following PVC Conduit as race ways with all accessories recessed/ surface on wall / column /along roof,/under floor for Ethernet cable. As per relevant specification, complete in all respect.				
	(a) 25 mm dia PVC Pipe	Rm	430.00		
	(b) 50 mm dia PVC Pipe	Rm	230.00		
<b>ACCESS CONTROL</b>					
SC-34	Supply & Installation of Access Control, As per relevant security specification, complete in all respect.	Pcs.	35		
SC-35	Supply & Installation of 55" TV Display, As per relevant specification, complete in all respect.	Pcs.	17		
<b>TOTAL COST OF SURVELLANCE &amp; COMMUNICATION SYSTEM WORKS (Rs):</b>					





## Construction of SBP New Office Building at Gujranwala

### Bill of Quantities

#### Security, Traffic Sign & Miscellaneous Works

S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
				Rs.	Rs.
				1	2
<b>S-1</b>	<b>GATE AUTOMATION MECHANISM</b>				
	Providing, installation and commissioning of automatic Bi folding swing gate automation mechanism as per technical specifications and directions + approval of Engineer in charge.	Each	1		
<b>S-2</b>	<b>HYDRAULIC ROAD BLOCKER</b>				
	Providing, installation and commissioning of Hydraulic road blocker as per technical specifications and directions + approval of Engineer in charge.	Each	3		
<b>S-3</b>	<b>AUTOMATIC VEHICLE BARRIER</b>				
	Providing, installation and commissioning of Automatic Vehicle barrier as per technical specifications and directions + approval of Engineer in charge.	Each	2		
<b>S-4</b>	<b>UVSS(Under Vehicle Surveillance System)</b>				
	Providing, installation and commissioning of under vehicle surveillance system as per technical specifications and directions + approval of Engineer in charge.	Each	1		
<b>S-5</b>	<b>PANIC BUTTON HOOTER</b>				
	Providing, installation and commissioning of panic button hooter with complete accessories as per directions + approval of Engineer in charge.	Each	1		
<b>S-6</b>	<b>EMERGENCY ALARM SYSTEM</b>				
	Providing, installation and commissioning of emergency alarm system with complete accessories as per directions + approval of Engineer in charge.	Each	1		
<b>S-7</b>	<b>PABX (PRIVATE AUTOMATIC BRANCH EXCHANGE)</b>				
	Providing, installation and commissioning of PABX of 100-128 lines as per directions and approval of Engineer in charge.	Each	1		
<b>S-8</b>	<b>FIRE RATED DOORS</b>				
	Providing and fixing fire rated door 400°C and 60 minutes rating with complete accessories etc. complete and as per directions of Engineer in charge.	Each	6		
<b>S-9</b>	<b>CAT EYE</b>				
	Providing and fixing Cat Eye made out of strong Rubber (Butadiene Compound) material. UV stabilize and special material composition to bear the high impact strength. Fitted with 2 Nos. of highly Reflective PMMA. In Built holes for fixing with special Nails. Should be Abrasion resistance. Vehicles tyre Friendly, Impact proof, Excellent reflectivity Installation Details: Place Making, Holing, Fixing with Special Carbon steel Nails and Labour	Each	124		
<b>S-10</b>	<b>RUBBER ROAD SPEED BREAKER</b>				



S.NO.	DESCRIPTION	UNIT	QTY	Unit Rate	Amount
			1	Rs.	Rs.
				2	3 = 1 x 2
	Providing and fixing approved Hard Rubber speed Breaker size as per drawings including necessary Brass screws and iron bolts and nuts etc. complete and as per directions of Engineer in charge.	Meter	80		
S-11	<b>CONVEX MIRROR</b> Providing and fixing 3'-0" dia Convex Mirror, Imported (mirror foreign made) including galvanized steel back and hood etc. complete and as per directions of Engineer in charge.	Each	3		
<b>TOTAL SECURITY, TRAFFIC SIGN &amp; MISCELLANEOUS WORKS (Rs):</b>					



**CONSTRUCTION OF SBP NEW OFFICE BUILDING AT GUJRWALA**  
**Bill of Quantities**  
**OPERATION & MAINTENANCE SERVICES**

Item No.	Brief Description of Item	Qty	Days	Rate per Day (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (iv) x (v)
O&M-1	Site In-Charge/Engineer (BE/B. Tech + 10 years relevant experience)	1	546		
O&M-2	Supervisors (Electrical, Lifts & HVAC Works) (DAE in relevant field + 8 years experience)	3	546		
O&M-3	Electrician (Metric + 3 years relevant experience)	4	546		
O&M-4	Helper for Electrical Works (Minimum 3 years relevant experience)	3	546		
O&M-5	Lifts Operator (Metric + 3 years relevant experience)	3	546		
O&M-6	FCU/AHU Technician (Metric + 3 years relevant experience)	1	546		
O&M-7	Plant Operator (Metric + 3 years relevant experience)	1	546		
O&M-8	General Fitter (Metric + 5 years relevant experience)	1	546		
O&M-9	Helper for HVAC Works (Minimum 3 years relevant experience)	2	546		
O&M-10	Plumber (Minimum 3 years relevant experience) for day to day maintenance of the building complex or any work as instructed by the Employer.	1	546		
O&M-11	Carpenter (Minimum 3 years relevant experience) for day to day maintenance of the building complex or any work as instructed by the Employer.	1	546		
O&M-12	Painter (Minimum 3 years relevant experience) for day to day maintenance of the building complex or any work as instructed by the Employer.	1	546		
<b>TOTAL COST OF OPERATION &amp; MAINTENANCE SERVICE (Rs.):</b>					

