		R5- DATA NETWORK SYSTEN			
NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
R5	DATA NETWORK SYSTEM Common General Notes.				
1	The Bidder is requested to refer the Bill of Quantities, General Note, Pricing Preambles, Drawing, Specification, Conditions of Contract, Special Conditions of Contract and other relevant documents prior to pricing of items in this trade.	Note			
2	Rates shall include for Design (where necessary) Installation, Testing and Commissioning, Handing over and maintaining during the defect liability period of the following items for data communication system according to drawings and specifications and all complete to working order to entire satisfaction of the Engineer.	Note			
3	The Contractor shall submit all necessary design detail, dimensions and technical information of all necessary builder's work, shop drawings, line diagrams, technical informations etc., to the Engineer for prior approval before commencement of the work.	Note			
4	The bidder shall provide a schedule of all builder's work in connection with and detail of the same as necessary along with the bidr.	Note			
5	Rate for cables shall include for necessary chasings, trenching, conduits, cables, cable markers, both end termination, cable trays / trunking / ladder (as necessary), wooden blocks(in concrete trench), P.V.C. sleeve, fittings and clips, cutting holes and chases in brick work / block work / concrete work complete with all necessary accessories such as sockets, connections, cable glands and boxes hardware clips, soldering and jointing materials etc., for proper installing, maintain the appropriate standard and specifications and laying of cables unless otherwise measured / mentioned seperately.	Note			

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6	The bidder shall submit the following informations on the generators quoted for together with the bid.				
	a. Make b. Model No. c. Technical data d. Country of manufacture e. Delivery period f. Lead time for manufacturing. g. Port of shipping j. Schedule of equipments and materials. k. Optional items and their additional cost. (additional cost to be submitted separately) l. Details of all special features m. Schedule of rates for after sales service. n. Format of after sales agreement	Note			
7	The rates shall include for handling and rehandling, transport, store until ready for installation, insurance (if necessary) for delivery of equipments up to the point of installation and until handing over.	Note			
8	All cables for equipments, panel and units designated to function under fire condition to be in fire rated cables and suitable conduting and rates for such items shall include accordingly.	Note			
9	Rate shall include for tray / trunking / ladder include for all bends, Tee's supports, supporting accessories, accessories, painting, accessories needed as per manufacturer's recommendation, specifications and consultant's satisfaction.	Note			
10	All under ground cables directly buried in ground to be properly laid in ground trenches and covered with cable tiles. Rate for under ground cables shall include for all necessary excavation, sand layers, cable tiles, warning strips and back filling with approved quality earth properly compacted as per Engineer's instructions.				

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11	All equipments related to the data communication system ans its installation, shall be make approved by the Engineer.	Note			
12	Contractor Should Consult and co-operating with other trades.	Note			
13	The contractor shall Providing of 3 sets of Shop drawing / As built drawing and circuit diagrams including conduit layout drawings etc., to the Engineer for prior approval as requested.				
14	Contractor is responsible for Giving notices, obtaining permits, paying fees, etc.	Note			
15	Rate shall include for Labeling and identification system for all panel boards and other equipment.	Note			
16	Contractor is responsible to Provide samples of relevent equipment and other fittings for prior approval before commencement of the work				
17	Rate shall include for fire proofing of all tray / trunking / conduit passing through walls & slabs should be enclosed by Fire rated proofing materials as per specfication and such item shall be include in tray / trunking / conduit rate.				
18	All equipments shall be guaranteed for a period requested by the consultant from the date of commissioning.				
19	The rates shall include for comprehensive maintenance during defects liability period.	Note			
20	The following items shall be priced including material, labour, transport, handling, profit and overheads and other expenses on duty paid basis.				

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21	Fluke test to be done with the presence of Engineer/client.	Note			
	<u>Data</u>				
	<u>Data General Notes</u>				
22	All final termination shall be done according to the finalized furniture layouts at each building considering the termination points shown on the drawings.	Note			
23	Outdoor cabling shall be in external areas, surface or exposed cabling is not allowed for such installation. (Recommend embedded cables in such areas) It shall be contractor's responsibility to concentrate on the horizontal cabling termination, labeling & testing for the required locations & fixing any other required components to complete the LAN at each equipment mounting rack.				
24	Patch panels 24 port patch panel brand Siemon Premium Line or equivalent, navigator type which meet the TIA/EIA/-568-B category 6 channel testing performance requirements to support T568 A & B wiring & easy installation. Connectors should accept 22-26 AWG solid & standard UTP cables.	Note			
25	Switches Floor switches shall be managable, 10/100/1000 Mbps fast QoS Ethernaet switch brand CISCO or equivalent. Number of ports can be varied according to the requirement.	Note			
26	CAT 5 cables (if shall be used every where. As noted in the drawings) 4-pair, UTP cable shall be capable of covering IP traffic at 1000Mbps, Not exceeding a total distance of 100m end to end.	Note			

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27	Patch cords 4-pair, CAT5 type 100 Ohm UTP cable, 24 AWG solid conductors brand Premium Line Siemon or equivalent.	Note			
28	Information Outlets CAT 5 Information Outlets brand Siemon Premium Line or equivalent. Connectors should accept 22-26 AWG solid & stranded UTP cables.	Note			
29	<u>Face Plates</u> Single Gang Faceplates brand Siemon Premium Line or equivalent.	Note			
30	Indoor Cabling Indoor cabling shall comprise with LAN (horizontal cabling) & associated power cabling.	Note			
	Equipment Mounting Rack				
31	Refer all the notes under the "Data General Notes"	Note			
32	All the required equipment such as CAT 5 navigator patch panels with cable guides, fiber patch panels with cable guides, fiber patch panles, media converters etc to be included in the equipment rack to complete the whole LAN cabling.	Note			
33	Backbone data cables of other Zones shall be connected from the main backbone rack, rate to be include with termination.	Note			
34	Data cables of internal building shall be connected from indoor rack.	Note			
35	Equipment mounting rack to be located closer to the electrical distribution board (terminal closet)	Note			

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NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Equipment Mounting Rack Power Supply.				
36	Supply and Installation of 20U standard size, Floor Stand steel panel Sever rack with glass door complete with lock and key, power bar, fan plate unit cooling and forced ventilation system, as per the specifications and drawing. (height of the data rack may be varied according to the no. of accessories).		2.00		
	Ethernet Swiches				
37	Supply and Installation of 1X24 Port POE and 4SFP port Layer 2 QOS manageable Switch as per specifications and drawings. Rate shall include all necessary connections, cable guides etc.	nr	1.00		
	Power Distribution Unit				
38	Supply and Installation of 1x8 way Power Distribution unit with Surge Protector.	nr	1.00		
	PATCH PANELS				
39	24 port patch panel Supply and Installation of 24 port patch panel in equipment rack as per Specification and drawings. Rate shall include all patch codes, cable guides, fly leads, LC couplings, internal wiring etc.	nr	1.00		
40	Power Supply. Allow for Power supply system including Surge protector, 1KVA UPS supply with 10 minutes Battery Backup and all other necessary accessories as per detail drawings and specifications.	nr	1.00		

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NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Perforated Cable Tray				
41	Supply and Installation 150mm(W) x 50mm(D) Hot dipped galvanized perforated cable Tray with cover. Rate shall include for all necessary hot dipped galvanized brackets, expansion joints, reducers integral coupling, clips, joints and other accessories together with earth continuity bars as per specification and drawings.				
42	-Ditto- in Ground Floor	m	3.00		
	Data Cables.				
43	Refer all the notes under the "Data General Notes"	Note			
44	Rate shall include for necessary fittings and clips, cutting holes and chases in brick work / block work / concrete work complete with all necessary accessories such as sockets, connections, cable glands and boxes hardware clips, soldering and jointing materials etc., for proper installing and laying of cables.	Note			
45	Rates for all cables shall include for all waste, fixing looping cable supports etc., necessary for completion.	Note			
46	Indoor cabling shall comprise with LAN (horizontal cabling) & associated power cabling.	Note			
47	Data cables taken from the ceiling / roof level through wall conduits two additional conduits to be provided.	Note			
48	All cables for equipments, panel and units designated to function under fire condition to be in fire rated cables and suitable conducting and rates for such items shall include accordingly.	Note			
49	The exact cable paths shall be verified at site as per the actual site conditions.	Note			

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NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
50	Rate shall be include GI conduits or PVC conduits for Data cables in all floors (conduiting not measured separately in BOQ), termination both end and other necessary accessories. For cables 25 years system warranty shall be	Note Note			
	provided from the manufacturer. Data Point Wiring (Fittings Measured Separately)	Note			
52	Refer all the notes under the "Data General Notes"	Note			
53	Rates for data & voice point wiring shall include for all cables, junction boxes, conduits, clips, draw wires, wiring accessories, screws, nails, hardware, fixing and insulating materials, cutting holes, chases, make good the same in all trades & flexible codes.	Note			
54	The contractor shall forward the shop drawings & conduit layout for prior approval of the Consultant.	Note			
55	Rate shall include all data & voice point wiring bends, sockets, solvent cement, ceiling rose, dome covers, flexible conduits, connection accessories to flexible conduit (to conduit or dome cover or ceiling rose etc.) identification accessories such as paint label, conduit supporting accessories such as saddles, clips etc & hooks neutral.	Note			
56	Data & voice point wiring in all exposed area shall be wired using heavy grade PVC conduit or PVC conduits including all accessories, as appropriate.	Note			

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57	Data/ voice outlets shall be requested on steel columns, in steel structures, cabling should be done in GI conduits	Note			
58	Separate colours have to be used for patch cords at the telecommunication closet (TCS) to identify data, voice & uplink cables.	Note			
59	PC Data Point Point wiring from patch panel to RJ 45 socket outlet using CAT 5 - 4 Pair cable Information outlet for Data point wiring (Fitting measured separately) as per detail drawing in Ground Floor	nr	1.00		
60	-Ditto- in First Floor	nr	6.00		
61	-Ditto- in Second Floor	nr	1.00		
62	-Ditto- in Third Floor	nr	2.00		
63	-Ditto- in Fourth Floor	nr	1.00		
	Fittings and Equipment.				
64	Refer all the notes under the "Data General Notes"	Note			
65	The bidder shall submit the detail of make quoted for and relevant model no for each type of fittings with the bid.	Note			
66	Dual Gang face plate and information outlet shall be provided at the location for each building as shown in the drawing & all terminations in exposed areas should be fixed with a suitable weather resistant manner to with stand rain or sunlight.	Note			
	POE RJ45 socket outlet for PC Data Point				
67	Suply and installation of RJ 45 Socket outlet for PC data points, as per specifications and drawings. in Ground Floor.	nr	1.00		

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NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
68	-Ditto- in First Floor	nr	6.00		
69	-Ditto- in Second Floor	nr	1.00		
70	-Ditto- in Third Floor	nr	2.00		
71	-Ditto- in Fourth Floor	nr	1.00		
72	Allow for Testing and Commissioning of complete Data Communication system and entire satisfaction of the Engineer including submission of Testing & Comissioning report.	Item	1.00		
73	Allow for submission of three sets of Shop Drawings including conduit layouts, cable plan, panel details prior to commencement of construction work. for approval. of the Consultant.		1.00		
74	Allow for submission of three sets of As Built Drawings , Technical Information's, Design Details, Maintenance Manuals and other technical literature at commissioning of the system, for approval of the Consultant.	Item	1.00		
75	Allow for Builder's Work in connection with including following items making openings in floor slab and walls, masonry work, making good to chasings & all other builder's work not stated above.		1.00		
76	Allow for Any other item necessary for the satisfactory completion of the system but not included above. The Tenderer is requested to specify all items activity by activity with related cost, quoted under this item and submit the details along with the Tender separately.		1.00		
	TOTAL FOR DATA NETWORK SYSTEM CARRIED TO SUMMARY.			SLRs.	