

## ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS)

Date : 06.02.2017

### AMENDMENT No. – I

**Project Name:** Tender for “External Electrical Works for construction of Electrical substation at NCI Jhajjar, Haryana”

**Tender No.** HSCC/AIIMS/ NCI\_Jhajjar/SS/2017; dated: 10.01.2017

(i) The Last date of submission & opening of bids has been extended as follows:

**Last date to fill/upload the tender :** upto 15:00 hrs. on 14.02.2017  
through e-Tendering.

**Date of Opening of bids :** on 14.02.2017 at 15:30 hrs.

**Reply to Pre Bid Queries raised by bidders during pre -bid meeting held on 27.01.2017 at HSCC, Head Office, Noida**

Sl.No	Ref.	Page no.	Clause No	Tender Description	Bidder Queries	Reply
11q	GCC & SCC	15 & 16	GCC 1A & SCC 31 €	Recovery of security deposit / Retention	We propose to submit at the start of project a Bank Guarantee of 5% of contract value valid till DLP of 12 months. Hence no retention shall be deducted from our bills.	Tender condition shall prevail.
2	GCC	17	2	Compensation against delay	We request you that aggregate liability of contractor shall be limited to 5% Of contract value.	Tender condition shall prevail.
3	GCC	35 & 36	10C	Statutory variation	We request you to amend the clause as any variation in current taxes & duties or levies of any new taxes shall be to clients account.	Pls. refer Cl.No. 38 of Vol.-II (GCC).
4	SCC	52	24	Terms of Payment	We request you to kindly approve below mentioned payment terms:	Tender condition shall prevail.
5					<b>Supply:</b> 75% of BOQ rate on receipt of equipment against receipt of complete material at site & test certificates. <b>Erection:</b> 15% of BOQ rate on erection and installation of equipment. <b>Testing &amp; commissioning:</b> 5% after successful completion of all works including all testing,00 commissioning & taking over. <b>Taking over:</b> 5% after taking over of all works.	
6	General				Please provide bank details of the beneficiary to prepare the EMD.	HSCC (India) Limited, Name of Branch - Indian Overseas Bank, Kribhco Branch, Noida IFSC Code - IOBA0001725 Bank A/C No. - 172502000000151 PAN No. - AAACH0086N
7	Transformer		4.01	Temperature rise	We would like to inform you that temperature rise of the transformers as per IS 1180 will be 40 - 45 degree C in place of 50 - 55 degree C. Please confirm.	As per IS 1180 ammended uptodate

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8	Transformer	Technical Specifications		Type Test	We wish to inform you that transformers shall have valid type test report of similar / higher rating. Therefore type tests shall not be conducted. We would also like to inform you that short circuit test of transformer shall not be performed as there is lead time of substantial period at CPRI, which may delay the project.	Refer cl. no. 18.3 of Additional Condition of Contract in Vol.-III (SCC).
9	LT Panels		General	Ingress Protection	IP shall be 4X for switchgear rating 5000 Amps.	as per tender
10	LT Panels	BOQ	2.01 iv	BOQ - Intelligent Panel Meter	Please clarify meter should be EMI/EMC Compliant.	As per BOQ EMI/EMC Compliant
11	LT Panels	Technical Specifications	Gen	Ingress Protection	IP shall be 4X for switchgear rating 5000 Amps.	Panel is Indoor Type and IP will be as per CPWD / IS Specifications
12	LT Panels	Technical Specifications	2.01 & 2.01 b	Bus bars	Please clarify requirement of bus bars - AL or CU	As per respective BOQ items.
13	LT Panels	Technical Specifications	2.03	AHF Panel	As per list of approved makes AHF is not in scope of supply	AHF is BOQ item & is also part of supply.
14	LT Panels	Technical Specifications	6.2	Construction- Clearances	Clearances and creepage distance shall be as per IEC 61439 standards.	As per IS / CPWD Specifications.
15	LT Panels	Technical Specifications	6.3	Metal treatment & finish	As per manufacturer painting procedures.	Nine Tank Process / Standard practice by Manufacturer.
16	LT Panels	Technical Specifications	6.8	Test at Manufacturers Work	All routine tests shall be as per IEC standards.	As per IS / CPWD Specifications.
17	LT Panels	Technical Specifications	7.1.5	Rating	Please clarify requirement of Short Circuit capacity of ACB's - 50KA or 65KA as per BOQ.	As per respective BOQ items.
18	LT Panels	Technical Specifications	7.2.1	Technical Specifications	Please clarify requirement of Short Circuit capacity of MCCB's - 50KA or 65KA as per BOQ.	As per respective BOQ items.
19	LT Panels	Technical Specifications	7.2.1	Technical Specifications	Please clarify requirement of MCCB - Thermal Magnetic or Microprocessor as per BOQ.	As per respective BOQ items.
20	LT Panels	Technical Specifications	7.2.1	Technical Specifications	Technical specification ask for fault identification of O/L, S/C & E/F indication on panel door. But as manufacturers standard practice It shall not be provided on door. Pls. confirm.	ON, OFF and TRIP indication to be provided on the door as per respective BOQ Item.
21	Busduct	Technical Specifications	10.4	Breaking Capacity	We wish to inform you that busbar trunking shall be rated for operational voltage of 415 V with insulation voltage of 1000V in place of 1100V and shall be suitable for 50Hz frequency.	Yes, Insulation voltage of 1000 V accepted.
22	DG sets	Technical Specifications	3.01 - BOQ	Factory assembled Sound proof Canopy as per pollution control board requirement to achieve noise level desired during night condition, with base frame, doors, inspection window, fresh air supply fans etc	These capacities of DG sets are site assembling type due to statutory limitation wrt.transport & very difficult to handle logistically. However, during factory accepting testing (FAT) shall be carried out in assembled condition and then dismantled during Transportation .And the same will be re-assembled after it reaches at site and shall be tested again at site in assembled condition.	as per tender
23	DG sets	Technical Specifications	8.13- Page No. E55R1	Commissioning Check Tests/Performance and Guarantee Test.....the contractor shall supervise the following acceptance tests to be carried out on each test at site.	Commissioning shall be carried out by us ,however, the required Load & required Diesel for Testing of DG Sets at site shall be provided by the user / Purchaser.....Kindly Confirm the same.	As per BOQ.
24	DG sets	Technical Specifications	Factor Testing	Factory Testing of DG Sets	As nothing is mentioned about the duration of Test at works ,we presume that the same shall be carried out as per manufacturers standard test procedure & as per manufacturers QAP.....Kindly confirm the same	As per CPWD norms.

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25	DG sets	Technical Specifications	8.13 -IV & Page No. E-56R1	The equivalent `A` weighted sound level measured at a distance of 1 meter horizontally from the base of any equipment furnished and installed under these specifications expressed in decibels to a reference of 0.0002 microbar, shall not exceed the limit given as per CPCB norms. 75 dB average at 1 mtr. distance from acoustic enclosure.	The Noise Level of DG Sets above 1000KVA Capacities is with 25dB with Insertion Loss as per applicable Statutory Norms at present. You are requested to kindly confirm the same.	as per CPCB Norms
26	DG sets	Technical Specifications	8.2.1 (n) & Page No. SPEC E-39 R1	Major civil work such as foundations, trenches, etc. will be paid as per civil works.	We have Presumed from the specification that all the civil works pertaining to DG Sets are in the Scope of the Purchaser. However, Minor civil work like cutting and making good all damages caused during installation are in the scope of Bidder.	Foundation have been included in the respective BOQ items.
27	DG sets	Technical Specifications	8.3.5 & Page No SPEC Page E-40R1	<b>Period of Operation / Duty Cycle:</b> The set shall be capable of running at full load for not less than 300 hrs continuously or as per manufactures recommendations.	It is specified in the BOQ and other part of specification that rating is <b>Prime Power Application</b> and <b>IS-8528</b> states that for Prime Power Application " <b>The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP unless otherwise agreed by the RIC engine manufacturer</b> " (Copy Enclosed for your reference). However, DG Sets (Prime Power Application) are suitable for running continuously 300 Hour or more at variable load. You are requested to kindly confirm your acceptance.	as per tender
28	DG sets			General	Please Provide the approx. distance between DG Set & DG Synchronizing Panel.	Location including Transformer/DG/Panels enclosed
29	List of makes			HT Panels	We request you to kindly approve authorized channel partner of approved makes.	No change., as per list of approved make.
30	List of makes			Transformer	We request you to kindly approve Voltamp, Kirloskar & essenar as additional makes for transformers.	No change., as per list of approved make.
31	List of makes			MLTP, Cap. Panels & Synchronization / AMF Panels	We request you to kindly approve authorised chanel partner of approved makes and also approve makes mentioned under MV panels as additional makes.	Main LT Panel/APFC/Main LT Panel: Siemens/L&T/ABB/Schneider/ SPC Electrotech Ltd./Tricolite/Adlec. Panel will be fabricated as per IEC: 60439
32	List of makes			Cable trays & Raceways	We request you to kindly approve MEM, Steelways & Rico as additional makes for transformers.	OBO/ Legrand/ Cooper/BEC /Pilco Marketing and manufacturing Pvt.Ltd/Profab Engineers
33	VOL01NITANDPQ_external	15/61	NOTICE INVITING BIDS	1.17 The bidder shall be responsible for arranging and maintaining at its own cost all materials, tools & plants, water, electricity, access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract	Suppy of water and electricity upto a single point for constructional works shall be in customer scope. Further distribution of power from that point shall be in our scope. Kindly confirm.	Ref. Cl. No. 42.2.4 of Vol.-III (SCC).
34	VOL01NITANDPQ_external	18/61	INSTRUCTIONS TO BIDDERS (ITB)	Approval from local body means approval of entire electrical system for OPD Block at AIIMS, New Delhi.	These clauses are related to OPD Block, New delhi. Hence, these are not applicable. Please clarify.	Shall be read as follows: Approval from local body means approval of entire electrical system for <b>NCI Jhajjar</b>
35	VOL01NITANDPQ_external	31/61	SCOPE OF WORK	4. v. 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.	We propose that obtaining occupancy certificate as mentioned above shall be in client scope. Kindly confirm.	NOC etc. for related to Electrical works are in the scope of the contractor.

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36	VOL02GCC	36/122	PAYMENT DUE TO VARIATION IN PRICES OF MATERIALS AFTER RECEIPT OF TENDER	The increase/decrease in prices of cement, steel reinforcement and structural steel shall be determined by the Price indices issued by the Director General, CPWD. For other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry.	We understand that this clause is not applicable for this tender. Kindly confirm.	Not applicable.
37	VOL02GCC	84/122	7. PROVISION OF SHELTER DURING REST	At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour.	Please clarify whether this clause is applicable for this tender or not.	Tender condition shall prevail.
38	VOL02GCC	111/122	Annexure -3, Proforma of schedules, Schedule E	Performance Guarantee: 5% of Tendered Value Security Deposit : 5% of Tendered Value	Please clarify if both Performance guarantee and Security deposit are to be submitted and also specify their duration of validity.	Ref. Cl. no. 1 of Section 2 of Vol.-II (GCC) for Performance Guarantee and Ref. Cl.No. 31 (e) of Vol.-III (SCC) for Security Deposit.
39	VOL02GCC	113/122	Clauses of Contract, Clause 12 - Type of work	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work - 30%	Please clarify the deviation limit for electrical works	Shall apply for Electrical work also.
40	VOL03SCC	50/62	46.0 Cash Flow targets	The contractor shall maintain in New Delhi, a separate bank account exclusively for this project for all transaction pertaining to this project.	We propose that Bidder shall not maintain a separate bank account for the transactions. It shall be done through our regular bank account. Kindly accept the same.	Tender condition shall prevail.
41	VOL03SCC	59/62	23.0 Confirmation of Quantities	No payment shall be payable for quantity brought to site but not used.	We propose that material quantity approved by consultant and delivered to site should be paid & taken by client. Kindly accept the same.	Tender condition shall prevail.
42	VOL03SCC	59/62	24.0 Terms of Payment	Only for items of major electrical equipments	Please clarify the items which comes under major electrical equipments and also clarify the payment terms of all other items.	Major Electrical Equipments shall be read as <b>Electrical Equipments.</b>
43	VOL04TECHSPECS	05/77	3.0 11 KV VACUUM CIRCUIT BREAKER PANEL BOARD	Communication protocol	Please note that communication protocol is not mentioned for numerical relay. Kindly clarify.	As per BOQ
44	VOL04TECHSPECS	05/77	3.0 11 KV VACUUM CIRCUIT BREAKER PANEL BOARD	VCB's shall conform to IEC 298 and 694 IS 3427, BS 5227 and VDE 0670, part 6 as well as the regulations mentioned therein.	As per OEM standrad, HT Panels shall comply with IEC 62271-100, 200 and Internal arc tested for 25kA. Kindly accept the same.	As per tender
45	VOL04TECHSPECS	08/77	3.0 11 KV VACUUM CIRCUIT BREAKER PANEL BOARD	The rated/breaking capacity of the breaker shall be 350 MVA (18.37 KA RMS) at 11 kV.	As the above two clauses are contradicting with each other, please clarify the actual requirement.	As per BOQ
46	VOL04TECHSPECS	-	3.0 11 KV VACUUM CIRCUIT BREAKER PANEL BOARD	General	As per OEM standrad, Outgoing links of HT Panels shall be as per feeder rating instead of CTs ratio. Kindly confirm.	As per BOQ
47	VOL04TECHSPECS	5/77	3.0 11 KV VACUUM CIRCUIT BREAKER PANEL BOARD	3.1 - General -- Vacuum Bottle of VCB should be of same make as of VCB.	As per OEM standrad, Make of Vacuum interrupter shall be as per OEM type test design. Kindly confirm.	type test with make of vacume interrupter to be submitted.

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48	VOL04TECHSPECS	12/77	4.0 11 KV TRANSFORMERS	TAPPING ON load tap changing arrangement on 11kv side. The range for circuit taps, which shall be provided on H.V. side, shall be plus 5% & minus 15% in steps of 1.25%	As the above two clauses are contradicting with each other for no. of steps, please clarify whether we need to consider 1.25% or 2.5% for each step..	As per BOQ
49	VOL04TECHSPECS	29/77	6.0 MAIN LT, MV & FLOOR PANELS	6.2 CONSTRUCTION	Please confirm whether these panels shall be drawout type or fixed type.	Fixed type. As per BOQ
50	VOL04TECHSPECS	31/77	6.0 MAIN LT, MV & FLOOR PANELS	6.4 BUSBARS The busbars shall be air insulated and made of high conductivity, high strength aluminum alloy complying with the requirement of IS-5082.	As the above two clauses are contradicting with each other, please clarify the type of busbar to be considered.	As per respective BOQ items.
51	VOL04TECHSPECS	32/77	6.0 MAIN LT, MV & FLOOR PANELS	6.5 SWITCHGEARS Refer subhead 5.00 – LT switchgears	Please note that LT switchgears shall be subhead 7.00. Kindly confirm.	ok
52	VOL04TECHSPECS	32/77	7.0 L.T. SWITCHGEARS	7.1.5 RATING The rating of the circuit breaker shall be as per the drawings and schedule of quantities.	There are no drawings available in the tender documents. Hence, we shall consider as per BOQ only. Kindly confirm.	ok, as per BOQ
53	VOL04TECHSPECS	58/77	9.0 LT CABLES	9.2 MATERIAL The L.T. power cable shall be XLPE Cable PVC insulated PVC sheathed type aluminium conductor armoured cable	Please clarify whether LT Power Cables shall be XLPE insulated or PVC insulated.	XLPE insulated, as per BOQ
54	VOL04TECHSPECS	61/77	10.00 BUS TRUNKING/ RISING MAINS	10.5 Design Temperature & Temperature Rise The Bustrunking ratings shall be declared at 400C ambient considering a temperature rise not exceeding 550C over ambient temperature. In case manufacturer has declared rating at lower ambient, they will have to offer the suitable higher rating (considering adequate derating) considering an ambient of 400C and temperature rise not exceeding 550C.	We understand that temperatures specified in above clause are 40 Deg C & 55 Deg C. Kindly confirm.	As per BOQ, Temp. Rise of 55 degree C above ambient of 40 degree C
55	VOL04TECHSPECS	72/77	14.0 PROCUREMENT, INSPECTION OF EQUIPMENT & APPROVALS	The contractor is responsible to submit the drawings and other details as required to the Local Authorities (refer above) and obtain necessary approvals including sanction of load/enhancement of electrical load from SEB before energizing and commissioning.	Please note that only approvals from Electrical Inspector shall be in our scope. Approvals for sanction of load/enhancement of electrical load from SEB and any other shall be in customer scope. Kindly confirm.	As per Tender
56	VOL04TECHSPECS	73/77	LIST OF APPROVED MAKES FOR ELECTRICAL SYSTEM	2. Transformer - ABB/GE/Schneider/Alstom	Please also include Voltamp/Raychem/Sudhir in the make list.	No change, as per list of approved make
57	VOL04TECHSPECS	73/77	LIST OF APPROVED MAKES FOR ELECTRICAL SYSTEM	1. 11 KV VCB Panel Board/ RMU - Siemens /L&T /ABB /Schneider	Please also include OEM System house panels in the make list.	No change, as per list of approved make

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58	VOL04TECHSPECS	75/77	LIST OF APPROVED MAKES FOR ELCTRICAL SYSTEM	28 HT/LT- XLPE cables - CCI/ Universal/Finolex/ Rallison 29 Copper Control cable - CCI/ Universal/Finolex/ Rallison	Please also include KEI/RPG/Avocab/Gemscab in the make list.	No change, as per list of approved make
59	VOL04TECHSPECS	75/77	LIST OF APPROVED MAKES FOR ELCTRICAL SYSTEM	HSCC electrical engineer (approving authority) reserves the right to opt for the best preferred listed make.	We understand that contractor can offer any make from the list of final approved make list subject to approval from HSCC Electrical Engineer. Kindly confirm.	Tender condition shall prevail.
60	VOL05BOQ	-	SUBHEAD 1: H.T. SUB STATION.	Digital frequency meter, Digital Tri vector meter.	As per OEM standard, Digital frequency meter, Digital Tri vector meter shall be part of MFM only. Kindly confirm.	As per BOQ
61	VOL05BOQ	-	SUBHEAD 1: H.T. SUB STATION.	1 Set of Microcontroller based numerical relay having 4 element relay (3O/C+1E/F). Relay should have display of phase current and trip history.  1 Set of undervoltage relay and Overvoltage relay.  1 no. Phase reversal Relay.	As per OEM standard, phase reversal, over-voltage and under voltage shall be a part of main numerical relay only. Kindly confirm.	all components i.e phase reversal, over-voltage and under voltage should be the part of relay.
62	VOL05BOQ	-	SUBHEAD 1: H.T. SUB STATION.	Potential Transformers & Voltmeters in outgoing feeders.	Please clarify the purpose of Voltage transformer and Voltmeter in all outgoing feeders.	for measurement of power.
63	VOL05BOQ	04/24	1.04 BATTERY CHARGER PANEL	2 numbers battery of minimum 180 AH ampere hour capacity.	Please specify the type of battery to be considered.	Dry sealed maintenance free batteries.
64	VOL05BOQ	04/24	1.04 BATTERY CHARGER PANEL	Control cabling between DC Distribution panel to the HT panel of the Substation with suitable core 1.5 sqmm copper cable	Please specify the cable length between HT panel and DC Distribution panel.	Location including Transformer/DG/Panels enclosed
65	VOL05BOQ	05/24	1.04 BUS DUCTS :	Accessories	Please provide the layout or detailed accessories BOQ of bus duct for us to quote accordingly.	Location including Transformer/DG/Panels enclosed at <b>Annexure - III</b> .
66	VOL05BOQ	13/24	3.00 SUBHEAD 3 : DG SET & ACCESSORIES	Low side works	Please provide the detailed BOQ for DG Set Low side works.	included in respective BOQ items.
67	VOL05BOQ	21/24	4.00 LT CABLES	4.07 Flexible Cables	Please provide the technical spcification for flexible cables.	As per relevent IS code.
68	Technical Specification		5.05 (iii)/SPEC Page E-24 R1	Temperature category: -25 degree C to 70 degree C	MPP Capacitors has maximum temperature limit of 55 deg C	As per the standard of manufacturer.
69	Technical Specification		5.05 (v)/SPEC Page E-25 R1	Over current: 2.5x In	Over current should be 1.8 x In	As per the standard of manufacturer.
70	Technical Specification		5.05 (vi)/SPEC Page E-25 R1	Peak inrush current withstand: 400 x In	Peak inrush current withstand should be 250 x In	As per the standard of manufacturer.
71	Technical Specification		5.10 (1)/SPEC Page E-27 R1 - Active Harmonic Filter	Design, manufacture, testing & supply of 3-phs/4-wire, 440 V, 300 A( Multiple of 60A module i.e 60X5), IP20, active harmonic filter	AHF ampere modules should be as per ampere rating not as multiple of specific rating.	ok,accepted.
72	Technical Specification		7.1.6/SPEC Page E-33 R1 - ACB	i. Auxillary contacts 6 NO + 6 NC, of rating 16Amp at 415 volts 50Hz.	Please amend to 4NO+4NC as per series mentioned for approved makes in make list	As per the standard of manufacturer.

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73	Technical Specification		7.1.6/SPEC Page E-33 R1 - ACB	Shunt release for tripping the breaker remotely and shall be suitable for 240 volt/415 volt 50Hz with range of operation from 10% to 130% of rated voltage	range of operation from 70% to 110% of rated voltage, as per series mentioned for approved makes in make list	As per the standard of manufacturer.
74	Technical Specification		7.2.1/SPEC Page E-35 R1 - MCCB	MCCB should have Spreader links & Phase barriers as standard feature	MCCB should have <b>Copper</b> Spreader links & Phase barriers as standard feature. Please specify the material	spreader link will be of copper.
75	Technical Specification		7.2.2/SPEC Page E-35 R1 - MCCB	The MCCBs shall have the following frame sizes subject to meeting the fault level or as per manufacturer's standard practice. a. Upto 100A rating ..... 100A frame. b. Above 100A upto 200A ..... 200A frame. c. Above 200A up to 250A ..... 250A frame. d. Above 250A up to 400A ..... 400A frame. e. Above 400A up to 630Aq ..... 630A frame. f. Above 630A to 800A ..... 800A frame.	The Frame sizes of MCCBs shall be as per manufacturers standard design	As per the standard of manufacturer.
76	Technical Specification		10.12/SPEC Page E-62 R1 - Bus duct	The line-to-line voltage drop shall not exceed 2% per hundred meter at the load power factor which produces maximum voltage drop in the bus bar trunking.	The line-to-line voltage drop shall not exceed as per IEC 60038 for low voltage installations.	As per IS/CPWD/IEC
77	VOL05 BOQ		SUBHEAD 1: H.T. SUB STATION.	HT Panel For ESS-1 and ESS-2	As per BOQ the rated breaker capacity is shown to be of 500 MVA. While as per Technical specs clause no. 3.3.7 the rated/ breaking capacity of the breaker shall be of 350 MVA (18.37 KA RMS) at 11KV.	As per BOQ
78	VOL05 BOQ		SUBHEAD 1: H.T. SUB STATION.	11KV Transformer	As per BOQ the tapping range in steps of 2.5%. But as per the specification the same has been mentioned in steps of 1.25%. Please clarify.	As per IS 1180
79	VOL04 TECHNICAL SPECS		CLAUSE NO. 4	11KV Transformer	As per the tender the transformer has to be installed outdoor, if so, then why it has been mentioned in specification that the sump shall be formed in the transformer room. Please clarify.	Sump will be made as per requirement near transformer
80	VOL04 TECHNICAL SPECS		CLAUSE NO. 4	11KV Transformer	Please confirm whether the cost for the soak pit has to be inclusive in transformer items or it shall be paid as extra. Kindly share the detail drawing or distance between soakpit and sump to calculate the length of the inter connecting pipe.	Yes, included
81	VOL05 BOQ		SUBHEAD 1: H.T. SUB STATION.	Bus Ducts	In BOQ the supporting structure can be of wall/ ceiling/ floor mounted type. As per our understanding the term floor mounted structure in BOQ and utility bridge in technical specs are same. The cost of it shall be paid extra as per civil works. Please confirm.	As per specification utility bridge will be paid extra as per Civil work
82	VOL05 BOQ		SUBHEAD 1: H.T. SUB STATION.	Bus Ducts	Please confirm the housing sheet thickness of the Bus duct. As the same is not mentioned in the tender.	as per standard manufacturer practice of approved make.

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83	VOL04 TECHNICAL SPECS		CLAUSE NO. 10.09	BUS TRUNKING/ RISING MAINS	Can we consider 8 KV impulse voltage in place of 12KV mentioned in the specs. As most of the manufacturer given in the approved make list do not offer bus duct with 12KV impulse voltage. Please confirm.	12 KV as per specs.
84	VOL05 BOQ		SUBHEAD 1: H.T. SUB STATION	MS Cable Tray	As per BOQ 12mm ms rod is mentioned. But in specification clause 13.8, 10mm ms rod suspender is mentioned. Please confirm.	as per specs. 10 mm MS rod suspender
85	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.3.4	DG Sets	Please mention the altitude & ambient temperature for mounting DG Sets.	DG sets will be installed at NCI Badsha, Jhajjar, Haryana
86	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.4.3 (b)	DG Sets: Speed and Vibration Levels	As per manufacturer standards, The engine vibration level shall be 250 microns instead of 100 microns as mentioned in specs. Please confirm.	as per CPCB Norms amended upto date
87	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.4.5 (a)	DG Sets: Fuel System	As per IS 1460 only HSD fuel is capable for engine running. Please clarify.	HSD will be used as per DG set
88	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.4.12 (b)	DG Sets: Starter Battery	As per manufacturer standards the battery stand shall be of MS type instead of teakwood type. Please confirm.	MS battery stand accepted.
89	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.5.8	DG Sets: Ventillation	As per manufacture standard DG set provided shall be self ventilated if placed in open area and also there is no requirement of Axial Flow fans. Please confirm.	DG sets will be outdoor
90	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.5.8	DG Sets: Ventillation	As per CPCB norms noise insertion loss shall be 25 dBA at one meter distance from DG set under free field condition. Please confirm.	As per CPCB Norms amended upto date.
91	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.12	DG Sets; Testing and commissioning	All the consumables required for testing and Commissioning at site like load, water etc. shall be provided to us free of cost. Please confirm	All consumables will be provided by contractor.
92	VOL05 BOQ		SUBHEAD 3 : DG SET & ACCESSORIES	DG PROTECTION AND AMF COMPONENTS :(IF PROTECTION ARE INBUILT IN ENGINE CONTROLLER/GCU, NOT REQUIRE ANY SEPARATE RELAY)	Duplicity of protections that are inbuilt feature of controller will not be offered separately.	OK
93	VOL05 BOQ		SUBHEAD 3 : DG SET & ACCESSORIES	DG Sets: Auxiliary Panel	In incomer/aux panel, can we consider fixed type single MCCB with power contactor instead of motorized MCCB as mentioned in BOQ. Please confirm	250Amp FP MCCB with microprocessor based release having variable current settings of O/L, S/C & inbuilt E/F protection release accepted
94	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.6.1 (d)	DG Sets: AMF Panel	As per manufacturer standard the Phase to earth clearance will be 19 mm instead of 20 mm. Please confirm.	As per IS/CPWD norms
95	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.6.3	DG Sets: Control Panel	Can we consider single combined MFM size 96x96 sqmm Instead of separate meter. Please confirm.	As per BOQ
96	VOL04 TECHNICAL SPECS		CLAUSE NO. 8.8.5	DG Sets: PLC	Only DG to DG synch will be provided. Any kind of grid synch will not be considered in the offer. Please confirm.	Grid synchronization has not been considered. only DG to DG Synchronization is there as per BOQ.
97	VOL04 TECHNICAL SPECS		CLAUSE NO 8.6.3 (22,23)	DG Sets: Control Panel	Can we offer only 1No. Under Voltage & Over Voltage protection for Dg control & for mains can we consider voltage monitoring relay.	As per BOQ
98	VOL05 BOQ		SUBHEAD 3 : DG SET & ACCESSORIES	DG Sets	As per manufacturer standards the 990 Ltr day oil tank shall be placed outside the enclosure.	Ok
99	VOL04 TECHNICAL SPECS		LIST OF APPROVED MAKES FOR ELECTRICAL	BMS	We hereby request you to add the Delta- Loytec make for BMS in addition to approved LOM.	BMS is not part of BOQ



Sl.No	Ref.	Page no.	Clause No	Tender Description	Bidder Queries	Reply
100	Volume I - Page 38, Clause (vi)			Operation & Maintenance Period - During Defect Liability Period, i.e. 12 months	Please clarify the manpower details required and the number of shifts for operation to be considered. Please also confirm whether this will be considered under Bid Evaluation or not.	Only Maintenance work of entire systems carried out by the contractor during DLP.
101	Vol I - Page no 27- Point vi - NIT & PQ			The Defects Liability Period shall be up to 12 months from the date of Completion of works	We request you to accept the "Defect liability period as 12 months from the date of commissioning or 15 months from the date of delivery, which ever ends earlier."	Tender condition shall prevail.
102	Vol I - Page 48			Undertaking - Form H	Please confirm for which Items, we need to furnish this Undertaking.	Undertaking -Amended Form H, attached at <b>Annexure - I.</b>
103	Vol I - Page 55			Form T-4 - Performance Report of Works	Please confirm whether we can furnish the Completion Certificate as per standard format of Client, inplace of the given format.	Tender condition shall prevail.
104	Vol II GCC - Clause 25			SETTLEMENT OF DISPUTES & ARBITRATION	All disputes to be resolved by one arbitrator from each side (Client & Contractor) and third selected by both the parties.	Tender condition shall prevail.
105	Volume II GCC - Clause 37			LEVY/TAXES PAYABLE BY CONTRACTOR	Please confirm that Service Tax to be excluded from our Rates to be quoted and it shall be re-imbursed to us on documentary proof.	Ref. Clasue no.2.3.7 of Vol.I (NIT/PQ) & Cl.No. 37 of Vol.-II (GCC).
106	Volume II GCC - Clause 37			LEVY/TAXES PAYABLE BY CONTRACTOR	Please confirm whether Labour Cess to be included in our rates or not.	Ref. Clasue no.2.3.7 of Vol.I (NIT/PQ).
107	Volume II - GCC Clause 2 - Page 17 of 122			Compensation for Delay	We request you to accept the Compensation of delay shall be 1.5% per month subject to maximum of 5% of the contract value.	Tender condition shall prevail.
108	Vol II GCC - Clause 10 C, Page 34 of 122 & Clause 38, Page 70 of 122			Variation in Taxes and Duties and Imposition of New Taxes	The statutory variation in prevailing taxes & duties, along with new levy or imposition of GST due change in govt. rules and regulation during the currency of the project, will be re-imbursed against the documentary evidences.	Ref. Cl.No. 38 of Vol.-II (GCC).
109	Vol V - BOQ - Item no. 1.03			Transformer BOQ asks for "inclusive of all control cables".	We request you add separate line item for Control Cables as made for Power Cables to be precise in working.	As per BOQ
110	Vol IV - Spec - Clause 4.01, Page E- 10 R1			Transformer Specs asks for "The Transformer loss shall be as per IS 1180 Amended upto date"	IS 1180 specifies Transformer losses as Level 1 / Level 2 / Level 3. Please clarify we have to consider Level 1 losses specified in IS 1180.	OK, Level-1
111	Vol V - BOQ - SUBHEAD 1, Sr. No. 1 : HT Panel			BOQ asks for 500 MVA (26.3KA) rupturing capacity Vacuum Circuit Breaker.	Please specify the Withstand time i.e. 1 sec or 3.0 secs.	withstand time 1 sec
112	Vol V - BOQ - SUBHEAD 1, Sr. No. 1.04 : Bus Ducts			BOQ asks for 65KA short cirucit current capacity for 1000A Bus Duct	Request you to approve 50KA short cicut current capacity for 1000A otherwise the size of the Bus Duct shall be changed to 1250A for 65KA capacity.	As per BOQ
113		BOQ-E 3 R0	1.03	Transformers		
114						
115		BOQ-E 12 R0	2.03	ACTIVE HARMONIC FILTER(AHF) 300Amps at 440V	Request to give approval of M/s <b>P2 Power Solutions Pvt. Ltd.</b> make also.	Additional Make: Schneider.
116		BOQ-E 13 R0	3.01	1250KVA DG SETS		

Sl.No	Ref.	Page no.	Clause No	Tender Description	Bidder Queries	Reply
117				Exhaust pipe/ Chimney	Request to clarify the exhaust pipe support structure, whether it is Self supporting Structure, or along with wall/ in shaft, Please confirm.	Self supporting structure.
118		BOQ-E 18 R0	3.05	Under Ground Tank 20 KL	The location of 6 Nos 1250KVA DG sets, whether all in one place only or in different location, If different location how to supply the diesel from Under ground Tank to each DG sets. Please furnish the DG sets (ESS-1, ESS-2) & under ground tank location layout drawings to work out the oil piping & accessories..	Location including Transformer/DG/Panels enclosed
119		BOQ-E 18 R0	3.06	Axiliary Panel		
120				c) OUTGOING:		
121				i) 16 Sets of 5 -7.5 HP DOL starter Feeder	Request to review/ confirm the Qty of 16 sets DOL starter feeder,	as per BOQ
122				Single Line Diagram of Electrical system	Request to furnish the SINGLE LINE DIAGRAM of Electrical system, No drawing is available in the tender document.	SLD will be provided to Successful bidder
123					Please accept above capacitor deviations.	
124	BOQ :			2) a) Incomer: Day & Night mode selector switch	The capacitor panel is of automatic power factor correction type and there is no day/night mode option. However, A/M selector switch shall be provided for operation in auto and manual mode. Please confirm.	as per tender
125				3) 14 steps intelligent microprocessor based APFCR.	Considered 12 stage/steps APFCR since step configuration is 11 step only. Please confirm.	as per BOQ
126				4) 1 set of digital amp meter, digital P.F. meter & digital voltmeter	Considered 1 no. Digital VAF & P.F. meter. Please accept the same.	as per BOQ
127				5) 415V, TP capacitor duty contactor suitable for capacitive switching including current limiting contactor circuit.....	Considered suitably rated power contactor alongwith 14% detuned filters/reactors to limit the high inrush currents. For 100KVA - 200A, TP, AC3 duty power contractor For 50 KVA - 95A, TP, AC3 duty power contractor Please confirm.	OK
128				6) 415V, 14% copper wound D-tuned reactor suitable for 50 KVA step. This 50KVA further connect parallel (2x50KVA) to make physically 100KVA steps for effective heat dissipation.	Considered 100KVA reactors only. Please accept the same.	As per standard manufacturer practice.
129				7) Make of Timers	Please accept GIC make timers	as per tender
130				8) 100KVA heavy duty MPP type capacitors suitable for non-linear loads upto 15% and total.....	100KVA (4x25 KVA) heavy duty MPP type capacitor have been considered.	As per standard manufacturer practice.
131				8) 50KVA heavy duty MPP type capacitors suitable for non-linear loads upto 15% and total.....	50KVA (2x25 KVA) heavy duty MPP type capacitor have been considered.	As per standard manufacturer practice.
132	Main LT Panels					
133	Clause no.6.2 of Tech.Specs Page No.29 Ri Para regarding clearances			Apparatus forming part of Main/Sub Panels shall have following min.clearances - i) Between phases - 32 mm ii) Between phases & neutral - 26 mm iii)Between phases & earth - 26 mm iv)Between neutral & earth - 26 mm	Clearances and creep age distances shall be as per IEC 61439 standards.	panel shall be fabricated as per IS 60439

Sl.No	Ref.	Page no.	Clause No	Tender Description	Bidder Queries	Reply
134	List of approved makes			Following are the makes of cable, cable trays, lighting fixtures mentioned in the list of approved makes of tender - i) HT/LT Cables - CCI/Universal Finolex/Rallison ii) Cable Trays - OBO/Legrand/Cooper/BEC iii) Lighting Fixtures - Philips/GE/CGL iv) LED light fitting & fixture - Philips/GE/CGL/Syska/Instapower	Please approved following additional makes which are equivalent makes being used in the industry :- i) HT/LT Cables - KEI/Polycab/RPG/Havells ii) Cable Trays - Profab/MEM/Indiana iii) Lighting Fixtures - Wipro/Bajaj iv) LED light fitting & fixture - Wipro/Bajaj	No change as per approved make
135	Sl.no. 1.28 on page 15			Format of Indemnity Bond	Please give Format of Indemnity Bond to be furnished alongwith pre-qualification documents.	Shall be as per tender condition.
136	GCC Vol-II				Integrity Pact as per pages 03 to 10 will be signed and submitted by successful bidder after Letter of Award is received.	Shall be as per tender condition.
137					Request for Adding the make of Transformer like Voltamp, CGL ,Kirloskar	No change
138					Request for sharing the layout & SLD for Substation works i.e. External works as well as Electrical Works (Internal).	shall be provided to successful bidder
139					Request for sharing the Soil bearing capacity & Soil resistivity value.	Ref. Cl. No.1.17 of Vol.-I (NIT/PQ).
140					Request for sharing the Clear & Firm Technical specification required for LT & MV Panels intended to be used in the in the tender	as per tender
141	Main LT Panel				Clarify the port and communication protocol required for BMS compatibility	RS 485 port in MFM
142					Clarify communication protocol required for Multi-functional meter. Only MFM shall be provided with comm. Facility. Rest meters shall be without comm. Facility. Accuracy class of MFM is not mentioned	OK
143					Temperature rise shall be as per IEC standard only. Kindly confirm	As per IEC60439
144					MFM shall be provided instead of digital ammeter, voltmeter & power factor meter in capacitor panel. Kindly confirm	AS per BOQ
145					Thickness of load bearing & non-load bearing members shall be 2mm & 1.6mm respectively.-	OK
146					Maximum height of panels shall be 2550mm depending upon the rating of panels	As per IEC 60439
147					Clearance between the phases and phase –neutral shall be IEC or CPWD. Kindly confirm	As per IEC 60439
148					Aluminium busbar is considered in line with specification	As per respective BOQ item
149					Degree of protection for rating upto 1600A & above 1600A shall be IP52 and IP4X respectively. Kindly confirm	Indoor type installations. degree of protection as per CPWD.
150					Kindly add Make of CTs/PTs – Precise / Indcoil	As per approved make list
151	HT Panel					
152					Digital frequency, tri-vector & power factor shall be a part of MFM meter only	AS per BOQ

Sl.No	Ref.	Page no.	Clause No	Tender Description	Bidder Queries	Reply
153					Technical specifications of Ht cable is not provided in the tender documents but in the BOQ it is mentioned that cables should be as per IS : 7098 we can offer cable as per IS : 7098 but if any technical specification is available with you please provide for value addition.	As per IS : 7098
154					Please provide tentative cable route diagram for HT cable laying	As per actual site condition.
155					Pl advice whether bidder's experience outside India will be considered for the said project	Experience within India shall only be considered.
156					We understand that the meaning of "government agency" mentioned in clause 2.2.1 on page no. 18 of ITB stands for all government agencies of centre and state governments of India only	Yes
157					We understand that in pt no. 3 of AFFIDAVIT (Form K) in Vol I page 49 , "government agency" stands for Indian Government / state government agencies only	Yes
158	Vol.-IV (Tech. Specs)			Make List	Amended Make List	Attached at <b>Annexure -II.</b>

**The Validity of Bid Security/ EMD in the form of Bank Guarantee (BG) will be considered from the original due date of bid submission i.e. 07.02.2017**

**All other terms & Conditions of the Tender shall remain unchanged.**

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

(-Sd-)  
**General Manager (Elect.), HSCC (India) Ltd.,  
for & on Behalf of Director, AIIMS, New Delhi**

**AMENDED FORM - H**

**UNDERTAKING**

We do hereby undertake to engage a specialised agency after approval of \_\_\_\_\_ for undertaking the execution of specialized works (\_\_\_\_\_ Name of the specialized work \_\_\_\_\_) whose minimum qualification shall be as under:

I. For DG Set Works:

(i) **Experience of having successfully completed works during last seven years ending last day of the month previous to the one in which applications are invited.**

(a) Three similar completed works each of value not less than 40% of the estimated cost put to tender with capacity of individual DG Set being 80% of the individual capacity (rounded off to next available higher capacity) of the equipment i.e. DG Set proposed in the NIT.

OR

(b) Two similar completed works each of value not less than 60% of the estimated cost put to tender with capacity of individual DG Set being 80% of the individual capacity (rounded off to next available higher capacity) of the equipment i.e. DG Set proposed in the NIT.

OR

(c) One similar completed work of value not less than 80% of the estimated cost put to tender with capacity of individual DG Set being 80% of the individual capacity (rounded off to next available higher capacity) of the equipment i.e. DG Set proposed in the NIT.

All amounts rounded off to a convenient figure.

**(Authorized Signatory of bidder)**

## ANNEXURE - II

### Amended Make List :-

S.No.	ITEM	MAKE
1	Main LT Panel/ APFC panels /Main AC panel	Siemens/ L&T/ABB/Schneider/ SPC Electro Tech Limited/ Tricolite/Adlec
2.	ACB	L &T 'U' Power(Omega)/ Siemens 3WL/ ABB/ Schneider (NW- Master Pact)
3.	Moulded Case Circuit Breaker	L &T – (D sine/DL) / Siemens-VA/ ABB-TMA/ Schneider (Compact NSX)
4.	Cable Trays/ Raceways	OBO/ Legrand/ Cooper/BEC /Pilco Marketing and manufacturing Pvt.Ltd/Profab Engineers
5.	Active Harmonic Filter	Siemens/ L&T/ EPCOS/ ABB/Schneider

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NOTES

LEGEND OF PROPOSED FACILITIES

- C.H CANCER HOSPITAL
- C.R. CLINICAL RESEARCH
- A.R ADMIN & RESEARCH
- OPD OPD
- OF. OFFICES
- R.H RESEARCH HOATEL
- S. SERVICES BLOCK
- P. PLAZA

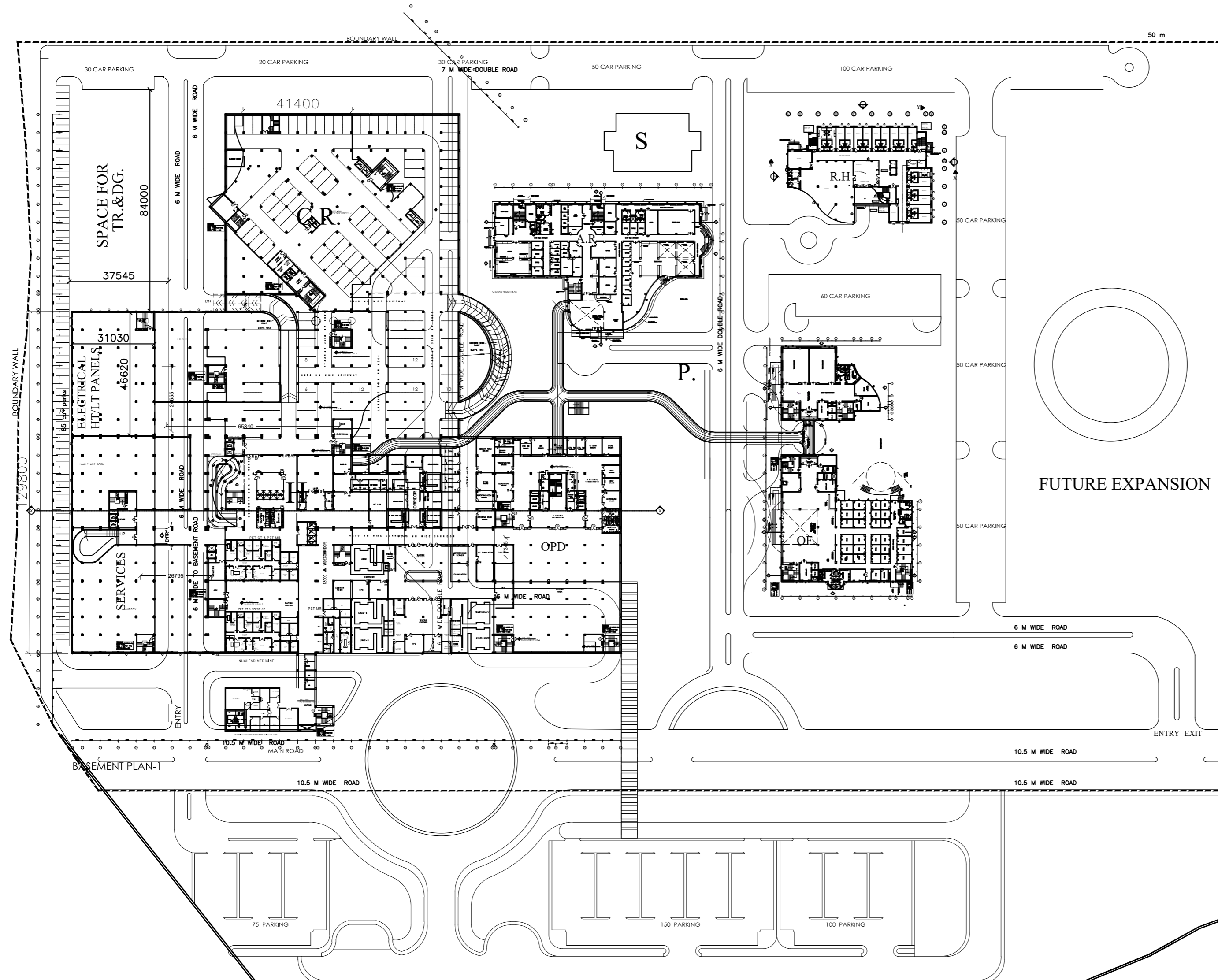
-  PROPOSED BLOCKS
-  PLAZA

NCI JAHJJAR INSTITUTIONAL COMPLEX			
		NO. OF FLOORS	FAR AREA
TOTAL AREA OF PLOT	129536	32	ACRE
PERMISSIBLE GROUND COVG.	32384	25%	
PROPOSED GROUND COVG.	24699	19%	
PERMISSIBLE FAR	194304	150%	
PROPOSED FAR	118346	91%	
NAME OF BLOCKS	NO. OF FLOORS	GROUND COVG.	FAR AREA
HOSPITAL	G+8	7380	47497
CLINICAL RESEARCH	G+6	3500	17474
ADMIN. & RESEARCH	G+5	2826	13500
OPD	G+4	2245	10323
P.C. TEACHING	G+5	2750	14082
RESEARCH HOSTEL	G+5	1568	7375
SERVICES	G+1	3120	6000
PLAZA		1310	
<b>TOTAL</b>		<b>24699</b>	<b>116251</b>
BASEMENT 1	TOTAL AREA	20521	
	PARKING AREA	12264	
	SERVICES	8251	
	FREE OF FAR	6156	(INFAR) 2095
BASEMENT 2	TOTAL AREA	(FREE OF FAR) 6231	
<b>TOTAL FAR AREA</b>			<b>118346</b>

\* ALL AREAS ARE IN SQUARE METER

STADIUM  
AREA : 6.552 ACRES

FUTURE EXPANSION



REV	DATE	DESCRIPTION

PROJECT  
ALL INDIA INSTITUTE OF  
MEDICAL SCIENCES  
(AIIMS)  
AT VILL. BARHSA  
JHAJJAR HARYANA

TITLE  
NATIONAL CANCER  
INSTITUTE  
MASTER PLAN  
AIIMS,  
JHAJJAR CAMPUS

HSCC/NCI/AIIMS/MASTER PLAN		Rev.
Drawing No.		
Job No.	1:3000 Scale	Date:
App by	Rev. by	Prep. by

HSCC (INDIA) LIMITED  
(A GOVERNMENT OF INDIA ENTERPRISES)  
**HSCC**  
NEW DELHI INDIA