

**INDIAN INSTITUTE OF TECHNOLOGY (IIT)
KHARAGPUR (W.B)**



Dated: 08.01.2015

AMENDMENT NO. – III

Project Name - Construction of Super specialty hospital and other facilities for Dr. B. C. Roy Institute of Medical Sciences and Research at IIT-Kharagpur, West Bengal.

Tender No.- HSCC/IIT-KGP/SS/HOSPITAL/2014;dated 12.12.2014

This has reference to subject work, the following Amendment may be noted, which shall be treated as a part of the contract to be uploaded along with tender/ contract:

Reply to Pre Bid Queries raised by bidders during pre -bid meeting held on 05.01.2015 at IIT - kharagpur Campus, W.B.

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
1	<p>INTERIM PAYMENT On monthly basis, payable on 45th working day of the presentation of the bill by the Contractor to the EIC.</p> <p>Payment against each monthly R/A bills upon each of the Engineer's certificates shall be made by the HSCC (I) Ltd. acting for and on behalf of Employer or by the Employer directly within 30 working days after such certificate has been issued by the Engineer.</p> <p>However, 75% of the estimated amount as determined by the Engineer of the payment due against the monthly running bill shall be paid within 10 (Ten) working days after certification by the Engineer in the approved format and complete in all respects.</p>	<p>GCC, Page 26, Clause 7</p> <p>SCC, Page 44, Clause 31</p>	<p>Kindly clarify which clause will be effective.</p> <p>However, we request you to make monthly R.A Bill Payments @ 75% of the Bill value within 7th day of submission of the bill and balance within 21 days of submission of the Bill to maintain our Cash flow.</p>	Tender conditions shall prevail.

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	Monthly Payment -Payment against each monthly R/A bills upon each of the Engineer's certificates shall be made by the HSCC (I) Ltd.acting for and on behalf of Employer or by the Employer directly within 30 working days after such certificate has been issued by the Engineer.However, 75% of the estimated amount as determined by the Engineer of the payment due against the monthly running bill shall be paid within 10 (Ten) working days after certification by the Engineer in the approved format and complete in all respects.	SCC - Page 44	We request you to consider that the certification of R/A Bills will be done within 10days from the date of submission of the monthly R/A Bill.	All payments shall be made as per tender conditions.
2	PAYMENT AUTHORITY : Payment against each monthly R/A bills upon each of the Engineer's certificates shall be made by the HSCC (I) Ltd. acting for and on behalf of Employer or by the Employer directly within 30 working days after such certificate has been issued by the Engineer.	SCC, Page 44, Clause 31	Please clarify who will issue the Work Order / Agreement and who will make the payment.	Already stipulated in tender document. TDS and other statutory deductions and recoveries shall be made from contractors bills.
3	PAYMENT OF FINAL BILL : The final bill shall be submitted by the contractor within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. The payment will be made within 9 months	GCC, Page- 29- 30, Clause 9	We request you to make the payment of Final bills within 3 months of submission of the Bill.	Under Clause No. 9 PAYMENT OF FINAL BILL "(i) If the tendered value of work is upto Rs.45 lac : 3 months (ii) If the Tendered value of work is more than Rs.45 lac and upto Rs.2.5 crore : 6 months (iii) If the Tendered value of work exceeds Rs.2.5 crore : 9 months" should be read as "(i) If the Tendered value of work is up to Rs. 45 lac : 2 months (ii) If the Tendered value of work is more than Rs.45 lac and up to Rs. 2.5 Crore : 3 months (iii) If the Tendered value of work exceeds Rs. 2.5 Crore : 6 months"

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4	Mobilisation Advance: Not Applicable	GCC, Page 33- 34, Clause 10.B.ii, GCC, Page 114, Schedule F	We request you to provide us 10% interest free mobilization advance against submission of bank guarantee of equivalent amount from any scheduled bank. The recovery of the mobilization advance shall be done on a pro-rata basis starting from the 2nd RA Bill till the amount of advance is fully recovered.	No change in tender conditions
5	Last date & time of submission of e-Tender - 08.01.2015 upto 14:30 hrs.	NIT, Vol - I, Page 1	Considering the nature and magnitude of the job, we request you to extend the last date of submission of our Tender by atleast another 21 days, i.e., upto 30.01.2015	Considering requests from various participating agencies, last date of submission of tender is extended upto 27.01.2015 upto 14.30 Hrs. Technical bid will be opened on same day i.e. 27.01.15 at 15.00 Hrs
6	Quantity Variation: 1. Deviation Limit beyond for which clauses 12.2 & 12.3 shall apply for building work: 30%. 2. Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (except earth work): 30%. 3. Deviation Limit for items in earth work subhead of DSR or related items:100%	GCC, Page 43- 45, Clause 12. GCC, Page 115, Schedule F	We request you to revise the rates of the existing items if the Quantity variation limit exceeds @ (+/-) 15% of the Contract Value of each items since design is not in our scope.	No change in tender conditions

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7	<p>Performance Guarantee and Retention Money: Performance Guarantee @5% of the tendered amount in the form of BG valid up to 180 days beyond the Defects Liability Period or the extended period, thereof.</p> <p>Retention money @5% of the CV deducted from RA Bills.</p> <p>Within 30 days of award of work, The contractor shall furnish a bank Guarantee from any nationalised/Scheduled bank for an amount of 2.5% of the contract price in the form approved by the Engineer and having validity upto completion period with a claim period of three months.</p> <p>further retention money @ 5% (Five) shall be Deducted from each interim certificate from First RA bill subject to a maximum of 2.5 % of the contract price and shall be released after defect liability period.</p> <p>Retention money at the rate of 10% (ten percent) shall be deducted from each interim certificate subject to the maximum of 5% of the contract price after approval by engineer.</p>	<p>Information & Instruction to Bidders, Vol- 1, Page 27, point 2.3.20 (iv)</p> <p>GCC, Page 16, clause 1A</p> <p>SCC, Page 44, Clause 31</p> <p>SCC, Page 45, Clause 31</p>	<p>Kindly clarify which clause will to be followed.</p> <p>However, we request you to keep total amount of Security Deposit + Performance Gurantee @ 5% of the Contract Value including EMD, in the form of Bank Gurantee.</p>	<p>Clause 31. Billing & Certification (Part e: Retention Money) of Volume III SCC may be read as :</p> <p>Within 30 days of award of work, The contractor shall furnish a bank Guarantee from any nationalised/Scheduled bank for an amount of 2.5% (Two & half) of the contract price in the form approved by the Engineer and having validity upto completion period with a claim period of three months as per format attached at Annexure-F and shall be released after taking over of the work by the Employer.</p> <p>Further retention money @ 5% (Five) shall be Deducted from each interim certificate from First RA bill subject to a maximum of 2.5 % (Two & half) of the contract price and shall be released after successful completion of defect liability period.</p> <p>Alternatively/or</p> <p>Retention money at the rate of 10% (ten percent) shall be deducted from each interim certificate subject to the maximum of 5%(Five percent) of the contract price after approval by engineer. (50% of retention money shall be released after taking over of work by the Employer and balance 50% shall be released after successful completion of defect liability period.</p>
8	<p>Release of Security Deposit: 5% of the CV will be deducted from RA Bills.The security deposit can be released against bank guarantee issued by a scheduled bank, on its accumulations to a minimum of Rs. 5 lakh</p> <p>The security deposit shall not be refunded before the expiry of 12 months after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.</p>	<p>GCC, Page 16, clause 1A</p> <p>GCC, Page 51, Clause 17</p>	<p>We request you to accept Bank Gurantee in lieu of Cash retention from R.A Bills from the starting of the Project.</p> <p>We also request you to release 50% of the Security deposit (BG) on virtual completion of the Project and balance after DLP.</p>	<p>Reply same as given at sr. No. 7 above.</p>

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
9	BG FOR SECURITY DEPOSIT : 5% of the CV will be deducted from RA Bills. The security deposit can be released against bank guarantee issued by a scheduled bank, on its accumulations to a minimum of Rs. 5 lakh	GCC, Page 16, clause 1A	We request you to accept Bank Gurantee in lieu of Cash Retention from the starting date of the Project	Reply same as given at sr. No. 7 above.
10	Disruption of Progress If by reason of any failure or inability of the Consultant to issue within 4 weeks any drawing or instruction for which notice has been given by the Contractor in accordance with Sub-clause 1) and the contractor suffers delay, then the Engineer-in-charge, shall on the request of the Contractor recommend to the Client any extension of time under respective clause. Notwithstanding anything stated above, the Contractor shall not be eligible for any financial compensation arising out of the above.	SCC, Page 18, Clause 6 (b)	We request you to reimburse / compensate us for the the idling charges, interest Loss, Loss of profit or damages for any reason whatsoever if that is due to no fault of the Contractor.	No change in tender conditions
11	Base Price of Materials : Applicable as per clause 10CA	GCC, Page 114- 115, Schedule F	We request you to kindly provide us the base price of materials : Cement, Reinforcement Steel, Structural Steel	Base price of items under clause 10 CA are as given below: Cement: Rs 7000.00 Per MT Reinforcement Steel Rs 52200.00 Per MT Structural Steel Rs 45000.00 Per MT
12	Settlement of Disputes and Arbitration: Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above, disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by the Client. It is also a term of this contract that no person, other than a person appointed by the Client, as aforesaid, should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.	GCC, Page61, Clause 25 GCC, Page61, Clause 25	We request you to modify the Clause as - In case any dispute, which cannot be mutually settled, then the same will be resolved by Arbitration as per Indian Arbitration and Conciliation Act 1996 and the latest amendments by appointing two Arbitrators one by each party and the presiding arbitrator to be selected by the Arbitrators so appointed by each party	No change in tender conditions
13	Employment of Coal Mining Or Controlled Area Labour Not Permissible	GCC, Page 64, Clause 30	Kindly clarify this clause.	Clause 30 is self explanatory

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14	<p>Departmental Water Supply: Water if available may be supplied to the contractor by the department subject to the following conditions:-</p> <p>(i) The water charges @ 1 % shall be recovered on gross amount of the work done.</p> <p>(ii) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply.</p>	GCC, Page 65, Clause 31A	We request you to provide us Construction Water at 3 points within the site free of costs. Contractor will arrange for the distribution of the same within the site.	No change in tender conditions
15	<p>Construction Power: The Contractor shall also make his own arrangements for power supply at Site for construction, testing & commissioning of all services and general use at his own cost.</p>	SCC, page 57, clause 42.2.4	We request you to kindly provide us supply of construction power at 3 points free of cost inside the site premises from where the distribution of the same will be done by us.	No change in tender conditions.
16	<p>SITE INFRASTRUCTURE: The Contractor may, at his own expense and subject to the approval of the Engineer and statutory authorities, construct offices, stores, Workshop in the area allocated to him and remove the same as per the orders of the Engineer on completion of Works.</p>	SCC, page 57, clause 42.2.2	We understand that the space for Site Office, Batching Plant, Store, Godown, Workshops etc for execution of the Project will be provided to us within the Site free of costs. Please confirm ?	As per tender conditions.
17	<p>Client Office : A reasonably furnished site office accommodation having a sample room, A.C. meeting room, A.C. staff rooms along with toilets & pantry with file storage facility along with computers & printers and its consumables, a telephone with STD facility, Fax Machine, internet & Vehicles to be made available as per requirements given by the Engineer and also electricity & drinking water will have to be provided by the contractor at his own cost for the site office.</p>	SCC, page 57, clause 42.2.5	We request you to provide us the detailed measurements with area and drawings for the Site office of the EIC.	About 120-150 sqm construction area may be required for site office.

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18	<p>STATUTORY APPROVALS : The activities to be carried out for the completion of the Project shall include obtaining occupancy certificate and related NOC's from statutory/ local/governmental agencies. Statutory payment on this account will be reimbursed by the client at actual. The Contractor shall obtain all necessary approvals (except pre-construction from Municipal and other local bodies) including Municipal bodies, Water supply agencies concerned, Electric Supply and inspectorate. Agencies concerned, such as, but not limited to, Police and Security Agencies, Chief Controller of Explosives, Fire Department, Civil Aviation Department, concerned in accordance to prevailing rules, Building Bye-Laws, tree cutting etc., as the case may be with related to/ required for Construction/Completion. All expenditure on this account will be borne by the contractor. The approvals shall include the following in addition to any other approval which may be required for the project: 1. Construction Permit if required, 2. NOC from Chief Fire Officer, 3. NOC from Lift Inspector where lifts are provided, 4. Occupancy certificate, 5. Obtaining mandatory GRIHA 3-Star Rating Certification etc.</p>	<p>Scope of Work, Vol- I, Section-III, Page 30, Point 4.vi Scope of Work, Vol- I, Section-III, Page 30-31, Point 5</p>	<p>We request you to kindly keep the scope of obtaining approvals from all Statutory bodies in Client's scope. However, Contractor will extend all possible co-operations & assistance for obtaining such approvals, since the Design is not in Contractors scope.</p>	<p>No change in tender conditions. For GRIHA and Environmental Clearances please refer SCC Clause D "Additional Specific Conditions of Contract relating to Environmental Clearance & "GRIHA Rating of Integrated Habitat Assessment (GRIHA Rating System)"</p>
19	<p>Compensation During Warlike Situations: that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in- Charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.</p>	<p>GCC, Page 74, Clause 43</p>	<p>We request you to kindly waive off this condition and to compensate us unconditionally in such situations.</p>	<p>No change in tender conditions</p>

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20	<p>No Compensation on Account of Work Not Started: In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract. In such eventuality, the Earnest Money Deposit and the Performance Guarantee of the contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all.</p>	GCC, Page 19, Clause 3A	We request you to kindly provide compensation on account of loss of profit or damages in such cases due to reasons not attributable to the Contractor.	Under Clause No. 3A "(i) If the tendered value of work is upto Rs.45 lac : 30 days (ii) If the Tendered value of work is more than Rs.45 lac and upto Rs.2.5 crore : 45 days (iii) If the Tendered value of work exceeds Rs.2.5 crore : 60 days If the PG is not released within prescribed time limit, then a simple interest @0.1% per month shall be payable on PG to the Contractor." should be read as "(i) If the Tendered value of work is up to Rs. 45 lac : 15 days. (ii) If the Tendered value of work is more than Rs. 45 lac and up to Rs. 2.5 Crore : 21 days. (iii) If the Tendered value of work exceeds Rs. 2.5 Crore : 30 days. If Performance Guarantee is not released within prescribed time limit, then a simple interest @ 0.25% per month shall be payable on Performance Guarantee amount to the contractor from the date of expiry of prescribed time limit."
21	<p>Liquidated damages: Compensation @ 0.5 % of tendered value per week for delay of work to be computed on per day basis, subjected to a maximum of 10% of CV.</p>	GCC, Page 16, Clause 2	We request to recover LD @ 0.25% of the balance work value per week of delay subject to maximum of 5% of Balance Job value.	Under Clause No. 2 "Compensation @ 0.5 % of tendered value " should be read as "Compensation @ 1.5 % of tendered value"

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22	<p>Milestones LD : Amounts to be with-held in case of non-achieving of the following Milestones :</p> <ol style="list-style-type: none"> 1. Completion of RCC work upto Plinth Level - 06 Months - Rs. 50,00,000 2. Completion of RCC work upto Floor level 4 and Brickwork upto Floor Level 2 - 08 Months - Rs. 50,00,000 3. Completion of RCC works upto Terrace and Brickwork upto Floor Level 4 - 14 Months - Rs. 50,00,000 4. Completion of all brick work & all Internal plaster, fixing of doors & Windows frames, Complete Sanitary Piping, Internal Plumbing Piping & Electrical Conduiting - 20 Months - Rs. 50,00,000 5. Completion of work in all respects including internal/external including all civil, electrical and HVAC works, development works - 24 months - Rs. 50,00,000 	GCC, Page 113- 114, Schedule F	We request you to kindly waive off the Milestones LD Clause	No change in tender conditions
23	<p>Penalty: A recovery of Rs. 5000/- (for works, costing more than Rs. 20 Crores) shall be made on per day basis in case of delay in submission of the modified programme.</p>	GCC, Page 21, Clause 5.1 (iii)	We request you to kindly waive off such penalty clause.	No change in tender conditions
24	<p>VARIATIONS : The Consultant shall omit any component from scope of works that may be necessary and for that purpose or if for any other reason it shall, in his opinion be desirable and shall issue such instructions to the contractor. The contractor shall do the same without in any way vitiate or invalidate the contract. Any cost attributable to above shall be borne by the contractor.</p>	SCC, Page 33, Clause 23	We request you that in such cases, compensation to be made to the Contractor on account of loss of profit due to omission of components from the scope of work.	No change in tender conditions
25	<p>Labour camp: The Contractor shall make his own arrangement at his own expense for labour camp / accommodation of his labour and staff and their conveyance to Site as no workers/ staff shall unless with the specific approval of the Engineer be allowed to stay within the Site.</p>	SCC, Page 56, Clause 42.2.2	We request you to kindly provide us land for labour accomodation free of cost within the site premises.	No change in tender conditions

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26	Operation & Maintenance work during DLP: The contractor shall carry operation & maintenance of the entire system for one (01) year after satisfactory completion of entire work.	SCC, Page 59, Clause 45	We request you to kindly remove the scope of Operation & Maintenance from scope of the Contractor during DLP.	No change in tender conditions
27	Check List of Documents to be Submitted with the Bid: 1. Format for Performance Security Bank Guarantee (Form C) 2. Format for Contract Agreement (Form D)	NIT, Vol 1, Page 34	Kindly clarify if we have to upload only the blank formats of the said documents or they need to be filled up in a prescribed manner.	Format (Form C and D) to be uploaded.
28			At present we are executing similar of work i.e. Construction of ESIC Medical College and Hospital at SanathNagar, Hyderabad(AP). Cost of work as per agreement is 389.41 Cr at present work to the tune of 432.27 cr is executed by us. But the work other than scope of work is still in progress and nearly at final stage. Please clarify whether this work can we quote?	Please refer tender conditions Eligibility Criteria. Only similar completed works shall be considered as per tender eligibility criteria.
29	Volume I Section III Point No 5		Various approvals will have to be brought by Contractor. In such matters presence of Representative of Department/ Clients is required on some occasions. So, in the interest of work, this clause needs to be modified .	The Consultants/ Client shall extend all assistance as may be required in getting approvals, in the interest of work, within contract provisions.
30			Geo technical Investigation report required for water table and strata classification. Please intimate action on above issue.	Bidders may ascertain at their own. Please refer clause 1.16 at P-15 of Vol I of the tender.
31			Getting GRIHA3- Star Certification should be in owner scope.	No change in tender conditions
32			For Item N.2.06 of BOQ, please clear the unit of items i.e. Cum per depth	BOQ Civil Item No.2.06 is self explanatory
33			Please give the approval list of vendors for HVAC, OT & ICU Items, Fire fighting, CCTV work, Nurse calling System, Solar Power panel, Audio Video System, Access control system, Queue management system, LAN System, IBMS system.	List of approved makes for Civil, PHE, Fire fighting, Electrical & HVAC are already given, List of makes for the OT & ICU items is enclosed as " Annexure - I "

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34	Commercial	Stage Payments	We would like to request you to pay 70 % after supply of Lifts material, & Pipes required for Plumbing, & FF .	All payments shall be made as per tender conditions.
35	Drawings - The drawings are not legible.	Drawings - all Volumes	Kindly provide us detailed legible drawings for all Civil Structural & Architectural works, MEP works including SLD.	All the drawings have been uploaded again.
36	Area Statement and Built up area details	General queries	We request you to provide us the Built up Area of the Project with Area statement.	Details required for tendering are already available in the drawings
37	Marble Stone Work for Wall Lining	Item No: 7.04, BOQ, Vol- 5, Page 18	Kindly provide us the thickness of the granite slab.	Thickness of granite slab shall be 18 mm (already given in BOQ Item)
38	Providing and Fixing 1st Quality Ceramic Glazed Wall Tiles	Item No: 7.07, BOQ, Vol- 5, Page 18	Kindly provide us the size and thickness of the ceramic glazed wall tiles.	Shall be as per CPWD Specification. Refer list of approved makes: civil works
39	Providing and laying Vitrified Tiles	Item No: 7.08- 7.10, BOQ, Vol- 5, Page 18	Kindly provide us the thicknesses of the vitrified tiles.	Shall be as per CPWD Specification.
40	Providing and Fixing High Pressure Laminate(HPL) Board Cubicle for Doctors Change Room	Item No: 10.18, BOQ, Vol- 5, Page 36	Kindly provide us the size and other details of the cubicle.	The details are enclosed as Annexure II
41	Providing and Laying at or near Ground Level Factory Made Kerb Stone	Item No: 11.05, BOQ, Vol- 5, Page 38	Kindly provide us the size of the kerb stone.	Shall be as per CPWD Specification.
42	Approved Makes for Medical equipment and Operation Theatre	Technical specification, Vol - 4, page 13 - 20	We request you to provide us the names of approved Vendors (if any) for those specialised packages.	A list of approved make for OT and ICU Items are enclosed as Annexure I
43	Lifts:	Technical specifications: Sec-19.	BOQ specifies about geared lifts whereas specifications briefs gearless machine. Please clarify.	Geared Lift will be provided as per BOQ Item. In BOQ Glass Lift has been mentioned i.e. Rear side glass, however it will be in SS scratch proof finish.
		Lifts BOQ. Subhead: 8	Lift shafts size mentions about 3200x2200mm. Drawings are not cleared. Please clarify.	Size of lift shaft may be read as 2200x3000 mm.
		Service Lifts: Sec-19	BOQ specify 1500Kg of goods lift whereas specifications mentions about 1000 Kg. Please clarify.	Shall be as per BOQ Item.
		Lifts BOQ. Subhead: 8	Please clarify service lift would be Simplex mode or duplex mode.	It will be simplex mode

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44	HVAC	I. No:2.1. NDSR	Please mention degree of protection of VFD.	All VFDs shall be IP 54.
			Please clarify the Pump motor RPM. RPM are not mentioned in BOQ. Specifications mentions about 1500 & 2900RPM. Please clarify.	Pump RPM shall be 1450.
45	Firefighting	Fire Pumps: I. No:1.22	RPM of fire pump are not given in BOQ. Please clarify.	RPM of fire pump shall be 2280 LPM at 80 mtr head.
			BOQ mentined about 2sets. Please define no. of pumps in each.	Unit of this item may be read as Each in place of set.
		FF BOQ: I. No:1.34	External hose cabinet size :750x600x300 mm is mentioned in BOQ. Whereas standard practice of market is 750x600x250mm.Please clarify.	External hose cabinet size may be read as 900mmx750mmx400mm.
		Sump pumps:1.I. No:1.3 sec : III	Units of pumps are each. No. of qty are 2. Please clarify the qty of working & standby pumps.	Unit of this item shall be set in place of Each and each set shall contain two no. pumps (One working and one standby).
Approved makes:	Request you to approve kirloskar & KSB pumps.	No change in tender conditions		
46	Electrical	Point Wiring	Please define the wire length in Group-C point in Internal wiring.	Length of wire will be as per drawing.
		Transformers:	Please mention about current losses on No load & 100 % load.	The efficiency of transformer should be minimum 98% at full load as per technical specification.
47	Earth Work - Soil Investigation report	General	Request to provide the Soil investigation Report.	Since, it is an item rate tender, soil investigation report is not a part of tender document
48	Plant & Machinery & Shuttering Material Advance - - 10 B (iii) -Advance payment-Deleted	GCC - P20	We request you to pay interest free advance towards plant & machineries @ 90% of cost of plant & machinery (new purchase cost or residual value, as the case may be) subject to a maximum of 5% of contract value) against Bank Guarantee of equivalent amount	No change in tender conditions
49	Taxes- Rates for Items shall include all taxes & duties	SCC - Page 59 & 70	Being it is a Govt project, kindly confirm wheather Service tax is applicable or not.	As per GCC clause-38, page no-71.
50	Water supply & Power Supply - Bore well	SCC - 42.2.4 P-57	Please confirm whether bore well can be digged at site.	Bore well can be allowed after obtaining necessary statutory approval by the contractor
51	Flooring - Basic Prices for Flooring materials		We request to provide basic rate for all flooring, tilling materials.	The work shall be carried out as per CPWD Specification

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52	Duct Construction/Fabrication Standard -All duct construction and installation shall be in accordance with SMACNA standards.....The duct fabrication and installation shall generally confirm to IS 655-1963.....	Tech Spec. AC 39 & AC 41	Request you to clarify which standard has to be followed for Duct Construction/fabrication and installation? SMACNA or IS 655? Kindly Confirm.	Duct fabrication will be as per SMACNA
53	Pipe Supporting System	Tech Spec. AC 45	Grippler Supports are not recommended beyond 200mm diameter pipes. We propose to use MS angles bolted to ceiling for hanging pipes above 200mm diameter. Kindly confirm.	All pipe supports shall be rigid type as per section - 10 of page AC50 technical specifications and as mentioned as below.
	Pipe Size (mm)	M.S. Rod for ceiling support (mm)	Floor Support (mm)	Base Support
	upto 65 mm	10 mm	80 mm dia MS Pipe	40x40x5 thick Angle
	80 mm to 125 mm	10 mm	80 mm dia MS Pipe	50x50x5 thick Angle
	150 mm to 250 mm	12 mm or 50x50x6 Angle	80 mm dia MS Pipe	75x75x5 Angle or 80x40 channel
	300 mm to 350 mm	16 mm or 80x40 channel	80 mm dia MS Pipe	100x50 channel
	400 mm to 500 mm	16 mm or 100x50 channel	100 mm MS Pipe	75x40 channel (box)
	600 mm to 700 mm	20 mm or 100x50 channel	100 mm MS Pipe	ISMC 200
54	MS Pipe Wall Thickness	Tech Spec. AC 45	We understand MS pipes upto 150mm shall be "C" class pipes as per IS 1239 and 200mm & above shall be as per ANSI B 36.1. Kindly confirm.	Shall be as per BOQ
55	Flexible Stainless Steel Pipe - Providing and fixing 25 mm dia flexible stainless steel (SS 304) pipe for making final connection of sprinkler head with sprinkler system piping network including 2 nos. 25mm diameter G.I. connector, G.I. Nipple, Reducer, elbow and threaded jointing complete as per detail.	S.No.1.13 of Fire Work BOQ of Page No.4	Kindly clarify the type whether it is Unbraided or Braided type.	it shall be braided type
56	Fire Pumps - Horizontal centrifugal/Fire pumps - Mather& platt(WILO),GRUNDFOS,	S.No.14 of clause-14 of list of Approved makes -Fire Fighting Works of Page No.79	Kindly include Kirloskar make also in the List of Approved makes.	as per approved make list

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57	<p>SUB HEAD 9-Internal Wiring - Wiring for light point/fanpoint/ exhaust fan point/call bell point with 1.5 sq.mm. PVC insulated, fire retardant low smoke (FRLS) copper conductor cable, single core/ multi strand, in steel conduit (Including supplying & recess laying of MS conduit and accessories) including the following and complete as required.</p> <p>Sl. No.a, Group -C as mentioned above</p>	Electrical BOQ	Request you to kindly provide the average length of wiring per point to be considered	Length of wire will be as per drawing.
58	<p>SUB HEAD 9-Internal Wiring - Sl. No.b, Wiring for twin control light points with 1.5 sq.mm. PVC insulated, FRLS copper conductor cable in MS conduit (including supplying and recess laying of MS conduit) including the following and complete as required.</p>	Electrical BOQ	Request you to kindly provide the average length of wiring per point to be considered	Length of wire will be as per drawing.
59	<p>SUB HEAD 7-External Lighting, Sl. No. (2) - Supply, fixing, testing & commissioning of the bollard Lighting Fixture equivalent to Philips Cat. No. BGP 150 Bollard including 1 no. 24 watt LED lamp of approved shade along with ignitor, necessary brackets, 4 meter powder coated MS pole including connections as required.</p>	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
60	<p>SUB HEAD 7-External Lighting, Sl. No. (3) -Supply, fixing, testing & commissioning of the Landscaping Lighting Fixture equivalent to Philips Cat. No. smart LED Bollard including 1 no. 3 watt LED lamp of approved shade along with ignitor, necessary brackets, including connections as required.</p>	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
61	<p>SUB HEAD 7-External Lighting, Sl. No. (4) -Supply, fixing, testing & commissioning of the Landscaping Lighting Fixture equivalent to Philips Cat. No. smart LED marker including 1 no. 3 watt LED lamp of approved shade along with ignitor, necessary brackets, including connections as required.</p>	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
62	SUB HEAD 7-External Lighting, Sl. No. (5) -Supply, fixing, testing & commissioning of the gate Lighting Fixture equivalent to Philips Cat. No. BGP 150 Bollard including 1 no. 24 watt LED lamp of approved shade along with ignitor, necessary brackets, 600mm powder coated MS pole including connections as required.	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
63	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (1) - Supplying of 4 x 14 watt T-5 recessed type Clean Room luminaire (Blood Bank) complete with electronic ballast, lockable holders, bottom opening with toughened glass, IP65 and fluorescent lamp including connection etc. as required similar to Philips cat no. TBS651 4xTL5-14W EB CR FOP GT.	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
64	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (2) - SUB HEAD 10-Fans & Light Fixtures, Sl. No. (2) - Supplying of minimum LED surface/ recessed type (600 mm X 600 mm) extruded aluminium luminaire with heat sink installed back side, high quality diffuser fix in front frame total system wattage less than 45W with LED make of Cree/ Nichea (LED) operating at 350 mA. lamp color 4000k/6500K, complete with electronic driver, CRI 80, lamp life 50,000 hrs, warranty 5 years lumen output 3000 lumens, lockable	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
65	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (3) - Supplying of surface/ recessed type LED down-lighter with high efficiency white reflector and high transmissive diffuser ,fitting complete with, holder, electronic driver, heat sink and LED (less than 10% THD), low depth with die cast aluminium housing 1500 lumen	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
66	Supplying of surface/ recessed type LED down-lighter with high efficiency white reflector and high transmissive diffuser ,fitting complete with, holder, electronic driver, heat sink and LED (less than 10% THD), low depth with die cast aluminium housing LED with CRI >70, including with driver connections etc. as required similar to	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
67	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (5) - Supplying of 1 x 28 watt T-5 fluorescent luminaire complete with electronic ballast, lockable holders and fluorescent lamp including connection etc. as required similar to Philips cat no. TMS122M 1xTL5	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
68	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (6) - Supplying of 1 x 28 watt T-5 fluorescent luminaire complete with electronic ballast, lockable holders and fluorescent lamp including connection etc. as required similar to Philips cat no. Adreno V2	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
69	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (7) - Supplying of mirror light luminaire with 1 x 14 watt complete with electronic ballast, lamp including connection etc. complete as required similar to Philips Cat. No. FWZ 300 or equivalent	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
70	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (8) - Supplying of Bulkhead type light fitting complete with , wire guard, holder, electronic ballast 1 x 6 W lamp including connections etc. as required similar to Philips Cat. No. Endura LED or equivalent	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
71	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (9) - Supplying of square wall up-down-lighter adjustable beam options with high efficiency reflector ,fitting complete with holder, heat sink and LED (less than 10% THD), die cast aluminium housing 1 x 70 W MH , including with driver connections etc. as required similar to Wipro Cat no. urbano	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
72	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (10) - Supplying of downlighter type light fitting complete with glass cover in extruded aluminium body , IP-67 holder, electronic ballast, asymmetrical reflector 1 x 70 W MH lamp including connections etc. as required similar to Philips Cat. No. MBS 205	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
73	Supplying of surface type light fitting complete with glass cover in extruded aluminium body , IP-55 holder, electronic ballast, asymmetrical reflector 1 x 14 W Patient Bed light lamp including connections etc. as required similar to Wipro Cat. No. WVF 94	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
74	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (12) - Supply of illuminated exit sign with 1 x 6 watt LED lamp including providing maintenance free batteries & charger capable of working for 2 hr duration mounted on ceiling/wall complete with the approved EXIT self adhesive labels as per site requirement as required similar to Prolite or equivalent	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
75	SUB HEAD 10-Fans & Light Fixtures, Sl. No. (14) - Supply of occupancy cum photo sensor including all wiring to control the light fixtures in the circuit in the existing conduits required similar to Philips cat no. occuswitch	Electrical BOQ	Request you to furnish the equivalent Model nos. for all the approved makes for lighting fixtures mentioned in the tender.	Equivalent model of other approved makes will be as per the technical specifications of the model number mentioned in the BOQ.
76	Section 3- Point 2.04 SUB HEAD 4- LV Cables- S No. 9 -Perforated Cable Trays	Electrical Specifications Electrical BOQ	Please confirm whether the cable tray accessories have to be factory fabricated or site fabricated	Accessories like hangers, bends etc can be fabricated at site, depending upon the site conditions, however factory fabricated may also be accepted
77	Section 3- Point 2.05 SUB HEAD 4- LV Cables- S No. 10 - Cable Ladder	Electrical Specifications Electrical BOQ	Please confirm whether the cable tray accessories have to be factory fabricated or site fabricated	Accessories like hangers, bends etc can be fabricated at site, depending upon the site conditions, however factory fabricated may also be accepted
78	<p>Section 4- PART 1-Point 1.1 G Subhead 4- LV Cables- S No. 1 - (1.1 G) All LV cables for normal power/control circuitries within buildings shall be copper conductor with XLPE insulated and PVC sheathed, denoted as XLPE/PVC cable or copper conductor with PVC insulated, denoted as PVC cable as specified.</p> <p>BOQ-Subhead 4-LV Cables- Supply of under noted sizes of Aluminium conductor XLPE insulated PVC sheathed & sleeved armoured and overall PVC sleeved 1.1 KV grade power distribution cables conforming to IS 7098 and as per specification as required.</p>	Electrical Specifications Electrical BOQ	<p>Specification calls for all the cables to be with Copper conductor whereas BOQ specifies the cable with aluminium conductor.</p> <p>We presume that the cable will be with Aluminium conductor as per the BOQ description. Please confirm.</p>	As per BOQ

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
79	<p>Section 4- PART 1-Point 1.1 G & H Subhead 4- LV Cables- S No. 1 - (1.1 G) All LV cables for normal power/control circuitries within buildings shall be copper conductor with XLPE insulated and PVC sheathed, denoted as XLPE/PVC cable or copper conductor with PVC insulated, denoted as PVC cable as specified.</p> <p>(1.1 H) All LV cables for emergency power circuitries serving emergency lightings, Building Management System (BMS), Fire Protection System, Security Systems, emergency communication systems, and sump pump system and fire lifts etc. with back-up from standby generator sets or UPS systems or incoming and outgoing from the Emergency Main Switchboard shall be fire resistant cables as required.</p> <p>BOQ-Subhead 4-LV Cables- Supply of under noted sizes of Aluminium conductor XLPE insulated PVC sheathed & sleeved armoured and overall PVC sleeved 1.1 KV grade power distribution cables conforming to IS 7098 and as per specification as required.</p>	<p>Electrical Specifications Electrical BOQ</p>	<p>Technical specification calls for cables for the following to be FIRE RESISTANT:</p> <ol style="list-style-type: none"> 1. Emergency Lightings 2. BMS 3. Fire Protection system 4. Security Systems 5. Emergency communication systems 6. Sump Pmp systems 7. Fire Lifts 8. Any back up cabling from DG and UPS 9. Any incoming or outgoing cable from Emergency main switch board <p>However, in the BOQ there is no separate line item for the fire resistant cables. We therefore presume that all the cables shall be XLPE/PVC as per the BOQ description. Please confirm.</p>	<p>As per BOQ</p>

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
80	<p>(2.01)The cross linked polyethylene (XLPE) cable shall be aluminium conductor PVC outer sheath steel strip armoured over inner sheath construction. XLPE cable shall conform to testing in accordance with IS:7098 (Part- I) 1977 and (Part-II) 1973. The screening shall be done on individual cover. The armouring applied over the common covering shall be flat steel wires. Each and every length of cable shall be subjected to routine test.</p> <p>BOQ-Subhead 6-MV Cables- Supplying of following sizes XLPE, 33 KV earthed cable in existing open structure/ Hume pipe including in vertical formation as per technical specification and complete as required. (The payments of cable length shall only be made upto gland in panel on both sides not for loop and connection cables of approximate length upto 2 metres</p>	<p>Electrical Specifications Electrical BOQ</p>	<p>Specification calls for HT cable to be with Aluminium conductor whereas BOQ does not specify the conductor type. We presume that the cable will be with Aluminium conductor as per the specification. Please confirm.</p>	<p>As per BOQ</p>
81	<p>2.2 BUSBARS & BUSBAR CHAMBER A. Three phase bus bars shall be of high conductivity electrolytic Aluminium as stated in B.O.Q.</p> <p>BUS BARS:-300 Amps. 4P CU bus bars (25 KA)</p>	<p>Electrical Specifications Electrical BOQ</p>	<p>Specification calls for Busbars to be of high conductivity electrolytic Aluminium whereas BOQ calls for Cu busbars. We presume that the busbar will be Copper where ever specified in the BOQ. Please confirm.</p>	<p>As per BOQ</p>
82	<p>Section 7- Panel Boards - PART 2-Point 2.2 A- Busbars & Bus Chambers</p> <p>Subhead 11- MV Panels/Distribution Boards- S No. 5 f - 2.2 BUSBARS & BUSBAR CHAMBER A. Three phase bus bars shall be of high conductivity electrolytic Aluminium as stated in B.O.Q.</p> <p>BUS BARS:-300 Amps. 4P CU bus bars (25 KA)</p>	<p>Electrical Specifications Electrical BOQ</p>	<p>Specification calls for Busbars to be of high conductivity electrolytic Aluminium whereas BOQ calls for Cu busbars. We presume that the busbar will be Copper where ever specified in the BOQ. Please confirm.</p>	<p>As per BOQ</p>

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
83	<p>Section 7- Panel Boards - PART 2-Point 2.2 A- Busbars & Bus Chambers</p> <p>Subhead 11- MV Panels/Distribution Boards- S No. 5 g 2.2 BUSBARS & BUSBAR CHAMBER</p> <p>A. Three phase bus bars shall be of high conductivity electrolytic Aluminium as stated in B.O.Q.</p> <p>BUS BARS:-300 Amps. 4P CU bus bars (25 KA)</p>	<p>Electrical Specifications</p> <p>Electrical BOQ</p>	<p>Specification calls for Busbars to be of high conductivity electrolytic Aluminium whereas BOQ calls for Cu busbars.</p> <p>We presume that the busbar will be Copper where ever specified in the BOQ. Please confirm.</p>	<p>As per BOQ</p>
84	<p>Supplying, installing by suspension on ceiling, testing and commissioning of following capacity Sandwich Type Bus Trunking for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with metal clad enclosure made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars, necessary joints, elbow joints & expansion joints and bends, fire barrier at each floor, provision of tapping at every metre, adopter box and copper flexible for joints, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required</p>	<p>Electrical BOQ</p>	<p>Please confirm the no. of bends, end feed units, flange ends and tappings to be considered for the busduct.</p>	<p>as per actual site requirements.</p>
85	<p>Type tested transformers shall be provided.</p>	<p>Electrical Specifications</p>	<p>Only certificates for type test conducted on similar/higher rating transformer shall be provided and no type test shall be conducted. Please confirm</p>	<p>Type test certificates for same rating or higher rating transformers to be provided.</p>

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
86	<p>Subhead 3- LV Panels Boards- S No. 5 (a)- Sandwich Busduct - Supplying, installing by suspension on ceiling, testing and commissioning of following capacity Sandwich Type Bus Trunking for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with metal clad enclosure made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars, necessary joints, elbow joints & expansion joints and bends, fire barrier at each floor, provision of tapping at every metre, adopter box and copper flexible for joints, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required</p> <p>(a) 3200 amps 50KA SC for 1 sec</p>	Electrical BOQ	<p>We assume that this line item is Busduct for connection between transformer and Main LT panel running horizontally and hence tap off provision at every 1 meter is not applicable for this application. Please confirm whether we can consider the busducts without tap off provision at every 1 metre.</p>	<p>Tap-off points are not required in the busducts connecting transformer/ DG set to LT panels.</p>
87	<p>Supplying, installing by suspension on ceiling, testing and commissioning of following capacity Sandwich Type Bus Trunking for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with metal clad enclosure made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars, necessary joints, elbow joints & expansion joints and bends, fire barrier at each floor, provision of tapping at every metre, adopter box and copper flexible for joints, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required</p> <p>(b) 2000 amps 50KA SC for 1 sec</p>	Electrical BOQ	<p>We assume that this line item is Busduct for connection between DG and Main LT panel running horizontally and hence tap off provision at every 1 meter is not applicable for this application. Please confirm whether we can consider the busducts without tap off provision at every 1 metre.</p>	<p>Tap-off points are not required in the busducts connecting transformer/ DG set to LT panels.</p>

Sr. No.	Clause Details	Reference / Clause no.	Queries	Reply
88	SUB HEAD-8 : LIFT - Design, manufacture, supply, installation, testing and commissioning of following 20 passenger Glass Lift (1360 kg) with rear side glass, serving different floors in the lift shaft including machine room at top. Lift should be geared with speed of 1MPS The lift should be as per detailed specification/ drawing enclosed as required and as under: Lift Panel Should be with Backnet / IP output for its intergation with BMS	Electrical BOQ	BOQ calls for 1360 Kg bed lift whereas some of the manufacturers as per list of approved makes are offering 1350 Kg as per their manufacturing standards. Please confirm whether we can consider the same.	as per BOQ
89	General	Tender Drawings	The drawings and SLDs provided are not clearly visible. Request you to kindly provide the clear SLDs and other electrical layouts	New drawings have been uploaded.

Prospective bidders are advised to regularly scan through HSCC e-tender portal <http://www.tenderwizard.com/HSCC> as corrigendum/ amendments etc., if any, will be notified on this portal only and separate advertisement will not be made for this.

Other terms & Conditions of the Tender shall remain unchanged.

(- sd -)
Sr. Manager (Civil),
HSCC (India) Ltd.,
For & on behalf of Director, IIT Kharagpur

APPROVED MAKES FOR CONVENTIONAL OTs, ICUs & OTHERS (Second floor- Ante room-2 Nos, Cath unit, 12 bed ICCU, 6bed CTVS, Cath Lab-1, Cath Lab-2. Third floor- IMCU, IMCU, Pre-Operative & Recovery, Ante room, IRCU, SICU. Fourth floor- OBST ICU, GYNE ICU, PEDIATRIC ICU, Intensive Care Nursery, Clean Nursery Observation, Ante Room, pre & Post Operative)

1. HEPA Filter -SAGICOFIM/THERMODYNE/ADVANCE/ PENTAGON
2. Cable - as per List of approved makes of electrical items
3. Control Panel - as per List of approved makes of electrical items
4. PVC Pipe Class III with Fitting - FINOLEX/ SUPREME/ PRINCE/ ORI-PLAST
5. G.I. / M.S. Pipe Heavy Class -TATA/ JINDAL(HISSAR)/SAIL /SURYA PRAKASH
6. MCCB/Contactor/Relay -- as per List of approved makes of electrical items
7. Pressure Gauges - H.GURU /FIEBIG
8. Stainless Steel - TATA/SALEM/JINDAL/MUKUND/BHAYANDER /AMBICA
9. Copper Pipe - MAXFLOW/PRECISION/RAJCO
10. Flooring - GERFLOR/TARKETT/POLYFLOR/ARMSTRONG /SIKKA LP/WONDERFLOOR
11. Door - METAFLEX/ DORMA/EQUIVALENT
12. OT Light - PHILIPS/MDD/STRYKER/MULTILUX HOSPITAL TECHNOLOGY/COGNATE/JANAK
13. Peripheral Light - - as per List of approved makes of electrical items
14. Ceiling System - MPS/HI_TEK/MGI/MDD/DENMEDICS
15. Pendant - MDD/ MGI/HI_TEK/ DENMEDICS /MPS/LINDE
16. Scrub Station - MDD/ MGI/HI_TEK/ DENMEDICS / MPS
17. Ceiling Filtration System/
Laminar Air flow system - MDD/ MGI/HI_TEK/ DENMEDICS / MPS
18. Blower Motor - KIRLOSKAR/ NGEF/ SIEMENS/CROMPTON/ABB

Note : - Gypsum board/Calcium Silicate and other hardwares for construction of Ceiling shall be as per the approved makes mentioned in the Civil works.
Anti bacterial Paint - Imported

DESCRIPTION
MODLE TYPE - TITAN 18MM BOX UP SERIES
Thickness of Compact Laminate : 18 mm
Color of HPL Boards: Single Colour
Size of Cubicle : 1060mm (W) & 1550mm (D) x 2100mm (H)
Door Size : 1925mm (H) x 610mm (W)
Overall Height Of Cubicle : 2100 mm (Including bottom Gap of 100mm)
Accessories: Standard Stainless Steel - 304 Grade accessories)
a) SS "U" Channel
b) SS "F" channel
c) SS Coat Hook
d) SS Privacy Thumb turn c/w Occupancy Indicator
e) SS Door Knob
f) SS Hinges with Cover
g) SS Sheo Box Leg 18mm - 316 Grade
h) Rubber Lining for Groove
i) S.S.Screws 304 G & P.V.C Wall Plugs

