

Notice Inviting Bid

Name of Work:

SITC of Integrated Network Operation Center (NOC) and IT support centre at JDA with Facility Management Services for 5 years

SINGLE STAGE TWO PART BID

JAIPUR DEVELOPMENT AUTHORITY

OFFICE OF EXECUTIVE ENGINEER (ELECT.-II)

ROOM NO. 26, MAIN BUILDING RAM KISHORE VYAS BHAVAN, INDIRA CIRCLE,
JAWAHAR LAL NEHRU MARG, JAIPUR – 302 004

TELEPHONE & FAX : +91-141-2569696

E.MAIL : ee.electric@jaipurjda.org

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जयपुर विकास प्राधिकरण, जयपुर

पी.बी.-एस.एफ-201, पार्किंग बिल्डिंग, द्वितीय तल, इन्दिरा सर्किल जवाहर लाल नेहरू मार्ग, जयपुर-302004
दूरभाष 91-141-2569696 एक्सटेंशन नं. 8800

क्रमांक JDA/EE (Elect.-II) / Smart City / 2016-17/D- SP 1 दिनांक 18/10/2016

अल्पकालीन निविदा सूचना

Short Term NIB No.: JDA/Ex. Eng. Elect.-II/06/2016-17

जयपुर विकास प्राधिकरण द्वारा "SITC of Integrated Network Operation Center (NOC) and IT support center at JDA with Facility Management Services for 5 years" के लिए ऑनलाईन बिड्स दिनांक 07/11/2016 को 3:00 बजे तक आमन्त्रित की जाती है। निविदा बोली का ऑनलाईन आवेदन व भूगतान जविप्रा पोर्टल पर करने की अन्तिम तिथि 07/11/2016 को 3:00 बजे तक है। निविदा बोली के दस्तावेजों का विस्तृत विवरण www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in and www.jda.urban.rajasthan.gov.in पर देखा जा सकता है।

निविदा में भाग लेने वालों को निम्न शर्तों की पूर्ति करनी होगी।

1. निविदा दाता जयपुर विकास प्राधिकरण की वेबसाइट www.jda.urban.rajasthan.gov.in पर पंजीकृत हो एवं निविदा में भाग लेने के लिए बोलीदाता को आवेदन करने के लिए दस्तावेज शुल्क, अमानत राशि, आर.आई.एस.एल. प्रोसेसिंग शुल्क ऑनलाईन जमा करनी होगी।
2. ऑनलाईन निविदा प्रस्तुत करने के लिए निविदा दाताओं का राजस्थान सरकार के ई-प्राक्यूमेंट पोर्टल www.eproc.rajasthan.gov.in पर पंजीकृत हो।

-Sd-

Executive Engineer (Elect.-II)
Procuring Entity

JAIPUR DEVELOPMENT AUTHORITY

PB-SF-201, Room No. 201, Second Floor, Parking Building, Ram Kishore Vyas Bhawan, Indira Circle, Jawahar
Lal Nehru Marg, Jaipur – 302 004 (Rajasthan)

No. JDA/EE (Elect.-II) / Smart City / 2016-17/D- SP 1 दिनांक 18/10/2016

SHORT TERM NOTICE INVITING BID

NIB No.: JDA/Ex. Eng. Elect.-II/06/2016-17

Online Bids are invited up-to 3:00 PM of 07/11/2016 for "SITC of Integrated Network Operation Center (NOC) with IT support system at JDA with Facility Management Services for 5 years" The last date for Applying Bid and making online payment on JDA portal is up-to 3:00 PM of 07/11/2016. Details may be seen in the Bidding Document at our office or the State Public Procurement Portal website www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in and www.jda.urban.rajasthan.gov.in.

To participate in the bid, bidder has to be:

1. Registered on JDA website www.jda.urban.rajasthan.gov.in
For participating in the Bid, the Bidder has to apply for the Bid and pay the Bidding Document Fee, RISL Processing Fee and Bid Security Deposit, online only.
2. Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e-Bid submission.

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Executive Engineer (Elect.-II)
Procuring Entity

Detailed Short Term NIB	
Name & Address of the Procuring Entity	<ul style="list-style-type: none"> ➤ Name: Executive Engineer (Elect.-II), Jaipur Development Authority ➤ Address: Room No. 26, Main Building, Second Floor, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur – 302 004 (Rajasthan) ➤ e-mail : ee.electric@jaipurjda.org
Subject Matter of Procurement	➤ SITC of Integrated Network Operation Center (NOC) and IT support system at JDA with Facility Management Services for 5 years
Bid Procedure	➤ Single-stage Two part open competitive eBid procedure at http://eproc.rajasthan.gov.in
Bid Evaluation Criteria (Selection Method)	➤ Least Cost Based Selection (LCBS)-L1
Websites for downloading Bidding Document, Corrigendum's, Addendums, etc.	➤ Websites: www.sppp.rajasthan.gov.in , www.eproc.rajasthan.gov.in , www.jda.urban.rajasthan.gov.in
Website for online Bid application and payment *	<ul style="list-style-type: none"> ➤ Website: www.jda.urban.rajasthan.gov.in ➤ For participating in the Bid, the Bidder has to apply for this Bid and pay the Bidding Document Fee, RISL Processing Fee and Bid Security Deposit, online only. <ul style="list-style-type: none"> ○ Bidding document fee: Rs. 400.00 Rupees (Four Hundred only) ○ RISL Processing Fee: Rs. 1000.00 (Rupees One Thousand only) ○ Requisite Bid Security Deposit
Estimated Procurement Cost	➤ INR 5,00,00,000.00 (Rupees Five Crore Only)
Bid Security Deposit	<ul style="list-style-type: none"> ➤ Amount (INR) : 2% of Estimated Procurement Cost, 0.5% of S.S.I. of Rajasthan, 0.5% for Bidder registered as contractor in JDA, 1% for Sick Industries, other than S.S.I., whose cases are pending with Board of Industrial & Financial Reconstruction ➤ In case of Departments' of the State Government and Undertakings, Corporations, Autonomous bodies, Registered Societies, Cooperative Societies which are owned or controlled or managed by the State Government and Government Undertakings of the Central Government shall submit a bid securing declaration in lieu of bid security.
Applying Bid and making Online Payment on JDA portal	<ul style="list-style-type: none"> ➤ Start Date: 21/10/2016 at 05:00 PM onwards ➤ End Date: 07/11/2016 at 03:00 PM ➤ In case EMD in form BG Original Bank Guarantee is to be submitted in Room No. MB-SF-226 of Main Building, Jaipur Development Authority by 07/11/2016 by 3:00 PM.
Bid Submission on e-Procurement Portal of GOR	<ul style="list-style-type: none"> ➤ Start Date: 21/10/2016 at 05:00 PM onwards ➤ End Date: 07/11/2016 at 03:00 PM
Date/ Time/ Place of Technical Bid Opening	<ul style="list-style-type: none"> ➤ 07/11/2016 at 05:00 PM ➤ PB-SF-201, Room No. 201, Second Floor, Parking Building, Ram Kishore Vyas Bhawan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur – 302 004 (Rajasthan)
Date/ Time/ Place of Financial Bid Opening	➤ Will be intimated later to the Technically qualified bidders
Bid Validity	➤ 90 days from the bid submission deadline
A. Payment Options: Option-1: Bank Guarantee (BG) against EMD / Bid Security Bidder may opt Bank Guarantee (BG) against EMD (Bid Security), for which bidder requires to prepare BG before applying in the tender. The details of BG requires to be fed on JDA portal before paying balance amount (Tender Fee + RISL Processing Fee). This amount will be paid through Payment Gateway only , option to make balance payment through EFT (RTGS/NEFT) will not be available. If bidder does not opt for BG against EMD, options of making complete payment through Payment Gateway or through EFT (NEFT / RTGS) will be available. Option-2: Electronic Fund Transfer (EFT: NEFT/RTGS) If the bidder selects payment mode as EFT (NEFT/RTGS), “ Paying Slip for EFT (NEFT/RTGS) ” will be generated by the system for the complete amount. The payment can be made from any Bank any Branch using this Paying Slip through NEFT/RTGS (Claim against payment made through EFT in any other JDA bank account will not be acceptable and bidder stands disqualified from participation in the bid applied for). After successful	

transaction through NEFT/RTGS, as per the standard procedures it may take 4 to 24 hours in process of confirmation of EFT through Auto-Process depending on the time of EFT done. Therefore, option to make payment through EFT (NEFT/RTGS) will be available till 2 days prior to closing date of bid participation.

Option-3: Payment Gateway (Aggregator)

The facility to make payment through Debit Card, Credit Card, Net banking etc., will be available. User can use this facility from **anywhere any time** till the closing date & time of bid participation.

B. Bid Participation Receipt

After confirming payment, the bidder will get Bid Participation Receipt on the basis of which user will get the payment details along with other details for bidding on e-Procurement portal of GOR.

- In case of BG as the remaining payment will be done through Payment Gateway, on successful transaction the **"Bid Participation Receipt"** will be generated on real time basis.
- In case complete payment is done through Payment Gateway, on successful transaction the **"Bid Participation Receipt"** will be generated on real time basis.
- In case complete payment is done through EFT (NEFT/RTGS), on confirmation of payment from ICICI Bank (Auto Process) **"Bid Participation Receipt"** will be available on Login of Bidder on JDA portal.

Note:

1. Bidder (authorised signatory) shall submit their offer on-line in Electronic formats both for technical and financial proposal.
2. In case, any of the bidders fails to pay the Tender Fee, BSD, and RISL Processing Fee, online (subject to confirmation), its Bid shall not be accepted.
3. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Type III) as per Information Technology Act-2000 using which they can digitally sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e. TCS, Safecrypt, Ncode etc. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC. Also, bidders must register on <http://eproc.rajasthan.gov.in> (bidders already registered on <http://eproc.rajasthan.gov.in> before 30-09-2011 must register again).
4. JDA will not be responsible for delay in online submission due to any reason. For this, bidders are requested to upload the complete bid well advance in time so as to avoid 11th hour issues like slow speed; choking of web site due to heavy load or any other unforeseen problems.
5. Bidders are also advised to refer "Bidders Manual Kit" available at eProc website for further details about the e-Tendering process.
6. Training for the bidders on the usage of e-Tendering System (eProcurement) is also being arranged by DoIT&C, GoR on a regular basis. Bidders interested for training may contact e-Procurement Cell, DoIT&C for booking the training slot.
Contact No: 0141-4022688 (Help desk 10 am to 6 pm on all working days) e-mail: eproc@rajasthan.gov.in
Address : e-Procurement Cell, JDA, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur
7. The procuring entity reserves the complete right to cancel the bid process and reject any or all of the Bids.
8. No contractual obligation whatsoever shall arise from the bidding document/ bidding process unless and until a formal contract is signed and executed between the procuring entity and the successful bidder.
9. Procurement entity disclaims any factual/ or other errors in the bidding document (the onus is purely on the individual bidders to verify such information) and the information provided therein are intended only to help the bidders to prepare a logical bid-proposal.
10. The provisions of RTPPA Act 2012 and Rules thereto shall be applicable for this procurement. Furthermore, in case of any inconsistency in any of the provisions of this bidding document with the RTPPA Act 2012 and Rules thereto, the later shall prevail.

-Sd-

Executive Engineer (Elect.-II)
Procuring Entity

Process for Participation & Depositing Payment Online

JAIPUR DEVELOPMENT AUTHORITY, has decided to receive Bidding document fee, RISL Processing Fee and Bid Security Deposit (BSD) through online mode only for which the bidder has to get registered himself on JDA portal www.jaipurjda.org.

To participate in the bid, bidder has to be:

- a) Registered on JDA website www.jaipurjda.org (by depositing Rs. 500.00 online, the validity of which remains 3 (three) years).
For participating in the Bid, the Bidder has to apply for this Bid and pay the Bid Document Fee, RISL Processing Fee and Bid Security Deposit, online only.
- b) Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e-Bid submission.
- c) The Bid Document Fee, RISL Processing Fee and Bid Security Deposit are in addition to the JDA registration fee.

Methods for depositing on line amount

- Online through Internet Banking, Debit Card or Credit Card.
- In case the amount exceeds the online payment limit, the payment may be made through RTGS / NEFT / Transfer in Bank Account Number **675401700586** IFSC Code **ICIC0006754** of ICICI BANK Limited, JDA Campus Jaipur.

In case of RTGS / NEFT / Transfer the bidder is required to deposit the requisite amount in the dedicated bank account number as mentioned above and has to get the UTR / Reference number from the bank. This number requires to be updated while applying the bid on JDA portal.

While participation in the bid, a receipt will be generated through the system showing the submission details as per Bid Participation Receipt (Sample Enclosed). The bidder is required to fill the instrument numbers for various heads on e-Procurement portal www.eproc.rajasthan.gov.in as mentioned in the receipt.

Sample of Bid Participation Receipt:

Jaipur Development Authority

Bid Participation Receipt

Date & Time : 09/06/2015 05:13 PM

Bid Detail

Bid Id : 6215152001	Procurement Entity : XXXXXXXXXXXXX
Bid Title : Testing	
Bid Value : 300000	Bid Opening Place : Manthan Hall, Jaipur Development Authority

Bidder Detail

Name of Entity :	XXXXXXXXXX	Mobile:	9829012345
Registration Type:	Individual	Instrument Amount :	32500.00
Payment Mode:	Online/UTR	Payment Channel :	Payment Gateway/ICICI Branch - JDA
Instrument No :	456123789	Instrument Date :	17-06-2015

Dates Detail

Sr. No.	Event Name	Event Date
1	Publishing Date	01/06/2015 01:00 PM
2	Bid Opening Date	01/07/2015 03:00 PM

Specific Instrument Detail for eProc Rajasthan

Instrument Type: DD			
Instrument Number	Head Name	Amount	Date
10000	Tender Fee	400.00	05/06/2015
10001	RISL Processing Fee	1000.00	05/06/2015
10002	Bid Security Deposit	30,000.00	05/06/2015
Issuer Detail : Jaipur Development Authority		ChallanNumber: 641515600014	

More details about Registration Process, Terms and Conditions and FAQ along with contact detail is available on JDA website www.jaipurjda.org under e-Services>>JDA Tender.

Abbreviations & Definitions

JDA	Jaipur Development Authority
GOR	Government of Rajasthan
Act	The Rajasthan Transparency in Public Procurement Act, 2012 and Rules 2013, Government of Rajasthan, Rajasthan
Procurement/ Public Procurement	The acquisition by purchase, lease, license or otherwise of works, goods or services, including award of Public Private Partnership projects, by a procuring entity whether directly or through an agency with which a contract for procurement services is entered into, but does not include any acquisition without consideration, and "procure" or "procured" shall be construed accordingly
Procuring Entity /Purchaser/ Tendering Authority/ Buyer	Person or entity that is a recipient of a good or service provided by a Bidder / Supplier/Seller under a purchase order or contract of sale.
Bidder / Supplier/Seller	A company registered under Indian Companies Act, 1956 or a partnership firm registered under Partnership Act or a proprietorship firm.
Bidding Document	Documents issued by the procuring entity, including any amendments thereto, that set out the terms and conditions of the given procurement and includes the invitation to bid
Authorised Signatory	The bidder's representative/ officer vested (explicitly, implicitly, or through conduct) with the powers to commit the authorizing organization to a binding agreement. Also called signing officer/ authority having the Power of Attorney (PoA) from the competent authority of the respective Bidding firm.
Bid/ eBid	A formal offer made in pursuance of an invitation by a procuring entity and includes any tender, proposal or quotation in electronic format
Bid Security Deposit	A security provided to the procuring entity by a bidder for securing the fulfilment of any obligation in terms of the provisions of the bidding documents. Also called as BSD.
Contract/ Procurement Contract	A contract entered into between the procuring entity and a successful bidder concerning the subject matter of procurement
Contract/ Project Period	The Contract/ Project Period shall commence from the date mention in the Work Order
AoC	Award of Contrat
AoS	Award of Service
BoS/ BoQ	Bill of Service/Bill of Quantity
BG	Bank Guarantee
Day	A calendar day as per GoR/ GoI.
INR	Indian Rupee
ITB	Instruction to Bidders
JDA	Jaipur Development Authority
LD	Liquidated Damages
MAF	Manufacturer's Authorization Certificate
NIB	Notice Inviting Bid
NOC	Network Operations Centre
PAN	Permanent Account Number

PBG	Performance Bank Guarantee
PC	Procurement/ Purchase Committee
PQ	Pre-Qualification
PSD/ SD	Performance Security Deposit/ Security Deposit
RISL	RajCOMP Information Services Ltd.
Services	Any subject matter of procurement other than goods or works and includes physical, maintenance, professional, intellectual, consultancy and advisory services or any service classified or declared as such by a procuring entity and does not include appointment of any person made by any procuring entity
SLA	Service Level Agreement is a negotiated agreement between two parties wherein one is the customer and the other is the service provider. It is a service contract where the level of service is formally defined. In practice, the term SLA is sometimes used to refer to the contracted delivery time (of the service) or performance.
VAT/ CenVAT	Value Added Tax/ Central VAT
WO/ PO	Work Order/ Purchase Order
QGR	Quarterly Gross Receipt

Section 1: Project Profile & Background Information

- 1.0 The Jaipur Development Authority (JDA) was established in the year 1982. JDA was created by the State government of Rajasthan with a vision to combat and manoeuvre the growing requirements of a large city in wake of the increasing population and to help give Jaipur a planned look compatible and comparable to any metropolitan city of repute. For this motive JDA was given powers and a green signal to speed up the development and progressive growth of the entire city.
- 2.0 The initiative of the e-governance projects the major work area is being rendered through IT based solutions. Many activities are now performed through IT support solutions.
- 3.0 JDA is committed to working for the benefit of the citizens of Jaipur with planned implementation of development schemes and is consistently striving to take Jaipur to higher levels of progress. To meet its objective, JDA intends to provide, safety and security solutions, cost effective and easy access to information, through multiple devices to residents of Jaipur.
- 4.0 The initiative of the e-governance projects the major work area is being rendered through IT based solutions. Many activities are now performed through IT support solutions.
- 5.0 JDA under Jaipur smart city project phase 1 and 2 has already initiated the process of developing Jaipur City as a Smart City with the use of IT/ICT based interventions, wherein end use cases such as Wi-Fi Hotspots, Interactive Information Kiosk, Remote Kiosk for Government Services, IP Surveillance, Environmental Sensor, Parking Information system and smart Lighting solutions have been installed at selected locations of Jaipur City.
- 6.0 The above solutions are being managed at JDA in Network Operation Centre (NOC) at 2nd floor of CCC building, JDA. As now the smart solutions are expanding and a 3rd phase RFP has been floated to this effect. The present NOC establishment is not sufficient to cater to requirement of establishing smart racks/servers for these solutions and also the space for sitting the monitoring staff / officials is not sufficient.
- 7.0 It has been decided that an integrated NOC at ground floor of CCC building, JDA is to be established which shall have space for monitoring NOC room, UPS/battery room, reception, server room and conference room. This NOC shall also include JDA IT support center. The presently IT staff sitting in the ground floor of CCC building, JDA shall be shifted Room No. 215 Parking building, JDA.
- 8.0 The new NOC shall be an integrated NOC where smart solutions under smart city project as well as IT back-end solutions of JDA services shall be housed. The resources to be deployed in NOC shall be shared between smart solutions as well as for JDA IT support system.

Section 2: Eligibility Criteria

The following criteria must strictly be fulfilled by the Bidder. The Bidder must submit documentary evidences in support of their claim for fulfilling the criteria. The bids received without the documentary evidences shall be rejected summarily. The condition from 1 to 9 mentioned below are mandatory to qualify technical bid, noncompliance of any condition shall lead to disqualification in Technical Bid.

S. No.	Basic Requirement	Specific Requirements	Documents Required
1	Bidder Entity	<p>Consortium/Joint Venture is allowed, one of the parties in the consortium/JV partner will be the Prime Bidder/Lead Bidder. Prime Bidder/Lead Bidder shall be treated as "Bidder". The maximum nos. of consortium/JV partner should be 3.</p> <p>Any of the parties of the consortium /JV partner or the Prime Bidder/Lead Bidder may meet the technical criteria. However, the Prime Bidder/Lead Bidder alone should meet the financial criteria.</p>	Copy of the consortium/JV agreement in case of consortium/JV, clearly specifying the role and area of specialization of the individual parties of consortium/JV, duly signed by Consortium/JV parties on Rs. 100 non-judicial stamp paper should be enclosed. The agreement should also clearly define the Prime Bidder/Lead Bidder and should be individually and jointly signed by each of the Consortium/JV parties.
2	Legal Entity	Any legal entity duly registered in India is allowed. In case of consortium/JV, the Prime Bidder/Lead Bidder should meet this criterion.	<p>a) Certificates of incorporation and/ or</p> <p>b) Registration Certificates</p>
3	Turnover	The Prime Bidder/Lead Bidder must have average annual turnover of Rs. 10 Crores during the last 3 financial years as on 31.03.2016.	Audited and Certified Balance Sheet and Profit/Loss Account for the last 3 Financial Years should be enclosed. CA Certificate be enclosed.
4	Technical Capability	The Bidder or any of the parties of the consortium/ JV partner must have successfully completed, during last 3 financial years as on 31.03.2016, a project of Command & control Center / Data Center / NOC with project value of Rs. 5.0 Crs in single work order.	Copies of work order or contract agreement and the client certificates/Project Sign-off Certificate from client for satisfactory completion of project and showing order value and cost.
5	Net Worth	The Bidder or the Prime Bidder/Lead Bidder must have positive net worth & profit making in each of the last 3 financial years	CA Certificate mentioning net profit should be enclosed.

		as on 31.03.2016	
6	Legal Entity	Any legal entity duly registered in India is allowed. In case of consortium/JV, the Prime Bidder/ Lead Bidder should meet this criterion.	a) Certificates of incorporation and/ or b) Registration Certificates
7	Tax Registration	The Bidder or the Prime Bidder/Lead Bidder should have a registered number of a. VAT/Sales Tax where his business is located b. Service Tax c. Income Tax PAN	Copies of relevant(s) Certificates of Registration.
8	Technical Specifications of BOQ items	The quoted product/item should fulfill all the technical specifications laid out in the tender document mentioned in the Annexure (Technical specifications of BOQ items). The Bidder is required to furnish Make, Model / Part number of the quoted item.	The Bidder should enclose relevant catalogues, brochures, etc. in support of all the items quoted in the Bid.

- Any bid failing to meet the above eligibility criteria shall be disqualified and will not be considered for Technical Evaluation.
- Change in Eligibility Criteria: If there is a change in the status of the bidder with reference to any of the eligibility criterion specified above, during the bid process till the award of the project, the bidder should immediately bring the same to the notice of JDA.
- For the purpose of the criterion, turnover of only the bidding entity will be considered.
- Moreover, the Bidder should provide the experience details of Projects undertaken by it or its consortium members or JV entity as the case may be, only.

Section 3: Project Objective & Broad Scope of Work

1.0 The broad scope of work will include SITC of Integrated Network Operation Center (NOC) and IT support centre at JDA with Facility Management Services for 5 years.

2.0 The broad scope of SITC work under individual work sub head is as under -

- **INTERIOR WORK**

Anti Termite Treatment, Antistatic Floor Mats, Acoustic False Ceiling, Access (Raised) Floor in Server Room, UPS Room, Network Rack Room, Store, Fire Rated Gypsum Partition wall, Glazed Partition Wall (Floor to Ceiling Height), complete with Glass Door & Fittings, Acoustic Wall Panelling & Cladding in NOC Centre, Fire Doors with Fire rated Glass with Fittings, Painting & Polishing, Internal Signage (Fire Exit, Work area Etc, Films (on Glass) & Environmental Graphics, Carpet Flooring, Vertical/Venetian Blinds, Entrance Carpet Mat for Catching Dust Aqua Heavy Duty etc.

- **ELECTRICAL WORK**

320 KVA 3 Phase Noise free Diesel generator set, Transformer, RMU, Electrical Panels & Isolation Box, LT Cables & Sub-Main, Earthing System, Circuit Cum Point Wiring, Final Distributing Boards, Modular UPS, 30 KVA X 2 with 15 Mnts Modular Battery Backup, With Rack, Lighting Fixtures & Fans Etc, Raceway & Cable Tray, Shifting of Existing DG Set etc.

- **FIRE ALARM AND SECURITY SYSTEM**

Fire Fighting - Fire Extinguishers for other then Server Room, Novac Gas Suppression for Server Room, Passive Fire Protection systems, Fire Seal, Cable Coatings etc, Electronic Addressable Fire Alarm System System with Multi Criterion & Aspiration type detector etc.

- **Access Control, IT, A/V & Security Work**

Access Control System, 8 Doors, Biometric with Cards, PA/Music System, Digital with EVAC, 8-Zone, Rodent Repellent System - 2 Set, Water Leakage Detection System, BMS System, IT Passive Networking Job etc.

- **HVAC Comfory Air Conditioning system**

- **NOC Room Furniture**

Technical Tables for NOC Centre, Reception/NOC Room Sofa Set & Accessories, Chairs for Technical furniture etc.

- **Extension of Video Wall**

- **PCs & Work stations**

- **Services, Operations & Maintenance for 5 years**

Electricians, IT/Security/Fire-Fighting Services Technician & Security Guards

The layout diagram and 3D view of the JDA NOC is attached at annexure - 1. The detailed BOQ/BOM and detailed specifications are available at annexure - 2 & 3 of this NIB documents.

3.0 Project Deliverables, Milestones & Time Schedule:

The successful bidder is expected to carry out all ground work for Supply, Installation including documentation, coordination with JDA. Certain key deliverables are identified for each of the milestones, are mentioned in NIB Document. However, bidder should take approval of templates of all the reports from JDA before submission of deliverables to purchaser. The complete work has been planned for execution / completion as under -

- **Implementation phase - 3 months** from date of award of contract
- **O&M Phase - 5 years** from the successful execution / completion of the Implementation phase

4.0 Payments Terms

- **80%** - for Implementation Phase; to be paid in the following manner -

S No	MILESTONE	Payment Terms
A	INTERIOR WORK (to be paid as per progress of the work)	15%
B	ELECTRICAL WORK - 70% payment to be made against supply of major items against submission of BG of equivalent amount and remaining 30% payment to be made at the time of completion of the work	20%
C	FIRE ALARM AND SECURITY SYSTEM (to be paid as per progress of the work)	7.5%
D	Access Control, IT, A/V & Security Work (to be paid as per progress of the work)	10%
E	HVAC Comfory Air Conditioning system - 70% payment to be made against supply of major items against submission of BG of equivalent amount and remaining 30% payment to be made at the time of completion of the work	16%
F	NOC Room Furniture - 70% payment to be made against supply of major items against submission of BG of equivalent amount and remaining 30% payment to be made at the time of completion of the work	18%
G	Extension of Video Wall - 70% payment to be made against supply of major items against submission of BG of equivalent amount and remaining 30% payment to be made at the time of completion of the work	10%
H	PCs & Work stations - 70% payment to be made against supply of major items against submission of BG of equivalent amount and remaining 30% payment to be made at the time of completion of the work	3.5%
	GRAND TOTAL	100%

- **20%** - for O&M Phase
Payment of **20%** of the total contract value shall be made on equal quarterly basis for 5 years of O&M period
- The successful bidder will make the request for payment in writing, accompanied by invoices describing, as appropriate, the supply, and by the required documents submitted pursuant to the contract and upon fulfillment of all the obligations stipulated in the Contract.
- The currency or currencies in which payments shall be made to the successful bidder under this Contract shall be Indian Rupees (INR) only.
- All remittance charges will be borne by the successful bidder.
- In case of disputed items, the disputed amount shall be withheld and will be paid only after settlement of the dispute.
- Any penalties/liquidated damages, as applicable, for delay and non-performance, as mentioned in this bidding document, will be deducted from the payments for the respective running bill subject to bill amount.
- A Committee of following officers of JDA will inspect and accept the work completion of every milestone as defined above including O&M period, after which the payment shall be released as per the bid documents;
 - a) XEN (Hq.), JDA
 - b) ACP, JDA
 - c) AEN (Elect.-II), JDA

5.0 SLA Manpower Requirements :

The Bidder shall provide sufficient trained manpower such as Electricians, IT/Security/Fire-Fighting Services Technician & Security Guards at JDA campus for Services, Operations & Maintenance for 5 years. Any services / equipments with downtime (downtime attributable to the bidder only) of more than 24 hours will attract a penalty of Rs. 1000/- per day.

Section 4: Instructions to Bidder (ITB)

1. Sale of Bidding/ Tender Documents

- a) The sale of bidding documents shall be commenced from the date of publication of Notice Inviting Bids (NIB) and shall be stopped three days prior to the date of opening of Bid. The complete bidding document shall also be placed on the State Public Procurement Portal and e-Procurement portal as well as on JDA website.
- b) Bidding documents purchased by Principal of any concern may be used by its authorised sole selling agents/ marketing agents/ distributors/ sub-distributors and authorised dealers or vice versa.

2. Changes in the Bidding Document

- a) At any time, prior to the deadline for submission of Bids, the procuring entity may for any reason, whether on its own initiative or as a result of a request for clarification by a bidder, modify the bidding documents by issuing an addendum in accordance with the provisions below.
- b) In case, any modification is made to the bidding document or any clarification is issued which materially affects the terms contained in the bidding document, the procuring entity shall publish such modification or clarification in the same manner as the publication of the initial bidding document.
- c) In case, a clarification or modification is issued to the bidding document, the procuring entity may, prior to the last date for submission of Bids, extend such time limit in order to allow the bidders sufficient time to take into account the clarification or modification, as the case may be, while submitting their Bids.
- d) Any bidder, who has submitted his Bid in response to the original invitation, shall have the opportunity to modify or re-submit it, as the case may be, within the period of time originally allotted or such extended time as may be allowed for submission of Bids, when changes are made to the bidding document by the procuring entity: Provided that the Bid last submitted or the Bid as modified by the bidder shall be considered for evaluation.

3. Period of Validity of Bids

- a) Bids submitted by the bidders shall remain valid during the period specified in the NIB/ bidding document. A Bid valid for a shorter period shall be rejected by the procuring entity as non-responsive Bid.
- b) Prior to the expiry of the period of validity of Bids, the procuring entity, in exceptional circumstances, may request the bidders to extend the bid validity period for an additional specified period of time. A bidder may refuse the request and such refusal shall be treated as withdrawal of Bid and in such circumstances bid security shall not be forfeited.
- c) Bidders that agree to an extension of the period of validity of their Bids shall extend or get extended the period of validity of bid securities submitted by them

or submit new bid securities to cover the extended period of validity of their bids. A bidder whose bid security is not extended, or that has not submitted a new bid security, is considered to have refused the request to extend the period of validity of its Bid.

4. Format and Signing of Bids

- a) Bidders must submit their bids online at e-Procurement portal i.e. <http://e-proc.rajasthan.gov.in>.
- b) All the documents uploaded should be digitally signed with the DSC of authorized signatory.
- c) A Single stage Two part/ cover system shall be followed for the Bid: -
 - (i) Technical Bid, including fee details, eligibility & technical documents
 - (ii) Financial Bid
- d) The technical bid shall consist of the following documents: -

S. No.	Documents Type	Document Format
1.	All the documents mentioned in the "Eligibility Criteria", in support of the eligibility	As Per Annexure-3: Technical Bid Evaluation Check List (As per the format mentioned against the respective eligibility criteria clause).

- e) Financial bid shall include the following documents: -

S. No.	Documents Type	Document Format
1.	Financial Bid	As per BoQ(.XLS) format available on e-Procurement portal

- f) The bidder should ensure that all the required documents, as mentioned in this bidding document, are submitted along with the Bid and in the prescribed format only. Non- submission of the required documents or submission of the documents in a different format/ contents may lead to the rejections of the Bid submitted by the bidder.

5. Cost & Language of Bidding

- a) The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the procuring entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- b) The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the procuring entity, shall be written only in English Language. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English/ Hindi language, in which case, for purposes of interpretation of the Bid, such translation shall govern.

6. Bid Security (EMD): Every bidder, if not exempted, participating in the procurement process will be required to furnish the bid security as specified in the NIB.

- a) In lieu of bid security, a bid securing declaration shall be taken from Departments of the State Government, Undertakings, Corporations, Autonomous bodies, Registered Societies and Cooperative Societies which are owned or controlled or managed by the State Government and Government Undertakings of the Central Government. This bid security exemption certificate from appropriate authority shall be uploaded on JDA website portal along with receipt of Bid cost and RISL fees.
- b) Bid security instrument or cash receipt of bid security or a bid securing declaration shall necessarily accompany the technical bid.
- c) Bid security of a bidder lying with the procuring entity in respect of other bids awaiting decision shall not be adjusted towards bid security for the fresh bids. The bid security originally deposited may, however, be taken into consideration in case bids are re- invited.
- d) The bid security may be given in the form of bank guarantee, in specified format as given in the bidding document, of a scheduled bank. The bid security must remain valid thirty days beyond the original or extended validity period of the bid.
- e) The issuer of the bid security and the confirmer, if any, of the bid security, as well as the form and terms of the bid security, must be acceptable to the procuring entity.
- f) Prior to presenting a submission, a bidder may request the procuring entity to confirm the acceptability of proposed issuer of a bid security or of a proposed confirmer, if required. The procuring entity shall respond promptly to such a request.
- g) The bank guarantee presented as bid security shall be got confirmed from the concerned issuing bank. However, the confirmation of the acceptability of a proposed issuer or of any proposed confirmer does not preclude the procuring entity from rejecting the bid security on the ground that the issuer or the confirmer, as the case may be, has become insolvent or has otherwise ceased to be creditworthy.
- h) The bid security of unsuccessful bidders shall be refunded soon after final acceptance of successful bid and signing of Agreement and submitting performance security.
- i) The Bid security taken from a bidder shall be forfeited, including the interest, if any, in the following cases, namely: -
 - (i) when the bidder withdraws or modifies its bid after opening of bids;
 - (ii) when the bidder does not execute the agreement, if any, after placement of supply / work order within the specified period;

- (iii) when the bidder fails to commence the supply of the goods or service or execute work as per supply / work order within the time specified;
 - (iv) when the bidder does not deposit the performance security within specified period after the supply / work order is placed; and
 - (v) if the bidder breaches any provision of code of integrity, prescribed for bidders, specified in the bidding document.
- j) Notice will be given to the bidder with reasonable time before bid security (EMD) deposited is forfeited.
- k) No interest shall be payable on the bid security (EMD).
- l) In case of the successful bidder, the amount of bid security may be adjusted in arriving at the amount of the Performance Security, or refunded if the successful bidder furnishes the full amount of performance security.
- m) The procuring entity shall promptly return the bid security after the earliest of the following events, namely:-
- (i) the expiry of validity of bid security;
 - (ii) the execution of agreement for procurement and performance security is furnished by the successful bidder;
 - (iii) the cancellation of the procurement process; or
 - (iv) the withdrawal of bid prior to the deadline for presenting bids, unless the bidding documents stipulate that no such withdrawal is permitted.

7. Deadline for the submission of Bids - Bids shall be received online at e-Procurement portal and up to the time and date specified in the NIB.

8. Withdrawal, Substitution, and Modification of Bids

- a) If permitted on e-Procurement portal, a Bidder may withdraw its Bid or re-submit its Bid (technical and/ or financial cover) as per the instructions/ procedure mentioned at e-Procurement website under the section "Bidder's Manual Kit".
- b) Bids withdrawn shall not be opened and processes further.

9. Opening of Bids

- a) The Bids shall be opened by the Bid Opening Committee on the date and time mentioned in the NIB in the presence of the bidders or their authorised representatives who choose to be present.
- b) The committee may co-opt experienced persons in the committee to conduct the process of Bid opening.
- c) The committee shall prepare a list of the bidders or their representatives attending the opening of Bids and obtain their signatures on the same. The list shall also contain the representative's name and telephone number and corresponding bidder's names and addresses. The authority letters, if any, brought by the representatives shall be attached to the list. The list shall be

signed by all the members of Bid opening committee with date and time of opening of the Bids.

- d) All the documents comprising of Technical Bid / Cover shall be opened & downloaded from the e-Procurement website (only for the bidders who have submitted the prescribed fee(s) to JDA).
- e) The committee shall conduct a preliminary scrutiny of the opened technical Bids to assess the prima-facie responsiveness and ensure that the: -
 - (i) bid is accompanied by bidding document fee, bid security or bid securing declaration, and processing fee (if applicable);
 - (ii) bid is valid for the period, specified in the bidding document;
 - (iii) bid is unconditional and the bidder has agreed to give the required performance security; and
 - (iv) other conditions, as specified in the bidding document are fulfilled.
 - (v) any other information which the committee may consider appropriate.
- f) No Bid shall be rejected at the time of Bid opening except the Bids not accompanied with the proof of payment or instrument of the required price of bidding document, processing fee and bid security.
- g) The Financial Bid cover shall be kept unopened and shall be opened later on the date and time intimated to the bidders who qualify in the evaluation of technical Bids.

10. Selection Method: The selection method is Least Cost Based Selection (LCBS or L1).

11. Clarification of Bids

- a) To assist in the examination, evaluation, comparison and qualification of the Bids, the bid evaluation committee may, at its discretion, ask any bidder for a clarification regarding its Bid. The committee's request for clarification and the response of the bidder shall be in writing.
- b) Any clarification submitted by a bidder with regard to its Bid that is not in response to a request by the committee shall not be considered.
- c) No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the committee in the evaluation of the financial Bids.
- d) No substantive change to qualification information or to a submission, including changes aimed at making an unqualified bidder, qualified or an unresponsive submission, responsive shall be sought, offered or permitted.
- e) All communications generated under this rule shall be included in the record of the procurement proceedings.

12. Evaluation & Tabulation of Technical Bids

• Determination of Responsiveness

- The bid evaluation committee shall determine the responsiveness of a Bid on the basis of bidding document and the provisions of eligibility criteria of the bidding document.
- A responsive Bid is one that meets the requirements of the bidding document without any material deviation, reservation, or omission where: -
 - i. "deviation" is a departure from the requirements specified in the bidding document;
 - ii. "reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
 - iii. "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.
- A material deviation, reservation, or omission is one that,
 - i. if accepted, shall:-
 - 1. affect in any substantial way the scope, quality, or performance of the subject matter of procurement specified in the bidding documents; or
 - 2. limits in any substantial way, inconsistent with the bidding documents, the procuring entity's rights or the bidder's obligations under the proposed contract; or
 - ii. if rectified, shall unfairly affect the competitive position of other bidders presenting responsive Bids.
- The bid evaluation committee shall examine the technical aspects of the Bid in particular, to confirm that all requirements of bidding document have been met without any material deviation, reservation or omission.
- The procuring entity shall regard a Bid as responsive if it conforms to all requirements set out in the bidding document, or it contains minor deviations that do not materially alter or depart from the characteristics, terms, conditions and other requirements set out in the bidding document, or if it contains errors or oversights that can be corrected without touching on the substance of the Bid.

• Non-material Non-conformities in Bids

- The bid evaluation committee may waive any non-conformity in the Bid that do not constitute a material deviation, reservation or omission, the Bid shall be deemed to be substantially responsive.
- The bid evaluation committee may request the bidder to submit the necessary information or document like audited statement of accounts/ CA Certificate, Registration Certificate, VAT/ CST clearance certificate, ISO/

CMMi Certificates, etc. within a reasonable period of time. Failure of the bidder to comply with the request may result in the rejection of its Bid.

- The bid evaluation committee may rectify non-material nonconformities or omissions on the basis of the information or documentation received from the bidder under (b) above.
- **Technical Evaluation Criteria:** Bids shall be evaluation based on the documents submitted as a part of technical bid. Technical bid shall contain all the documents as asked in the clause "Format and Signing of Bids"
- **Tabulation of Technical Bids**
 - If Technical Bids have been invited, they shall be tabulated by the bid evaluation committee in the form of a comparative statement to evaluate the qualification of the bidders against the criteria for qualification set out in the bidding document.
 - The members of bid evaluation committee shall give their recommendations below the table as to which of the bidders have been found to be qualified in evaluation of Technical Bids and sign it.
 - The number of firms qualified in technical evaluation, if less than three and it is considered necessary by the procuring entity to continue with the procurement process, reasons shall be recorded in writing and included in the record of the procurement proceedings.
 - The bidders who qualified in the technical evaluation shall be informed in writing about the date, time and place of opening of their financial Bids.

13. Evaluation & Tabulation of Financial Bids: Subject to the provisions of "Acceptance of Successful Bid and Award of Contract" below, the procuring entity shall take following actions for evaluation of financial Bids:-

- a) The financial Bids of the bidders who qualified in technical evaluation shall be opened online at the notified time, date and place by the Bid Opening Committee in the presence of the bidders or their representatives who choose to be present
- b) The process of opening of the financial Bids shall be similar to that of technical Bids.
- c) the names of the bidders, the rates given by them and conditions put, if any, shall be read out and recorded;
- d) Conditional Bids are liable to be rejected;
- e) The evaluation shall include all costs and all taxes and duties applicable to the bidder as per law of the Central/ State Government/ Local Authorities, and the evaluation criteria specified in the bidding documents shall only be applied;
- f) The offers shall be evaluated and marked L1, L2, L3 etc. L1 being the lowest offer and then others in ascending order in case price is the only criteria, or evaluated and marked H1, H2, H3 etc. in descending order.

- g) The bid evaluation committee shall prepare a comparative statement in tabular form in accordance with rules along with its report on evaluation of financial Bids and recommend the lowest offer for acceptance to the procuring entity
- h) The members of bids evaluation committee shall give their recommendations below the table regarding lowest Bid or most advantageous Bid and sign it.
- i) It shall be ensured that the offer recommended for sanction is justifiable looking to the prevailing market rates of the goods, works or service required to be procured.

14. Correction of Arithmetic Errors in Financial Bids: The bid evaluation committee shall correct arithmetical errors in substantially responsive Bids, on the following basis, namely-

- a) multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the bid evaluation committee there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to clause (a) and (b) above.

15. Comparison of rates of firms outside and those in Rajasthan: While tabulating the financial Bids of those firms which are not entitled to price preference, the element of Rajasthan Value Added Tax (RVAT) shall be excluded from the rates quoted by the firms of Rajasthan and the element of Central Sales Tax (CST) shall be included in the rates of firms from outside Rajasthan for financial bid evaluation purpose.

16. Price/ purchase preference in evaluation: Price and/ or purchase preference notified by the State Government (GoR) and as mentioned in the bidding document shall be considered in the evaluation of Bids and award of contract.

17. Negotiations

- a) Except in case of procurement by method of single source procurement or procurement by competitive negotiations, to the extent possible, no negotiations shall be conducted.
- b) Negotiations may, however, be undertaken only with the lowest or most advantageous bidder when the rates are considered to be much higher than the prevailing market rates.
- c) The bid evaluation committee shall have full powers to undertake negotiations. Detailed reasons and results of negotiations shall be recorded in the proceedings.

- d) The lowest or most advantageous bidder shall be informed in writing either through messenger or by registered letter and e-mail (if available). A minimum time of seven days shall be given for calling negotiations. In case of urgency the bid evaluation committee, after recording reasons, may reduce the time, provided the lowest or most advantageous bidder has received the intimation and consented to regarding holding of negotiations.
- e) Negotiations shall not make the original offer made by the bidder inoperative. The bid evaluation committee shall have option to consider the original offer in case the bidder decides to increase rates originally quoted or imposes any new terms or conditions.
- f) In case of non-satisfactory achievement of rates from lowest or most advantageous bidder, the bid evaluation committee may choose to make a written counter offer to the lowest or most advantageous bidder and if this is not accepted by him, the committee may decide to reject and re-invite Bids or to make the same counter-offer first to the second lowest or most advantageous bidder, then to the third lowest or most advantageous bidder and so on in the order of their initial standing and work/ supply order be awarded to the bidder who accepts the counter-offer. This procedure would be used in exceptional cases only.
- g) In case the rates even after the negotiations are considered very high, fresh Bids shall be invited.

18. Exclusion of Bids/ Disqualification

- a) A procuring entity shall exclude/ disqualify a Bid, if: -
 - the information submitted, concerning the qualifications of the bidder, was false or constituted a misrepresentation; or
 - the information submitted, concerning the qualifications of the bidder, was materially Inaccurate or incomplete; and
 - the bidder is not qualified as per pre-qualification/ eligibility criteria mentioned in the bidding document;
 - the Bid materially departs from the requirements specified in the bidding document or it contains false information;
 - the bidder, submitting the Bid, his agent or any one acting on his behalf, gave or agreed to give, to any officer or employee of the procuring entity or other governmental authority a gratification in any form, or any other thing of value, so as to unduly influence the procurement process;
 - a bidder, in the opinion of the procuring entity, has a conflict of interest materially affecting fair competition.
- b) A Bid shall be excluded / disqualified as soon as the cause for its exclusion/disqualification is discovered.
- c) Every decision of a procuring entity to exclude a Bid shall be for reasons to be recorded in writing and shall be: -

- communicated to the concerned bidder in writing;
- published on the State Public Procurement Portal, if applicable.

19. Lack of competition

- a) A situation may arise where, if after evaluation of Bids, the bid evaluation committee may end-up with one responsive Bid only. In such situation, the bid evaluation committee would check as to whether while floating the NIB all necessary requirements to encourage competition like standard bid conditions, industry friendly specifications, wide publicity, sufficient time for formulation of Bids, etc., were fulfilled. If not, the NIB would be re-floated after rectifying deficiencies. The bid process shall be considered valid even if there is one responsive Bid, provided that: -
- the Bid is technically qualified;
 - the price quoted by the bidder is assessed to be reasonable;
 - the Bid is unconditional and complete in all respects;
 - there are no obvious indicators of cartelization amongst bidders; and
 - the bidder is qualified as per the provisions of pre-qualification / eligibility criteria in the bidding document
- b) The bid evaluation committee shall prepare a justification note for approval by the next higher authority of the procuring entity, with the concurrence of the accounts member.
- c) In case of dissent by any member of bid evaluation committee, the next higher authority in delegation of financial powers shall decide as to whether to sanction the single Bid or re-invite Bids after recording reasons.
- d) If a decision to re-invite the Bids is taken, market assessment shall be carried out for estimation of market depth, eligibility criteria and cost estimate.

20. Acceptance of the successful Bid and award of contract

- a) The procuring entity after considering the recommendations of the bid evaluation committee and the conditions of Bid, if any, financial implications, trials, sample testing and test reports, etc., shall accept or reject the successful Bid. If any member of the bid evaluation committee has disagreed or given its note of dissent, the matter shall be referred to the next higher authority, as per delegation of financial powers, for decision.
- b) Decision on Bids shall be taken within original validity period of Bids and time period allowed to procuring entity for taking decision. If the decision is not taken within the original validity period or time limit allowed for taking decision, the matter shall be referred to the next higher authority in delegation of financial powers for decision.
- c) Before award of the contract, the procuring entity shall ensure that the price of successful Bid is reasonable and consistent with the required quality.
- d) A Bid shall be treated as successful only after the competent authority has approved the Procurement in terms of that Bid.

- e) The procuring entity shall award the contract to the bidder whose offer has been determined to be the lowest or most advantageous in accordance with the evaluation criteria set out in the bidding document and if the bidder has been determined to be qualified to perform the contract satisfactorily on the basis of qualification criteria fixed for the bidders in the bidding document for the subject matter of procurement.
- f) Prior to the expiration of the period of bid validity, the procuring entity shall inform the successful bidder, in writing, that its Bid has been accepted.
- g) As soon as a Bid is accepted by the competent authority, its written intimation shall be sent to the concerned bidder by registered post or email and asked to execute an agreement in the format given in the bidding documents on a non-judicial stamp of requisite value and deposit the amount of performance security or a performance security declaration, if applicable, within a period specified in the bidding documents or where the period is not specified in the bidding documents then within fifteen days from the date on which the letter of acceptance or letter of intent is dispatched to the bidder.
- h) If the issuance of formal letter of acceptance is likely to take time, in the meanwhile a Letter of Intent (LOI) may be sent to the bidder. The acceptance of an offer is complete as soon as the letter of acceptance or letter of intent is posted and/ or sent by email (if available) to the address of the bidder given in the bidding document. Until a formal contract is executed, the letter of acceptance or LOI shall constitute a binding contract.
- i) The bid security of the bidders who's Bids could not be accepted shall be refunded soon after the contract with the successful bidder is signed and its performance security is obtained.

21. Information and publication of award: Information of award of contract shall be communicated to all participating bidders and published on the respective website(s) as specified in NIB.

22. Procuring entity's right to accept or reject any or all Bids: The Procuring entity reserves the right to accept or reject any Bid, and to annul (cancel) the bidding process and reject all Bids at any time prior to award of contract, without thereby incurring any liability to the bidders.

23. Right to vary quantity

- a) At the time of award of contract, the quantity of goods, works or services originally specified in the bidding documents may be increased as per RTPP Act-2012 and Rules-2013. It shall be without any change in the unit prices or other terms and conditions of the Bid and the bidding documents.
- b) If the procuring entity does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation except otherwise provided in the bidding document.
- c) Repeat orders for extra items or additional quantities may be placed, if it is provided in the bidding document, on the rates and conditions given in the contract

if the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionally increased. The limits of the repeat order shall be as under:-

1. 50% of the quantity of the individual items and 50% of the value of original contract in the case of works; and
2. 50% of the value of goods or services of the original contract.

24. Performance Security:

- a) Prior to execution of agreement, Performance security shall be solicited from all successful bidders except the departments of the State Government and undertakings, corporations, autonomous bodies, registered societies, co-operative societies which are owned or controlled or managed by the State Government and undertakings of the Central Government. However, a performance security declaration shall be taken from them. The State Government may relax the provision of performance security in particular procurement or any class of procurement.
- b) The amount of performance security shall be 10% of the contract amount. In case of Small Scale Industries (SSI) of Rajasthan, it shall be 1% of the amount of quantity ordered for supply of goods and in case of sick industries, other than SSI, whose cases are pending before the Board of Industrial and Financial Reconstruction (BIFR), it shall be 2% of the amount of supply order.
- c) Performance security shall be furnished in any one of the following forms: -
 - Bank Draft or Banker's Cheque of a scheduled bank;
 - National Savings Certificates and any other script/ instrument under National Savings Schemes for promotion of small savings issued by a Post Office in Rajasthan, if the same can be pledged under the relevant rules. They shall be accepted at their surrender value at the time of bid and formally transferred in the name of procuring entity with the approval of Head Post Master;
 - Bank guarantee/s of a scheduled bank. It shall be got verified from the issuing bank. Other conditions regarding bank guarantee shall be same as mentioned in the bidding document for bid security (EMD);
 - Fixed Deposit Receipt (FDR) of a scheduled bank and discharged by the bidder in advance. The procuring entity shall ensure before accepting the FDR that the bidder furnishes an undertaking from the bank to make payment/premature payment of the FDR on demand to the procuring entity without requirement of consent of the bidder concerned. In the event of forfeiture of the performance security, the Fixed Deposit shall be forfeited along with interest earned on such Fixed Deposit.
- d) Initially the Performance security for 10% amount of the Contract value shall be furnished in the form specified as above, which shall be kept valid upto 90 days beyond the schedule date of completion of the project i.e. 6 months as specified in the NIB; which shall be released after successful implementation of

the project and thereafter another Performance Security @10% of the 30% of the Contract Value shall be submitted valid upto 90 days beyond the schedule date of completion of 3 years O&M period after successful completion of the project.

- e) Forfeiture of Security Deposit: Security amount in full or part may be forfeited, including interest, if any, in the following cases:-
- When any terms and condition of the contract is breached.
 - When the bidder fails to make complete supply satisfactorily.
 - if the bidder breaches any provision of code of integrity, prescribed for bidders, specified in the bidding document.
- f) Notice will be given to the bidder with reasonable time before PSD deposited is forfeited.
- g) No interest shall be payable on the PSD.

25. Execution of agreement

- a) A procurement contract shall come into force from the date on which the letter of acceptance or letter of intent is despatched to the bidder.
- b) The successful bidder shall sign the procurement contract within 15 days from the date on which the letter of acceptance or letter of intent is despatched to the successful bidder.
- c) If the bidder, who's Bid has been accepted, fails to sign a written procurement contract or fails to furnish the required performance security within specified period, the procuring entity shall take action against the successful bidder as per the provisions of the bidding document and Act. The procuring entity may, in such case, cancel the procurement process or if it deems fit, offer for acceptance the rates of lowest or most advantageous bidder to the next lowest or most advantageous bidder, in accordance with the criteria and procedures set out in the bidding document.
- d) The bidder will be required to execute the agreement on a non-judicial stamp of specified value at its cost and to be purchase from anywhere in Rajasthan only.

26. Confidentiality

- a) Notwithstanding anything contained in this bidding document but subject to the provisions of any other law for the time being in force providing for disclosure of information, a procuring entity shall not disclose any information if such disclosure, in its opinion, is likely to: -
- impede enforcement of any law;
 - affect the security or strategic interests of India;
 - affect the intellectual property rights or legitimate commercial interests of bidders;

- affect the legitimate commercial interests of the procuring entity in situations that may include when the procurement relates to a project in which the procuring entity is to make a competitive bid, or the intellectual property rights of the procuring entity.
- b) The procuring entity shall treat all communications with bidders related to the procurement process in such manner as to avoid their disclosure to competing bidders or to any other person not authorized to have access to such information.
- c) The procuring entity may impose on bidders and sub-contractors, if there are any for fulfilling the terms of the procurement contract, conditions aimed at protecting information, the disclosure of which violates (a) above.
- d) In addition to the restrictions specified above, the procuring entity, while procuring a subject matter of such nature which requires the procuring entity to maintain confidentiality, may impose condition for protecting confidentiality of such information.

27. Cancellation of procurement process

- a) If any procurement process has been cancelled, it shall not be reopened but it shall not prevent the procuring entity from initiating a new procurement process for the same subject matter of procurement, if required.
- b) A procuring entity may, for reasons to be recorded in writing, cancel the process of procurement initiated by it -
 - at any time prior to the acceptance of the successful Bid; or
 - after the successful Bid is accepted in accordance with (d) and (e) below.
- c) The procuring entity shall not open any bids or proposals after taking a decision to cancel the procurement and shall return such unopened bids or proposals.
- d) The decision of the procuring entity to cancel the procurement and reasons for such decision shall be immediately communicated to all bidders that participated in the procurement process.
- e) If the bidder whose Bid has been accepted as successful fails to sign any written procurement contract as required, or fails to provide any required security for the performance of the contract, the procuring entity may cancel the procurement process.
- f) If a bidder is convicted of any offence under the Act, the procuring entity may: -
 - cancel the relevant procurement process if the Bid of the convicted bidder has been declared as successful but no procurement contract has been entered into;
 - rescind (cancel) the relevant contract or forfeit the payment of all or a part of the contract value if the procurement contract has been entered into between the procuring entity and the convicted bidder.

28. Code of Integrity for Bidders

- a) No person participating in a procurement process shall act in contravention of the code of integrity prescribed by the State Government.
- b) The code of integrity include provisions for: -
- Prohibiting
 - i. any offer, solicitation or acceptance of any bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process;
 - ii. any omission, including a misrepresentation that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
 - iii. any collusion, bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
 - iv. improper use of information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process or for personal gain;
 - v. any financial or business transactions between the bidder and any officer or employee of the procuring entity;
 - vi. any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
 - vii. any obstruction of any investigation or audit of a procurement process;
 - disclosure of conflict of interest;
 - disclosure by the bidder of any previous transgressions with any entity in India or any other country during the last three years or of any debarment by any other procuring entity.
- c) Without prejudice to the provisions below, in case of any breach of the code of integrity by a bidder or prospective bidder, as the case may be, the procuring entity may take appropriate measures including: -
- exclusion of the bidder from the procurement process;
 - calling-off of pre-contract negotiations and forfeiture or encashment of bid security;
 - forfeiture or encashment of any other security or bond relating to the procurement;
 - recovery of payments made by the procuring entity along with interest thereon at bank rate;
 - cancellation of the relevant contract and recovery of compensation for loss incurred by the procuring entity;

- debarment of the bidder from participation in future procurements of the procuring entity for a period not exceeding three years.

29. Interference with Procurement Process: A bidder, who: -

- a) withdraws from the procurement process after opening of financial bids;
- b) withdraws from the procurement process after being declared the successful bidder;
- c) fails to enter into procurement contract after being declared the successful bidder;
- d) fails to provide performance security or any other document or security required in terms of the bidding documents after being declared the successful bidder, without valid grounds, shall, in addition to the recourse available in the bidding document or the contract, be punished with fine which may extend to fifty lakh rupees or ten per cent of the assessed value of procurement, whichever is less.

30. Appeals

- a) Subject to "Appeal not to lie in certain cases" below, if any bidder or prospective bidder is aggrieved that any decision, action or omission of the procuring entity is in contravention to the provisions of the Act or the rules or guidelines issued thereunder, he may file an appeal to such officer of the procuring entity, as may be designated by it for the purpose, within a period of 10 days from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or grounds on which he feels aggrieved:
 - Provided that after the declaration of a bidder as successful in terms of "Award of Contract", the appeal may be filed only by a bidder who has participated in procurement proceedings:
 - Provided further that in case a procuring entity evaluates the technical Bid before the opening of the financial Bid, an appeal related to the matter of financial Bid may be filed only by a bidder whose technical Bid is found to be acceptable.
- b) The officer to whom an appeal is filed under (a) above shall deal with the appeal as expeditiously as possible and shall endeavour to dispose it of within 30 days from the date of filing of the appeal.
- c) If the officer designated under (a) above fails to dispose of the appeal filed under that sub-section within the period specified in (c) above, or if the bidder or prospective bidder or the procuring entity is aggrieved by the order passed, the bidder or prospective bidder or the procuring entity, as the case may be, may file a second appeal to an officer or authority designated by the State Government in this behalf within 15 days from the expiry of the period specified in (c) above or of the date of receipt of the order passed under (b) above, as the case may be.

- d) The officer or authority to which an appeal is filed under (c) above shall deal with the appeal as expeditiously as possible and shall endeavour to dispose it of within 30 days from the date of filing of the appeal:
- e) The officer or authority to which an appeal may be filed under (a) or (d) above shall be: **First Appellate Authority:** Secretary / Additional Chief Secretary, Urban Development and Housing, Secretariat, Jaipur (Rajasthan).

Second Appellate Authority: Nominee from Finance Department Government of Rajasthan.

Filing an appeal

- f) Form of Appeal:
- Every appeal under (a) and (c) above shall be as per Annexure available in NIB Document along with as many copies as there are respondents in the appeal.
 - Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.
 - Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorised representative.
- g) Fee for Appeal: Fee for filing appeal:
- Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable.
 - The fee shall be paid in the form of bank demand draft or banker's cheque of a Scheduled Bank payable in the name of Appellate Authority concerned.
- h) Procedure for disposal of appeal:
- The First Appellate Authority or Second Appellate Authority, as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing.
 - On the date fixed for hearing, the First Appellate Authority or Second Appellate Authority, as the case may be, shall,-
 - i. hear all the parties to appeal present before him; and
 - ii. peruse or inspect documents, relevant records or copies thereof relating to the matter.
 - After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the Appellate Authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.
 - The order passed under (c) shall also be placed on the State Public Procurement Portal.

- i) No information which would impair the protection of essential security interests of India, or impede the enforcement of law or fair competition, or prejudice the legitimate commercial interests of the bidder or the procuring entity, shall be disclosed in a proceeding under an appeal.

31. Stay of procurement proceedings: While hearing of an appeal, the officer or authority hearing the appeal may, on an application made in this behalf and after affording a reasonable opportunity of hearing to the parties concerned, stay the procurement proceedings pending disposal of the appeal, if he, or it, is satisfied that failure to do so is likely to lead to miscarriage of justice.

32. Vexatious Appeals & Complaints: Whoever intentionally files any vexatious, frivolous or Malicious appeal or complaint under the "The Rajasthan Transparency Public Procurement Act 2012", with the intention of delaying or defeating any procurement or causing loss to any procuring entity or any other bidder, shall be punished with fine which may extend to twenty lakh rupees or five per cent of the value of procurement, whichever is less.

33. Offenses by Firms/ Companies

- a) Where an offence under "The Rajasthan Transparency Public Procurement Act 2012" has been committed by a company, every person who at the time the offence was committed was in charge of and was responsible to the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of having committed the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable for any punishment if he proves that the offence was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.

- b) Notwithstanding anything contained in (a) above, where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of having committed such offence and shall be liable to be proceeded against and punished accordingly.

- c) For the purpose of this section-

- "Company" means a body corporate and includes a limited liability partnership, firm, registered society or co-operative society, trust or other association of individuals; and
- "Director" in relation to a limited liability partnership or firm, means a partner in the firm.

- d) Abetment of certain offenses: Whoever abets an offence punishable under this Act, whether or not that offence is committed in consequence of that abetment, shall be punished with the punishment provided for the offence.

34. Debarment from Bidding

- a) A bidder shall be debarred by the State Government if he has been convicted of an offence
- under the Prevention of Corruption Act, 1988 (Central Act No. 49 of 1988); or
 - under the Indian Penal Code, 1860 (Central Act No. 45 of 1860) or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.
- b) A bidder debarred under (a) above shall not be eligible to participate in a procurement process of any procuring entity for a period not exceeding three years commencing from the date on which he was debarred.
- c) If a procuring entity finds that a bidder has breached the code of integrity prescribed in terms of "Code of Integrity for bidders" above, it may debar the bidder for a period not exceeding three years.
- d) Where the entire bid security or the entire performance security or any substitute thereof, as the case may be, of a bidder has been forfeited by a procuring entity in respect of any procurement process or procurement contract, the bidder may be debarred from participating in any procurement process undertaken by the procuring entity for a period not exceeding three years.
- e) The State Government or a procuring entity, as the case may be, shall not debar a bidder under this section unless such bidder has been given a reasonable opportunity of being heard.

35. Monitoring of Contract

- a) An officer or a committee of officers named Contract Monitoring Committee (CMC) may be nominated by procuring entity to monitor the progress of the contract during its delivery period.
- b) During the delivery period the CMC shall keep a watch on the progress of the contract and shall ensure that quantity of goods and service delivery is in proportion to the total delivery period given, if it is a severable contract, in which the delivery of the goods and service is to be obtained continuously or is batched. If the entire quantity of goods and service is to be delivered in the form of completed work or entire contract like fabrication work, the process of completion of work may be watched and inspections of the selected bidder's premises where the work is being completed may be inspected.
- c) If delay in delivery of goods and service is observed a performance notice would be given to the selected bidder to speed up the delivery.
- d) Any change in the constitution of the firm, etc. shall be notified forth with by the contractor in writing to the procuring entity and such change shall not relieve any former member of the firm, etc., from any liability under the contract.
- e) No new partner/ partners shall be accepted in the firm by the selected bidder in respect of the contract unless he/ they agree to abide by all its terms,

conditions and deposits with the procuring entity through a written agreement to this effect. The bidder's receipt for acknowledgement or that of any partners subsequently accepted as above shall bind all of them and will be sufficient discharge for any of the purpose of the contract.

- f) The selected bidder shall not assign or sub-let his contract or any substantial part thereof to any other agency without the permission of procuring entity.

Section 5: General Terms & Condition of Bid & Contract

Bidders should read these conditions carefully and comply strictly while sending their bids.

- 1. Definitions:** For the purpose of clarity, the following words and expressions shall have the meanings hereby assigned to them: -
- a) "Contract" means the Agreement entered into between the Purchaser and the successful/ selected bidder, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
 - b) "Contract Documents" means the documents listed in the Agreement, including any amendments thereto.
 - c) "Contract Price" means the price payable to the successful/ selected bidder as specified in the Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
 - d) "Day" means a calendar day.
 - e) "Delivery" means the transfer of the Goods from the successful/ selected bidder to the Purchaser in accordance with the terms and conditions set forth in the Contract.
 - f) "Completion" means the fulfilment of the related services by the successful/ selected bidder in accordance with the terms and conditions set forth in the Contract.
 - g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the successful/ selected bidder is required to supply to the Purchaser under the Contract.
 - h) "Purchaser" means the entity purchasing the Goods and related services, as specified in the bidding document.
 - i) "Related Services" means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the successful/ selected bidder under the Contract.
 - j) "Subcontractor" means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the related services is subcontracted by the successful/ selected bidder.
 - k) "Supplier/ Successful or Selected bidder" means the person, private or government entity, or a combination of the above, whose Bid to perform the Contract has been accepted by the Purchaser and is named as such in the Agreement, and includes the legal successors or permitted assigns of the successful/ selected bidder.

- l) "The Site," where applicable, means the designated project place(s) named in the bidding document.

Note: The bidder shall be deemed to have carefully examined the conditions, specifications, size, make and drawings, etc., of the goods to be supplied and related services to be rendered. If the bidder has any doubts as to the meaning of any portion of these conditions or of the specification, drawing, etc., he shall, before submitting the Bid and signing the contract refer the same to the procuring entity and get clarifications.

2. Contract Documents: Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

3. Interpretation

- a) If the context so requires it, singular means plural and vice versa.
- b) Entire Agreement: The Contract constitutes the entire agreement between the Purchaser and the Supplier/ Selected bidder and supersedes all communications, negotiations and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.
- c) Amendment: No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
- d) Non-waiver: Subject to the condition (f) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- e) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
- f) Severability: If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

4. Language

- a) The Contract as well as all correspondence and documents relating to the Contract exchanged by the successful / selected bidder and the Purchaser, shall be written in English language only. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language

specified in the special conditions of the contract, in which case, for purposes of interpretation of the Contract, this translation shall govern.

- b) The successful / selected bidder shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

5. Eligible Goods and Related Services

- a) For purposes of this Clause, the term "goods" includes commodities, raw material, machinery, equipment, and industrial plants; and "related services" includes services such as insurance, transportation, supply, installation, integration, testing, commissioning, training, and initial maintenance.
- b) The OEM / Vendor of the quoted product must have its own registered spares depot in India having adequate inventory of the equipment being quoted for providing the necessary spares within next business day or maximum 30 hours.
- c) The OEM / Vendor of the quoted product should also have its direct representation in India in terms of registered office for at least past 3 years. The presence through any Distribution / System Integration partner agreement will not be accepted.
- d) Bidder must quote products in accordance with above clause "Eligible goods and related services".

6. Notices

- a) Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the contract. The term "in writing" means communicated in written form with proof of dispatch and receipt.
- b) A Notice shall be effective when delivered or on the Notice's effective date, whichever is later.

7. Governing Law: The Contract shall be governed by and interpreted in accordance with the laws of the Rajasthan State / the Country (India), unless otherwise specified in the contract.

8. Scope of Supply

- a) Subject to the provisions in the bidding document and contract, the goods and related services to be supplied shall be as specified in the bidding document.
- b) Unless otherwise stipulated in the Contract, the scope of supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining delivery and completion of the goods and related services as if such items were expressly mentioned in the Contract.
- c) The bidder shall not quote and supply and hardware that is likely to be declared as End of Sale in next 12 months and End of Service / Support for a period of 24 months from the last date of bid submission. OEMs are required to mention this in the MAF for all the quoted hardware. If any of the hardware is found to be

declared as End of Sale/ Service/ Support, then the bidder shall replace all such hardware with the latest ones having equivalent or higher specifications without any financial obligation to the purchaser.

9. Delivery

- a) Subject to the conditions of the contract, the delivery of the goods and completion of the related services shall be in accordance with the delivery and completion schedule specified in the bidding document. The details of supply / shipping and other documents to be furnished by the successful/ selected bidder are specified in the bidding document and / or contract.
- b) The contract for the supply can be repudiated at any time by the purchase officer, if the supplies are not made to his satisfaction after giving an opportunity to the bidder of being heard and recording the reasons for repudiation.
- c) The Supplier/ Selected Bidder shall arrange to supply, install the ordered materials / system as per specifications within the specified delivery / completion period at offices / locations mentioned in the PO / WO.
- d) Shifting the place of delivery: The user will be free to shift the place of delivery within the same city / town / district/ division. The successful/ selected bidder shall provide all assistance, except transportation, in shifting of the equipment. However, if the city/town is changed, additional charges of assistance in shifting and providing maintenance services for remaining period would be decided mutually.

10. Supplier's/ Selected Bidder's Responsibilities: The Supplier / Selected Bidder shall supply all the goods and related services included in the scope of supply in accordance with the provisions of bidding document and / or contract.

11. Purchaser's Responsibilities

- a) Whenever the supply of goods and related services requires that the Supplier/ Selected Bidder obtain permits, approvals, and import and other licenses from local public authorities, the Purchaser shall, if so required by the Supplier/ Selected Bidder, make its best effort to assist the Supplier / Selected Bidder in complying with such requirements in a timely and expeditious manner.
- b) The Purchaser shall pay all costs involved in the performance of its responsibilities, in accordance with the general and special conditions of the contract.

12. Contract Price

- a) The Contract Price shall be paid as specified in the contract subject to any additions and adjustments thereto, or deductions there from, as may be made pursuant to the Contract.
- b) Prices charged by the Supplier/ Selected Bidder for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier/ Selected Bidder in its bid, with the exception of any price adjustments authorized in the special conditions of the contract.

13. Recoveries from Supplier/ Selected Bidder

- a) Recovery of liquidated damages, short supply, breakage, rejected articles shall be made ordinarily from bills.
- b) The Purchase Officer shall withhold amount to the extent of short supply, broken / damaged or for rejected articles unless these are replaced satisfactorily. In case of failure to withhold the amount, it shall be recovered from his dues and performance security deposit available with JDA.
- c) The balance, if any, shall be demanded from the Supplier / Selected Bidder and when recovery is not possible, the Purchase Officer shall take recourse to law in force.

14. Taxes & Duties

- a) The income tax, service tax, value added tax, etc., if applicable, shall be deducted at source from the payment to the Supplier / Selected Bidder as per the law in force at the time of execution of contract.
- b) The entry tax, if applicable shall be deducted at source and deposited in the government Treasury in proper revenue receipt head of account.
- c) For goods supplied from outside India, the successful / selected bidder shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the country.
- d) For goods supplied from within India, the successful / selected bidder shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- e) Revision in VAT and Service Tax shall be on account of the tendering authority if it has been asked for separately in the financial bid and is not taken into account for the purpose of comparison of bids. If, however, they have not been asked for separately, any benefit or additional cost will be on account of the bidder. Revision of any other tax or duty shall be on account of the bidder.
- f) If any tax exemptions, reductions, allowances or privileges may be available to the successful/ selected bidder in India, the Purchaser shall use its best efforts to enable the successful/ selected bidder to benefit from any such tax savings to the maximum allowable extent.

- 15. Copyright:** The copyright in all drawings, design documents, source code and other materials containing data and information furnished to the Purchaser by the Supplier / Selected Bidder herein shall remain vested in the Selected Bidder, or, if they are furnished to the Purchaser directly or through the Supplier / Selected Bidder by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

16. Confidential Information

- a) The Purchaser and the Supplier / Selected Bidder shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any drawings, documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether

such information has been furnished prior to, during or following completion or termination of the Contract.

- b) The Supplier/ Selected Bidder may furnish to its Subcontractor, if permitted, such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier/ Selected Bidder shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier/ Selected Bidder.
- c) The Purchaser shall not use such documents, data, and other information received from the Supplier/ Selected Bidder for any purposes unrelated to the Contract. Similarly, the Supplier / Selected Bidder shall not use such documents, data, and other information received from the Purchaser for any purpose other than the design, procurement, or other work and services required for the performance of the Contract.
- d) The obligation of a party under sub-clauses above, however, shall not apply to information that: -
 - the Purchaser or Supplier / Selected Bidder need to share with JDA or other institutions participating in the Contract;
 - now or hereafter enters the public domain through no fault of that party;
 - can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
 - otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- e) The above provisions shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the supply or any part thereof.
- f) The provisions of this clause shall survive completion or termination, for whatever reason, of the Contract.

17. Sub-contracting

- a) Unless otherwise specified in the Contract, the bidder shall not assign or sub-let his contract or any substantial part thereof to any other agency without the permission of Purchaser / Tendering Authority.
- b) If permitted, the selected bidder shall notify the Purchaser, in writing, of all subcontracts awarded under the Contract, if not already specified in the Bid. Subcontracting shall in no event relieve the Supplier/ Selected Bidder from any of its obligations, duties, responsibilities, or liability under the Contract.
- c) Subcontracts shall comply with the provisions of bidding document and/ or contract.

18. Specifications and Standards

- a) All articles supplied shall strictly conform to the specifications, trademark laid down in the tender form and wherever articles have been required according to ISI / ISO / other applicable specifications / certifications / standards, those articles should conform strictly to those specifications / certifications / standards. The supply shall be of best quality and description. The decision of the competent authority/ purchase committee whether the article supplied conforms to the specifications shall be final and binding on the supplier / selected bidder.
- b) Technical Specifications and Drawings
 - a. The Supplier/ Selected Bidder shall ensure that the goods and related services comply with the technical specifications and other provisions of the Contract.
 - b. The Supplier/ Selected Bidder shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
 - c. The goods and related services supplied under this Contract shall conform to the standards mentioned in bidding document and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the country of origin of the Goods.
- c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the bidding document. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with the general conditions of the contract.
- d) The supplier/ selected bidder must certify that all the goods are new, unused, and of the agreed make and models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- e) The supplier/ selected bidder should further warrant that the Goods shall be free from defects arising from any act or omission of the supplier/ selected bidder or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the place of final destination.

19. Packing and Documents

- a) The Supplier / Selected Bidder shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit.

- b) The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the contract, and in any other instructions ordered by the Purchaser.

20. Insurance

- a) The Goods supplied under the Contract shall be fully insured against loss by theft, destruction or damage incidental to manufacture or acquisition, transportation, storage, fire, flood, under exposure to weather and delivery at the designated project locations, in accordance with the applicable terms. The insurance charges will be borne by the supplier and Purchaser will not be required to pay such charges if incurred.
- b) The goods will be delivered at the FOR destination in perfect condition.

21. Transportation

- a) The supplier / selected bidder shall be responsible for the proper packing so as to avoid damage under normal conditions of transport by sea, rail and road or air and delivery of the material in the good condition to the consignee at destination. In the event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make good such loss and shortage found at the checking / inspection of the material by the Consignee. No extra cost on such account shall be admissible.
- b) All goods must be sent freight paid through Railways or goods transport. If goods are sent freight to pay, the freight together with departmental charge @5% of the freight will be recovered from the supplier's / selected bidder's bill.

22. Inspection

- a) The Purchase Officer or his duly authorized representative shall at all reasonable time have access to the supplier's / selected bidder's premises and shall have the power at all reasonable time to inspect and examine the materials and workmanship of the goods / equipment / machineries during manufacturing process or afterwards as may be decided.

23. Inspection / Testing charges: Inspection / Testing charges (for engaging third party if any) shall be borne by the supplier/ bidder/ selected bidder.

24. Rejection

- a) Articles / Goods not approved during inspection or testing shall be rejected and will have to be replaced by the selected bidder at his own cost within the time fixed by the Purchase Officer.
- b) If, however, due to exigencies of work, such replacement either in whole or in part, is not considered feasible, the Purchase Officer after giving an opportunity to the selected bidder of being heard shall for reasons to be recorded, deduct a suitable amount from the approved rates. The deduction so made shall be final.
- c) The rejected articles / goods shall be removed by the supplier/ bidder/ selected bidder within 15 days of intimation of rejection, after which Purchase Officer

shall not be responsible for any loss, shortage or damage and shall have the right to dispose of such articles as he thinks fit, at the selected bidder's risk and on his account.

25. Extension in Delivery Period and Liquidated Damages (LD)

- a) Except as provided under clause "Force Majeure", if the supplier/ selected bidder fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in (d) below for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the bidding document and / or contract. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to clause "Termination".
- b) The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the supplier/ selected bidder shall arrange goods supply and related services within the specified period.
- c) Delivery and installation / completion period may be extended with or without liquidated damages, if the delay in the supply of goods or service is on account of hindrances beyond the control of the supplier / selected bidder.
 - a. The supplier / selected bidder shall request in writing to the Purchaser giving reasons for extending the delivery period of service, if he finds himself unable to complete the supply of goods or service within the stipulated delivery period or is unable to maintain prorata progress in the supply of goods or service delivery. This request shall be submitted as soon as a hindrance in delivery of goods and service occurs or within 15 days from such occurrence but before expiry of stipulated period of completion of delivery of goods and service after which such request shall not be entertained.
 - b. The Purchaser shall examine the justification of causes of hindrance in the delivery of goods and service and the period of delay occurred due to that and recommend the competent authority on the period of extension which should be granted with or without liquidated damages.
 - c. Normally, extension in delivery period of goods and service in following circumstances may be considered without liquidated damages:
 - i. When delay has occurred due to delay by JDA in performing any of the duties to be performed by them as mentioned in the Chapter titled "Scope of Work, Deliverables and Timelines".
 - ii. When delay has occurred in supply of materials etc. if these were required to be supplied to the supplier or service provider by JDA as per terms of the contract.
 - d. If the competent authority agrees to extend the delivery period/ schedule, an amendment to the contract with suitable denial clauses and with

or without liquidated damages, as the case may be, shall be issued. The amendment letter shall mention that no extra price or additional cost for any reason, what so ever beyond the contracted cost shall be paid for the delayed supply of goods and service.

- e. It shall be at the discretion of the concerned authority to accept or not to accept the supply of goods and / or services rendered by the contractor after the expiry of the stipulated delivery period, if no formal extension in delivery period has been applied and granted. The competent authority shall have right to cancel the contract with respect to undelivered goods and/ or service.
- f. If JDA is in need of the good and / or service rendered after expiry of the stipulated delivery period, it may accept the services and issue a letter of extension in delivery period with usual liquidated damages and denial clauses to regularize the transaction.

d) **Liquidated Damages/Penalty for delay** : In case of extension in the delivery and/or installation/completion/commissioning period is granted with penalty / liquidated damages, the recovery for the un-finished work on pro-rata basis for each milestone, shall be made on the basis of following percentages of value of goods and/or service which the supplier / selected bidder has failed to supply or complete for the individual milestone as in the RFP : -

No.	Condition	LD %*
A	Delay up to one fourth period of the prescribed delivery period & completion of work	2.5 %
B	Delay exceeding one fourth but not exceeding half of the prescribed delivery period & completion of work	5.0 %
C	Delay exceeding half but not exceeding three fourth of the prescribed delivery period & completion of work	7.5 %
D	Delay exceeding three fourth of the prescribed delivery period, & completion of work	10.0 %

- a. Fraction of a day in reckoning period of delay in supplies, successful installation and completion of work shall be eliminated, if it is less than half a day.
- b. The maximum amount of liquidated damages shall be 10% for the individual milestone
- c. The percentage refers to the payment due for the associated milestone.
- d. The LD shall be levied if delay is attributable to the Bidder only.

26. **Risk & Cost:** If successful bidder fails to complete the milestone(s) the same will be got executed by another participated firm and the expenses incurred in this account will be charged by the bidder.
27. **Price Fall Clause:** The prices under a rate contract shall be subject to price fall clause of Act.
28. **Limitation of Liability:** Except in cases of gross negligence or willful misconduct: -

- a) neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier / selected bidder to pay liquidated damages to the Purchaser; and
- b) the aggregate liability of the supplier/selected bidder to the Purchaser, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the Contract, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier / selected bidder to indemnify the Purchaser with respect to patent infringement.

29. Change in Laws & Regulations: Unless otherwise specified in the Contract, if after the date of the Invitation for Bids, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in Rajasthan/ India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and / or the Contract Price, then such Delivery Date and/ or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited, if the same has already been accounted for in the price adjustment provisions where applicable.

30. Force Majeure

- a) The supplier / selected bidder shall not be liable for forfeiture of its PSD, LD, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- b) For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the supplier / selected bidder that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the supplier / selected bidder. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- c) If a Force Majeure situation arises, the supplier/ selected bidder shall promptly notify the JDA in writing of such conditions and cause thereof within 15 days of occurrence of such event. Unless otherwise directed by JDA, the supplier / selected bidder shall continue to perform its obligations under the contract as far as reasonably practical.
- d) If the performance in whole or part or any obligation under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party at its option may terminate the contract without any financial repercussion on either side.
- e) In case a Force Majeure situation occurs with the JDA, the JDA may take the case with the supplier / selected bidder on similar lines.

31. Change Orders and Contract Amendments

- a) The Purchaser may at any time order the supplier / selected bidder through Notice in accordance with clause "Notices" above, to make changes within the general scope of the Contract in any one or more of the following: -
 - a. drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - b. the method of shipment or packing;
 - c. the place of delivery; and
 - d. the related services to be provided by the supplier/ selected bidder.
- b) If any such change causes an increase or decrease in the cost of, or the time required for, the supplier's/ selected bidder's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery and Completion Schedule, or both, and the Contract shall accordingly should be amended. Any claims by the supplier / selected bidder for adjustment under this clause must be asserted within thirty (30) days from the date of the supplier's / selected bidder's receipt of the Purchaser's change order.
- c) Prices to be charged by the supplier / selected bidder for any related services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier / selected bidder for similar services.

32. Termination

a) Termination for Default

- The tender sanctioning authority of JDA may, without prejudice to any other remedy for breach of contract, by a written notice of default of at least 30 days sent to the supplier/ selected bidder, terminate the contract in whole or in part: -
 - i. If the supplier/ selected bidder fails to deliver any or all quantities of the service within the time period specified in the contract, or any extension thereof granted by JDA; or
 - ii. If the supplier/ selected bidder fails to perform any other obligation under the contract within the specified period of delivery of service or any extension granted thereof; or
 - iii. If the supplier/ selected bidder, in the judgement of the Purchaser, is found to be engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the contract.
 - iv. If the supplier/ selected bidder commits breach of any condition of the contract.
- If JDA terminates the contract in whole or in part, full amount of PSD shall stand forfeited.

- Before cancelling a contract and taking further action, advice of senior most finance person available in the office and of legal adviser or legal assistant posted in the office, if there is one, may be obtained.
- b) **Termination for Insolvency:** JDA may at any time terminate the Contract by giving a written notice of at least 30 days to the supplier / selected bidder, if the supplier / selected bidder becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the supplier / selected bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to JDA.
- c) **Termination for Convenience**
 - JDA, by a written notice of at least 30 days sent to the supplier / selected bidder, may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the supplier / selected bidder under the Contract is terminated, and the date upon which such termination becomes effective.
 - Depending on merits of the case the supplier / selected bidder may be appropriately compensated on mutually agreed terms for the loss incurred by the contract if any due to such termination.
 - The Goods that are complete and ready for shipment within twenty-eight (28) days after the supplier's/ selected bidder's receipt of the Notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - i. To have any portion completed and delivered at the Contract terms and prices;
and/or
 - ii. To cancel the remainder and pay to the supplier / selected bidder an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the supplier/ selected bidder.

33. Settlement of Disputes

- a) **General:** If any dispute arises between the supplier / selected bidder and JDA during the execution of a contract that should be amicably settled by mutual discussions. However, if the dispute is not settled by mutual discussions, a written representation will be obtained from the supplier/ selected bidder on the points of dispute. The representation so received shall be examined by the concerned Procurement Committee which sanctioned the tender. The Procurement Committee may take legal advice of a counsel and then examine the representation. The supplier / selected bidder will also be given an opportunity of being heard. The Committee will take a decision on the representation and convey it in writing to the supplier / selected bidder.

- b) **Standing Committee for Settlement of Disputes:** If a question, difference or objection arises in connection with or out of the contract / agreement or the meaning of operation of any part, thereof or the rights, duties or liabilities of either party have not been settled by mutual discussions or the decision of tender sanctioning Procurement Committee, it shall be referred to the empowered standing committee as decided by JDA for decision.
- c) **Procedure for reference to the Standing Committee:** The supplier / selected bidder shall present his representation to the Procuring Entity along with a fee equal to two percent of the amount of dispute, not exceeding Rupees One Lakh, within one month from the date of communication of decision of the tender sanctioning Procurement Committee. The officer-in-charge of the project who was responsible for taking delivery of the goods and/ or service from the supplier/ selected bidder shall prepare a reply of representation and shall represent the JDA's stand before the standing committee. From the side of the supplier / selected bidder, the claim case may be presented by himself or through a lawyer. After hearing both the parties, the standing committee shall announce its decision which shall be final and binding both on the supplier/ selected bidder and JDA. The standing committee, if it so decides, may refer the matter to the empowered committee as decided by JDA.
- d) **Legal Jurisdiction:** All legal proceedings arising out of any dispute between both the parties regarding a contract shall be settled by a competent court having jurisdiction over the place, where agreement has been executed and by no other court, after decision of the standing committee for settlement of disputes.

Section 6: Special Terms & Conditions of Bid & Contract

1. **Contracting:** Under this contract Sub-Contracting is not allowed by the successful bidder(s).
2. **Project/Contract Period:** The successful Bidder is expected to carry out all ground work before start the services in direction of Nodal Officer of this project. Initially the contract period shall be as per delivery schedule mentioned in the bid document. The contract period can be extended for another period on mutual consent on approved rates as per Act.
3. **Delivery and Start of Services:** The successful Bidder will start the work as per the date mentioned in the Award of Contract (AoC)/Work Order which will also be treated as the start of project date.

Annexure-1: Bill of Material (BoM) with OEM Warrantee and MAF

Sr No	Item	UOM	Qty	MAF Required (Y/N)	OEM Warranty Document Required (In Years)	Location
A	INTERIOR WORK					
1	Acoustical False Ceiling, FR	SqFt	4600	Y	5	NOC Center, Room No 215
2	Accoustic Wall Panelling, FR	SqFt	2300	Y		NOC Center allWalls (Height 11Ft)
3	Access (Raised) Floor, FR	SqFt	850	Y	5	NOC Centre- Server Room, UPS room, Network Rack Room, Store
4	Glass Partition Wall, with Dorma Fittings, Industrial Grade	SqFt	525			Entrace Wall of NOC Center + 2 side walls of Reception
5	Fire Rated Gypsum Partition wall	SqFt	1550	Y		Between UPS Room & Server Room, Server Room and Meeting Room, Network rack Room (Height 20 Ft)
6	Glass Door with Dorma Fittings, Industrial Grade	Nos	4			NOC Center Main entrance, Entrance of NOC Room, Meeting Room, Room No 215
7	Wooden Door with Dorma Fittings, Industrial Grade	Nos	1			Entrance to NOC Network Room
8	Anti Termite Treatment	SqFt	5500			NOC Center , Room No 215 & 326
9	Painting Work (with Royal Finish)	SqFt	2000			Entrance of NOC Center and Gypsum Partition Walls
10	Internal safety & Direction Signage	Lot	1			NOC Center
11	Motorised Rolar Blinds, FR	Nos	8			NOC Center Glass Walls
12	Entrance Mat Aqua Carpet Heavy Duty, FR	SqFt	240			Entrance of NOC Center
13	Fire Rated Doors & Window	Nos	4	Y		NOC Server Room, UPS ROOM, Room No 325 Entrance & Emergency Exit of 215, window between Server Room & UPS room
14	Antistatic Floor Rubber Mats for Panels, UPS Etc	SqFt	200			Infront of UPS Panels, Transformer, DG

						Set etc
15	Floor Carpet Tiles, FR, Anti-Static	SqFt	3850	Y	5	NoC Room, Reception, Meeting Room, Room No 215
16	Glass Films & Enviornmental Graphics	SqFt	750			NOC Room, Room No 215, Room No 325
B	NOC ROOM FURNITURE					
17	Work Station Console Table 24x7	Nos	5	Y	5	NOC Room, Reception, Meeting Room
18	Work Station Console Chairs 24x7	Nos	22	Y		NOC Room, Reception, Meeting Room
19	Utility Sofa-Sets	Nos	8			NOC Room, Reception
20	Utility Center Tables	Nos	5			NOC Room, Reception, Meeting Room
21	Utility Corner Tables	Nos	5			NOC Room, Reception, Meeting Room
22	Utility Cabinet	Nos	3			NOC Room, Reception, Meeting Room
C	HVAC Comfort Air Conditioning system					
23	HVAC System	Lot	1	Y	5	NOC Center, Room No 215, Room No 325
D	FIRE ALARM AND SECURITY SYSTEM					
24	Addressable Fire Detection System	Nos	1	Y		NOC Center, Room No 215, Room No 325
25	Novac gas Fire Suppression System	Nos	2	Y		UPS Room, Server Room, Network Rack Room
26	Fire Extinguishers	Nos	18			NOC Center, Room No 215, Room No 325
27	Fire Seal/Passive Fire protection System	Lot	1	Y		NOC Center, Room No 215, Room No 325
E	Access Control, IT, A/V & Security Work					
28	Access Control System	Nos	1	Y		NOC Center, Room No 215, Room No 325
29	Public address System	Nos	1	Y		NOC Center, Room No 215, Room No 325
30	Rodent Repellent	Nos	1	Y		NOC Center, Room

	System					No 215, Room No 325
31	Water Leakage Detection System	Nos	1	Y		UPS Room, Server Room, Network Rack Room
32	BMS System	Nos	1	Y		NOC Center, Room No 215, Room No 325
33	IT Passive Networking Items	Lot	1	Y	5	NOC Center
34	Automated Infrastructure Manangment System	Lot	1	Y	5	NOC Center
F	PCS & WORKSTATIONS					
35 A	PC Workstation with 24" Dual Monitor	Nos	9	Y	5	NOC Room
35 B	Apple MacBook PRO 15"	Nos	3	Y	5	Meeting Room
36 A	All-in-One PC	Nos	1	Y	5	Reception
36 B	Apple iMac 27" with Retina Display	Nos	2	Y	5	Meeting Room
G	ELECTRICAL WORK					
37	Light Fixtures & Controls	Lot	1	Y		NOC Center , Room No 215 & 326
38	Modular UPS System 30 KVA	Nos	2	Y	5	NOC Center UPS Room
39	Modular Battery System for UPS	Nos	2	Y	5	NOC Center UPS Room
40	320 KVA Noise free generator set	Nos	1	Y	5	NOC Center
41	Transformer	Nos	1			NOC Center
42	RMU	Nos	1			NOC Center
43	Electrical Panels, Isolation Box, Distribution Board, Point Wiring etc.	Lot	1			NOC Center, Room No 215, Room No 325
	Distribution Boards	Lot	1			
	MCB/MCCB	Lot	1			
	MDM Meters	Lot	1			
	HT Cables & Accessories	Lot	1			
	LT Cables	Lot	1			
	FRLS PVC Insulated Copper Wires	Lot	1			
	Switches & Sockets	Lot	1			
	FRLS PVC Conduit	Lot	1			
	MS Conduits	Lot	1			
	Earthing System					
	Point Wiring	Lot	1			
	Cable Tray, Raceways, Under	Lot	1			

	floor POP-up Boxes					
H	EXTENSION of VIDEO WALL					
44	Video wall cube	Nos	8	Y	5	NOC Room
45	Shifting of Existing DG Set and UPS	Job	1			Parking Building

Note :

- The bidder shall provide/supply any item not included in the bill of material but required for commissioning of the NOC & IT Support Center, without any additional cost to JDA. The financial Bid evaluation shall take into account all the components and their cost as respective bidders for the end-to-end SITC of the overall project.
- Detailed technical specification & Bill of Quantity are given in the Bid Document
- Cost of Fuel/Oil, Normal Wear & Tear or damage due to malafide intent is not included in Comprehensive Service.

Annexure-2: Bill of Quantity (BoQ)

Any excess quantity required for completion of project shall be the responsibility of the bidder, and no additional cost shall be given by JDA to the bidder. All the bidders are requested to visit the site for survey.

Sr No	Item	UOM	Qty
A	INTERIOR WORK		
1.00	SITC of Acoustical False Ceiling, FR as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	4600
2.00	SITC of Acoustic Wall Panelling, FR as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	2300
3.00	SITC of Access (Raised) Floor, FR as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	850
4.00	SITC of Glass Partition Wall 12mm Toughened with all mounting accessories & fittings from DORMA etc. as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	525
5.00	SITC of Fire Rated Gypsum Partition wall as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	1550
6.00	SITC of Glass Door , 12mm, Toughened complete with all fittings (Industrial Grade Door Closers, Handles, Locks, etc.) from DORMA as per specification, drawings and directions of Engineer-In-charge.		
6.01	Size 4'x7', Single leaf complete with all accessories	Nos	2
6.02	Size 5'x7', Double leaf Complete with all accessories	Nos	2
7.00	SITC of Wooden Door complete with all fittings (Industrial Grade Door Closers, Handles, Locks, etc.) from DORMA as per specification, drawings and directions of Engineer-In-charge.	Nos	1
8.00	SITC of Anti Termite Treatment as per specification, drawings and directions of Engineer-In-charge.	SqFt	5500
9.00	SITC of Wall Painting by providing all necessary material (Putty, Primer, and Paint etc.) for painting the NOC area. The cemented walls are finished with wall putty, one coat of Primer and three coats of Royal Finish paint of desired colour approved by client as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	2000
10.00	SITC of Internal Safety & Direction Signage (Fire Exit, Work area etc.) as per specification, drawings and directions of Engineer-In-charge.	Lot	1
11.00	SITC of Motorised Roller Blinds FR (5'x11') for Glass Walls with Somfy Motors as per specification, drawings and directions of Engineer-In-charge.	Nos	8
12.00	SITC of Entrance Mat Aqua Carpet Heavy Duty as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	240

13.00	SITC of Fire Door & Windows complete with all fittings as per specification, drawings and directions of Engineer-In-charge.		
13.01	Metal Fire Door, 4'x8', with Clear Glass Pane of Size	Nos	1
13.02	Metal Fire Door, 4'x7', with Clear Glass Pane of Size	Nos	2
13.03	Metal Fire Window 2'x4' with Clear Glass	Nos	1
13.04	SITC of Wooden Fire Door 4'x7' with Clear Glass	Nos	1
14.00	SITC of Antistatic Floor Mats for placement in front of all active devices like (UPS, UPS O/P, and Panel etc.) as preapproved shade and pattern and of size as per specification, drawings and directions of Engineer-In-charge.	R Ft	200
15.00	SITC of Floor Carpet Tiles, FR, Anti-Static as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	3850
16.00	Glass Films & Environmental Graphics as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	750
B	NOC ROOM FURNITURE		
17.01	SITC of Work Station Consoles for NOC Room 24X7 - Technical Furniture as per specification, drawings and directions of Engineer-In-charge. as per design & specification and approval of the Engineer-in-charge	Nos	3
17.02	SITC of Work Station Console for Meeting Room 24X7 - Technical Furniture as per specification, drawings and directions of Engineer-In-charge.	Nos	1
17.03	SITC of Work Station Console for Reception 24x7 - Technical Furniture as per specification, drawings and directions of Engineer-In-charge.	Nos	1
18.00	SITC of Work Station Console Chairs Ergonomic 24x7 - Technical Furniture as per specification, drawings and directions of Engineer-In-charge.	Nos	22
19.00	SITC of Utility Sofa-sets (Premium Finish) (Two Seater) as per specification, drawings and directions of Engineer-In-charge.	Nos	8
20.00	SITC of Utility Table 2'x4' as per specification, drawings and directions of Engineer-In-charge.	Nos	5
21.00	SITC of Utility Corner Table 2'x2" as per specification, drawings and directions of Engineer-In-charge.	Nos	5
22.00	SITC of Utility Cabinet (Shoe, Storage, Locker etc.) 15 sq.Ft. each as per specification, drawings and directions of Engineer-In-charge.	Nos	3
C	HVAC Comfort Air Conditioning system		
23.00	SITC of Variable Refrigerant Flow System based HVAC system shall be air-cooled, direct expansion type central air conditioning system consisting of one or more Variable Refrigerant Flow Condensing unit (Outdoor Unit) and connected to it one or more Evaporator (Indoor Units) for cooling and heating operation as per specification, drawings and directions of Engineer-In-charge.		

23.10	4-WAY Ceiling suspended Cassette type indoor unit with Panel & drain pump		
23.11	2.0 TR	Nos	6
23.12	2.5 TR	Nos	3
23.13	3.2 TR.	Nos	14
23.14	4.0 TR.	Nos	8
23.20	Wall Mounted type indoor unit complete with Filters		
23.21	1.0 TR.	Nos	2
23.30	Outdoor units with multiple scroll compressors (minimum 1 no. inverter scroll compressor in each unit) at specified conditions and minimum 2 outdoor units. Manufacturer can offer combination but offered capacity should be equal or more mentioned below.		
23.31	10 HP	Nos	6
23.32	12 HP	Nos	4
23.33	14 HP	Nos	2
23.40	Corded remote controller	Nos	5
23.50	Cordless remote controller	Nos	10
23.60	Touch Type Centralised System Controller	Nos	1
23.70	Low Line accessories for HVAC system		
23.71	SITC of imported Y JOINTS /REFNET JOINTS/ HEADERS as per HVAC OEM's design & specifications on approval of the Engineer-in-Charge	Lot	1
23.72	SITC of Interconnecting refrigerant pipe work (with 13 / 19 mm thick) duly insulated with class 'O' Nitrile foam between indoor & outdoor units as stated above with proper supports with MS hangers of different dia. as per HVAC OEM's specifications (Discharge & liquid line to be measured together) as per specification, drawings and directions of Engineer-In-charge.	Mtr	350
23.73	SITC of interconnecting control cum transmission Copper wiring for VRF units as required in PVC conduit as per HVAC OEM's specification, drawings and directions of Engineer-In-charge.	Mtr	275
23.74	SITC of Rigid 25mm PVC DRAIN PIPING - 20 Kg Density with fittings & supports etc. duly insulated with class 'O' Nitrile foam of complete as per OEM's specification, drawings and directions of Engineer-In-charge.	Mtr	350
23.75	SITC of Floor Standing/ Wall Mounted MS angle-iron/channel stands for outdoor units, as required for Condensing units with painting complete as per design, specifications and approval / instruction of the HVAC OEM and on approval of the Engineer-in-Charge	Nos	12
23.76	SITC of Eco-friendly refrigerant i.e. R407 C/R410 A as per design, specifications and approval / instruction of the HVAC OEM and on approval of the Engineer-in-Charge	Kg	100
D	FIRE ALARM AND SECURITY SYSTEM		
24.00	Addressable Fire Detection System		
24.01	SITC of Fire Alarm Control Panel as per specification, drawings and directions of Engineer-In-charge.	Nos	1

24.02	SITC of Aspirating smoke detector as per specification, drawings and directions of Engineer-In-charge.	Nos	1
24.03	SITC of Microprocessor Based Addressable low profile detector for smoke as per specification, drawings and directions of Engineer-In-charge.	Nos	20
24.04	SITC of Intelligent addressable Multicriteria detector as per specification, drawings and directions of Engineer-In-charge.	Nos	30
24.05	SITC of Standalone Loop Powered Addressable sounder with inbuilt isolators as per specification, drawings and directions of Engineer-In-charge.	Nos	6
24.06	SITC of Addressable Control Relay Module with inbuilt isolators as per specification, drawings and directions of Engineer-In-charge.	Nos	6
24.07	SITC of Addressable Module with one input & one output contacts, with inbuilt isolators as per specification, drawings and directions of Engineer-In-charge.	Nos	6
24.08	SITC of Addressable Manual Break Glass/ flap Unit with inbuilt isolator as per specification, drawings and directions of Engineer-In-charge.	Nos	8
24.09	SITC of Sampling Point Nozzles for air suction in room voids as per specification, drawings and directions of Engineer-In-charge.	Nos	8
24.10	SITC of Sampling Point Red Level as per specification, drawings and directions of Engineer-In-charge.	Nos	8
24.11	SITC of Trunk Adaptor for Capillary Tubes as per specification, drawings and directions of Engineer-In-charge.	Nos	8
24.12	SITC of Capillary Tubes as per specification, drawings and directions of Engineer-In-charge.	Mtrs	20
24.13	SITC of Capillary Connectors as per specification, drawings and directions of Engineer-In-charge.	Nos	8
24.14	SITC of UPVC /CPVC Pipe, 25mm OD, 21mm ID for above false ceiling and below raised floor area for Aspiration of smoke with all accessories, fittings, fixtures etc. as per specification, drawings and directions of Engineer-In-charge.	Mtrs	100
24.15	SITC of FRLS Armoured copper conductor Power Cable 2X1.5 sq.mm ISI marked (IS:694) of 1.1 kV grade and approved make including making connections etc. as required as per specification & approval of Engineer-in-Charge	Mtr	300
25.00	Novac Based Fire Suppression System (NOC Center & Room No 325)		
25.01	SITC of Novak 1230 Gas as per specification, drawings and directions of Engineer-In-charge.	Kg	304
25.02	SITC of Cylinder with Valve 120 Ltr. as per specification, drawings and directions of Engineer-In-charge.	Nos	3
25.03	SITC of Cylinder with Valve 34 Ltr. as per specification, drawings and directions of Engineer-In-charge.	Nos	2

25.04	SITC of Master Cylinder Accessories: Electric Control Head, 24 V DC, Discharge Hose, 2" x 31", Warning Sign as per specification, drawings and directions of Engineer-In-charge.	Nos	4
25.05	SITC of End Slave Cylinder Accessories; (a) Pressure operated Control Head (b) Actuation Hose, 30" (C.) Discharge hose, 2"x31" (d) Master Cylinder Adopter Kitty (e) Male Elbow, 5/16" Flare x 1/8" NPT as per specification, drawings and directions of Engineer-In-charge.	Nos	1
25.06	SITC of EL Check Valves as per specification, drawings and directions of Engineer-In-charge.	Nos	2
25.07	SITC of Discharge Nozzles as per specification, drawings and directions of Engineer-In-charge.	Nos.	12
25.08	SITC MS Seamless pipes as per ASTM A 106 Sch. 40, pipe fittings & structural supports etc. as per specification, drawings and directions of Engineer-In-charge.	Lot	4
25.09	SITC of Cylinder Clamps as per specification, drawings and directions of Engineer-In-charge.	Nos	10
25.10	SITC of 2 zone Fire cum Gas Release panel complete with battery charger and SMF batteries as per specification, drawings and directions of Engineer-In-charge.	Nos	4
25.11	SITC of Manual call point as per specification, drawings and directions of Engineer-In-charge.	Nos.	3
25.12	SITC of Sounder cum strobe as per specification, drawings and directions of Engineer-In-charge.	Nos	4
25.13	SITC of Manual Abort Switch as per specification, drawings and directions of Engineer-In-charge.	Nos	4
25.14	SITC of Manual Release Switch as per specification, drawings and directions of Engineer-In-charge.	Nos	4
25.15	SITC of 2C x 1.5mm ² PVC armoured Control Cables FRLS as per specification, drawings and directions of Engineer-In-charge.	Nos	350
25.16	SITC of Discharge Pressure Switch as per specification, drawings and directions of Engineer-In-charge.	Nos	4
25.17	SITC of 2 Way Manifold Fabricated from seamless Pipes as per specification, drawings and directions of Engineer-In-charge.	Nos	1
26.00	SITC of fully charged ABC powder type portable fire extinguishers conforming to IS:15683, fixed to wall with brackets complete with initial charge and refilling & maintenance for five years as per specification, drawings and directions of Engineer-In-charge.		
26.01	Capacity 2 Kg.	Nos	10
26.02	Capacity 4.5 Kg.	Nos	4
26.03	Capacity 6 Kg.	Nos	4
27.00	Fire Barrier/Passive Fire protection System		

27.01	SITC of Fire Barrier Intumescent Composite Sheet for sealing larger openings used to carry Cable trays and cables as per specification, drawings and directions of Engineer-In-charge.	Sq Ft	27
27.02	SITC of Fire Barrier Foam for sealings in Floor or Wall with (a) Complex openings (b) Irregular openings (c) Inaccessible openings (d) High occupancy openings for passing various service lines like Cable Trays, Cables/Cable Bundles etc. as per specification, drawings and directions of Engineer-In-charge.	Ltr	5
27.03	SITC of Fire Barrier paint on Cables to prevent the propagation fire by use of A white ready-mixed, water-based thixotropic coating as per specification, drawings and directions of Engineer-In-charge.	Ltr	20
E	Access Control, IT, A/V & Security Work		
28.00	Access Control System		
28.01	SITC of Access Door Controller up to 8 WIEGAND reader support Complete with Housing & power Supply Module with Battery Charger & Battery Backup as per specification, drawings and directions of Engineer-In-charge.	Nos	2
28.02	SITC of Contactless smart card readers with Biometric and Keypad as per specification, drawings and directions of Engineer-In-charge.	Nos	16
28.03	SITC of iCLASS Contactless Smart Card as per specification, drawings and directions of Engineer-In-charge.	Nos	100
28.04	SITC of The Access Control System Software as per specification, drawings and directions of Engineer-In-charge.	Lot	1
28.05	SITC of Electro Magnetic Lock of Suitable Capacity with power supply module. (for Dual Leaf Glass Door) as per specification, drawings and directions of Engineer-In-charge.	Nos	1
28.06	SITC of Electro Magnetic Lock of Suitable Capacity with power supply module. (for Single Leaf Glass Door) as per specification, drawings and directions of Engineer-In-charge.	Nos	7
28.07	SITC of Door Position Sensor (DPS) for door information feedback as per specification, drawings and directions of Engineer-In-charge.	Nos	8
28.08	SITC of 6 Core x 0.2 sq.mm multi strand, copper, unarmoured shielded Cable (between the card readers & the access controllers including associated civil works as per specification, drawings and directions of Engineer-In-charge.	Mtr	300
28.09	SITC of 2 Core x 1.5 Sq.mm, multi strand, copper, shielded, un armoured cable(between the controller and EM Lock/ door sensor/Request to exit button and) as per specification, drawings and directions of Engineer-In-charge.	Mtr	300
29.00	Public Address & EVAC System		

29.01	SITC of PA System & EVAC controller as per specification, drawings and directions of Engineer-In-charge.	Nos	1
29.02	SITC of High efficiency PA amplifier as per specification, drawings and directions of Engineer-In-charge.	Nos	1
29.03	SITC of PA Call Station with built in numerical keypad as per specification, drawings and directions of Engineer-In-charge.	Nos	2
29.04	SITC of PA 6W ceiling mount speaker as per specification, drawings and directions of Engineer-In-charge.	Nos	40
29.05	SITC of FR PVC insulated & sheathed flexible copper conductor cable 2x1.5 Sq.mm ISI marked (IS:694) of 1.1 kV grade and approved make in existing surface or recessed conduit/casing capping including making connections etc. as per specification, drawings and directions of Engineer-In-charge.	Mtr	400
29.06	SITC of 2 Core x 1.5 Sq.mm, multi strand, copper, shielded, un armoured cable(between the controller and EM Lock/ door sensor/Request to exit button and) as per specification, drawings and directions of Engineer-In-charge.	Mtr	400
30.00	Rodent Repellent System		
30.01	SITC of Controller/Master Console for Rodent Repellent Transducers/Satellite as per specification, drawings and directions of Engineer-In-charge.	Nos	2
30.02	SITC of Transducers/Satellite for all areas and voids as per specification, drawings and directions of Engineer-In-charge.	Nos	24
30.03	SITC of 2 core 1.5 sq.mm Cu. Armoured FRLS Cable as per specification, drawings and directions of Engineer-In-charge.	Mtr	100
31.00	Water Leakage Detection System		
31.01	SITC of Water leak detection control panel of 8 zone with all fitting and accessories as per specification, drawings and directions of Engineer-In-charge.	Nos	3
31.02	SITC of Interface module to connect water leak detection system with existing addressable fire detection system as per specification, drawings and directions of Engineer-In-charge.	Nos	3
31.03	SITC of sounder with strobe as per specification, drawings and directions of Engineer-In-charge.	Nos	6
31.04	SITC of Water leak detector with sensor tape as per specification, drawings and directions of Engineer-In-charge.	Nos	24
32.00	Building Management System		
32.01	SITC of IBMS Graphical Software with hardware appliances & Data Centre Management System with accessories and required licenses.as per specification, drawings and directions of Engineer-In-charge.	Lot	1
32.02	SITC of IBMS Supervisory Controller as per specification, drawings and directions of Engineer-In-	Nos	1

	charge.		
32.03	SITC of IBMS DDC Panel as per specification, drawings and directions of Engineer-In-charge.	Nos	1
32.04	SITC of Temperature & RH Transmitter as per specification, drawings and directions of Engineer-In-charge.	Nos	11
32.05	SITC of Connectors (as required to connect all the devices required to be monitored by BMS) as per specification, drawings and directions of Engineer-In-charge.	Lot	1
32.06	SITC of integrator to connect UPS as per specification, drawings and directions of Engineer-In-charge.	Lot	1
32.07	SITC of integrator to connect ENERGY METER as per specification, drawings and directions of Engineer-In-charge.	Lot	1
32.08	SITC of integrator to connect CASSETTE AC as per specification, drawings and directions of Engineer-In-charge.	Lot	1
32.09	SITC of any other Device/Part/Component/Card Required for integration of all the service specified in tender such as FAC, Fire Suppression System, ACS, DG Set, Lighting Controls, Rodent Repellent system, Roller Blinds, Water Leak Detection System, Public Address System, existing CCTV system Video-Wall, Exhaust Fans, UPS, Panels and others with the BMS for seamless operation as per specification, drawings and directions of Engineer-In-charge.	Lot	1
33.00	IT Passive Networking Item		
33.01	SITC of 4 pair cat 6A, minimum 23 AWG, 100 ohms 250 MHz UTP cable that should confirm or exceed component specifications TIA/EIA-568-A standards for physical & electrical Specifications. The cable should be unshielded type having flame retardant properties to Cat6 UTP standard as per specification, drawings and directions of Engineer-In-charge.	305 Mtr.	4
33.02	Cats 6A information outlets that should confirm or exceed component specifications TIA/EIA-568-B.2-1 standards for physical & electrical Specifications, should be fully unshielded type as per specification, drawings and directions of Engineer-In-charge.	Nos	48
33.03	1 Mtr. Cat 6 A patch cord with 23 AWG suitable for Gigabit connection, it should be suitable to maintain the bending radius as per relevant code, tender specification and direction of Engineer-in-charge as per specification, drawings and directions of Engineer-In-charge.	Nos	24
33.04	2 Mtr. Cat 6A patch cord with 23 AWG suitable for Gigabit connection, it should be suitable to maintain the bending radius as per specification, drawings and directions of Engineer-In-charge.	Nos	24

33.05	5 Mtr. Single/Multi-Mode Fiber LC-LC patch cord, tender specification and direction of Engineer-in-charge as per specification, drawings and directions of Engineer-In-charge.	Nos	24
33.06	10 Mtr. Single/Multi-Mode Fiber LC-LC patch cord, tender specification and direction of Engineer-in-charge as per specification, drawings and directions of Engineer-In-charge.	Nos	24
33.07	SITC of Dual Faceplates as per specification, drawings and directions of Engineer-In-charge.	Nos	36
33.08	SITC of Quad Faceplates as per specification, drawings and directions of Engineer-In-charge.	Nos	12
33.09	SITC of Plastic Surface Box 3" as per specification, drawings and directions of Engineer-In-charge.	Nos	48
34.00	Automated Infrastructure Management System		
34.01	Intelligent System Controller, for support of 1,000 points	Nos	1
34.02	Operations Software	Nos	1
34.03	Cat 6A, 24 port loaded rack mountable intelligent Patch Panel. The panel should be fully unshielded as per specification, drawings and directions of Engineer-In-charge.	Nos	6
34.04	Rack Mounted 24 port loaded (multi-mode) Fiber Optic Intelligent Patch Panel and Components. The panel should be fully unshielded as per specification, drawings and directions of Engineer-In-charge.	Nos	2
34.05	Rack Mounted 24 port loaded (single-mode) Fiber Optic Intelligent Patch Panel and Components. The panel should be fully unshielded as per specification, drawings and directions of Engineer-In-charge.	Nos	2
F	PCS & WORKSTATIONS		
35 A	SITC of Work Stations Computers each with two nos. of 24" Ultra Sharp Computer Monitors as per specification, drawings and directions of Engineer-In-charge.	Nos	9
35 B	SITC of Apple MacBook Pro15" as per specification, drawings and directions of Engineer-In-charge.	Nos	3
36A	SITC of Windows All in One PCs as per specification, drawings and directions of Engineer-In-charge.	Nos	1
36B	SITC of Apple iMac 27" as per specification, drawings and directions of Engineer-In-charge.	Nos	2
G	ELECTRICAL WORK		
37.00	Lighting Fixtures And Control System		
37.01	SITC of LED Based Recessed Panel suitable for DALI Dimming with a maximum system wattage of 35 Watts and a minimum system lumen output of 3200 lumens, CRI>80, Power Factor >0.90, THD<10%, 2.5 KV Inbuilt Surge Protection, Operating Voltage Range of 140 - 270 Volts, LM79 & LM80 reports to be submitted from NABL Lab to verify the above parameters. such as Philips RC 380B LED 32S 6500 L 120 W 30 PSD OD as per specification, drawings and directions of	Nos	35

	Engineer-In-charge.		
37.02	SITC of LED Based Surface Mounted Panel 300mmx1200mm as per specification, drawings and directions of Engineer-In-charge.	Nos	8
37.03	SITC of Deep Recessed Fixture suitable for Dimmable MR 16 Lamps. Such as Philips QBS047 with MASTER LED 7-50W 2700K MR16 15D Dim as per specification, drawings and directions of Engineer-In-charge.	Nos	16
37.04	SITC of LED Based Colour Changing Strip suitable for extension up-to 10 m and integration with Bridge for Android App control ; Option of 16 million colours with CRI>80 ; Class 2 Electrical safety , lumen output of 1600 lumens every 2metres and system wattage of 25 W every 2 metres. such as Philips Hue Light-strip Plus with Bridge as per specification, drawings and directions of Engineer-In-charge.	Mtr	60
37.05	SITC Bridge for Android Integration of LED Strip as per specification, drawings and directions of Engineer-In-charge.	Nos	1
37.06	SITC of High Frequency DALI Ballast Controller with 12 control channels , DALI Broadcast Mode, 80 DALI ballasts per channel, 170 Pre-set Scenes, 0-50Degree C Operating Temperature Range, and Dimensions not more than H 93mm x W 211mm x D 75 mm. such as Philips Dynalite DDBC1200 as per specification, drawings and directions of Engineer-In-charge.	Nos	1
37.07	SITC of 6 button wired keypad with master raise/lower for scene selection with a facility of back lighting and with LED indication. Such as Philips PABPE with DACM- V2 as per specification, drawings and directions of Engineer-In-charge.	Nos	3
37.08	SITC of Trailing Edge Dimmer suitable for dimming of MR16 lamps. Such as Philips Trailing Edge Dimmer as per specification, drawings and directions of Engineer-In-charge.	Nos	1
37.09	SITC of 320 KVA Noise free Diesel Generator set as per specifications and approval of the Engineer-in-charge as per specification, drawings and directions of Engineer-In-charge.	Nos	1
38.00	SITC of Modular UPS System 30 KVA as per specifications and approval of the Engineer-in-charge as per specification, drawings and directions of Engineer-In-charge.	Nos	2
39.00	SITC of Modular Battery System for UPS (15 min. backup) as per specifications and approval of the Engineer-in-charge as per specification, drawings and directions of Engineer-In-charge.	Nos	2
40.00	Generator		
40.01	SITC of 320 KVA Silent Diesel Generator Set, as per specification, drawings and directions of Engineer-In-charge.	Nos	1
41.00	Electric Transformer		

41.01	SITC of 315 KVA Aluminium wound 11/0.433 KV, 50 C/S, ONAN Delta-star connected, Dyn11 vector group transformer, with OFTC including placement of the x'mer on the platform, making HT / LT connection, neutral & body earth connection, etc. as per specification, drawings and directions of Engineer-In-charge.	Each	1
42.00	RMU		
42.01	SITC of outdoor type 11 KV RMU 630Amp. With Built-in Relay, CT, having two Isolators & One Breaker, including HT incoming & outgoing connection, earthing connection etc. as per specification, drawings and directions of Engineer-In-charge.	Each	1
42.43	10 sq.mm. Cu. Flexible cable	Mtr	100
43.00	Electrical Panels, Isolation Box, Distribution Board, Point Wiring etc.		
43.10	SITC of Modular cubical type construction, Electrical Panels up to 440Volts $\pm 10\%$, 3Phase, 4Wire, 50Hz $\pm 6\%$, are housed in CRCA Sheet of 1.6mm for non-stress members & 2.0mm for all stress bearing members and 2.0mm Stainless steel for Removable Glad Plate & base Frame Material, unless specified otherwise, vermin proof hinged lockable doors & door earthed for each compartment provide bus bar interconnections for incoming and outgoing, fixed Type, Single front compartmentalized, totally enclosed, free standing, Floor / Wall mounted type, indoor (IP:54) / outdoor (IP:55) , extendible type, dust and vermin Proof, duly wired up and ready for installation at site. The Bus bars will be electrolytic grade E91 Copper / Aluminium duly sleeved with Halogen Free heat shrink coloured Insulated tube (make-GALA or Eq.) confirms to RoHS & IEC 6068-3-247 Standard. Provide electrical insulating shrouds, reusable type covers for bus-bars Boots on corners Panels will be painted with Powder coating (50-60micron as per IS:13871), include one size higher terminal block in cable alley and interconnecting wires between bus bars and terminals via MCB/MCCB. Also refer to general notes and specifications for panel/boards. ELECTRICAL PANEL SDB-1 as per specification, drawings and directions of Engineer-In-charge.	Lot	2
43.20	SITC of Power Cables, Solid Aluminium conductor up to 10 sq.mm balance stranded conductor, XLPE Insulated, cores laid up, PVC tape / Extruded Inner sheathed , Un. Armour or Armour (Aluminium wire for single core up to 70 sq.mm balance Aluminium strip, Galvanised wire for cables up to 2x10 sq.mm, 3x10 sq.mm, 4x6 sq.mm balance all galvanised steel strip), extruded PVC Type ST2 sheathed, 1100V grade as per IS 7098(Part 1) 1988 as per specification, drawings and directions of Engineer-In-charge.		
43.21	3.5 CORES 185 sq.mm. Al Ar. XLPE cable	Mtr	100
43.22	3.5 CORES 95 sq.mm. Al Ar. XLPE cable	Mtr	100

43.23	3.5 CORES 70 sq.mm. Al Ar. XLPE cable	Mtr	100
43.30	EARTHING WORK		
43.31	SITC of maintenance free GEL earthing dual pipe technology of 3 Mtr. long 80 mm dia. with the adequate galvanization of 100-300 microns filled with special conducting compound, 50 Kgs of Moisture Booster to retain the moisture duly tested & certified by CPRI Laboratory. The earthing pit shall be provided with suitable sturdy test well for observations as per specifications and approval of the Engineer-in-charge	Each	12
43.32	SITC of following size earth wire/strip in horizontal or vertical run in ground /surface/ recess including riveting, soldering, saddles, making connection etc. as required. The contractor shall arrange the earthing strip material at site after getting the exact measurement by himself as per specification, drawings and directions of Engineer-In-charge.		
43.33	25 mm x 6 mm GI strip	Mtr	125
43.34	25 mm x6 mm copper strip	Mtr	20
43.35	8 SWG GI Wire	Mtr	200
43.40	SINGLE CORE COPPER FLEXIBLE CABLE EARTHING:		
43.41	Supply, laying, connection, testing and commissioning of following sizes of SITC of 1.1kV grade Single core FRLS PVC insulated Single core unsheathed Industrial Flexible Cable confirming to IS:694/1990 with Flexible Bright annealed copper conductor for 1.1kV voltage grade. It should include both ends terminal joints providing tinned copper terminal lugs, single compression PVC cable glands up to 16 sq.mm cable and double compression PVC cable glands for above, insulation tape, effecting terminal connections to the equipment complete as required as per specification, drawings and directions of Engineer-In-charge.		
43.42	2.5 sq.mm. Cu. Flexible cable	Mtr	50
43.44	16 sq.mm. Cu. Flexible cable	Mtr	200
43.50	HT CABLE & ACCESSORIES WORK		
43.51	SITC of 11 KV grade Earthed Aluminium conductor, XLPE insulated armoured confirming to IS:7098 part II in trenches of size 30 cm X 100 cm as per IS:1255, in cable trays, in protective GI pipes, on pole, on structures, in columns, in conduits, in panels etc. including all required materials such as fixing clamps, screws, cable straps, number tags etc. as required. including labour etc. as per specification, drawings and directions of Engineer-In-charge.		
43.52	3 core 70 sq.mm armoured earthed	Mtr	50
43.60	POINT WIRING		

43.61	Point Wiring with 2x4 sq.mm+ 1x2.5 sq.mm FRLS copper wire consisting of 4 numbers of 5/15 Amp Switch Socket controlled by single 16 Amp. Switch/Socket (with required conduits and cables) In various sections of the NOC Center (Server Room, UPS/Panel Room/TP Room/Reception/Video-wall Room/Network rack Room,) as per specification, drawings and directions of Engineer-In-charge.	Nos	15
43.62	Point Wiring with 3x1.5 sq.mm FRLS copper wire consisting of 3 numbers of 5/15 Amp Socket controlled by single 16 Amp. Switch (with required conduits and cables) In various sections of the NOC Center (Server Room, UPS/Panel Room/Meeting Room/Reception/Video-wall Room/Network rack Room) as per specification, drawings and directions of Engineer-In-charge.	Nos	10
43.63	Point Wiring with 3x1.5 sq.mm FRLS copper wire consisting of 4 numbers of 5/15 Amp Switch and Socket controlled by single 16 Amp. Switch In various sections of the NOC Center (Server Room, UPS/Panel Room/TP Room/Reception/Video-wall Room/Network rack Room) as per specification, drawings and directions of Engineer-In-charge.	Nos	10
43.70	Cable Trays/Raceways/Pop-up-Boxes for Floor	Lot	1
43.71	SITC of various sizes of G.I./Poly Sheet Polycarbonate factory built in perforated type Cable Trays/Raceways/Pop-up-Boxes for Floor complete with all bends, tees, elbows, reducers etc. of various width in two tier/ three/ five tier fashion either on one side of the wall or on two sides of the wall or at other places. All the cabling work HT/LT/Point Wiring or Data cables must be executed using Cable trays, Raceways on Surface, Hanging or in tranches on floor as per specification, drawings and directions of Engineer-In-charge.	Lot	1
H	EXTENSION of VIDEO WALL		
44.00	SITC of Video Wall Cube as per specification, drawings and directions of Engineer-In-charge.	Nos	8
I	Shifting of Existing DG Set and UPS(s)		
45.00	Shifting of an existing DG Set 115 KVA and UPS(20KV) 6 Nos. from present location to a new location in the same campus including all the costs of Dismounting, Shifting, Installing, Testing & Commissioning, including the costs of required Cables, Lugs, Cable Trays, platform/mount, Earthing Pit etc. The bidder will also have to supply a New set of LT panel, Isolators & associated DBs- suitable for the power requirement of room No 215 & 325 as per specification, drawings and directions of Engineer-In-charge.	Job	1

Annexure-3: List of Makes

All items must be from reputed OEMs, as mentioned below. No deviation shall be considered.

Sr No	Item	Make
A	INTERIOR WORK	
1.00	Acoustical False Ceiling, FR	ARMSTRONG/ECOPHON/SAINT-GOBAIN
2.00	Acoustic Wall Paneling, FR	ARMSTRONG/ECOPHON/SAINT-GOBAIN
3.00	Access (Raised) Floor, FR	UNIFLAIR/TATE/HAWORTH
4.00	Glass Partition Wall, with Dorma Fittings, Industrial Grade	SAINT-GOBAIN/MODI/HNG
5.00	Fire Rated Gypsum Partition wall	SAINT-GOBAIN/BORAL
6.00	Glass Door with Dorma Fittings, Industrial Grade	SAINT-GOBAIN/MODI/HNG
7.00	Wooden Door with Dorma Fittings, Industrial Grade	Merino/Sarda/Century/Duro
8.00	Anti-Termite Treatment	Godrej/PCI/HICARE
9.00	Painting Work (with Royal Finish)	ASIAN PAINTS/BURGER/NEROLAC
10.00	Internal safety & Direction Signage	CEASE FIRE/PANDUIT/AUTOGLO
11.00	Motorized Roller Blinds, FR	WINFAB/VISTA/MAC DÉCOR/Louverline
12.00	Entrance Mat Aqua Carpet Heavy Duty, FR	3M /AVERY
13.00	Fire Rated Doors & Window	PACIFIC/Adhunik/DEVIKARAN
14.00	Antistatic Floor Rubber Mats for Panels, UPS Etc	Jyoti/Deep-Jyoti/Universal
15.00	Carpet Floor Tiles, FR, Anti-Static	SHAW CONTRACT/ DESSO/BRINTON
16.00	Glass Films & Environmental Graphics	3M/AVERY
B	NOC ROOM FURNITURE	
17.00	Work Station Console Table 24x7	Evans/Cosmos/Rittal
18.00	Work Station Console Chairs 24x7	SIDIZ, Herman Miller, Duoback
19.00	Utility Sofa-Sets	Godrej/TCL/Gautier
20.00	Utility Center Tables	Godrej/TCL/Gautier
21.00	Utility Corner Tables	Godrej/TCL/Gautier
22.00	Utility Cabinet	Godrej/TCL/Gautier
C	HVAC Comfort Air Conditioning system	
23.00	HVAC System	Toshiba/Mitsubishi/O-General
D	FIRE ALARM AND SECURITY SYSTEM	
24.00	Addressable Fire Detection System	Bosch/Notifire/Simplex
25.00	Novac gas Fire Suppression System	Fenwal /Kidde / Chemetron
26.00	Fire Extinguishers	SAFEX/CEASEFIRE/MINIMAX
27.00	Fire Seal/Passive Fire protection System	3M/Dow Corning
E	Access Control, IT, A/V & Security Work	
28.00	Access Control System	BOSCH/GE/Siemens
29.00	Public address System	Bosch/JBL/BOSE
30.00	Rodent Repellent System	MASER/C SYSTEMS

31.00	Water Leakage Detection System	C SYSTEMS/ STAR ELECTRONICS
32.00	BMS System	JCI/HONEYWELL/SIEMENS/CARRIER RACE
33.00	IT Passive Networking Items	PANDUIT/SIEMON/SYSTIMAX
34.00	Automated Infrastructure Management System	PANDUIT/SIEMON/SYSTIMAX
F	PCS & WORKSTATIONS	
35A	PC Workstation with Monitor	DELL/HP/LENOVO
35B	Apple Mac Book Pro 15"	Apple
36A	All-in-One PC	DELL/HP/LENOVO
36B	Apple iMac 27"	Apple
G	ELECTRICAL WORK	
37.00	Light Fixtures & Controls	PHILIPS/Dynalite/Havell/GE
38.00	Modular UPS System	Emerson/APC-President
39.00	Modular Battery System for UPS	Emerson/APC-President
40.00	320 KVA Noise free generator set	SUDHIR/Kirloskar
41.00	Transformer	Uttam Bharat/ABB/ALSTOM
42.00	RMU	CG, ABB, Schneider
43.00	Electrical Panels, Isolation Box, Distribution Board, Point Wiring etc.	Risha Control/Adlec/Engineers & Engineers/Rajeev associaates/RST Electricals
43.01	Distribution Boards	HAVELLS/LEGRAND/L&T
43.02	Distribution Boards	HAVELLS/LEGRAND/L&T
43.03	MCB/MCCB	Schneider/ABB /Legrand/ L&T
43.04	MCB/MCCB	Schneider/ABB /Legrand/ L&T
43.05	MDM Meters	Enersol/Schneider/Secure
43.06	MDM Meters	Enersol/Schneider/Secure
43.07	HT Cables & Accessories	PolyCab/RR Kable/Havells
43.08	HT Cables & Accessories	PolyCab/RR Kable/Havells
43.09	LT Cables	PolyCab/RR Kable/Havells
43.10	LT Cables	PolyCab/RR Kable/Havells
43.11	FRLS PVC Insulated Copper Wires	PolyCab/RR Kable/Havells
43.12	FRLS PVC Insulated Copper Wires	PolyCab/RR Kable/Havells
43.13	Switches & Sockets	LEGRAND/North-WEST/CRABTREE
43.14	Switches & Sockets	LEGRAND/North-WEST/CRABTREE
43.15	FRLS PVC Conduit	Polycab/AKG/BEC
43.16	FRLS PVC Conduit	Polycab/AKG/BEC
43.17	MS Conduits	Jindal/Prakash/TATA
43.18	MS Conduits	Jindal/Prakash/TATA
43.19	Earthing System	Cutomised
43.20	Cable Tray, Raceways, Under floor pop-up Boxes	ERA Control/ ADITYA STEEL /Indiatech/Legrand
H	EXTENSION of VIDEO WALL	
44.00	Video wall cube	Delta

Annexure-4: Technical Specifications of Items (stamped and signed by the bidder)

Note: All the specifications below are minimum specifications and higher specifications shall be used wherever necessary/ required. Deviation on higher side only shall be considered and no extra weightage shall be awarded for such deviations. If any one of the items quoted do not confirm fully to the specifications, then the technical bid will be rejected.

Item: Acoustical False Ceiling, FR			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Providing & Fixing of Soft Fibre Acoustical Suspended Ceiling System with Micro look Edge Tiles with 15mm Exposed GRID.	The tiles should have Humidity Resistance (RH) of 95%, NRC 0.9 - 1.0, Light Reflectance ≥85%, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt - 6 & 7) in module size of 300 x 1200 x 15mm, suitable for Green Building application, with Recycled content of 43% (GW) The tile shall be laid on Silhouette profile grid system with 15mm white flanges incorporating a 6mm central reveal in black colour and with a web height of 38mm and a load carrying capacity of minimum 11.25 Kgs/M2. Silhouette, Main Runners & Cross Tees to have mitred ends & “birds mouth” notches to provide mitred cruciform junctions. The T Sections have a Galvanizing of 90 grams per M2 . The Tile & Grid system used together should carry a 15 year manufacturer’s warranty.	
	Installation	To comprise main runner spaced at 1200mm centres securely fixed to the structural soffit using Armstrong suspension system (specifications below) at 1200mm maximum centre. The First/Last suspension system at the end of each main runner should not be greater than 450mm from the adjacent wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 300mm centre to form 1200 x 300 mm module. Cut cross tees longer than 600mm require independent support. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls at 450 mm maximum centres.	
	False Ceiling Suspension System	Accessories manufactured and supplied consisting of M6 Anchor Fasteners with Vertical Hangers made of Galvanised steel of size 26 x 26 x 25 x 1.2mm with a Galvanised Thickness of 80gsm, A pre Straightened Hanger wire of dia – 2.68 mm of 1.83 m length., thickness of 80gsm and a tensile strength of 344-413 MPa, along with Adjustable hook clips of 0.8mm thick, galvanised spring steel for 2.68 mm with a minimum pull strength of 110 kg. The adjustable clip also consists of a 3.5 mm aquiline wire to be used with the main runner.	

	Certifications	Certificates & Third party Test Reports for Fire Performance: UK Class 0 / Class 1 (BS 476 pt - 6 & 7) Certificate For Load Carrying Capacity of Suspension System: ASTM C635/C635M-13a Certificate & Third Party Test Report for Noise Reduction COefficient atleast 0.9 as per GB/T 20247-2006/ISO 354-2003	
	Warranty	5 year OEM Warranty	

Item: Access (Raised) Floor, FR			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Access Floor	Access floor system confirming to EN 12825 or equivalent standards to be installed will provide a maximum finished floor height of 800 mm from the existing floor level. The system will provide for suitable pedestal and under-structure designed to withstand various static loads and rolling loads subjected to it in an office / server / DCS / panel / rack area. The entire Access floor system will provide for adequate fire resistance, acoustic barrier and air leakage resistance.	
	Panel	Panels will be made up of inert Wooden Chip Board. The bottom of the panel shall be of 0.05 mm Aluminum foil to create a fire and humidity barrier and this should provide floor's electrical continuity. Panels will remain flat through and stable unaffected by humidity or fluctuation in temperature throughout its normal working life. The Panels will be UL listed/ FM/DM approved.	
	Panel	Panels will provide for impact resistance top surfaces minimal deflection, corrosion resistance properties and shall not be combustible or aid surface spread of flame. Panels will be insulated against heat and noise transfer. Panels will be 600 x 600mm x 38 mm height fully interchangeable with each other within the range of a specified layout. Panels shall rest on the grid formed by the stringers which are bolted on to the pedestals. Panels shall be finished with anti-static 0.9 mm Laminate and 0.45 mm thick plastic edge material that is self-extinguishing and will be PVC free. Encapsulated and Cementitious panels are not recommended for use.	
	Panel Loading	Concentrated point load: upto 400 Kg as per European standard EN 12825*. Uniformly Distributed Load (UDL) : 1700 Kg/M2.	
	Fire Rating	The Panels will confirm to class O and Class 1 Fire Ratings tested as per CIRC 91/61 or BS 476 Part 6 & 7 (60 min).	
	Pedestal	Pedestal installed to support the panel will be suitable to achieve a finished floor height of 800mm. Pedestal design will confirm speedy assembly and removal for relocation and maintenance. Pedestal base to be permanently secured to position on the sub-floor. Pedestal assembly will provide for easy adjustment of leveling and accurately align panels to ensure lateral restrain. Pedestals will support an axial load of 1500 Kgs, without permanent deflection and an ultimate load of 3000 Kgs. Pedestal head will be designed to avoid any rattle or squeaks.	
	Pedestal Assembly	The structure is made entirely of galvanized steel consisting of hexagonal shaped, 89 mm diameter, 1.5 mm thick base plate, with 6 shaped stiffening ribs with niches that improve adhesion and with 5 holes mechanical fastening to the ground. The assembly will provide a range of height adjustment up to 25mm, with the help of check nuts.	
	Under Structure	Under structure system consists of stringers of size 525 x 30x 25 x 0.8 mm thick to form a grid of 600 x 600mm. These stringers are locked into the pedestal head and run both ways. The US system will provide adequate solid, rigid and quiet support for access floor panels. The US system will provide a minimum clear, uninterrupted height of 800 mm	

		between the bottom of the floor and bottom of the access floor for electrical conducting and wiring.	
	Stringer System	Stringer system is composed of a special frame, made of pressed galvanized steel plate and with a section 25mm wide, 30 mm high and 0.8 mm thick. The longitudinal ribs and flaps in the lower part should be designed to increase flexion resistance. The grid formed by the pedestal and stringer assembly will receive the floor panel.	
	Warranty	1 year OEM Warranty	

Item: Acoustical Wall Panelling, FR			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01		Providing and supplying Acoustical Wall Panelling with square edges made of fibre glass substrate 25mm thick and wrapped on the front side with an acoustically transparent and fire-resistant fabric with an option of colours as per the choice of the Architect/ Person in-charge of size 2100x600mm providing a minimum sound absorption level of 0.95 NRC to be affixed to wall using Wall panel impellers and construction adhesives as per the instructions laid down by the manufacturer.	
	Installation	Wall panel impalers of adequate quantity as specified by the manufacturer shall be fixed to the wall surface using self tapping screws. Silica based construction adhesive shall be dabbed on to the projecting elements (spikes) of the impalers. Armstrong Optra wall panels shall be pierced through the spikes of the impalers ensuring the line and level of the panels are maintained.	
	Certifications	Certificates & Third party Test Reports for Fire Performance as per EN 13501-1-2007 Certificate & Third Party Test Report for Noise Reduction COefficient at least 0.95 as per ISO 354-2003	
	Warranty	1 year OEM Warranty	

Item: Gypsum Partition			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Gypsum Partition	80mm thick Gypsteel ULTRA® stud partition includes single layer of tapered edge 15mm thick Gyproc® Fireline (conforming to IS 2095 Part 1 : 2011)) is screw fixed with Gyproc® Drywall Screws of 25mm at minimum spacing of 300mm at Centre and 150mm at periphery of wall to either side of 48mm Gypsteel ULTRA® C stud (0.5mm thick having one flange of 34mm and another flange of 36mm made of GI Steel) placed at 610mm Centre to Centre in 50mm Gypsteel ULTRA® floor and ceiling channel (0.5mm thick have equal flanges of 32mm made of GI steel), which is anchored to the floor & true ceiling using HILTI HLC 8X40/HILTI X-GN20MX anchor fasteners at 600mm c/c in centre line. Stud and floor channel are crimped together with crimping tool. 15mm thick Gyproc® Fireline board strip of 50mm width is placed between ceiling channel and ceiling slab to improve fire performance of the system. A Gypsteel ULTRA® noggin channel of 48mm width (0.5mm thick having two flanges of 40mm each) has to be provided at the horizontal joints of boards screw fixed to the studs using Gyproc® Metal to Metal flat head screws. The boards are to be fixed vertically to the framework with joints staggered to avoid leakage through joints. 25x25x0.5mm Gyproc® angle bead should be used at all L-Junctions of partition. Finally square and tapered edges of the boards	

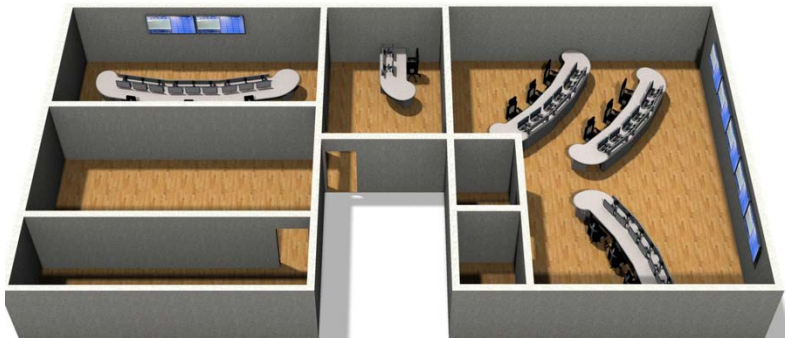

		are to be jointed and finished so as to have a flush look which includes filling and finishing with Gyproc® Pro-Fill Jointing compound, Gyproc® Joint Paper tape (as per recommended practices of Saint- Gobain Gyproc India). The junction of the partition with masonry & all penetration through the partition has to be treated with Hilti/Pyroplex fire and acoustic sealant. All other detailing and specifications to be followed as per approved shop drawing of Gyproc.	
	Warranty	1 year OEM Warranty	

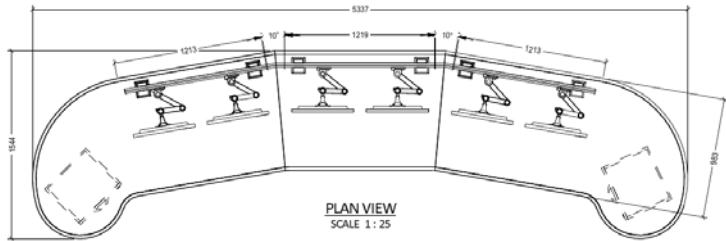
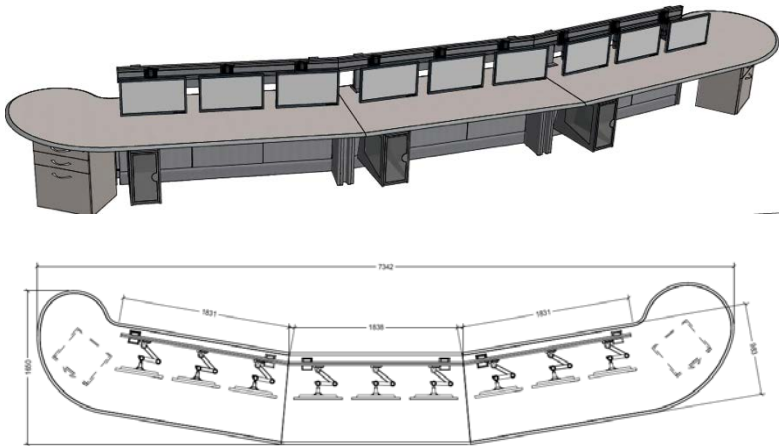
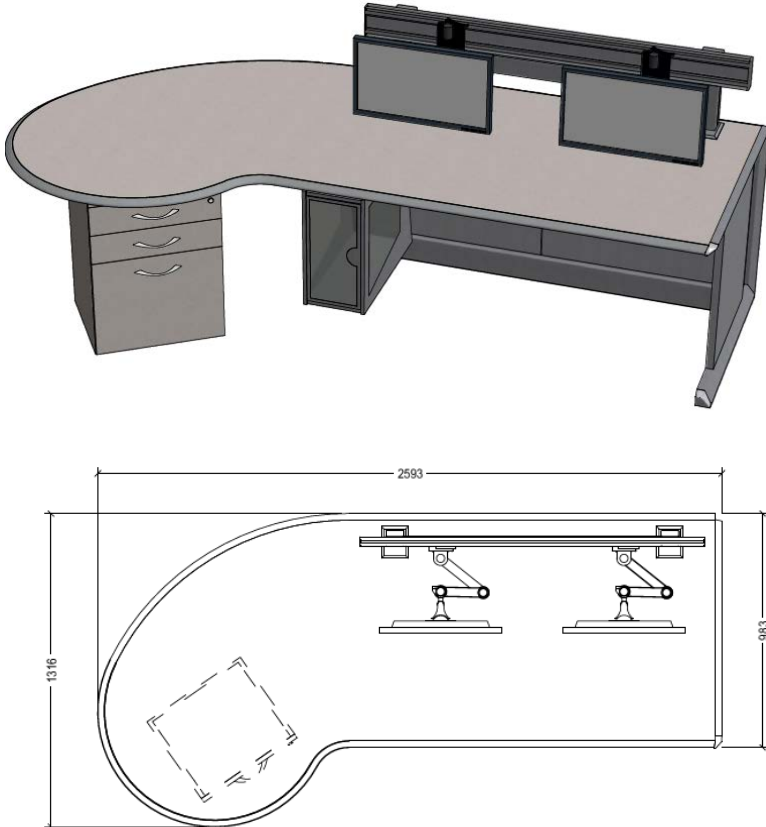
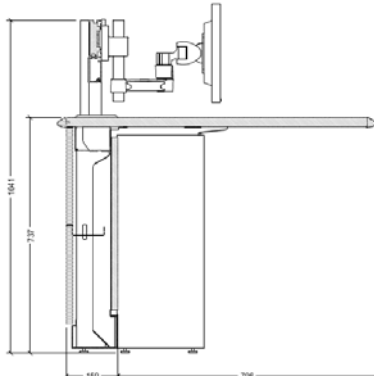
Item: Safety Signage			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Fire Exits	Fire Exits are required to mark and serve as clear indicators of Fire Exits on the premises	
	Signs	Photo-luminescent signs, printed with Fire Safety Grade Luminous Ink. These signs absorb light in the course of a normal working day and then glow in the dark once the lights have gone out.	
	Warranty	1 year Warranty	

Item: Glass Films and Environmental Graphics			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Film	Designer film for Glass surfaces, Polyester Film, 75 micron thick with pressures sensitive acrylic, permanent adhesive, with silicon coated polyester release liner, with tensile strength of 45-90 lb/in (200-4— N/25 mm), Fire Resistant (NFPA Class A confirming ASTM-E84), Heat Resistant Coefficient, 6 Wm2k, 99% UV blocking such as Fasara by 3M or equivalent	
	Graphics	Wall Décor, printed on Scotchcal ij-180c with graphic cum UV protective layer 8520 in matte finish laminated. The approved artwork digitally reproduced using water-based inks certified to have no hazardous air pollutants. Self-adhesive, bubble-free installation to be done on a smooth, dust free putty surface that has a coat of oil-based primer, by Authorised Installers only. OEM's Warranty for a period of 36 months to be submitted along with invoice. Suggested Product Code: IJ-180c +8520	
	Warranty	1 year Warranty	


Item: Workstation Console Table 24x7			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Operator Consoles	Consoles must be designed for a full-time mission operations environment. This justification is for the purchase of the consoles. Capacity of network, ergonomic characteristics, slat wall / accommodation of accessories i.e. telephone stands, monitor arms, sight line characteristics, patch panel termination, configurability of equipment racks, ventilation, rear access for service, future reconfiguration ability.	
	Console Manufacturer Specifications	Vendor should submit copy of ISO 9001:2008 Certification.	
		Vendor should submit copy of Green guard certifications for full range consoles for last 5 years. This certification is for compliance with	

	and Submittals	minimum indoor air quality standards.	
		Vendor should submit copy of FSC certification (Forest Stewardship Council) for consoles. Certificate for compliance towards sustainable forest initiative ensuring wood used is from sustainable forest harvesting OR Copy of ISO 14001:2004 certifications towards compliance of Environment Management Systems.	
		Experience: Original Item Manufacturer (OIM) shall each have successfully executed similar orders for Control Room / NOC Rooms / Mission Critical Application. Project should be in line with any of the following during last seven years.	
		One order at least 2 years old of value more than or equivalent to INR 4,75,00,000 with the above certifications Or Two orders at least 2 years old each of value more than or equivalent to INR 2,70,00,000 with the above certifications Or Three orders at least 2 years old each of value more than or equivalent to INR 2,25,00,000 with the above certifications Vendor should demonstrate 5 years' experience in designing and implementing public safety & NOC facilities.	
		Detailed CAD (PDF format) drawings of console and equipment layouts for coordination of site measurements, architectural, mechanical, and electrical project elements for each console type.	
		Raw material supplier data alone is not acceptable.	
		Copy of test certification for the following ANSI/BIFMA test procedures performed by an independent testing laboratory or approved by a professional engineer: a. Concentrated Functional Load Test b. Distributed Functional Load Test c. Concentrated Proof Load Test d. Distributed Proof Load Test e. Leg Strength Test f. Stability under Vertical Load Test The tests must be based on the ANSI/BIFMA X5.5-2008 Standard applied to the proposed product solution	
	Console Material Specification	The console shall be available in a reduced depth 30" (762mm) and full depth (FD) version 33" (838.2mm). The reduced depth (RD) desk shall accommodate flat panel displays in a minimal footprint of 30" (762mm) inches. The full depth desk shall measure 33" (838.2mm) deep. The full depth console should have the option for a CPU cavity. note: imperial dimensions rounded to nearest 1/32".	
		Creative design layouts shall be achieved with integrated variable angle logic. Operator rows can be curved for optimal sightlines to large-screen displays. Available options include: Any angle ranging from 0°-90°, both in forward or reverse curvature. Standard miter angles are; 5°, 10°, 20° and additionally larger corner angles of 22.5°, 30°, 45° & 90°	
		Optional CPU cavity on full-depth model will have a quick access lockable cabinet with perforation, allowing for passive heat dissipation, with the option for an integrated fan, producing active heat dissipation. Console should have two types of optional cavities available: Vertical (RD, FD) and Horizontal (FD).	
		The console shall have the ability to have flat screen monitors and various desk accessories mounted on the slatwall rail.	
		Console should have an extruded end panel frame with 3 options of materials: laminate, sheet metal and glass with the ability to etch or screen logos	
		The console shall provide convenient open cable chases that run uninterrupted to adjacent desks in the upper and lower portion of the base units. The standard finish for the monitor deck shall be high pressure laminate (HPL) on both sides of the work surface. A variety of cable management options accommodate electrical and data service,	

		termination boards shall be available as an option to mount PDU, KVMs etc.	
		Built-in cable management for the console must include two cable raceways, one upper and one lower. The raceways should be manufactured with 14 gauge cold rolled steel. Each raceway should allow for full access by two lockable and removable rear panels.	
		The work surface shall be designed and made with 1" (25mm) particleboard with High pressure laminate (HPL) to provide a smooth, level work area. Work surface support arm and stiffeners shall be Reinforced weldment using 14 Gauge Cold rolled steel, powder coated. The Work surface nosing should be made using Rounded Polyurethane foam secured over an aluminium extrusion carrier and should be mechanically replaceable. The outer corners of the work surface nosing shall be enclosed with cast aluminium caps	
Space Planning and Configuration Design		Each bidder must submit a floor plan to scale, showing each item being proposed.	
		Elevation and section drawings will be required in the submittal with dimensions of height, width, and depth in order to determine compliance with the specifications.	
		Photo-realistic isometric colour renderings of consoles and room upon request.	
		All accessories being proposed need to be shown in drawings.	
		Colours are to be selected from manufacturer's standards. A Colour Guide shall be submitted with the proposal.	
Schedule		Upon award of the contract supplier shall provide a schedule with exact dates for the following milestones: Detailed requirements analysis. Final design submittal. Pre-production approval submittal. Fabrication period. Factory acceptance/packing & shipping. Delivery date. Installation.	
Layout Plan 3D View			
NOC Console Plan View		 <u>PERSPECTIVE VIEW, QTY: 3</u> SCALE 1 : 25	

		 <p>PLAN VIEW SCALE 1: 25</p>	
Meeting Console Plan View			
Reception Console Plan View			
Console Section			
Warranty	The Console System shall be free from defects in materials and workmanship from the date of transfer of title as follows:		


	<ul style="list-style-type: none"> LIFETIME WARRANTY on all fixed structural frame components; LIFETIME WARRANTY (parts) on all static exterior panels and work surface component parts; (5 years on labour); LIFETIME WARRANTY (parts) on all adjustable, sliding or hinged mechanisms or parts (5years on labour); 	
	5 year OEM Warranty	

Item: Chairs 24x7		Quantity: As per BoQ	
BRAND NAME:			
MODEL NO.:		PART NO. (If Any):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	General	Ergonomic Chair for 24x7 operation	
		Synchronised Tilting: The seat plate and Brackets shall tilt independently in response to natural body movements. The tilt adjustment levers to be neat & efficient	
		Multi-Limited Tilting: The Backrest tilt angle shall change according to user posture and work task. The range of that tilt angle shall be adjustable	
		The Armrest to be made of top grade moulded polyurethane that can be adjusted for height & distance to the seat front, while the width between the arms can be altered by rotating the arm rest side to side. 3-way adjustable (Height/Depth/Pivot) armrests. The chair shall confirm to individual body types and postures, easing discomfort on the neck, shoulders & arms that can occur after prolonged sitting.	
		Arm under structure of Pressure die cast aluminium and black colour powder coated	
		Seat slide Adjustment: To achieve the proper seat depth for each user the seat pan shall be designed to slide it forward or backward effortlessly to maintain a correct and comfortable seated posture.	
		Adjustable tilt tension: The degree of the tilt tension shall be adjustable.	
		Mechanism housing – pressure die cast aluminium black colour powder coated	
		Tension control for adjusting the pressure of the back rest as per the individual choice	
		Height adjustable Pneumatic Cylinder - Gas lift with soft cushion effect	
		Nylon base with twin wheel Polyurethane casters With Adjustable Lumber support	
		Seat Slope Adjustment: Chair shall have mechanism to elevate the rear of the seat pan to slope forward, achieving a more comfortable pelvic angle and relieving pressure on the femoral region as work task such as keyboarding require the upper body to lean forward	
	Product Picture		
Certificates	BIFMA, Green Guard		
Warranty	1 year Warranty		

Item: Utility Sofa Set			Quantity: 1
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Sofa Set	Utility Sofa Set made in concealed wooden framework & ply cladding as required with cushion & foam of 40 kg density & finished in PU/fabric (Basic cost of fabric Rs 900/- per rmtr or higher). The sofa seats having 3" dia soild CP teak wood legs/Metal system as per detail drawing. The whole exposed wooden surface finished in mellamine polish as advised/ approved.	
	Sofa	<p>The collection echoes elegance and grace with its modular design. The highly versatile sofa is upholstered in soft leather, with partially removable covers, and white gloss or satined metal feet.</p>  <p>Italian Leather 96" x 42" Ht. 32" (3 Se) 75" x 42" Ht. 32" (2 Se) 39" x 42" Ht. 32" (1 Se)</p>	
09	Warranty/ AMC	5 year OEM Warranty/ AMC (except consumables) Single source for Engine, Alternator, Control System and Canopy.	

Item: Carpet Floor Tiles, FR, Antistatic			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Carpet	Construction - Tufted	
		Surface Texture : textured multi-coloured cut and loop	
		Gauge : 1/12 (47.00 rows per 10 cm)	
		Density : 6500-7500	
		Weight Density : 1,00,000-1,45,000	
		Stitches Per Inch : 11 per inch (42.52/10 cm)	
		Finished Pile Thickness : 0.090-0.110	
		Dye Method : yarn dyed/solution dyed	
		Backing Material - ICT-RC : Fiberglass Reinforced Thermoplastic Composite/ polyurethane cushion / ecoworx / Acceptable Standards as per Green Certifications	
		Adhesive system : VOC free	
		Installation method - Direct stick method using water base approved adhesive applied to 100% of the backing surface	
		Face Yarn : 100 % Nylon 6.6	
		Fiber Technology : Passes GSA requirements for permanent stain resistant carpet.	
		Face Yarn Weight : 20 - 24 per yd2	
		Size/Width : 24" x 24"/20" x 20" (60.9 cm x 60.9 cm / 50.9 cm x 50.9 cm)	
		IAQ Green Label Plus : 1050-3000	
		CRI Rating : Heavy Traffic	
	Performance	Static : 3.0 kv when tested under the Standard Shuffle Test 70 degrees Fahrenheit (21 degrees Celsius) - 20% R.H.	

		Flammability : Passes DOC-FF-1-70 Pill Test	
		Flooring Radiant Panel Test : Meets NFPA Class 1 when tested under ASTM E-648 glue down	
		Smoke Density : NBS Smoke Chamber NFPA-258 / ASTM-662 - Less than 450 Flaming Mode	
		CRI Green Label Plus Certified nsf140 platinum cradle to cradle silver certified	
		Construction Materials : 100% man-made materials for superior stability	
	Warranty	Wear : Lifetime ICT Modular Warranty Static : Lifetime Static Stain Resistance : lifetime stain warranty and a 10 year Lightfastness and Atmospheric Contaminant Warranty . Under GSA requirements stain resistant carpets must score no less than 8.0 (10.0 is best) on the AATCC Red 40 Stain Scale. Carpet samples must first be exposed to 100 revolutions of the Taber abrader (1,000-gram weight per H-18 wheel) and then the abraded area must be stain tested using AATCC test method 175. 1 year Warranty	

Item: Entrance Mat Aqua Carpet Heavy Duty			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Mat	Providing and laying 3M 8850 Nomad Aqua heavy duty Carpet Matt ,a looped-pile, carpet-type entryway matting features a unique tufted construction with random pattern design utilizing two different size fibers having thickness of 9 mm and weight of 4.1 Kg/M2 . The matting should also pass flammability test as per ASTM D 2859 along with flooring radiant panel test as per ASTM- E-648 having NFPA Class 1 classification at 0.45 watts/cm ² . The integral large diameter polypropylene fibers combine with areas of small diameter nylon fibers to maximize dirt removal, water pick up and holding capacity. The matting should exhibit good environmental resistant while exposed to -5° C to 70° C and should come with authentication certificate from 3M India.	
	Product Image		
	Warranty	5 year OEM Warranty	

Item: HVAC System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	HVAC System	Variable Refrigerant Flow System based HVAC system shall be air-cooled, direct expansion type central air conditioning system	

		consisting of one or more Variable Refrigerant Flow Condensing unit (Outdoor Unit) and connected to it one or more Evaporator (Indoor Units) for cooling and heating operation. Each having the capability of individual set point control & the condensing unit should incorporate with Inverter scroll compressors for wide Range of Capacity Control (15 to 100Hz) with minimum Steps of 1Hz.and capable of changing the capacity in accordance to the cooling load requirement with highest. Provision of setting External Static Pressure up to 60Pa by on site. Refrigerant used for system should be R410A. The condensing unit shall be capable of assessing the requirement of liquid refrigerant flow of each evaporating unit at all times by means of a micro-computer control expansion valve and generating the required total flow of refrigerant liquid for supply to the evaporator units. The condensing unit shall be modular type and designed to work in ambient temperature up to 50 Deg. C. Outdoor Units should be modular in type and should be equipped with Inverter Scroll Compressor, Outdoor unit should consists of DC variable speed motor for condenser fan to reduce input power, auto check function for connection error, Auto Phase Change-Over at ODU ,Unit should be equipped with a double stage highly efficient oil separation management system to ensure minimum oil entrenchment and proper lubrication with high reliability and stable operation with long refrigerant piping complete with indoor and outdoor Cassette type/High-wall type units , controllers, accessories etc.	
	Indoor Unit	Cassette/High-wall Type Split Type ACs	
	Rating	Operation on 230 V, 50 Hz, single phase, or 415 V, 50 Hz, three phase as required	
	Remote	Cordless remote with centralized monitoring & control system	
	Capability	Capable of Performing: Cooling, Air-Circulating, Filtering	
	Controller	The split unit's shall be connected using Sequential controller working in periodic operations as per requirement in the area required	
	Warranty	5 year OEM Warranty	

Item: Public Address System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Controller	EN-54 Certified EVAC controller, with 14x 4 Audio matrix with full DSP functionality. 8 audio inputs, 4 audio outputs, 4 channel output matrix. Shall support single line switching or redundant group A/B switching, amplifier redundant, 4 x 100V audio inputs and 12 speaker line outputs. 8000 fault, warning and event conditions log. Built in message manager for 100 emergency/business calls up to 85 minutes. 10 control inputs and 13 control outputs. Should be able to send 2 different pre-recorded messages simultaneously. Impedance measurement and Pilot Tone supervision for speaker line monitoring. Shall be able to handle up to 2000Watt load, 20 routers, 16 call stations, 492 speaker zones. Frequency response (ref. 1 kHz) 20 Hz to 20 kHz (-0.5 dB) Signal-to-noise ratio (A-weighted): Line in to line out: 106 dB typical THD+N < 0.05% Crosstalk (line level) Line in to line out (0 dB gain): < 100 dB at 1 kHz Sample rate 48 kHz DSP processing resolution 24-bit linear A/D and D/A conversion, 48-bit processing	
	Amplifier	EN-54 certified 2x 500W Class D, high efficiency amplifier. 70/100V loudspeaker output voltages, galvanically separated, 4 automatic selectable audio inputs on RJ45, local input. THD ≤1%. Frequency response. ref. 1 kHz. rated load. -3 dB : 50 Hz to 25 kHz. Signal-to-noise	

		ratio (A-weighted) > 104 dB, Output noise (A-weighted) < -62 dBu, Crosstalk , ref. 1 kHz < -85 dB. Audio input level limiter, RMS output power limiter, high temperature, DC, short circuit, mains under voltage protection, DC supply under voltage protection, inrush current limiter, ground fault.	
	Call Station	EN-54 certified Call Station with built in numerical keypad, Multilanguage LCD display , gooseneck microphone with supervised electret microphone, pop shield and permanent monitoring, integrated loudspeaker for system sounds. Five menu/function keys, 15 customizable function and speed dial buttons. Possible to use keys for o Zone select, source select, level control, emergency on/off, message on/off, failure acknowledge/reset, Switching output trigger on/off or 0 to 10V, select scheduled events, scheduled event on/off. Call Station is supervised by system controller can be expanded by connecting 5 additional extension keypads	
	Ceiling Mount Speaker	EN 54certified 6W ceiling mount speaker with excellent speech & music reproduction Max Power: 8W, Rated Power: 6Watts, Power Tapping: 6/3/1.5W Effective frequency range(-10 dB) : 150 Hz to 15KHz SPL at rated power (1Khz at 1 m) 108 dB Opening Angle 1 KHz / 4 KHz (-6 dB): 180/45	
	Warranty	1 year OEM Warranty	

Item: Access Control System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Controller	Access Door Controller up to 8 WIEGAND reader support Latest integrated 32-bit, 30 Mhz Micro-controller based system architecture; On board Real Time Clock that will adjust itself to leap year computations automatically Access Ddoor Controller shall have 8 Relay outputs; 8 Analog Inputs; onboard LCD display 16 Characters 16-characters liquid crystal display (LCD), shall display network parameters and actual status like: a. IP address of the controller b. MAC address of the controller c. DHCP on/off d. Status of all the inputs connected to it e. Status of all the outputs connected to it f. Online and Offline status of the controller g. Firmware version; Access Ddoor Controller shall include a standard 2GB Compact flash (CF) memory card for storing cardholder data and access events. Memory shall store database that has a capacity with a minimum of 80,000 cardholders and Event buffer size: maximum of 4,00,000 events with date and time stamp. Complete with Housing & power Supply Module with Battery Charger.	
	Smart Card Reader	Surface mounting style 13.56 MHz contactless smart card readers with Biometric and Keypad; Mount type: Single Gang / Mullion; Keypad: Integrated / Optional; Reader Output format: Wiegand; Biometric Module; a. Scanner type : Optical Scanner; b. Resolution : 500 DPI; c. Verification Time : < 1 sec; d. FRR = 0.5%; e. FRR = 0.1%; f. Authentication mode : Live fingerprint with Template on the card	
	Smart Card	iCLASS Contactless Smart Card, 16k bit with 16 application areas as per specifications Cards shall contain a contact less smart chip that operates at 13.56 MHz and shall conform to ISO 15693 and ISO 14443B2 standards for contactless smart cards. The data inside the card shall be secure with a unique, diversified security key with 64 bit encryption Operating Temperature: - 35 to 65 degrees C and Operating Humidity 5% to 95% relative humidity non-condensing	
	Access Control Software	The Access Control System Software shall be a PC-based system based on Windows Operating Systems. Ability to store upto 2 templates on the card The Access Control System shall be of modular design	

		providing the flexibility to allow the user to add or remove any components and/or controlled functions or in the event when operating requirements change or as system expands. The Access Control System shall support up to four (4) different Wiegand card formats simultaneously. The number of each format supported shall be unlimited. The Access Control System shall monitor and record in a logbook all movements and activities at each control point. It shall be a standard feature provided in the Access Control System management software for taking photos, scanning or importing cardholder images into the cardholder database. Such that stored cardholder's image can be displayed automatically on the Access Control System. The events log files shall include an advanced filter functions such that archive can be kept small and precise. If required, only desired information shall be archived. The system shall contain a map viewer. This map viewer shall provide a graphical presentation of the premises or object by means of floor plans, object pictures or any desired graphical representation	
	Warranty	1 year OEM Warranty	

Item: Addressable Fire Detection System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Film	Fire Alarm Control Panel, 4 loop addressable, expandable upto 32 loops. Controller shall be 5.7 inch color touch screen display with stylus(320*240 pixels), inbuilt networking port(both RS485&Ethernet),Serial port for printer,two supervisory inputs,two position key switch and USB port for programming. The Panel shall handle 4096 detection points, 10,000 history events,menu driven user interface with smart search. The events shall be displayed in different colors- red for alarm events & yellow for trouble etc. for easy identification. The Panel shall be VDS/EN 54 approved.to direct sunlight) to 15yrs (indoors) must be endorsed by OEM	
	Aspirating Smoke Detector	Aspirating smoke detector, Highly sensitive smoke aspiration system for monitoring of server rooms and equipment for earliest possible fire detection with max of 24 aspiration openings and a max pipe length of 180 mtr. complete (CPVC conduit, Pipe, etc) complete as required. - Three status displays on housing front panel for "operation", "alarm" and "malfunction". - Adjustable sensitivity of up to 0.05%/m light obscuration. - Different sensitive detection modules possible. - Settable in day and night operation - Innovative air flow sensor technology-false alarm suppression. - Monitoring of pipe for breakage and obstruction.- Air stream monitoring with air pressure-dependent equalization. - To be integrated in Detector Loop- Providing Pin Point Location of Each Hole.	
	Low Profile Detector	Microprocessor Based Addressable low profile detector for smoke, optical component, for flush fitting in steel-reinforced concrete ceiling or suspended ceilings. having a detection principle of two independent scattering light sensors with sensing volumes directly beneath the detector with features of drift compensation , contamination detection by means of a third optical system, protection against insects by means of a dual evaluation system , protection against external light in accordance with EN54-7 , chamber integrity monitoring, optical fault display , self monitoring of sensors, programmable for timed automatic sensitivity selections with Junction Box and other accessories as required. The detector shall be EN-54 Approved.	
	Multi-criteria Detector	Intelligent addressable Multi-criteria detector with two integrated light-scattering smoke sensors using 2 LEDs - blue & infrared along with a heat sensor, CO Sensor including mounting base. (Detector	

		should comply to Test Fire 1). Detector should have 2 inbuilt isolators as per NFPA 72 style 7 wiring requirements and have an option of both soft & hard addressing. Detector should monitor Electromagnetic interference and report to the panel - current and average values. EMC safety for detector shall be 50 V/m. Shall be EN54/ VDs/ certification.	
	Sounder	Standalone Loop Powered Addressable sounder with inbuilt isolators & with 32 different tone variants selection options & adjustable sound pressure by 5 levels, the sound pressure 101.3dB , it should be programmed from the panel. Shall be EN54/VDs/UL Certification. In case of external powered sounder vender to quote for power cable @10 Mtr./point	
	Control Relay	Addressable Control Relay Module with inbuilt isolators as per NFPA 72 style 7 wiring requirements & with flexible network structures with a maximum switching current of 1A @ 30V DC. Shall be EN54/ Vds Certification/UL	
	Module	Addressable Module with one input & one output contacts, with inbuilt isolators & with 2 monitoring features, monitoring of a line with EOL resistor, Potential free contact monitoring. Shall be EN54 / Vds/UL Certification.	
	Break Glass/ Flap Unit	Addressable Manual Break Glass/ flap Unit (Double action) with inbuilt isolator or isolator module as per the NFPA Style 7 wiring with flexible network structures & necessary fixing arrangements with key complete as required shall be UL/VDS (following EN54 Standard Approval).	
	Warranty	1 year OEM Warranty	

Item: Fire Suppression System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	General	The bidder shall supply, install, test and put in operation NOVEC 1230 (Fluro Ketone – FK-5-1-12) based fire suppression system. The fire suppression system shall include and not be limited to gas release control panel, UL listed and PESO approved seamless cylinders, discharge valve (with solenoid and pneumatic actuator) as the case may be, discharge pipe, check valve and all other accessories required to make a complete operation system meeting applicable requirements of NFPA 2001 (2012 edition) standards and installed in compliance with all applicable requirements of the local codes and standards.	
		The system design should be based on the specifications contained herein, NFPA 2001 and in accordance with the requirements specified in the design manual of the agent. The bidder, shall confirm compliance to the above along with their bid.	
		The system shall be properly filled and supplied by a UL listed OEM (Original Equipment Manufacturer) with UL listed filling plant.	
		Generally the key components* of the system shall be UL listed. The NOVEC 1230 gas shall: <ul style="list-style-type: none"> • Comply with NFPA 2001 (2012 edition) standard • Have the approval from US EPA (Environmental Protection Agency) for use as a total flooding fire extinguishing for the protection of occupied space • Underwriters' Laboratories Inc. (UL, USA) component listing for the NOVEC 1230 gaseous agent. • Must have zero ozone depletion potential (ODP) • Have a minimal life span in atmosphere, with atmospheric life time of less than 5 days commercially available *Key components are valves and its accessories, actuators, flexible	

		discharge and connection hoses, check valves, pressure switch, and nozzles	
	Design Condition	<p>The Novec 1230 agent is stored in seamless steel cylinders and dry nitrogen is added to provide additional energy to give the required rapid discharge. At the normal operating pressure of 25 bar at 21o C, the agent is a liquid in the container.</p> <p>The designer shall consider simultaneous total flooding of all voids within the protected volume. The system shall be designed in accordance with the OEM's Design Manual.</p> <p>In order to extinguish a fire using clean agent, the concentration of agent delivered to each void shall be above the minimum design concentration. The following shall be considered while designing the system.</p> <p>The minimum design concentration shall be 4.7%. Class C Design concentration.</p> <p>If the protected volume has a floor and / or ceiling void the spaces shall be included in the protected volume, employing a minimum design concentration not below that of the main room compartment.</p> <p>The discharge nozzles shall be located within the protected volume in compliance to limitations and with regard to spacing, floor and ceiling coverage, etc. The nozzles shall be positioned such that they would cover the entire area up to the extreme corners of the area under protection and the design concentration will be established in all parts of the protected volumes.</p> <p>The final numbers of discharge nozzles shall be according to the OEM's product manual.</p> <p>The average pressure at each nozzle shall not be less than 4.00 Bar.</p> <p>The gas flow calculations shall be carried out on special software given by the OEM. The software should support usage of seamless cylinders which have a different design compared to the standard containers used worldwide. The system acceptance report shall show the resulting concentration in each independent void to be above 4.7% and the average pressure at each nozzle to be not less than 4.00 Bar.</p> <p>A fill density between 0.56 Kg/Lt to 0.92 Kg/Lt or as recommended by the manufacturer should be considered for the agent to be discharged within the specified time not exceeding 10 seconds and not less than 5 seconds.</p> <p>The design concentration shall follow at minimum NFPA 2001 for under floor, room and ceiling space. Unless otherwise approved, room temperature for air-conditioned space shall be taken around 20°C. For non-air conditioned space, the temperature shall be taken around ambient temperature. The system shall be designed with minimum design concentration of 4.7 % as applicable to Class A & C fire.</p> <p>The OEM should carry out the piping Isometric design and provide the hydraulic flow calculation results generated by using their UL listed design software.</p> <p>The system shall be so designed that a fire condition in any one protected area shall actuate automatically the total flooding of clean agent in that area independently. The entire system shall incorporate inter-alia detection, audible and visual alarms, actuation and extinguishing.</p>	
	System Design	<p>All components offered by the OEM including the cylinders shall be UL listed. The filling of the system shall take place in a UL listed filling plant owned by the OEM supplier.</p> <p>Cylinders: Each cylinder shall be seamless steel type manufactured from billets and tested in accordance with IS 7285 / BS 5045 standard and approved by PESO. The cylinders shall be UL listed for filling with Novec 1230 systems. The cylinder/valve assembly shall have suitable metallic protection for the valve enabling transportation of the filled cylinders safely.</p>	

		<p>The cylinders shall be super-pressurized with dry Nitrogen to 25 bar. The cylinder shall be capable of withstanding any temperature between -30 Deg C and 70 Deg C.</p> <p>All cylinders shall be distinctly and permanently marked with the quantity of agent contained, the empty cylinder weight, the pressurization pressure and the zones they are protecting.</p>	
		<p>Cylinder Valve:</p> <p>The UL listed valve shall be mounted directly on the cylinder and should NOT have any adaptor provision between the cylinder and Valve as per requirements of PESO. Cylinders with Adaptor between Valve shall be rejected as it is a violation of the PESO norms.</p> <p>Each cylinder valve shall have a provision for fixing a UL listed supervisory pressure switch and a safety burst disc to protect the cylinder from over pressure. The UL listed cylinder valve shall have a disabling plug to prevent accidental discharge of the valve during transportation and installation.</p> <p>Each valve is to be fitted with a pressure gauge for monitoring pressure in the cylinder.</p> <p>The master cylinder valve is to be released electrically which is performed by means of a solenoid valve arrangement. Pilot cylinder actuation and pyrotechnic devices shall not be accepted.</p>	
		<p>Cylinder Valve Actuators:</p> <p>In a single cylinder system the cylinder shall have a UL listed solenoid operated actuator and manual actuator as a single component. Multi cylinder systems shall have the same fitted on to the master cylinder and pressure operated actuators fitted on each slave cylinder. All actuators shall be UL listed and OEM make and locally manufactured actuators shall not be used.</p>	
		<p>Hoses:</p> <p>Each cylinder valve shall be provided with a plug in type UL listed flexible rubber discharge hose of minimum 50mm size with a proof pressure of 69 Bar. Each hose shall be permanently marked with the test pressure and OEM's part number. Multi cylinder systems shall have an interconnect hose for each cylinder. All hoses shall be UL listed and OEM make. Locally manufactured hoses shall not be used.</p>	
		<p>Manifold Check Valve:</p> <p>he manifold shall be fabricated from ASTM A106 Schedule 40 seamless pipe and shall be independently threaded to the UL listed check valve. The Manifold shall preferably be fabricated at site based on the shop drawing from the OEM.</p>	
		<p>Other Accessories:</p> <p>Electric Control Head, Pressure operated control head, Master Cylinder Adapter Kit, Flexible discharge hose, discharge Nozzles, and other required accessories shall be approved or listed for use with the clean agent.</p> <p>All the gaskets, O-ring, sealant and other components shall be constructed of materials compatible with the clean agent.</p> <p>The system should be engineered using hardware & accessories approved by the Engineering System Distributors of clean agent as mentioned in the list of approved makes. The Vendor shall submit the detailed data sheets of each component with the required part Nos and also the common system data sheet containing these parts with part Nos.</p>	
		<p>FIRST FILL, RE-FILLING AND MAINTENANCE:</p> <p>The filling plant shall be UL listed and PESO approved based out of India and should be from the OEM only.</p> <p>In case of any leakage or accidental discharge of the agent, the refilling shall take place from the UL listed filling plant only from a valid PESO approved OEM filling station in India itself. The contractor should indicate the source of re-filling and the time that will be taken for re-filling and replacement.</p>	
		<p>Piping & Fittings:</p>	

		<p>All piping shall be ASTM A-106, Grade-B, Schedule 40 seamless pipes and all fitting shall be of ASTM A-105 standard. Distribution piping and fittings shall be installed in accordance with the manufacturer's requirements, NFPA 2001, and approved piping standards and guidelines.</p> <p>All distribution piping shall be installed by qualified individuals using accepted practices and quality procedures. All piping shall be adequately supported and anchored at all directional changes and nozzle locations.</p> <p>All Piping shall be reamed, blown clear and swabbed with suitable solvents to remove burrs, mill varnish and cutting oils before assembly. All pipe threads shall be sealed with Teflon tape pipe sealant applied to the male thread only.</p>	
		<p>Discharge Nozzles:</p> <p>Engineered discharge nozzles shall be provided within the manufacturer's guidelines to distribute the clean agent throughout the protected spaces. Nozzles shall control the flow of clean agent to ensure high velocity, proper mixing in the surrounding air and uniform distribution of the agent throughout the enclosure.</p> <p>The number of nozzles and their positions must be chosen so that the design concentration is maintained everywhere in the enclosure. Nozzle shall be located where they can be adequately supported on walls, ceiling or structural members. Software generated calculation supporting the nozzle design shall be submitted by the successful bidder.</p>	
		<p>Documentation:</p> <p>The system engineering company should prepare & submit along with the bid documents, the piping Isometric drawing and support the same with a UL listed hydraulic flow calculation generated using the agent's design software. The calculations shall validate the fill density assumed by the bidder.</p> <p>The bidder shall submit copies of datasheets of hardware used in the system. The bidder shall also submit copy of PESO approval letter for the cylinder proposed to be used. The bidder shall also submit calculations to evidence the qty of agent considered for the system. The successful vendor must submit, along with the supply invoice, a certificate of authenticity for the agent, duly checked and vetted by the OEM.</p> <p>The system engineering company should provide, as part of the handing over, the As-built drawings and operation & maintenance manual.</p>	
	Fire Detection & Gas Release Panel & Operation Process	<p>Fire detection shall be achieved using the microprocessor based fire detection cum gas release panel specifically used for each protected area. The detectors shall be in cross zone and the trigger from the panel shall be for 2 stage action.</p> <p>Some of the enhance features of the detection cum gas release panel shall be:</p> <ul style="list-style-type: none"> • Easy on-site configuration • Upload / download of configuration data's – <ul style="list-style-type: none"> - Event logging facilitates identifying origin of events - Display countdown timer before extinguishing release - Extinguishing automatic activation with various alarm combinations - 72h battery backup time - Various system test modes - Automatic calibration facility for actuators control lines (solenoid or pyrotechnical actuators) - Manual Release button for manual activation of extinguishing - Emergency hold button to temporary stop the extinguishing 	

		<p>or abort button to cancel the initiated extinguishing release as long as the pre-warning time is running</p> <ul style="list-style-type: none"> - Remote transmission facility for transmitting alarms and faults - In compliance with EN12094-1 / EN54-2 +A1 / EN54-4 +A2 <p>If in case the fire detection part is handled by a separate fire control panel, the panel shall have the capability to integrate with larger fire detection system. Also the panel shall have the facility to connect repeater panel for remote status indication and remote control.</p>	
		<p>Auto Mode Operation:</p> <p>The sequence of operation of the gas release system shall be as follows –</p> <p>When the any one of the detector connected to the building fire alarm panel goes into alarm, immediately the sounder cum strobe shall get activated.</p> <p>The fire detection cum gas release panel shall ensure that the access control shall get deactivated.</p> <p>The first stage activation in the gas release circuit shall happen only when any one of the detectors in the protected area goes into alarm. When the first stage gets activated, the specific zone numbers and the detectors location shall be displayed and the panel buzzer shall start operating. The stage 1 bells shall be identified by the fact that they pulsate at the rate defined by timer 1.</p> <p>The panel shall also illuminate the "ALARM" lamp on the control panel face.</p> <p>The sounder cum strobe shall remain on until the alarm is silenced in the panel. The panel shall return to normal only after the fire alarm condition is cleared and a reset is performed in the panel.</p> <p>The second stage activation in the gas release panel shall happen when the second detector in the protected area goes into alarm in the second stage or vice versa.</p> <p>The PAC units shall be deactivated. The panel shall also illuminate the "PRE DISCHARGE" lamp on the control panel face</p> <p>When the second stage is activated, the second zone number and the detectors location shall also be displayed on the panel and the sounder shall be activated which is identified by a continuous tone.</p> <p>The stage 2 bells indicate that area is to be evacuated.</p> <p>The timer shall start to trigger the signal for gas release. The delay set time shall NOT exceed 60 seconds. It shall be possible to program the delay timing at site</p> <p>During the delay time period, the Gas release can be aborted by activating the "Manual abort switch" mechanically. The countdown timer shall count down till 10 second and stop. Once if the abort switch is released, the timer shall start count down from 10 seconds. Releasing and pressing again the manual abort switch shall reset the count down time to 10 seconds. A buzzer shall be activated when the abort switch is operated.</p> <p>After the expiry of the timer, the output from the actuator output terminal of the panel shall activate and operate the solenoid valve in the master cylinder. It is important to note that the actuator output on the panel shall be enabled only if the automatic gas release mode is selected</p> <p>A Gas sign board with lamp (Located outside the protected area) shall also illuminate indicating that the gas discharge have taken place</p> <p>The gas shall discharge into the protected area within 10 seconds as stipulated in the NFPA 2001 guidelines (2012 edition) or latest edition. The gas shall permeate into all the voids in the desired quantity so that the fire shall be quenched.</p> <p>As long as both the stages remain in alarm, the output to solenoid shall be active. If at least one of the two stage returns to normal as explained above, the delay timer shall stop. The gas release shall not</p>	

		<p>happen if the delay is set to zero.</p> <p>Manual Mode Operation: The manual release shall happen in three ways. Manual Release through the panel, Manual release station & Manual Release directly from the cylinder. The electric manual release (activated through the panel) shall be a dual action switch device which provides a means of manually discharging the suppression system from the panel The manual release station shall also be a dual action device requiring two distinct operations to initiate a system actuation. Manual actuation shall be capable of bypass the time delay or shall have the time delay depending upon the client requirements. It shall be possible to program both at site and abort functions and shall cause all release and shutdown devices to operate in the same manner as if the system had operated automatically. Manual release station shall be located at each entry from the protected hazard and the abort station shall be located at the exit side If the "Manual release lever on the master cylinder shall be activated by operating the lever, the gas shall get released immediately. Abort function can not be performed after activating the manual release lever.</p> <p>Connection Details: The Addressable detectors shall be connected in loops which are independently addressed from the fire alarm panel. Or Conventional detectors shall be used and the same shall be connected to the conventional fire detection cum gas release panel. The manual abort station and manual release stations shall be connected to fire alarm cum gas release panel. In addition the gas release panel shall have the manual mode switch as explained above The discharge pressure switch shall be connected to the gas release panel thro addressable monitor modules. The sounder cum strobes shall be connected gas release panel The solenoid actuator shall be connected to gas release panel in the Gas release terminal The fire trip input for the PAC units are looped and connected to thro addressable control modules to the fire alarm cum gas release panel The Access controlled door release shall be connected to the fire alarm cum gas release panel thro addressable control modules The monitor module shall be connected from the Building fire alarm panel to the gas release panel for alarm communication * fault status of the gas release panel.</p> <p>Manual Release Units/ Stations: Manual release units - double action type shall be provided at each exit of the protected area and as indicated on the drawings. Manual release unit casings shall be coloured YELLOW and shall be inscribed with the lettering " AGENT (NAME) MANUAL RELEASE POINT". Mounting heights for manual release units shall be agreed on site.</p> <p>Abort Units/ Stations: Abort switches, where provided, shall be located within the protected area and shall be located near the means of egress for the area. The abort switch shall be of a type that requires constant manual pressure to cause abort, In all cases the normal and manual emergency control shall override the abort function. The abort switch shall be clearly recognizable for the purpose intended. The abort units shall be momentary devices requiring constant pressure to maintain contact closure and shall be coloured RED and shall be inscribed with the lettering " AGENT (NAME) ABORT POINT". Mounting heights for abort units shall be agreed on site.</p> <p>Remote Lamp Unit: Remote lamp units shall be provided to give indication of an activated smoke detector within a ceiling or floor void.</p>	
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	Documentation	<p>The vendor should prepare & submit the piping Isometric drawing and support the same with a hydraulic flow calculation generated by using the agent's design software. The calculations shall validate the fill density assumed by the bidder.</p> <p>The vendor shall submit copies of the datasheets of the hardware used in the system.</p> <p>The vendor shall also submit calculations to evidence the quantity of agent considered for the system.</p> <p>The System Company should provide, as part of handing over, the as-built drawing, operation manual and maintenance manual. The as-built drawing shall exactly match the Isometric drawing submitted with the flow calculation prior to commencement of work.</p> <p>The vendor must submit, along with the supply invoice, a certificate of authenticity, for the agent.</p> <p>Vendor to submit copy of relevant approvals/test certificates of the offered items along with accessories and fittings.</p> <p>Vendor to provide MSDS and Safety guidelines with respect to "Hazards to Personnel" and Environmental factors regarding its use as clean agent for fire-fighting purposes.</p> <p>Supporting documents indicating the offered clean agent having zero Ozone Depletion Potential</p> <p>The construction drawing and design calculation of the offered item</p> <p>Vendor to provide list of spares to be maintained including cost thereof</p> <p>Vendor shall provide CD/manual/maintenance instruction book, depicting the use and application of the system</p> <p>Vendor to submit third party inspection certificates along with all accessories as required under technical specifications</p> <p>The design & the installation shall be certified by principal system supplier</p>	
	Testing Procedure for Gas Based Fire Suppression System	<p>General:</p> <p>Prior to placing the completed system in service, the installation should be inspected and tested by qualified personnel to confirm that the system has been properly installed and will function as specified below –</p> <ul style="list-style-type: none"> • Conformance to System design. • Suitability of piping, its correctness to project design, and its supports. • Operating Sequences • Suitable Hazard Environmental controls and Safety precautions and. • Compliance with the norms of NFPA STD. 2001 (2012 Edition) and other applicable standards. <p>Piping:</p> <p>Verify that pipe sizes and layout are as indicated on the project working drawings.</p> <p>Verify the piping supports and ensure the pipes are secured and restrained from the movement.</p> <p>After the installation after system piping is completed, and prior to the connection of the cylinders, accessories, nozzles etc., the discharge piping should be blown out and then Pressure tested for leakage. Plug or Cap all pipe outlets and apply 40 psi (3 bar) pressure with air for 10 minutes. At the end of 10 minutes, the pressure loss shall not exceed 20% of the test pressure. Under no conditions should water be used in testing.</p> <p>Cylinders:</p> <p>Inspect cylinders and ensure bracketing and cylinders are secure.</p> <p>Check pressure gauge and ensure pressure is correct for temperature at cylinder location.</p> <p>Check cylinder discharge bends and check valves for proper orientation, connection and tightness.</p>	

		Ensure that the cylinder operating components and auxiliary control devices are installed in accordance with the project drawing. All the required labelling as done on the cylinders	
		Nozzles: Ensure each nozzle has an orifice drilled to suit the specific location and discharge flow requirements. Verify that nozzle locations and orifice sizes are as indicated in the project drawing.	
		Electrical: All testing of the extinguishing system electrical circuits, Interlocks, Fire detectors and other electrical devices like solenoid actuators shall be carried out in accordance with the systems control panel. The control panel should indicate normal supervisory condition. Check the smoke detectors are in cross zone.	
		Room Integrity Test: NFPA2001 states that the design concentration of a clean agent post discharge shall be maintained for a sufficient period of time to ensure there is no re-ignition of fire once suppressed. NFPA 2001 and 12A require an enclosure integrity test as part of the acceptance procedure for all clean agent systems. This includes halocarbon and inert agents. This comprehensive test and calculation predicts the leakage area corresponding to the retention time of agent in the enclosure on discharge. Most specification state it must be ten minutes.	
	Warranty	1 year OEM Warranty	

Item: Fire Barrier			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Fire Barrier Sheet	Fire Barrier Intumscent Composite Sheet for sealing larger openings used to carry Cable trays and cables made up of 28 guage galvanised sheet on one side and the other side reinforced with hexagonal shaped steel wire mesh and covered with aluminium foil. The nominal 7.62mm thick composite sheet provides minimum fire rating system of 2 hour. Composite sheet must be capable of passing ASTM E814/UL1479 Standard methods of fire tests for through penetration fire stops up-to the desired fire resistant rating, Electrical circuits protection systems for cable trays besides meeting surface burning characteristics ASTM E84.(ANSIIUL723). Sealing of gaps using INTUMESCENT MOLDABLE PUTTY PADS of 3mm for cables including fibre optic inner duct and cable, insulated pipe electrical conduits, metal pipes, penetrations against air drafts, smoke, noxious gas and flame propagation The product shall be one part intumescent elastomers provides a minimum fire rating of 2 hours.	
	Fire Barrier Foam	Fire Barrier Foam for sealings in Floor or Wall with (a) Complex openings (b) Irregular openings (c) Inaccessible openings (d) High occupancy openings for passing various service lines like Cable Trays, Cables/Cable Bundles etc. by use of Fire rated firestop foam product that meets the intent of the L rating classification for the movement of smoke per ANSI/UL 1479 for through penetrations and ANSI/UL 2079 for construction joints with system being rated upto 2 hours when tested in accordance with UL 1479, applicable both for horizontal openings in floors or slabs and vertical openings in walls made of concrete/ masonry or Gypsum after passing service lines like cable trays or cables/cable bundles. The system should have a L-rating of 1 cfm per linear foot (5.5 cu m/h/m) maximum at ambient temperatures. The expanding foam expands five times its volume to fill the cavity at the time of dispensing the material and shall become tack free within one minute of dispensing. The product shall be LEED	

		compliant and shall have a STC barrier of 57 as per ASTM E 90 and E 413. The product shall be UL listed & classified and shall bear the UL and FM approval logo on the packing. Firestop installation should be done by authorised applicators of the manufacturer and the Fire Rating of the System certified by the Manufacture	
	Fire Barrier Paint	Fire Barrier paint on Cables to prevent the propoagation fire by use of of A white ready-mixed, water-based thixotropic coating applied with brush, trowel, or sprayer which has Intumescent property and has been tested as a protective coating for grouped electrical cables while meeting the approval requirements of FM Class 3971 with a minimum dry film thickness of 1.6 mm. It should also confirm to IEC 331, Part 3 (WFT is 3 mm) and IEC 332 (DFT is 1mm). The coating shall have good adhesion properties to most cable jacketing material, having a density of 1.3 kg.ltr. The Coating does not required maintenance when installed in accordance with the applicable European Technical Approval (ETA - 09/0333 Rev. 1	
	Warranty	1 year OEM Warranty	

Item: Fire Rated Door and Window		Quantity: As per BoQ	
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Metal Glazed Fire Door with vision panel of 800mmx2000mm	Steel Glazed Fire Door made of Galvanized Steel 120 min rating, Door frames to be double rebate profile of 143 x 57 mm manufactured from 16gauge galvanized steel sheet, profile to have bending radius of 1.4 mm supplied in assembled form ready to install at site and door tested in accordance with IS 3614 Part 2 & BS 476 Part 22. Door Shutter in 46mm thickness made of 150mm thick both vertical stiles , 150mm on top of the shutter & 200mm on bottom rail of the shutter. with GI beading will be used for glass holding with SS screws. The Glass of 6mm thick clear fire rated glass of fire rating up-to 120 minutes including gasket channel and moulding /beading. The gap between moulding / beading and glass shall be filled with the Sealant, door shutter finished in desired paint/Powder coated shade. Door Size, 1200 x 2400mm- Single Leaf Fully Glazed, Clear Glass Size, 800x2000mm and DORMA make SS Ball Bearing Hinges, Door Closer, Single point panic, External Trim, Fastener	
	Metal Fire Door with Vision Panel 200mmx300mm	Steel Fire Door with Vision Panel made of Galvanized Steel 120 min fire rated doors of Pacific make. Door frames to be double rebate profile of 143 x 57 mm manufactured from 16gauge galvanized steel sheet, profile to have bending radius of 1.4 mm supplied in assembled form ready to install at site and door tested in accordance with IS 3614 Part 2 & BS 476 Part 22..Door Shutter in 46 mm+2 thick manufactured from 18 Gauge galvanized steel sheets, lock seam jointed at stile edges to form a double skin fully flush shell. Infilled insulation material to be provided for structural rigidity & additional reinforcements & sound Insulation, The internal construction of the door should be appropriate for all hardware fixtures as required, vision panel grooves wherever applicable shall be provided as per recommendations with beading and screw, finished with desired paint/powder coated shade. Door Size, 1200 x 2100mm- Single Leaf with clear glass vision panel of 200mmx300mm and DORMA Make, SS Ball Bearing Hinges, Door Closer, Single point panic, External Trim, Fastener	
	Wooden Fire Door	Wooden Fire Door with Vision Panle made out Hard wood (redmerrandi) of size 120 x 70mm (nominal) suitable for mounting shutters of 120 minutes fire rating, with grove for Intumescent fire seal strips (Imported) of size 10 mm x 4 mm provided in grooves on all three sides of the frame.Supply of Pacific make shutter of 46 mm +2 thick non - metallic asbestos free fire resistant doors of 120minutes	

		rating conforming to BS: 476 part 22/IS-3614 Part 2 as per prototype tested suitable for mounting on Frame, Shutter comprising of 70x40mm hardwood internal timber frame work, with 16mm thick infill Fire rated insulation filler, The insulation shall be sandwiched between 12mm thick Non-combustible Boards on both sides, clad with 4mm thick commercial ply on both sides with heat activated intumescent fire seal strip of size 10x4mm mounted in the grooves of hard wood lipping all around the shutter except bottom. Door Size, 1200 x 2100mm- Single Leaf with CENTRAL Make clear glass vision panel of 200mmx300mm and DORMA Make, SS Ball Bearing Hinges, Door Closer, Single point panic, External Trim, Fastener	
	Metal Glazed Window	Metal Fire rated Glazed Window made of frames of 60 x 60 mm section with moulding on both sides of size 30 mm x 20 mm Tubular section to achieve fire rating upto 120 minutes. using 6mm thick clear fire rated glass. Window size 600mmX1200mm of Clear glass of CENTRAL Make.	
	Warranty	1 year OEM Warranty	

Item: Fire Seal/ Passive Fire Protection System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01		Fire Barriere System for Large openings with cable trays and cables using INTUMSCENT COMPOSITE SHEET made up of 28 guage galvanised sheet on one side and the other side reinforced with hexagonal shaped steel wire mesh and covered with aluminium foil.The nominal 7.62mm thick composite sheet provides minimum fire rating system of 2 hour. Composite sheet must be capable of passing ASTM E814/UL1479 Standard methods of fire tests for through penetration fire stops upto the desired fire resistant rating, Electrical circuits protection systems for cable trays besides meeting surface burning characteristics ASTM E84.(ANSIUL723). Sealing of gaps using INTUMESCENT MOLDABLE PUTTY PADS of 3mm for cables including fibre optic inner duct and cable, insulated pipe electrical conduits, metal pipes, penetrations against air drafts,smoke,noxius gas and flame propagation The product shall be one part intumescent elastomers provides a minimum fire rating of 2 hours.	
	Metal Fire Door with Vision Panel 200mmx300mm	Fire Barrier System for Protecting penetrations in Floor or Wall with (a) Complex openings (b) Irregular openings (c) Inaccessible openings (d) High occupancy openings for passing various service lines like Cable Trays, Cables/Cable Bundles etc that meets the intent of the L rating classification for the movement of smoke per ANSI/UL 1479 for through penetrations and ANSI/UL 2079 for construction joints with system being rated upto 2 hours when tested in accordance with UL 1479, applicable both for horizontal openings in floors or slabs and vertical openings in walls made of concrete/ masonry or Gypsum after passing service lines like cable trays or cables/cable bundles. The system should have a L-rating of 1 cfm per linear foot (5.5 cu m/h/m) maximum at ambient temperatures. The expanding foam expands five times its volume to fill the cavity at the time of dispensing the material and shall become tack free within one minute of dispensing. The product shall be LEED compliant and shall have a STC barrier of 57 as per ASTM E 90 and E 413. The product shall be UL listed & classified and shall bear the UL and FM approval logo on the packing. Firestop installation should be done by authorised applicators of the manufacturer and the Fire Rating of the System certified by the Manufacturer.	
	Wooden Fire Door	Fire Barrier System to prevent propagation of fire for Cables etc , white ready-mixed, water-based thixotropic coating applied with brush,	

		trowel, or sprayer which has Intumescent property and has been tested as a protective coating for grouped electrical cables while meeting the approval requirements of FM Class 3971 with a minimum dry film thickness of 1.6 mm. It should also confirm to IEC 331, Part 3 (WFT is 3 mm) and IEC 332 (DFT is 1mm). The coating shall have good adhesion properties to most cable jacketing material, having a density of 1.3 kg.ltr. The Coating does not required maintenance when installed in accordance with the applicable European Technical Approval (ETA - 09/0333 Rev. 1	
	Warranty	1 year OEM Warranty	

Item: Water Leak Detection System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	General	The complete system shall include electronic alarm panel, sensing cable, 4x20 alphanumeric display, and auxiliary equipment, as indicated on the design drawings. The system shall simultaneously detect the presence of water at any point along the cable's length and switch the module's leak alarm relays.	
	Alarm Panel	<p>The alarm panel shall be capable of monitoring up to (30 meters) of sensing cable.</p> <p>The alarm Panel shall have LEDs indicating "power" (green), "alarm" (red), and "continuity" (yellow). The system shall sound an audible alarm upon sensing a leak. The unit can then continue to monitor and will re-alarm if there are any major changes. Once the alarm condition has been cleared, the panel is reset with a single keystroke. The Panel shall have 4x20 alpha numeric display with adjustable contrast.</p> <p>Basic Features of the alarm panel</p> <p>In addition to detecting leaks, the system shall warn of fault conditions and indicates when service is required.</p> <p>An event history log allows leaks (and other events) to be tracked. Both the events history log and any user settings are held in non-volatile memory. Event log shall stores 50 date and time stamped alarm.</p> <p>The alarm module will be powered by 230 VAC. The panel shall have a pair of contacts open on an alarm, and a pair of contacts close on an alarm. These contacts shall be used to actuate other alarms and shall be capable of switching 10 amps at 250 VAC.</p> <p>In additions, the panel shall be provided with RS-485 series port for connection to building management system & shall have slave Modbus RTU protocol</p> <p>The module enclosure shall be NEMA 1, constructed of 18- gauge steel with Siemens gray colour Powder Coated. The enclosure shall be capable of either semi flush or surface mounting.</p>	
	Sensing Cable	<p>The water sensing cable shall detect the presence of water and other conductive fluids. The sensing technology shall be very low current AC signal and not DC signal to avoid corrosion when subject to wetness for long period.</p> <p>The sensing cable shall be of such construction by using Non-conductive polymers in the leak detection cable's construction. The Sensing Cable shall be an abrasion resistant polymer cores to increases the strength of the cable. Pressure on the sensing cable shall not create a false alarm.</p>	
	Accessories	A Complete system accessories (leader cable, end terminations, etc.) shall be provided by the system manufacturer.	
	Installation	All conduiting / wiring /Trays /channels /trenches /pipes etc. for completion of Job	

	Warranty	5 year OEM Warranty	
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Item: Rodent Repellent System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Controller/Master Console	The system proposed is to protect all the equipment's, areas with relevant type of high frequency sound producing device called satellites or transducers. Once powered up these transducers produce very high frequency variable sound waves (above 20 KHz) continuously which irritate the rodents and are forced to evacuate the place. The system shall cover minimum of 2000 sq.ft. area per controller & shall be able to connect minimum 12 transducers per controller. The transducers shall cover minimum 250 sq.ft. of area. The devices can be tested periodically by means of a test switch provided on the Main console. Single Driver for all transducers. 5 Wave Speeds, 4 Wave Densities and 4 Frequency Bands of Operation Transducer Sound Output Verification and Analysis Networkable on RS-485 with support for Hardwired Third Party BMS Integration via Modbus & potential free NO-NC Contacts Software Integration; Seamless Integration with CRMS Software for system health monitoring and reporting in pdf format. with complete fitting and accessories.	
	Transducers /Satellite	Transducers /Satellite shall be circular ceiling mounted low profile units that produce high decibel sound waves at very high frequency not less than 20 KHz. Sound Output : 80 db to 110 db, These satellites shall cover an area not less than 400 Sq.ft for Room void application; Audible Testing Of Transducers; Number of Wave Speed Options: 5; Number of Wave Density Options: 4; Number of Frequency Bands: 4	
		Visual Representation of Adherence to Safety Standards for continuous exposure to one third octave band airborne ultrasound frequencies as per IRPA Guidelines(International Radiation Protection Association) Geneva. Transducer Sound Output Verification and Analysis; USB Port for Real Time Reporting of Controller Health Status	
	Warranty	1 year OEM Warranty	

Item: Electrical System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)

Electrical Panels and Isolation Boxes	Design, Manufacture, Supplying, Transport to the site of the following Modular cubical type construction, Electrical Panels up to 440Volts $\pm 10\%$, 3Phase, 4Wire, 50Hz $\pm 6\%$, are housed in CRCA Sheet of 1.6mm for non-stress members & 2.0mm for all stress bearing members and 2.0mm Stainless sheel for Removable Glad Plate & base Frame Material, unless specified otherwise, vermin proof hinged lockable doors & door earthed for each compartment provide bus bar interconnections for incoming and outgoing, fixed Type, Single front compartmentalized, totally enclosed, free standing, Floor / Wall mounted type, indoor (IP:54) / outdoor (IP:55) , extendible type, dust and vermin Proof, duly wired up and ready for installation at site. The Bus bars will be electrolytic grade E91 Copper / Aluminium duly sleeved with Relogen Free heat shrink coloured Insulated tube (make-GALA or Eq.) confirms to RoHS & IEC 6068-3-247 Standard. Provide electrical insulating shrouds, reusable type covers for busbars Boots on corners Panels will be painted with Powder coating (50-60micron as per IS:13871), include one size higher terminal block in cable alley and interconnecting wires between bus bars and terminals via MCB/MCCB.	
	All Switchgear makes shall be from approved List of makes.	
	Contractor to submit manufacturer's selection charts, insulation material & corners cover on bus-bars for approval.	
	Only one make of switchgear to be used in a board / Panel.	
	All live accessible parts shall be shrouded and all equipment shall be finger touch proof. SMC shrouds bus-bar supports shall be used. Padlocking facility shall be provided on all MCCB feeders doors and switch handles shall be lockable in OFF position.	
	Equipment will be offered for following routine test only:- i). Check of Bill of Materials as per approved drawing, ii). Visual and Dimensional Check, iii) Functional Check, iv) HV/Megger test as per relevant IS.	
	Minimum/Maximum Operating height-300/1800 respectively	
	Sealing Arrangement:- PE Foam Rubber Gasket	
	Bus Bars Supports-Non-Hygroscopic, Non Carbonising, Corrosinn Resistant, SMC Supports	
	Entire panel shall have a common Aluminium earth bar of size 2 x 32mm x 6mm at the rear with 2 Nos. earth stud at both Ends.	
	Minimum Air Clearances between bus bars;	
	P-P=25mm, P-N=20mm,P-E=20mm and N-E=20mm	
	Panel Wiring	
	AC voltage circuit-1.5 sqmm Red, Yellow, Blue & Black	
	Current circuit-1.5 sqmm Red, Yellow, Blue & Black	
	AC Control circuit-1.5 sqmm White for Phase & Black for Neutral	
	DC Control circuit-2.5 sqmm Grey	
	Power circuit- Red, Yellow, Blue for Phase & Black for Neutral	
	Labelling- Computerised Laminated Aluminium Name Plate with White letters on Blue/Black Background For Each Feeder and Panel Itself.	
	The treatment of Panel Shall be Fully automatic 9-tank process for metal treatment which consists of Solvent/ Alkaline Degreasing, Rinsing, De-rusting, Phosphating and Passivation	
	Bottom base channel of MS section not less than 50mmx 50mm x 5mm thick, fabrication shall be done in transportable sections.	
	General Notes for MCCB's	
	MCCB's shall be of 3P with solid neutral link or 4P as called for in the BOQ.	
	Ics = Icu for the breakers.	
	MCCB's shall be with thermal - magnetic releases	
	All Thermal Magnetic MCCB's shall have adjustable over current and adjustable short circuit.	

		MCCB's shall be with extended rotary handle with Phase separators & Phase Barriers at both sides	
		MCCB's shall have auxiliary contacts wherever BMS compatibility is needed.	
		MCCB of required rating (Amps) as called for in the BOQ and of required breaking capacity.	
	General Notes for MCB's	MCB's shall be of minimum 10kA breaking capacity for 1 sec.	
		Use 'B' curve MCB's for lighting & small power circuits, 'C' curve for motor duty i.e. for pumps, AC motors, AHU motors, window and split AC's etc. & 'D' curve for UPS DB's i.e. for computers/ PC's circuit. Main Incomer & outgoing circuit MCB's shall be selected accordingly i.e. type B,C & D. as per the nature of the circuit/ load.	
		Exact MCB rating & category is to be calculated by the electrical contractor based on the final load of the circuit, its nature and fault current.	
		Power Cables, Solid Aluminum conductor up to 10 sqmm balance stranded conductor, XLPE Insulated, cores laid up, PVC tape / Extruded Inner sheathed , Un. Armour or Armour (Aluminium wire for single core up to 70 sqmm balance Aluminium strip, Galvanised wire for cables up to 2x10 sqmm, 3x10 sqmm, 4x6 sqmm balance all galvanised steel strip), extruded PVC Type ST2 sheathed, 1100V grade as per IS 7098(Part 1) 1988	
		LT XLPE insulated, HR PVC sheathed, stranded Aluminum/copper conductor, Armoured/ Unarmoured cables as per IS:1255/1983 on existing cable trays/ in existing hume / PVC / GI pipes / on surface of slabs, walls or masonry/ RCC trenches/ ducts including cables ties, GI saddles, clamps and necessary hard ware.	
		FRLS PVC insulated Single core unsheathed Industrial Flexible Cable conforming to IS:694/1990 with Flexible Bright annealed copper conductor for 1.1kV voltage grade. It should include both ends terminal joints providing tinned copper terminal lugs, single compression PVC cable glands upto 16 sqmm cable and double compression PVC cable glands for above, insulation tape, effecting terminal connections to the equipment complete as required.	
		Flexible copper conductor HR FRLS PVC insulated wiring in rigid M.S. conduit complete with bends, junction boxes, pull boxes GI pull wire including necessary civil work such as chase cutting/ chipping and making good for concealed conduiting or clamping with saddles & clamps on surface for surface conducting:	
		1100 Volt Annealed Bare Electrolytic High, Conductivity Copper Conductor Flexible PVC Type 'A' Insulated & PVC ST-1 Sheathed Cables in existing Conduit. Conforming to IS: 694:1990 including Making Both End terminations with copper lugs.	
		1.1kV grade Single core FRLS PVC insulated Single core unsheathed Industrial Flexible Cable confirming to IS:694/1990 with Flexible Bright annealed copper conductor for 1.1kV voltage grade. It should include both ends terminal joints providing tinned copper terminal lugs, single compression PVC cable glands up to 16 sqmm cable and double compression PVC cable glands for above, insulation tape, effecting terminal connections to the equipment complete as required.	

	Chemical Earthing & Earth Pit	Maintenance free chemical earthing with 10 feet rod, 32mm dia, 3.2mm thick of cooper Tube filled with 32x6 mm cu. Strip, CCM chemicals and sealed at both ends. Tube shall have double layer electrode, lead conductor welded to tube, with back fill and cast iron cover 300 x 300 mm and complete in all respects. (The installation procedures should be followed as instructed by the Earth Electrode supplier). (The resistance value shall be guranteed for less then 1ohm for minimum 10 years without any maintenance) The product should meet the requirements as per IS:3043 or any equivalent international specification (UL). Chemicals used shall be environmental friendly.	
	RMU	Outdoor type 11 KV RMU 630Amp. With Builtin Relay, CT, having two Isolators & One Breaker, including HT incoming & outgoint connection, earthing connection etc.	
	MCB's & DB's	MCB's shall be of minimum 10kA fault with stand capacity.	
		Use 'B' curve MCB's for lighting & small power circuits, 'C' curve for motor duty i.e. for pumps, AC motors, AHU motors, window and split AC's etc. & 'D' curve for UPS DB's i.e. for computers/ PC's circuit. Main incomer & outgoing circuit MCB's shall be selected accordingly i.e. type B,C & D. Contractor to select the MCB's accordingly as per the nature of the circuit/ load.	
		Each DB shall have separate neutral links of rating not less than 100A for each phase. The main incoming neutral link shall be in addition to three outgoing neutral links and shall be of 125A.	
		UPS DB's shall have a dedicated Earthing link fixed on insulated supports, which will be in addition to body earth link.	
		All internal inter connecting wiring with in the DB's shall be PVC insulated flexible copper conductor wires of adequate capacity as per the current rating.	
		Inside each DB, a DB chart is to be fixed.	
		All UPS DB's to have a dedicated earth link per phase on insulated supports apart from separate body earth link.	
		Final rating of MCB's shall be selected by the contractor depending upon the load.	
		Distribution boards should be vertical Raw type, made out of pre-treated and powder coated 1.2mm sheet steel and glazed steel door in double door enclosure include MCB's-(10kA) / ELCB's-(100mA for Light & power circuits) as called, insulated prong bus bars rated for 150A and with separate neutral and earth terminals and 1,2,3 & 4 pole versions as asked for or as required include wire set, blanking Plates, cable ties & circuit identification lables as standard or Cup-board layout suggested by Architect/Consultant.	
	Wiring, Conduiting, Switch & Socket	All wiring (P,N,E) shall be 1100 volts grade, HR FRLS PVC insulated or ZHLS Polymer insulated, unsheathed, flexible, copper conductor, single or multi core as called for.	
		Size of earth wire shall be the same as of the phase conductor or as specified.	
		All Switches & Sockets shall be of modular design complete with modular plate and suitable sized GI/ moulded boxes as called for and shall be suitable up to 250V, AC/DC supply or as specified.	
		The recessed Switches & Socket outlet boxes shall be of 16G GI and of the same make / manufacturer as of the switches & sockets. Local make boxes are not to be used.	
		PVC Conduits shall be of FRLS type and shall be of minimum wall thickness of 2mm. (Rigid Heavy duty Conduit) unless otherwise specified. Company specified adhesive to be used for joining/ fixing of PVC conduits	
		GI and MS Conduits shall be of min. 16G thickness. Metallic conduit work shall be complete with proper threads, check nuts/ lock nuts etc.	
		Flexible conduits, where ever required, shall be of heavy duty and	

		complete with couplers.	
		Minimum diameter of the conduit to be used shall be 20mm. Conduit less than 20mm dia is not to be used unless otherwise specified. Conduiting may be concealed or surface mounted (Exposed) as the case may be.	
		Wiring terminations shall be made using proper sized copper thimbles/ lugs.	
		All circuit & point wiring shall be colour coded & shall have ferruling on either end for circuit identification.	
		It shall include circuit wire (P+N), point wire (P+N), earth wire and conduit work of any length from DB to point via switch, switch, socket outlet, metal clad/ moulded outlet and box and complete in all respects and shall be payable on point basis.	
		The rates shall include material & labour for necessary length of circuit and point wiring, earth wiring, rigid and flexible conduiting, bends, junction boxes, pull boxes, screws, washers, check nuts, couplers, saddles, hangers supports, GI pull wire, civil work comprising chipping, cutting chases, fixing conduits & making good or surface clamping of conduit work as the case may be, modular switches, socket outlets, Electronic fan regulators surface or recessed outlet boxes as the case may be, ceiling rose, rigid and flexible conduit (PVC / GI / M.S.) as may be required, connectors and terminal blocks of proper rating etc. & sleeves etc. including lugs/ thimbles for terminations. Fan points wiring shall include switch as well as electronic speed regulator, and fan hook box with fan hook.	
		Wiring shall include conduiting and wiring (Phase, Neutral, Earth) of light points/ fan points/ UPS and raw sockets outlets of any length from the distribution board via switch to the point.	
		Following Material and makes will be used for Point wiring.	
		Light points wiring:- circuit wiring with 2 x 1.5sqmm + 1 x 1.5sqmm (Earth) & point wiring with 2 x 1.0 sqmm + 1 x 1.0 sqmm (Earth) in 25mm dia conduit for circuit & 20mm dia conduit for looping:	
		Primary (First) light point controlled by a 6A switch.	
		Primary (First) light point controlled by a MCB in the DB.	
		Secondary (Loop) light point looped to first point and so on.	
		Ceiling Fans, Exhaust Fans & wiring with 2 x 1.0 mm ² + 1 x 1.0 mm ² (Earth) in 20mm dia conduit:	
		Exhaust/Inline fan point with 6A, 5 pin wall socket outlet, near the fan and controlled by a 6A switch at nearest Light Board.	
		6A or 16A, 5pin Raw/Inverter/UPS supply switched socket outlet wiring on walls / ceiling/counters etc wiring with 2 x 2.5mm ² + 1 x 2.5 mm ² (Earth) for First & Looped point both in 25mm dia conduit for circuit & 20mm dia conduit for looping:	
		First Point wiring with 6A,5pin wall socket outlet and controlled by a 6A switch	
		Extra loop point wiring with 6A, 5 pin wall socket outlet and controlled by a 6A switch.	
		6/16A, 3 pin combined shuttered wall socket outlet and controlled by a 16A switch for VRV indoor outlets 1phase 230volts.	
		6/16A, 3pin combined shuttered Raw / UPS supply switched socket outlet wiring on walls / ceiling / counters etc wiring with 2 x 4.0mm ² + 1 x 4.0 mm ² (Earth) for First & Looped point both in 25mm dia conduit for circuit & 20mm dia conduit for looping:	
		First Point wiring with 16A, 3Pin combined shuttered wall socket outlet and controlled by a 16A one way switch with indicator.	
		Extra loop point wiring with 16A, 3Pin combined shuttered wall socket outlet and controlled by a 16A one way switch with indicator.	

		Geyser/Projector point with 16A, 3 pin combined shuttered wall socket outlet, near the Geyser/Projector and controlled by a 16A switch with indicator away from socket outlet in separate Gang Box.	
		Wiring for 6A or 13A, 5pin Raw / UPS supply switched socket outlet on work stations/Wall/ table/ counter etc. including wiring with 2 x 2.5sqmm + 1 x 2.5 sqmm (Earth) for First point and 2 x 1.5sqmm + 1 x 1.5 sqmm (Earth) for Looped Points wiring partly in 25mm dia conduit for circuit & 20mm dia conduit (in wall) or G.I. Flexible (in furniture) for looping and partly in raceway. (Note:- Raceways to be accounted for separately but conduiting cost is included here.)	
		First Point wiring 1 x 6A 5pin round pin socket outlets controlled by a 6A one way switch 2 x 6A 5pin round pin socket outlets controlled by a 6A one way switch 1 x 6A Universal socket outlets controlled by a 6A one way switch 2 x 6A Universal socket outlets controlled by a 6A one way switch 3 x 6A Universal socket outlets controlled by a 6A one way switch	
		Looped Point wiring 1 x 6A 5pin round pin socket outlets controlled by a 6A one way switch 2 x 6A 5pin round pin socket outlets controlled by a 6A one way switch 1 x 6A Universal socket outlets controlled by a 6A one way switch 2 x 6A Universal socket outlets controlled by a 6A one way switch 3 x 6A Universal socket outlets controlled by a 6A one way switch	
	Raceway & Cable Tray	IN FLOOR/ SCREED RACEWAY Supply & Fixing of factory fabricated pre-galvanized G.I. sheet steel raceway in 1.6mm thickness for bottom & sides and 2/3mm thick top Cover as called for including necessary civil work such as chase cutting in screed, fixing/ jamming the raceway, aligning & levelling and finishing with sand cement plaster & chicken wire mesh:	
		MAKE - ERA Control/ ADITYA STEEL INDUSTRIES/Indiatech 40mm Depth 100mm x 40mm (2mm top Cover) 150mm x 40mm (2mm top Cover) 250mm x 40mm (3mm top Cover)	
		Floor Junction Boxes Supply & Fixing of openable top Cover floor Junction Boxes made from 2mm thick pre-galvanised GI sheets for bottom & sides & 3mm thick GI top Cover complete with rubber gasketing beneath the top Cover. The Junction Boxes shall be suitable to accommodate GI floor raceways as specified above, necessary civil work as described in earlier item to be included here too. For 40mm Depth raceway 100 x 100 x 50 150 x 150 x 50 200 x 200 x 50 300 x 300 x 50	
		PERFORATED CABLE TRAY Supply, fabrication and installation of G.I. Sheet factory built in perforated type cable trays complete with all bends, tees, elbows, reducers etc. of various width in two tier/ three/ five tier fashion either on one side of the wall or on two sides of the wall or at other places and paint afterward if required. (The cost of angle iron/ 'C' Channel, Fastner & GI Down rod shall be included here measured & paid). 100mm tray, 2mm thick 40mm collar. 150mm tray, 2mm thick 40mm collar. 300mm tray, 2mm thick 40mm collar.	

	General Notes for Cable Tray Installation	The cable tray shall be fabricated out of slotted/perforated MS sheets as channel sections, single or double bended. The channel sections shall be supplied in convenient lengths and assembled at site to the desired lengths. These may be galvanised or painted as specified. Alternatively, where specified, the cable tray may be fabricated by two angle irons of 50mmX50mmX6mm as two longitudinal members, with cross bracings between them by 50mmX5mm flats welded/bolted to the angles at 1 Mtr spacing. 2mm thick MS perforated sheet shall be suitably welded/bolted to the base as well as on the two sides.	
		The jointing between the sections shall be made with coupler plates of the same material and thickness as the channel section. Two coupler plates, each of minimum 200mm length, shall be bolted on each of the two sides of the channel section with 10mm dia round headed bolts, nuts and washers. In order to maintain proper earth continuity bond, the paint on the contact surfaces between the coupler plates and cable tray shall be scraped and removed before the installation.	
		The cable tray shall be suspended from the ceiling slab with the help of 8mm dia MS rounds or 25mm x 5mm flats at specified spacing (based on Table III). Flat type suspenders may be used for channels up to 450mm width bolted to cable trays. Round suspenders shall be threaded and bolted to the cable trays or to independent support angles 50mmX50mmX5mm at the bottom end as specified. These shall be grouted to the ceiling slab at the other end through an effective means, as approved by the Engineer-in-Charge, to take the weight of the cable tray with the cables.	
		Contractor to ensure that cable trays and their supports are strong enough to take care of the loads of the cables without sagging and the supporting arrangement shall be safe enough to withstand earthquake situations as per seismic conditions prevailing at site. Contractor to improve upon specifications of trays and supports as specified in the specifications and BOQ, if it is felt necessary for the safety and with the approval of owner/PMC.	
	Miscellaneous Work for AC, Rack, etc.	\Indoor and Outdoor Plug & socket outlets and Enclosures for 1 phase & 3 phase Raw / UPS for IT Racks, AC's units with 2Nos Glands for Cable Entry.	
		INDOOR TYPE ONLY ENCLOSURES Similar to Legrand make metal one way Enclosure for DP/SP/TP/FP MCBs/ELCB/Isolator. Ref Cat. Number- 6078 81/82/83/84, For Hub / Server Racks socket mount on wall.	
		INDOOR TYPE PLUG AND TOP Similar to Hensal Make Wall socket with Din Rail 16/20A 2P + E, 1 phase, 240V, IP44, male/ female, lockable moulded plug and top. Ref. Cat Number- For Plug - AR 119306 TS and Top - 219306 (for UPS power supply of smart rack input from main UPS). Similar to Hensal Make Wall socket with Din Rail 32A 2P + E, 1 phase, 240V, IP44, male/ female, lockable moulded plug and top. Ref. Cat Number- For Plug - AR 139306 TS and Top - 239306 (for raw power supply of smart rack input).	
		OUTDOOR TYPE ONLY ENCLOSURES- IP:65 Hensal Make KV Thermoplastic Circuit Breaker Boxes IP-65 with Metric knock outs for Cables entry with 3Nos IP:66 Glands. Ref. Cat Number- KV 6109 Hensal Make KV Thermoplastic Circuit Breaker Boxes IP-65 with Metric knock outs for Cables entry with 3Nos IP:66 Glands. Ref. Cat Number- KV 6103	
	MCB	240/415 volts, "C" curve, MCB (16kA) suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. 6/32A DP MCB 40/63A DP MCB	

		6/32A 4P MCB 40/63A 4P MCB	
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Item: Building Management System			Quantity: As per BoQ
BRAND NAME:			
MODEL No.:		PART No. (If Any):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Support and management of Building Services	BMS system should support and manage all the services (HVAC, Lighting Control, Access control System, Fire Alarm System, Fire suppression system, Rodent Repellent System, Water leak management system, CCTV System, Modular & General UPS System, Smart Racks, DG Set and panels and any other services mentioned in the BOQ in the tender.	
	Flexible System Navigation and Dynamic User Graphics	BMS Software system Allow customization of system presentation for different users to enhance information access and facilitate system operation. User graphics created with standard graphics, the Advanced Graphics Application, and the Graphics+ feature are all supported.	
	Alarm and Event Management	Routes event messages to building operators for rapid fault diagnosis and response. Creates an audit trail for later detailed analysis.	
	Long-Term Trend Data Storage	Enables the analysis of building systems performance to identify opportunities for efficiency improvements and the development of predictive strategies.	
	Ready Access Portal UI	The Ready Access Portal UI provides an intuitive, task-based interface to your BMS system that can be tailored to meet the remote operations of your building.	
	Realistic Displays with Graphics+	The Metasys system user experience takes another leap forward with a new, industry-leading graphical display capability. The Graphics+ feature provides an intuitive way to interact with your facility by dynamically highlighting the information that requires immediate attention, and providing multiple layers of meaningful facility data in an uncluttered, focused visual display.	
	Managing Alarm and Event Messages	The Site Management Portal UI alerts you with a pop-up window showing the most recent highest priority alarm message detected by the system. This window presents all important data pertaining to the alarm message.	
	Trend Analysis	For optimal performance and to fine-tune the building control systems, current and historical data can provide useful diagnostic information. The Site Management Portal UI provides comprehensive trend recording and trend display capabilities	
	System Security	The BMS system offers secure user access by authenticating the user name and password of any user who attempts to connect to the system. The Site Management Portal UI also supports authentication using the Microsoft Active Directory® directory service. Refer to the Security Administrator System Technical Bulletin (LIT-1201528) for details.	
	Controller Configuration Tool (CCT)	CCT is used to configure, simulate, and commission Field Equipment Controllers (FECs), Advanced Application Field Equipment Controllers (FACs), Input/Output Modules (IOMs), and VAV Modular Assembly (VMA) 16 devices on the MS/TP bus.	
	Network Automation Engine	The Network Automation Engine (NAE) IP connectivity and web-based access to Building Management Systems	
	Field Networks and Protocols	The Network Automation Engine communicates data from one field enterprise and automation network level, enabling your system to operate as one virtual control network. network to another and from the field network level to the	

	Automation Level Communication	The Network Automation Engine communicate internal system data using peer-to-peer messaging over the IP Ethernet network.Each Network Automation Engine shares data and has access to information on the other NAE45-Lites connected on the network, which enables coordination and control of the entire building management system.	
	BACnet Protocol	The automation level communication supports the BACnet and facilitates the network integration of other systems and devices that use BACnet. The The Network Automation Engine supports the BACnet services and objects typically used by a workstation and a field controller device, including BACnet alarm and event services.	

Item: Workstation			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Workstation	Tower Chassis	
		6 th Gen Intel Core i7-6700 (Quad Core 3.40GHz-4.0GHz Turbo, 8MB w/ HD Graphics 530)	
		16GB (2x8GB) 2133MHz DDR4 ECC UDIMM	
		1TB 3.5inch SATA (7,200 Rpm) Hard Drive	
		2 x Graphics card with 2 GB RAM and 2 display ports	
		Integrated GbE	
		Wireless AC card	
		Wireless Keyboard and Mouse	
		2 x 24" Wide Screen Monitor with LED Back Light	
		2 x Mini DisplayPort to VGA Adapter	
		Power Cord India	
		Microsoft Windows 10 Professional Operating System	

Item: All-in-One			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	All-in-One	All-in-One Chassis 23.8" with Non-Touch LCD display and stand	
		Intel Core i7-6700 Processor (Quad Core, 8MB, 8T, 3.4GHz, 65W)	
		16GB (2x8G) 2133MHz DDR4 Memory	
		1TB 2.5 inch SATA 7200RPM HD, OptiPlex	
		Intel Integrated Graphics	
		Intel Dual Band Wireless 8260 (802.11ac) + Bluetooth	
		Wireless Keyboard and Mouse	
		Power Cord India	

Item: Apple iMac 27" with 5K Retina Display			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	All-in-One	3.2GHz quad-core Intel Core i5 (Turbo Boost up to 3.6GHz)	
		27-inch (diagonal) Retina 5K display with IPS technology; 5120x2880 resolution with support for millions of colours	
		8GB (two 4GB) of 1867MHz DDR3 memory; four SO-DIMM slots, user accessible	
		1TB Fusion Drive	

		AMD Radeon R9 M390 graphics processor with 2GB of GDDR5 memory	
		Power Cord India	

Item: Apple MacBook Pro 15"			Quantity: 1
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Laptop	2.5GHz quad-core Intel Core i7 processor (Turbo Boost up to 3.7GHz) with 6MB shared L3 cache	
		Retina display: 15.4-inch (diagonal) LED-backlit display with IPS technology; 2880x1800 resolution at 220 pixels per inch with support for millions of colours	
		16GB of 1600MHz DDR3L on-board memory	
		512GB PCIe-based flash storage	
		Intel Iris Pro Graphics	
		AMD Radeon R9 M370X with 2GB of GDDR5 memory and automatic graphics switching	
		802.11ac Wi-Fi	
		Bluetooth 4.0 wireless technology	

Item: Modular UPS with Modular Battery			Quantity: As Per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Modular UPS	Modular UPS Rack of minimum capacity 150 KVA	
		2 Modules of 30 KVA (30 KVA X 2)	
		Output Power Factor: 1 (module should be 30 KVA = 30 KW)	
		UPS to be scalable in future	
		Efficiency of UPS: 95%	
		Inverter Input: <ul style="list-style-type: none"> 320V-460V VAC Three-phase four-wire (3 phase + N) 40 Hz – 70 Hz Power Factor: > 0.99 THDI: < 3% 	
		Inverter Output: <ul style="list-style-type: none"> 380/400/415 VAC Three-phase four-wire (3 phase + N) 50/60 Hz Power Factor: 1 	
		Bypass Input Voltage: <ul style="list-style-type: none"> 380/400/415 VAC Three-phase four-wire (3 phase + N) 50/60 Hz 	
		Digital current sharing technology and high parallel reliability	
		Completely redundant power and control system	
		Parallel technology allowing four (4) system cabinets up to 150kW per cabinet to be paralleled, without the need for centralized bypass cabinet and additional external control modules	
		Monitoring: <ul style="list-style-type: none"> Remote Panel with 100Mtrs Cable to be provided SNMP Card to be provided 	
	Modular Battery	Modular Batteries with 15 min. backup time Should be hot swappable & replaceable without any down time Should be in fixed in rack	

	Battery backup calculations to be provided.	
	Intelligent battery management for automatic battery maintenance	

Item: Passive Networking			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	CAT 6A Channel Performance	The Category 6A/ Class EA UTP SCS shall comply with the following standards: <ul style="list-style-type: none"> • ISO/IEC 11801:2010 • EN 50173 Part 1 through Part 5:2010 and 2011 • ANSI/TIA-568-C • IEC 60603-7-4 • IEEE 802.3 applications as outlined in section 2 • Local/National Codes and Regulations 	
		The Category 6A/ Class EA UTP system should support the following IEEE Ethernet applications: <ul style="list-style-type: none"> • 802.3e - 1BASE5 • 802.3i - 10BASE-T • 802.3u - 100BASE-TX, 100BASE-T4 • 802.3y - 100BASE-T2 • 802.3z - 1000BASE-X • 802.3ab - 1000BASE-T • 802.af - Power Over Ethernet (15.4W) • 802.3at - Power Over Ethernet Enhancements (25.5W) • 802.3az - Energy Efficient Ethernet 	
		Additionally the Category 6A/ Class EA UTP SCS shall be capable of supporting the following Fibre Channel Applications Standards, per Technical Committee 11 of INCITS: <ul style="list-style-type: none"> • 1GFC-BASE-T • 2GFC-BASE-T • 4GFC-BASE-T 	
		It is critical that guaranteed worst-case values are provided to ensure the SCS can support 1G transmission without risk. "Average value" or "Typical Value" is not acceptable as they do not account for lower performance channels. The proposed Category 6A UTP SCS, when configured as a worst-case 100 metre channel shall provide performance headroom over limits specified by Cat6A	
		NEXT - Minimum 3 db above the standards; Should support a minimum of 4 connector Channel with a minimum 3 db guaranteed NEXT	
		Insertion Loss - 3%	
		Return Loss - 1.0 db	
		The SCS must consist of individual components provided by the same manufacturer. "Mix and Match" products are not allowed as there is no guarantee that the overall channel will meet Category 6A Channel requirements if constructed with components from different vendors.	
		The SCS must be tested by an ISP 17025 accredited 3rd Party test facility to EIA/TIA 568C, ISO/IEC 11801 Amendment 1 and for the channel testing must be provided as part of the bid response.	
		The Category 6A system should support channels that are shorter than 15 meters for 2,3,4 connector channels without any minimum length requirements.	
	CAT 6A Horizontal Cable	The Cable should meet ANSI/TIA 568C.2 Category 6A Specifications	
		Cables should have TRACKING Number to check the genuiness / details of the test reports	
		The cable should consist of Eight 23 AWG copper conductors. Copper Clad Aluminium or any other combinations are not allowed	

		<p>The Cable should be round in shape</p> <p>The weight of the cable box of 1000 Feet should not be less than 34.7 lb</p> <p>The nominal Jacket thickness should be 0.05 inches</p> <p>The nominal Outside diameter should not be more than 0.285 inches</p> <p>The cable should support the installation temperature: 0 to 60 0 C It should support Operating temperature of -20 to 60 0 C</p> <p>The cable shall be available in Low-Smoke, Zero Halogen (LSZH) compatibility and The LSZH version must comply with the following Fire Safety standards: 1) ISO/IEC 60332-3-22: Vertical Flame Spread 2) ISO/IEC 60754-2: Acidity 3) ISO/IEC 61034-2: Smoke Density</p> <p>The cable and cordage shall be "True UTP" components that do not include internal or external shields, screened components or drain wires. No Special Grounding requirements.</p> <p>The horizontal cable shall have a unique print string on the cable jacket. This unique identifier shall also be used for on-line reference to a full set of factory tests that were performed on a sample from the same mater reel. The test parameters shall include NEXT, PSNEXT, Return Loss, Attenuation, ELFEXT and PSELFEXT. The on-line reference must be available on the SCS vendor public website, such that it can be accessed at any time.</p>	
	CAT 6A 10Gb Information Outlet	<p>The 8-pin modular (RJ-45) jacks shall comply with IEC 60603-7-4</p> <p>The Category 6A outlets shall be backward compatible with Category 6 and 5E cords and cables.</p> <p>The Category 6A outlets shall be of a universal design supporting T568 A & B wiring.</p> <p>The information outlet shall have a Current Rating of 1.5 A at 20°C</p> <p>The information outlet must support 90 degree cable termination. As some mounting hardware does not allow for cable entry directly from the rear, this capability is necessary</p> <p>3rd Party Verification test certificates shall be provided to show compliance to ISO/IEC 11801 Amendment 2 testing for Cat 6A components.</p> <p>The 8-pin modular (RJ-45) jacks shall comply with IEC 60603-7-4.</p> <p>The information outlet will have insertion life of 750 cycles minimum.</p>	
	Face Plates	<p>Type: Single Gang, Square Type</p> <p>Material: High-impact, flame retardant, UL-rated 94 V-0, thermoplastic</p> <p>No of ports: One/Two/Four</p> <p>Depth, Height, Width: 3.72 mm / 86.36 mm / 86.36 mm</p> <p>Safety Standards: UL Listed</p> <p>Color: White</p> <p>Shutter: 2 & 4 Port to have shutter, 1 Port without shutter</p>	
	CAT 6A Modular RJ45 Patch Cords	<p>SCS must support patch cord lengths of 1 meter minimum and equipment cords of 2 meter minimum and The Patch cords shall be available in Stranded and solid core construction</p> <p>Cords shall be equipped with 8-pin modular plugs on each end.</p> <p>All cords shall be round, and consist of copper conductors, tightly twisted into individual pairs.</p> <p>Nominal cordage diameter shall not exceed 7.24 mm.</p> <p>Plugs shall be designed with an anti-snag latch to facilitate easy removal during move, add and change processes.</p> <p>The LSZH version must comply with the following Fire Safety standards: ISO/IEC 60332-3-22: Vertical Flame Spread ISO/IEC 60754-2: Acidity ISO/IEC 61034-2: Smoke Density</p> <p>3rd Party verification of the Fire Safety/ Environmental tests listed above must be provided as part of the bid response.</p> <p>The cordage shall be UTP components that do not include internal or external shields, screened components or drain wires.</p> <p>The patch cords will have insertion life of 750 cycles minimum.</p>	

	CAT 6A Patch Panel	The ganged adapter style patch panel will utilise increments of six RJ-45 style jacks in a common moulded component.	
		The ganged adapters shall have RJ45 jack in the front and Insulation Displacement Connector (IDC) at the rear of the module.	
		The panel must be capable of supporting an upgrade to an intelligent system without any interruption to service due to patch cord removal or terminal block re-termination.	
		Termination managers must be provided with the panel. These termination managers provide proper pair positioning, control, and strain relief features to the rear termination area of the panel.	
		3rd Party Verification test certificates shall be provided to show compliance to ISO/IEC 11801 Amendment 2 testing for Cat 6A components.	
		When configured in worst-case 100 meter channels with full cross-connects and consolidation points with the other products proposed in this tender, the panel shall be capable of delivering the minimum guaranteed channel performance	
		The patch panel type shall be a 1U panel capable of supporting 24/48 unshielded modular 8-pin connectors compliant with IEC 60603-7-4 while meeting the Channel Performance as specified in Amendment 1 to ISO/IEC 11801:2002	
		The panel shall be available in 24-port and 48-port configurations with universal A/B labelling and 110 connector terminations on rear of panel allowing for quick and easy installation of 22 to 24 AWG cable	
		The panel shall be equipped with a removable rear mounted cable management bar and front and rear labels	
		The panel shall be UL and CUL Listed	
		Operating Temperature Range = 14°F to 140°F (-10°C to 60°C)	
		Storage Temperature Range = -40°F to 158°F (-40°C to 70°C)	
		Humidity = 95% (noncondensing)	
		Nominal Solid Conductor Diameter = 0.025 to 0.020 in (0.64 to 0.51 mm) (22 to 24 AWG)	
		Nominal Stranded Conductor Diameter:=0.025 to 0.020 in (0.64 to 0.51 mm (22 to 24 AWG)	
		Insulation Types = All plastic insulates (including PVC, irradiated PVC, Polyethylene, Polypropylene, PTF Polyurethane, Nylon, and FEP)	
		Insertion Life = 750 minimum insertions of an FCC 8-Position Telecommunications Plug	
	Rack Mounted Fiber Optic Patch Panel and Components	1U low-profile, high density fiber optic shelf shall be proposed that can be used for a combination of splicing and termination of fiber optic building cable or outside plant (OSP) cables.	
		The 1U height fully enclosed shelves shall include integrated front cable management trough and features either a fixed tray or slide-out tray for easy access.	
		The Panel shall accommodate up to 24/48 fibers to be spliced / terminated	
		The front plate of the panel shall be included in the proposal that can support LC-Style Duplex adapters	
		The alignment sleeve of the LC Duplex adapter shall be of Phosphor Bronze. This allows better retention and alignment of fiber connectors on patch cords and pigtails.	
		The MM adapter shall support OM3 as well as OM3 fibers / patch cords. SM adapters should support OS2 fibers / patch cords.	
		The panel shall accommodate fusion splice trays that can support splicing up to 24/48 fibers	
		Adequate number of Fusion splice holder trays should be included in the RFP	
	Cable Assemblies - Pigtailed and Patch Cords	The Pigtail shall be assembled with 50 µm multimode fiber (OM3) for MM fiber cabling System and with SM fiber for SM fiber cabling system	
		The pigtail shall be assembled using 900 micron buffered fiber	
		The pigtailed shall be terminated with MM LC-style connector for MM	

		cabling systems and SM LC-Style connector for SM cabling system	
		The pigtails shall have a Cable Retention Strength, maximum	
		The LC connector on the pigtail shall meet Optical Components Standard ANSI/TIA-568-C.3. please append data sheet	
		The Patch cord proposed shall be duplex, 1.6mm jacketed, and shall be of 50 µm multimode fiber (OM3) for MM and SM fiber for SM	
	6 Cores Single Mode Fiber Cable (Outdoor)	Type: 6F Outdoor Corrugated Steel tape armor, Gel Filled, Outdoor Stranded Loose Tube Cable with 2 Rip Cords	
		Specifications: ANSI/ICEA S-87-640, EN187105, Telcordia GR-20	
		Fiber Type: ZERO WATER PEAK, BEND INSENSITIVE SINGLE MODE FIBER (AS PER G.652D, G.657.A1, OS2)	
	Multi Mode OM3 Fiber Cable	Laser Optimized OM3 Fiber optics based SCS	
		Cable Construction: Loose-tube, Gel-filled cable, non armoured	
		The Proposed Optical SCS must consist of individual components provided by the same manufacturer. This includes cables, Pigtails, Patch cords, Panels and adapters.	
		Only LC connectors type pigtails, adapters, panels and patch cords shall be proposed in response to this RFP	
		The Proposed OM3 Optical Fiber Cabling System must support 1000 Base SX	
		The Proposed OM3 Optical Fiber Cabling System must support 10G Base SX	
	Warranty	The manufacturer shall warrant the cable, all passive components, and applications for a minimum period of 20/25 years.	
		The warranty shall be a transferable warranty and has component replacement policy in case of manufacturing defect.	
		The Extended Product Warranty should cover all passive SCS components (i.e., cable and connectivity components that make up the passive data and telecommunications signal transmission infrastructure).	
		In addition to product warranty the Application Assurance shall cover the SCS compliant channels to support operations of the application(s) that the system was designed to support. The supplier warrants that the SCS will be free from defects that prevent operation of the specific application(s) for which the Registered SCS was initially designed as long as the design is in compliance with the SCS Performance Specifications for said applications and is in compliance with all other terms and conditions of this warranty.	
		The Category 6A cable, Category 6A channel components shall be manufactured by a single manufacturer.	

Item: Automated Infrastructure Management System			Quantity: As per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	General	The AIM Solution shall be complaint to the functions and features as described in TIA 606-B and ISO/IEC 14763-2 standards.	
		The AIM Solution shall be capable to support cross-connect as well as interconnect administration topology.	
		The AIM Solution for the interconnect topology shall be enabled without the need for special accessories to be installed on managed network equipment or the need to use special patch cords.	
		The AIM Solution shall provide interactive access from System Controller to information in its database.	
		The AIM Solution shall provide full featured electronic work order capabilities that include: Paperless work order administration	

		<p>Guided MAC activities through the use of LED indicators at panel's ports</p> <p>Audible ALERTs to a technician to ensure accuracy of performed MAC activities</p> <p>Complete set of work order instructions displayed on System Controller's LCD screen</p> <p>Real-time electronic documentation via database update</p>	
		<p>The AIM System shall be able to generate real-time security alerts upon:</p> <p>Insertion of a plug into an intelligent panel port</p> <p>Removal of a plug from an intelligent panel port</p> <p>Pressing of a trace button to select a panel port</p> <p>Unauthorized or Unscheduled MAC activity in a telecom room</p>	
	Intelligent System Controller	<p>The Intelligent System Controller should be 19" Rack Mountable</p> <p>The Intelligent System Controller Should occupy no more than 1 U rack space with the capability for 0U mounting</p> <p>The Intelligent System Controller Should be able to manage upto 45 1 U Copper or Fiber Panels per rack (1080 ports)</p> <p>Only one Intelligent System Controller shall be required per rack.</p> <p>Color LCD Screen with a touch screen interface to Display status, complete Circuit trace, alarms and work order</p> <p>The Intelligent System Controller shall be equipped with an LED indicator to enhance visual communication to the technician.</p> <p>The Intelligent System Controller shall provide audible Alerts /Alarms to the technician while the technician is performing various MAC activities</p> <p>The Intelligent System Controller shall be able to display live end-to-end tracing information on its LCD screen during patching activities.</p> <p>The Intelligent System Controller LCD screen shall have ability to turn off the backlight when not in use.</p> <p>The Intelligent System Controller shall be able to display tracing information on its LCD screen</p> <p>The Intelligent System Controller shall be able to display on the LCD screen information indicating if a traced panel port is assigned to a scheduled work order.</p> <p>Multiple Intelligent System Controllers shall be able to interconnect together using serial bus architecture such as "daisy chain", with standard modular RJ45 patch cords.</p> <p>The Intelligent System Controller shall have a configurable Ethernet LAN connection capability to enable communication with Intelligent Infrastructure Operations Software.</p> <p>Enabling of Ethernet capabilities for an System Controller System shall not require the use of external devices</p> <p>Unlimited scalability of adding Ethernet enabled Intelligent Controllers on the network</p> <p>The Intelligent System Controller provides option for Dual power supply for Power redundancy</p> <p>The Intelligent System Controller shall provide the ability to configure local "patching zones"</p> <p>The Intelligent System Controller shall support IPv6 communications</p>	
	Operations Software	<p>The AIM Operations Software shall be web based.</p> <p>The AIM Operations Software shall be compatible with Simple Network Management Protocol (SNMP) and support SNMP v1, SNMP v2c, and SNMP v3.</p> <p>The AIM Operations Software shall support IPv6 communications.</p> <p>The AIM Operations Software shall be capable of importing, displaying and printing CAD drawings for accurate representation of building's floor plans.</p> <p>The AIM Operations Software shall provide drag-and-drop capabilities for populating floor plans with database objects.</p> <p>Database objects that are placed onto a floor plan shall be fully</p>	

		functional so that system's management capabilities can be administered directly from the floor plan.	
		The AIM Operations Software shall provide capabilities for documenting Outside Plant cabling infrastructure that includes campus maps, cable vaults, conduits, splice enclosures, etc	
		The AIM Operations Software shall support automatic and manual database backups.	
		The AIM Operations Software shall have capability to auto discover the installed intelligent hardware (intelligent panels and control systems) in each rack/cabinet and to auto populate this information in its database.	
		The AIM Operations Software shall have the capability of auto discover the configuration of predefined managed switches (LAN and SAN environments) and then to auto populate that information in its database	
		The AIM Operations Software shall have the capability to auto discover networked devices that are connected to the pre-defined managed network switches (LAN and SAN environments) and then to auto populate that information in its database.	
		The AIM Operations Software shall provide end user with ability to define manual, automatic, or disabled mode for conducting discovery of networked devices. The automatic device discovery feature shall allow end user to determine a polling schedule, as well as the ability to automatically trigger the discovery process based on SNMP link-up traps from managed network switches	
		The AIM Operations Software shall provide end user with ability to define manual, automatic, or disabled mode for conducting discovery of networked devices with the to determine a polling schedule, as well as the ability to automatically trigger the discovery process based on SNMP link-up traps from managed network switches.	
		The AIM Operations Software shall have the capability to auto discover IP address, MAC ID, WWN and Host Name information for networked devices and then to auto populate this information into its database.	
		The AIM Operations Software shall have the capability to auto discover networked devices with multiple MAC addresses (i.e. servers with multiple NICs, virtual machines, wireless APs, IP phone/ computer pairs, etc.) and then to auto populate that information in its database.	
		The AIM Operations Software shall have the capability to auto discover VLAN ID information on managed network switches and then to auto populate that information in its Database SAN and LAN switches.	
		The AIM Operations Software shall provide the end user with the ability to define type of networked devices based on MAC address range that could also be applied retroactively to already discovered devices. Once defined, each device upon its discovery shall be automatically labeled and represented with an appropriate icon in the database to correspond to the device type definition.	
		The AIM Operations Software shall have the capability to accurately identify the physical location of the discovered networked devices (physical or virtual) within the corporate network (as defined within site/building/telecom room/rack/office/outlet/jack).	
		The AIM Operations Software shall have the capability to detect configuration changes to managed SAN and LAN switches.	
		shall have the capability to detect when a networked device has moved or changed its physical location.	
		shall provide capabilities for defining a set of specific system conditions that need to be tracked.	
		shall provide a simple "select and schedule" service-provisioning feature that is part of the electronic work order system. Service	

		<p>provisioning algorithm shall be integrated into Intelligent Infrastructure Operations Software to eliminate tedious MAC definition tasks.</p> <p>The Service provisioning algorithm shall be capable of supporting devices/equipment that are connected to the network in the work area as well as in the data center.</p> <p>The AIM Operations Software shall provide a dedicated service-provisioning feature for servers, including server templates, and graphics to allow for efficient planning and deployment of servers in the data center.</p> <p>The AIM Operations Software shall have the capability to document various topologies (zone, pod, cell, etc.) for Data Center applications.</p> <p>The AIM Operations Software shall have the capability to allow end user to define the preferred connectivity routing when provisioning services.</p> <p>The AIM Operations Software shall have the capability to enable or disable switch ports a part of the electronic work order feature.</p> <p>The AIM Operations Software shall have the capability to control and audit the enabling and disabling of switch ports.</p> <p>The AIM Operations Software shall have the capability to provide real-time alerts to the system administrator about defined system conditions so proper and timely action could take place.</p> <p>The AIM Operations Software shall have the capability to, send email, and text messages to specified personnel to inform them in real-time about specific pre-defined system events.</p> <p>The AIM Operations Software shall provide multiple user privilege levels (read only, based on physical location/building/floor, ability to schedule work orders, access to web client, access restrictions based on available services).</p> <p>The AIM Operations Software shall provide the capability to allow external Software systems (for example Aperture, Remedy HelpDesk, HP Service Manager, etc.) to interact with the AIM Solution.</p> <p>The AIM Operations Software shall provide web-based reports capabilities. This feature should allow for reports to be automatically generated based on a pre-defined schedule for distribution to pre-defined groups of recipients</p> <p>The AIM Operations Software shall be capable of receiving SNMP traps from SNMP enabled devices. It shall also be able to generate alerts based on the received SNMP traps.</p>	
	Intelligent Patch Panels (Copper or Fiber)	<p>Intelligent patch panels shall provide capabilities of registering patch connections made between corresponding intelligent panel ports.</p> <p>Intelligent copper patch panels shall be available in 24-port and 48-port standard and angled configurations, and a 24-port configuration that supports individual jack modules.</p> <p>Intelligent patch panels shall be compatible with standards-compliant 60603-7 (RJ45) plugs, and shall detect the insertion and removal of compliant plugs into a patch panel port.</p> <p>Intelligent patch panels shall be compatible with standards-compliant SC, LC and MPO fiber optic connectors and shall detect the insertion and removal of standards-compliant plugs into a patch panel port.</p> <p>Intelligent fiber patch panels shall be available in traditional field-terminated as well as Pre-terminated intelligent configurations with MPO fiber optic interfaces in the rear that enable quick connectivity of MPO style pre-terminated multi-fiber/ribbon trunk cables.</p> <p>Intelligent field-terminated and pre-terminated fiber shelves shall be available in 1U fixed and sliding configurations to support 24-duplex LC ports and 48-duplex LC ports.</p> <p>Intelligent pre-terminated fiber shelves shall be available in 2U sliding configuration to support up to 144 -duplex LC ports as well as in 4U configuration supporting up to 244 duplex LC ports.</p> <p>Intelligent fiber patch panels shall be available in 1U fixed and sliding</p>	

		configurations with up to 32 MPO ports, in 2U sliding configuration to support up to 96 MPO ports, and in 4U sliding configuration to support up to 192 MPO ports.	
		Intelligent patch panel shall provide a button and an LED indicator at every panel port to enable easy tracing and identification of patch connections in the telecom room.	
		Intelligent patch panels shall be capable of registering patch connections between corresponding intelligent patch panel port and non-intelligent patch panel port or equipment port.	
		Intelligent patch panels shall be packaged with all necessary system-connecting cable(s) attached to the panel. Intelligent patch panels should be ready for use right out of the shipping box.	
		Intelligent copper and fiber patch panels should allow for removal and replacement of sensing Assembly without requiring disconnection of installed patch cords	
		Intelligent fiber patch panels shall be available in traditional field-terminated as well as Pre-terminated intelligent configurations with MPO fiber optic interfaces in the rear that enable quick connectivity of MPO style pre-terminated multi-fiber/ribbon trunk cables.	
		Intelligent field-terminated and pre-terminated fiber shelves shall be available in 1U fixed and sliding configurations to support 24-duplex LC ports and 48-duplex LC ports.	
		Intelligent patch panels should be as easy to install/terminate as non-intelligent panels	
		Intelligent patch panels shall be compatible with mounting on 19" based hardware per EIA-310	
		Intelligent patch panels shall be packaged with all necessary system-connecting cable(s) attached to the panel. Intelligent patch panels should be ready for use right out of the shipping box.	
		Intelligent fiber shelves shall include a built-in feature to enable attachment of cord management accessory directly to the panel to maximize panel density on a rack/cabinet.	
		The AIM Solution must support field upgrade of intelligence-ready passive copper and fiber panels without removal of existing patch cords and without disruption of network services.	
	Warranty	3 year OEM Warranty/ AMC	

Item: Video Wall Cube			Quantity: As Per BoQ
BRAND NAME: DELTA			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	General	<p>We have existing Video wall of Make Delta, Model Number DVS-7080F9IA in configuration of 3x2 with redundant controller & power supply in master slave configuration. The existing video wall is built-up of 70" Full HD resolution with front access.</p> <p>JDA desires to enhance the existing Video wall to matrix of 7x2 with Make Delta, Model Number DVS-7080F9IA The bidder shall be required to include the following:</p> <ul style="list-style-type: none"> • Additional 8 number cubes of 70" Full HD, Front access. • The cube should have built in dual redundant power supply. • Requisite mounting stand, accessories and cables. • Enhance the output of the controller(s) from 6 to 14 numbers DVI and input from 2 Universal to 6 Universal inputs. • The Video wall in matrix of 7x2 shall be required to be setup in a curve. • Enhance the warranty of existing video wall by another Two years to have warranty of Five years for complete video wall of 7x2. 	
02	Undertaking	An undertaking of OEM (DELTA) signed by Authorized signatory is	

		required to be submitted confirming to the requirement and compliance	
03	Warranty	5 year OEM Warranty/ AMC for new supply Enhance the warranty of existing video wall by another Two years to have warranty Five years for complete video wall of 7x2	

Item: Silent Diesel Generator with AMF			Quantity: As Per BoQ
BRAND NAME:			
MODEL NO.:		PART NO. (IF ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Generator Set	Duty: Standby (standby power for supplying power to varying electrical load for unlimited hours, in accordance with ISO 8529) Power Rating: 320 KVA/ 256 KWe Phases: 3 Output: 415V, 50Hz Power Factor: 0.8 (lagging) Current (A): 445 RPM: 1,500 Performance class of generator set: ISO 8528-5 G2	
02	Engine	Radiator cooled engine Full Authority Electronic Engine A1 Class electronic governing Duel fuel filter system (pre-filter & main filter) Electrical lift pump Electrical starter motor with soft start engagement feature Battery charging alternator	
03	Alternator	Brushless type, screen protected, revolving field, self-excited 3 phase re-connectable winding	
04	Control Panel	MCCB with overload and short circuit protection Backlit LCD display Engine metering: oil pressure, coolant temperature, battery voltage, engine speed AC alternator metering: L-L voltage, L-N voltage, current (1 & 3 phase), volt-amperes (phase & total) and frequency Engine protection: Low lube oil pressure, high/ low coolant temperature, over speed, battery over/under/weak volts, fail to crank/start, sensor failure. AC alternator protection: Over/under voltage, over/under frequency, over current, short circuit and loss of AC sensing Data logging: Engine hours, control hours, engine starts and up-to 10 recent fault codes Configurable glow plug control Configurable cycle cranking Programmable I/Os Modbus interface	
05	Silencer	Hospital grade silencer MoEF/CPCB noise emission standard compliant	
06	Mounting	Base frame with AVM pads for engine and alternator Base frame with integrated fuel tank provided with drain plug, air vent, inlet and outlet connection, level indicator and provision for cooling	
07	Acoustic Enclosure	Complying to MoEF/CPCB norms of 75 dBA @ 1 meter at 75% load under free field conditions Noise absorbent and fire-retardant grade acoustic insulation complying to IS 183 UV resistant powder coating for all parts Fluid drains for lube oil and fuel Fuel filling arrangement inside the enclosure	
08	Auto-Matic Failover	Auto-Matic Failover integrated with control panel	

Item: Transformer			Quantity: As per BoQ
BRAND NAME:			
MODEL No.:		PART No. (If ANY):	
Sr. No.	Feature	Description	Compliance (Y/N)
01	Transformer	315 KVA Aluminium wound 11/0.433 KV, 50 C/S, ONAN Delta-star connected, Dyn11 vector group transformer, with OFTC including placement of the x'mer on the plateform, making HT / LT connection, neutral & body earth connection.	

Annexure-5: Technical Bid Evaluation Checklist

Part – A: Authorization / Undertaking / Declarations

S. No.	Specific Requirements	Documents Required	Page No. (to be filled by bidder)
1.	The Bidder should deposit Tender Fee, RISL Processing Fee, Bid Security (EMD) along with the Technical bid.	Online receipt generated through Bid Participation portal	
2.	Tender Form	As given in Annexure 7 on Bidders letterhead	
3.	Bidder's Authorization Certificate	As given in Annexure 8 on Bidders Letterhead	
4.	Self-Declaration – No Blacklisting	As given in Annexure 9 on Bidders Letterhead	
5.	Declaration by the Bidder regarding Qualification Under Section 7 of the ACT	As given in Annexure 10 on Bidders Letterhead	
6.	Certificate of Conformity / No deviations	As given in Annexure 11 on Bidders Letterhead	
7.	Undertaking On Authenticity of Items	As given in Annexure 12 On Non-Judicial Stamp Paper of Rs. 100/-	
8.	Undertaking for functional requirement of Equipments	As given in Annexure 13 on Bidder's Letter head	
9.	Technical Bid Submission Sheet	As given in Annexure 14 on Bidders Letterhead	
10.	Financial Bid Submission Sheet	As given in Annexure 15 on Bidders Letterhead	

Part – B: Eligibility Criteria

S. No.	Basic Requirement	Specific Requirements	Documents Required	Page No. (to be filled by bidder)
1	Bidder Entity	<p>Consortium/Joint Venture is allowed, one of the parties in the consortium/JV partner will be the Prime Bidder/Lead Bidder. Prime Bidder/Lead Bidder shall be treated as "Bidder". The maximum nos. of consortium/JV partner should be 3.</p> <p>Any of the parties of the consortium /JV partner or the Prime Bidder/Lead Bidder may meet the technical criteria. However, the Prime Bidder/Lead Bidder alone should meet the financial criteria.</p>	<p>Copy of the consortium/JV agreement in case of consortium/JV, clearly specifying the role and area of specialization of the individual parties of consortium/JV, duly signed by Consortium/JV parties on Rs. 100 non-judicial stamp paper should be enclosed. The agreement should also clearly define the Prime Bidder/Lead Bidder and should be individually and jointly signed by each of the Consortium/JV parties.</p>	

2	Legal Entity	Any legal entity duly registered in India is allowed. In case of consortium/JV, the Prime Bidder/ Lead Bidder should meet this criterion.	c) Certificates of incorporation and/ or d) Registration Certificates	
3	Turnover	The Prime Bidder/Lead Bidder must have average annual turnover of Rs. 10 Crores during the last 3 financial years as on 31.03.2016.	Audited and Certified Balance Sheet and Profit/Loss Account for the last 3 Financial Years should be enclosed. CA Certificate be enclosed.	
4	Technical Capability	The Bidder or any of the parties of the consortium/ JV partner must have successfully completed, during last 3 financial years as on 31.03.2016, a project of Command & control Center / Data Center / NOC with project value of Rs. 5.0 Crs in single work order.	Copies of work order or contract agreement and the client certificates/Project Sign-off Certificate from client for satisfactory completion of project and showing order value and cost.	
5	Net Worth	The Bidder or the Prime Bidder/Lead Bidder must have positive net worth & profit making in each of the last 3 financial years as on 31.03.2016	CA Certificate mentioning net profit should be enclosed.	
6	Legal Entity	Any legal entity duly registered in India is allowed. In case of consortium/JV, the Prime Bidder/ Lead Bidder should meet this criterion.	a) Certificates of incorporation and/ or b) Registration Certificates	
7	Tax Registration	The Bidder or the Prime Bidder/Lead Bidder should have a registered number of d. VAT/Sales Tax where his business is located e. Service Tax f. Income Tax PAN	Copies of relevant(s) Certificates of Registration.	
8	Technical Specifications of BOQ items	The quoted product/item should fulfill all the technical specifications laid out in the tender document mentioned in the Annexure (Technical specifications of BOQ items). The Bidder is required to furnish Make, Model / Part number of the quoted item.	The Bidder should enclose relevant catalogues, brochures, etc. in support of all the items quoted in the Bid.	

Annexure-6: Tender Form (On bidder's letter head)

1. Addressed to:

Name of the Procuring Entity	Executive Engineer (Elect.-II), Jaipur Development Authority
Address	Jaipur Development Authority Room No. 26, Ground Floor, Main Building, J.L.N Marg, Opp. Birla Mandir, Jaipur Rajasthan 302004
Telephone	0141- 2569696 Extn : 7026

2. Firm Details:

Name of Firm				
Name of Contact Person with Designation				
Registered Office Address				
Address of the Firm				
Year of Establishment				
Type of Firm Put Tick mark	Public Limited	Private Limited	Partnership	Proprietary
Telephone Number(s)				
Email Address/ Web Site	Email:		Web-Site:	
Fax No.				
Mobile Number	Mobile:			
Certification/Accreditation /Affiliation, if Any				

The requisite deposit against Tender Fee, Processing Fee and EMD amounting to Rs. _____/- has been deposited vide Online receipt generated through Bid Participation portal of JDA vide challan No. _____ dated _____.

We agree to abide by all the terms and conditions mentioned in this form issued by the Tendering Authority and also the further conditions of the said notice given in the attached sheets (all the pages of which have been signed by us in token of acceptance of the terms mentioned therein along with stamp of the firm).

Name :	
Address:	

In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure-7: Bidder's Authorization Certificate

(On bidder's letter head)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

I/ We {Name/ Designation} hereby declare/ certify that {Name/ Designation} is hereby authorized to sign relevant documents on behalf of the company/ firm in dealing with NIB Reference No. _____ Dated _____.

He/ She is also authorized to attend meetings & submit technical & commercial information/ clarifications as may be required by you in the course of processing the Bid. For the purpose of validation, his/ her verified signatures are as under.

Thanking you,

Name of Bidder	
Address:	
Authorised Signatory:	
Signed :	
Date :	
Pace :	
Seal of the Organization:	Signature Verified

Annexure-8: Self-Declaration – No Blacklisting (On bidder's letter head)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

In response to the NIB Ref. No. _____ dated _____ for {Project Title} _____, as an Owner/Partner/Director of _____, I/ We hereby declare that presently our Company/ firm _____ or any of our group or associate companies, at the time of bidding, is having unblemished record and is not declared ineligible or has been issued letter for blacklisting for corrupt & fraudulent practices either indefinitely or for a particular period of time by any State/ Central government/ PSU/ UT or the Procuring Entity.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and our bid, to the extent accepted, may be cancelled.

Thanking you,

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure: 9- Declaration by the Bidder regarding Qualification Under Section 7 of the ACT (On bidder's letter head)

Declaration

In relation to my/our Bid submitted to _____ for
procurement of _____ in response to their Notice Inviting
Bids No. _____ Dated _____ I/we hereby declare under Section 7 of
Rajasthan Transparency in Public Procurement Act, 2012, that:

1. I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entity;
2. I/we have fulfilled my/our obligation to pay such of the taxes payable to the Union and the State Government or any local authority as specified in the Bidding Document;
3. I/we are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons;
4. I/we do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition.

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure-10: Certificate of Conformity/No Deviation/ End of Service Support (On bidder's letter head)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

This is to certify that, the specifications of Hardware/Software/FMS which I/ We have mentioned in the Technical bid, and which I/ We shall supply if I/ We am/ are awarded with the work, are in conformity with the minimum specifications of the Tender/ bidding document and that there are no deviations of any kind from the requirement specifications.

Also, I/ we have thoroughly read the tender/ bidding document and by signing this certificate, we hereby submit our token of acceptance to all the tender terms & conditions without any deviations.

I/ We also certify that the price I/ we have quoted is inclusive of all the cost factors involved in the end-to-end implementation and execution of the project, to meet the desired standards set out in the Tender/ bidding Document. The end of service support date will not precede the expiry of warranty for any the items supplied / commissioned by us.

Thanking you,

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure-11: Undertaking On Authenticity of Items (On Non-Judicial Stamp Paper of Rs. 100/-)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

Reference: NIB No. : _____ Dated:_____

This has reference to the items being supplied/ quoted to you vide our bid ref. no.
_____ dated_____.

We hereby undertake that all the components/ parts/ assembly/ software used in the equipment shall be genuine, original and new components /parts/ assembly/ software from respective OEMs of the products and that no refurbished/ duplicate/ second hand components/ parts/ assembly/ software are being used or shall be used. In respect of licensed software, we undertake that the same shall be supplied along with the authorized license certificate. Also, that it shall be sourced from the authorized source for use in India.

If this undertaking is found to be incorrect, we at the time of delivery or during installation, for the equipment already billed, agree to take back the equipment already supplied at our cost and return any amount paid to us by you in this regard and that you will have the right to forfeit our BSD/ SD/ PSD for this bid and/ or debar/ black list us or take suitable action against us.

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure- 12 : Undertaking for functional requirement of Equipments (Letter Head)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

Reference: NIB No. : _____ Dated: _____

This has reference to the items being supplied/ quoted to you vide our bid ref. no. _____ dated _____.

We hereby undertake that all the proposed active Network components (like Wireless Controller, Access Points, Radius Server, Network Monitoring Tool and Switches) & Surveillance components (like CCTV Cameras and CCTV VMS Solution) to the extent possible, be from Single OEM.

We hereby further undertake that in cases, where we propose the solution with network & surveillance components (as specified above) from more than one OEM, then we shall furnish Undertaking from all OEM's whose equipments are part of the overall solution thus confirming 100% compliance to required line-by-line technical specifications and complete functional requirements as stated in the bid document, interoperability and performance guarantee for the complete solution (not just part of the overall network solution) comprising of all proposed network components taking complete ownership and responsibility of the complete solution and all network equipments proposed from multiple OEMs.

If this undertaking is found to be incorrect, we at the time of delivery or during installation, for the equipment already billed, agree to take back the equipment already supplied at our cost and return any amount paid to us by you in this regard and that you will have the right to forfeit our BSD/ SD/ PSD for this bid and/ or debar/ black list us or take suitable action against us.

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure-13: Technical Bid Submission Sheet (On bidder's letter head)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Document, including Addenda No. _____.
2. We offer Hardware/ Software/FMS for in conformity and in accordance to the Bid Document.
3. Our Bid shall be valid for a period of 90 days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
4. If our Bid is accepted, we commit to obtain a Performance Security in the amount of **5%** of the Contract Price for the due performance of the Contract;
5. Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the eligible countries;
6. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers, if permitted, in the Bidding Document;
7. Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers has not been debarred by any State/ Central government/ PSU/ UT or the Procuring Entity;
8. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed;
9. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive;
10. We agree to permit the Procuring Entity or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by the Procuring Entity;
11. We declare that we have complied with and shall continue to comply with the provisions of the Code of Integrity for Bidders as specified in the Rajasthan Transparency in Public Procurement Act, 2012, the Rajasthan Transparency in Public Procurement Rules, 2012 and this Bidding Document in this procurement process and in execution of the Contract.

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure-14: Financial Bid Submission Sheet (On bidder's letter head)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

We, the undersigned, declare that:

1. We, the undersigned bidder, Having read & examined in detail, the Bidding Document, the receipt of which is hereby duly acknowledged, I/ we, the undersigned, offer to supply/ work as mentioned in the Scope of the work, Bill of Material, Technical specifications, Service Level Standards & in conformity with the said bidding document for the same.
2. I / We hereby confirm that I / We have bid for **all items** mentioned in the Bill of Material (BOM) / Bill of Quantity (BOQ).
3. I / We undertake that the prices are in conformity with the specifications prescribed. The quote/ price are inclusive of all cost likely to be incurred for executing this work. The prices are inclusive of all type of govt. taxes/duties.
4. I / We undertake, if our bid is accepted, to deliver the Services in accordance with the delivery schedule specified in the schedule of Requirements.
5. I/ We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee as prescribed in the bidding document.
6. I / We agree to abide by this bid for a period of days after the last date fixed for bid submission and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
7. Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.
8. I/ We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.
9. I/ We agree to permit the Procuring Entity or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by the Procuring Entity.
10. We understand that you are not bound to accept the lowest or any bid you may receive.
11. We agree to all the terms & conditions as mentioned in the bidding document and submit that we have not submitted any deviations in this regard.

Name :	
Address:	
In the capacity of :	
Signed :	
Date :	
Place :	
Seal of the Organization :	

Annexure-15: Price Schedule (Online submission on e-Procurement Portal)

(The rates shall be filled up separately in given format on e-procurement portal with financial bid).

Sl. No.	Item Description	Quantity	Item-1: Unit Rate (In Rs.) FOR destination including of all cost and all taxes except Rajasthan VAT but including CST (if applicable) In Figures To be entered by the Bidder Rs. P	Item -1 :VAT as applicable (If applicable) on Col. No. 4 In Figures To be entered by the Bidder	Item-1: Total (Col. 4+ 5)	Item-2: Auto Calculation 20% of Item No. 1 Unit Cost (Col. 4)	Item-2: Auto Calculation Service Tax Amount @ 15% (If applicable)	Item-2: Total (Col. 7+ 8)	Item-1 & Item-2: TOTAL AMOUNT Without Taxes	Item-1 & Item-2: TOTAL AMOUNT With Taxes	Item-1 & Item-2: TOTAL AMOUNT In Words
1	2	3	4	5	6	7	8	9	10 = 4+7	11 = 6+9	12
1.01	SITC of Integrated Network Operation Center (NOC) and IT support centre at JDA with Facility Management Services for 5 years	1.0000	0.0000	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	INR Zero Only
Total in Figures									0.0000	0.0000	INR Zero Only
Quoted Rate in Words											

* Instructions for filling Financial Bid in e-tendering portal are given in tender document

Annexure-16: Bank Guarantee Format – Performance Security (On non-Judicial Stamp Paper)

(To be stamped in accordance with Stamp Act and on a Stamp Paper purchased from Rajasthan State only and to be issued by a Nationalised/ Scheduled bank having its branch at Jaipur and payable at par at Jaipur, Rajasthan)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

Subject: _____

Reference : Work Order No.....dated

1. In consideration of the Executive Engineer (Elect.-II) [Procuring Entity] , JDA (hereinafter called "JDA") having agreed to exempt M/s (hereinafter called "the said Contractor(s)" from the demand, under the terms and conditions of an Work Order No. dated for the work "....." (hereinafter called "the said Agreement") of Performance Security Deposit (PSD) for the due fulfilment by the said Contractor (s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. (Rupees only), we[Name of Bank with Addresss], (hereinafter referred to as "the Bank") at the request of M/s, do hereby undertake to pay to the JDA an amount not exceeding Rs. (Rupees only) on demand.
2. We[Name of Bank with Addresss], do hereby undertake to pay Rs. (Rupees only), the amounts due and payable under this guarantee without any demur or delay, merely on a demand from the JDA. Any such demand made on the bank by the JDA shall be conclusive as regards the amount due and payable by the Bank under this guarantee. The Bank Guarantee shall be completely at the disposal of the JDA and We[Name of Bank with Addresss], bound ourselves with all directions given by JDA regarding this Bank Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupees only).
3. We[Name of Bank with Addresss], undertake to pay to the JDA any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any Court or Tribunal or Arbitrator etc. relating thereto, our liability under these presents being absolute, unequivocal and unconditional.
4. We[Name of Bank with Addresss], further agree that the performance guarantee herein contained shall remain in full force and effective up to and that it shall continue to be enforceable for above specified period till all the dues of JDA under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the JDA certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We[Name of Bank with Addresss], further agree with the JDA that the JDA shall have the fullest liberty without our consent and without affecting

in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the JDA against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the JDA or any indulgence by the JDA to the said Contractor(s) or by any such matter or thing whatsoever which would but for this provision, have effect of so relieving us.

6. The liability of us[Name of Bank with Addresss], under this guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We[Name of Bank with Addresss], lastly undertake not to revoke this guarantee except with the previous consent of the JDA in writing.
8. This performance Guarantee shall remain valid and in full effect, until it is decided to be discharged by the JDA. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only).
9. It shall not be necessary for the JDA to proceed against the contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the JDA may have obtained or obtain from the contractor.
10. We[Name of Bank with Addresss], verify that we have a branch at Jaipur.
11. We undertake that this Bank Guarantee shall be payable at any of its branch at Jaipur. If the last day of expiry of Bank Guarantee happens to be a holiday of the Bank, the Bank Guarantee shall expire on the close of the next working day.
12. We hereby confirm that we have the power(s) to issue this guarantee in your favour under the memorandum and articles of Association/constitution of our bank and the undersigned is/are the recipient of authority by express delegation of power(s) and has/have full power(s) to execute this guarantee for the power of attorney issued by the bank.

“Notwithstanding anything contained herein:

- (i) Our Liability under this Bank Guarantee shall not exceed Rs./- (Rupees Only).
- (ii) This Bank Guarantee shall be valid upto
- (iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before
- (iv) The Bank Guarantee shall be kept valid for 6 months beyond (grace period) the completion/commissioning schedule as per phase-3. However, the validity of the BG may be extended on the written request from the client for the specified period.

Date (Signature) Place
(Printed Name) (Designation)
(Bank's common seal)

In presence of:

WTTNESS (with full name, designation, address & official seal, if any)

(1)

(2)

Bank Details :

Name & address of Bank :

Name of contact person of Bank: Contact telephone number:

GUIDELINES FOR SUBMISSION OF BANK GUARANTEE "The Bank Guarantee shall fulfil the following conditions in the absence of which they cannot be considered valid: -

1. Bank Guarantee shall be executed on non- judicial stamp paper of applicable value purchased in the name of the bank.
2. Two persons should sign as witnesses mentioning their full name, designation, address and office seal (if any).
3. The Executor (Bank Authorities) may mention the power of attorney No. and date of execution in his/her favour authorizing him/ her to sign the document. The Power of Attorney to be witnessed by two persons mentioning their full name and address.
4. The Bank Guarantee should be executed by a Nationalised Bank/ Scheduled Commercial Bank only.
5. Non – Judicial stamp paper shall be used within 6 months from the date of Purchase of the same.
6. Bank Guarantee executed on the non-judicial stamp paper after 6 (six) months of the purchase of such stamp paper shall be treated as non-valid.
7. The contents of Bank Guarantee shall be strictly as per format prescribed by JDA.
8. Each page of Bank Guarantee shall bear signature and seal of the Bank and B.G. number.
9. All corrections, deletions etc. in the Bank Guarantee should be authenticated by signature of Bank Officials signing the Bank Guarantee.
10. Bank should separately send through registered post/courier a certified copy of Bank Guarantee, mentioning Bid reference, Bid title and bidder name, directly to the Purchaser at the following address:

To:

Executive Engineer (Elect.-II) [Procuring Entity]

Room No. 26, Main Building,

Jaipur Development Authority, Jaipur

Annexure-17: Bank Guarantee Format – BID Security Format (On non-Judicial Stamp Paper)

IRREVOCABLE & UNCONDITIONAL BANK GUARANTEE

(To be stamped in accordance with Stamp Act and on a Stamp Paper purchased from Rajasthan State only and to be issued by a Nationalised/ Scheduled bank having its branch at Jaipur and payable at par at Jaipur, Rajasthan)

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

Sir,

1. In accordance with your Notice Inviting Bid for <please specify the project title> vide NIB Reference No.....Dated (Name & full address of the firm) (Hereinafter called the "Bidder") hereby submits the Bank Guarantee to participate in the said procurement/ bidding process as mentioned in the bidding document.
2. It is a condition in the bidding documents that the Bidder has to deposit Bid Security (EMD) amounting to <Rs. (Rupees <in words>)> in respect to the NIB Reference No.....Datedissued by Executive Engineer (Elect.-PRN), [Procuring Entity], Jaipur Development Authority, Jaipur (hereinafter referred to as "JDA") by a Bank Guarantee from a Nationalized Bank/ Scheduled Commercial Bank having its branch at Jaipur irrevocable and operative till the bid validity date (i.e. 120 days from the date of opening of bid). It may be extended if required in concurrence with the bid validity.
3. And whereas the Bidder desires to furnish a Bank Guarantee for a sum of <Rs. (Rupees <in words>)> to JDA as Bid Security.
4. Now, therefore, we the (Bank), a body corporate constituted under the Banking Companies (Acquisition and Transfer of Undertaking) Act. 1969 (delete, if not applicable) and branch Office at..... (hereinafter referred to as the Guarantor) do hereby undertake and agree to pay forthwith on demand in writing by the JDA of the said guaranteed amount without any demur, reservation or recourse.
5. We, the aforesaid bank, further agree that the JDA shall be the sole judge of and as to whether the Bidder has committed any breach or breaches of any of the terms costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the JDA on account thereof to the extent of the Bid Security required to be deposited by the Bidder in respect of the said bidding document and the decision of the JDA that the Bidder has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the JDA shall be final and binding on us.
6. We, the said Bank further agree that the Guarantee herein contained shall remain in full force and effect until it is released by the JDA and it is further declared that it shall not be necessary for the JDA to proceed against the Bidder before proceeding against the Bank and the Guarantee herein contained shall be invoked against the Bank,

notwithstanding any security which the JDA may have obtained or shall be obtained from the Bidder at any time when proceedings are taken against the Bank for whatever amount that may be outstanding or unrealized under the Guarantee.

7. Any notice by way of demand or otherwise hereunder may be sent by special courier, telex, fax, registered post or other electronic media to our address, as aforesaid and if sent by post, it shall be deemed to have been given to us after the expiry of 48 hours when the same has been posted. The BG shall be payable at Jaipur Branch.
8. If it is necessary to extend this guarantee on account of any reason whatsoever, we undertake to extend the period of this guarantee on the request of our constituent under intimation to you.
9. The right of the JDA to recover the said amount of <Rs. (Rupees <in words>) from us in manner aforesaid will not be precluded/ affected, even if, disputes have been raised by the said M/s.(Bidder) and/ or dispute or disputes are pending before any court, authority, officer, tribunal, arbitrator(s) etc..
10. Notwithstanding anything stated above, our liability under this guarantee shall be restricted to <Rs. (Rupees <in words>)> and our guarantee shall remain in force till bid validity period i.e. 120 days from the last date of bid submission and unless a demand or claim under the guarantee is made on us in writing within three months after the Bid validity date, all your rights under the guarantee shall be forfeited and we shall be relieved and discharged from all liability there under.
11. This guarantee shall be governed by and construed in accordance with the Indian Laws and we hereby submit to the exclusive jurisdiction of courts of Justice in India for the purpose of any suit or action or other proceedings arising out of this guarantee or the subject matter hereof brought by you may not be enforced in or by such court.
12. We hereby confirm that we have the power/s to issue this Guarantee in your favour under the Memorandum and Articles of Association/ Constitution of our bank and the undersigned is/are the recipient of authority by express delegation of power/s and has/have full power/s to execute this guarantee under the Power of Attorney issued by the bank in your favour.

Date (Signature) Place
(Printed Name) (Designation)
(Bank's common seal)

In presence of:

WTTNESS (with full name, designation, address & official seal, if any)

(1)

(2)

Bank Details :

Name & address of Bank :

Name of contact person of Bank: Contact telephone number:

GUIDELINES FOR SUBMISSION OF BANK GUARANTEE “The Bank Guarantee shall fulfill the following conditions in the absence of which they cannot be considered valid: -

1. Bank Guarantee shall be executed on non- judicial stamp paper of applicable value purchased in the name of the bank.
2. Two persons should sign as witnesses mentioning their full name, designation, address and office seal (if any).
3. The Executor (Bank Authorities) may mention the power of attorney No. and date of execution in his/her favour authorizing him/ her to sign the document. The Power of Attorney to be witnessed by two persons mentioning their full name and address.
4. The Bank Guarantee should be executed by a Nationalized Bank/ Scheduled Commercial Bank only.
5. Non – Judicial stamp paper shall be used within 6 months from the date of Purchase of the same.
6. Bank Guarantee executed on the non-judicial stamp paper after 6 (six) months of the purchase of such stamp paper shall be treated as non-valid.
7. The contents of Bank Guarantee shall be strictly as per format prescribed by JDA.
8. Each page of Bank Guarantee shall bear signature and seal of the Bank and B.G. number.
9. All corrections, deletions etc. in the Bank Guarantee should be authenticated by signature of Bank Officials signing the Bank Guarantee.
10. The validity of the Bank Guarantee shall be kept at least for 120 days from the date of opening of Part – I Bid.
11. Bank should separately send through registered post/courier a certified copy of Bank Guarantee, mentioning Bid reference, Bid title and bidder name, directly to the Purchaser at the following address:

To:

Executive Engineer (Elect.-II) [Procuring Entity]
Room No. 26, Main Building,
Jaipur Development Authority, Jaipur

Annexure–18: Agreement (On Non-Judicial Stamp Paper of Rs. 1,000/-)

Agreement

THIS AGREEMENT made on this day of between of (herein after "the Procuring Entity"), of the one part, and Of (here in after "the Supplier"), of the other part:

Whereas the procuring Entity invited Bids for Supply of Network Switches and has accepted a Bid by the Supplier for the sum of (herein after "the Contract Price").

NOW THIS AGREEMENT WITNESS AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - a) The Procuring Entity's Notification to the Supplier of Award of Contract And Award of Services;
 - b) Pre-Qualification / Eligibility Criteria ;
 - c) Scope of Work ;
 - d) Instruction to Bidder (ITB) ;
 - e) General Terms & Condition of Bid & Contract ;
 - f) Special Terms & Conditions of Bid & Contract ;
 - g) The Notice Inviting Bids ; and
 - h) All Annexure's.

This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, the documents shall prevail in the order listed above.

3. In consideration of the payments to be made by the Procuring Entity to the Supplier as indicated in this Agreement, the Supplier hereby covenants with the Procuring Entity for Supply of Network Switches and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity hereby covenants to pay the Supplier in consideration of the Supply of Network Switches and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of India and Rajasthan on the day, month and year indicated above.

For the Supplier

Name:
Designation :
Address :
Signed by:
Witness 1 :
Witness 2:

For the Procuring Entity (On behalf of JDA/ the Procuring Entity)

Name
Designation
Address :

Annexure-19: Memorandum of Appeal under the Rajasthan Transparency in Public Procurement Act, 2012

FORM No. 1

[See rule 83]

Memorandum of Appeal under the Rajasthan Transparency in Public Procurement Act, 2012

Appeal No _____ of _____
Before the _____ (First / Second Appellate
Authority)

1. Particulars of appellant:
 - (i) Name of the appellant:
 - (ii) Official address, if any:
 - (iii) Residential address:
2. Name and address of the respondent(s):
 - (i)
 - (ii)
 - (iii)
3. Number and date of the order appealed against and name and designation of the officer / authority who passed the order (enclose copy), or a statement of a decision, action or omission of the Procuring Entity in contravention to the provisions of the Act by which the appellant is aggrieved:
4. If the Appellant proposes to be represented by a representative, the name and postal address of the representative:
5. Number of affidavits and documents enclosed with the appeal:
6. Grounds of appeal:

_____(Supported
by an affidavit)

7. Prayer:

Place : _____

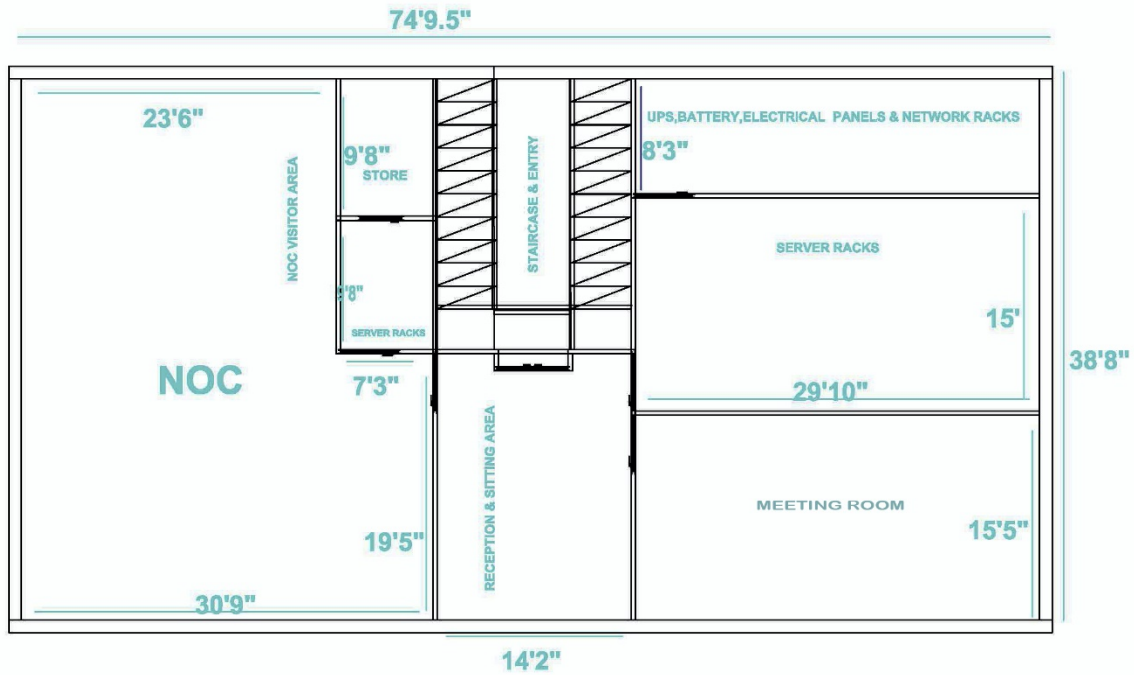
Date : _____

Appellant's Signature

Annexure-20: Layout and Drawing

Annexure – A

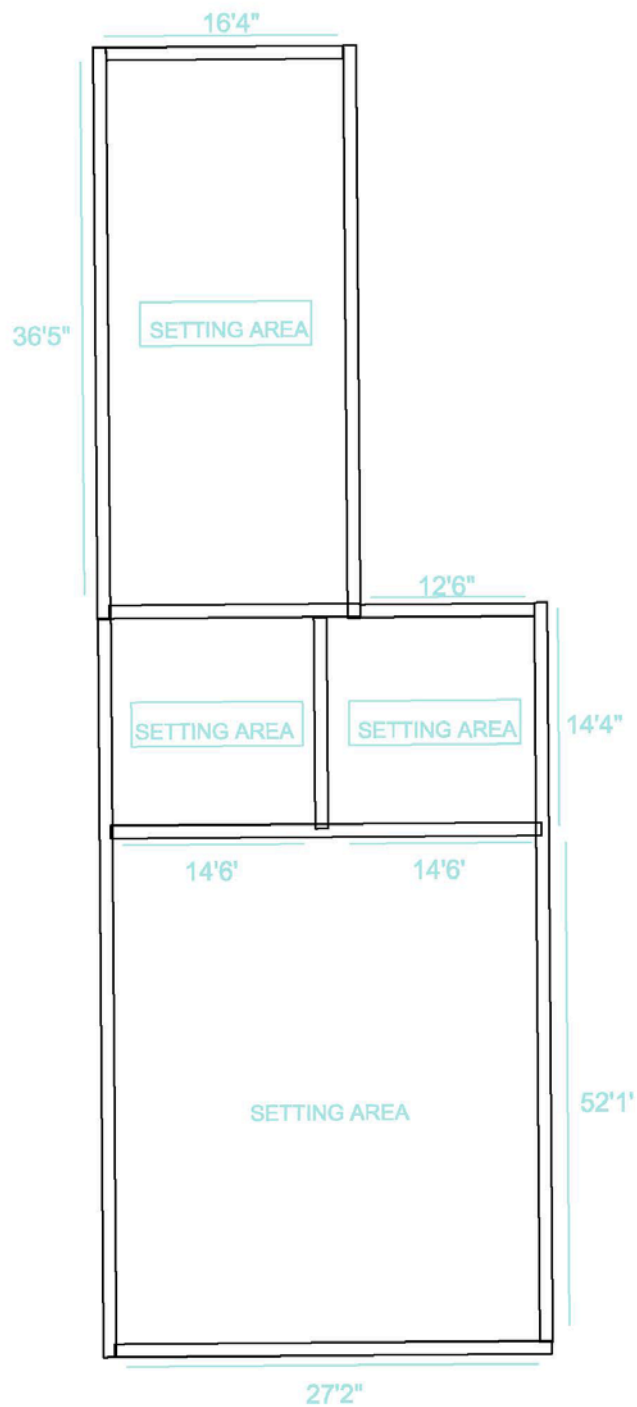
Floor layout Of NOC Centre



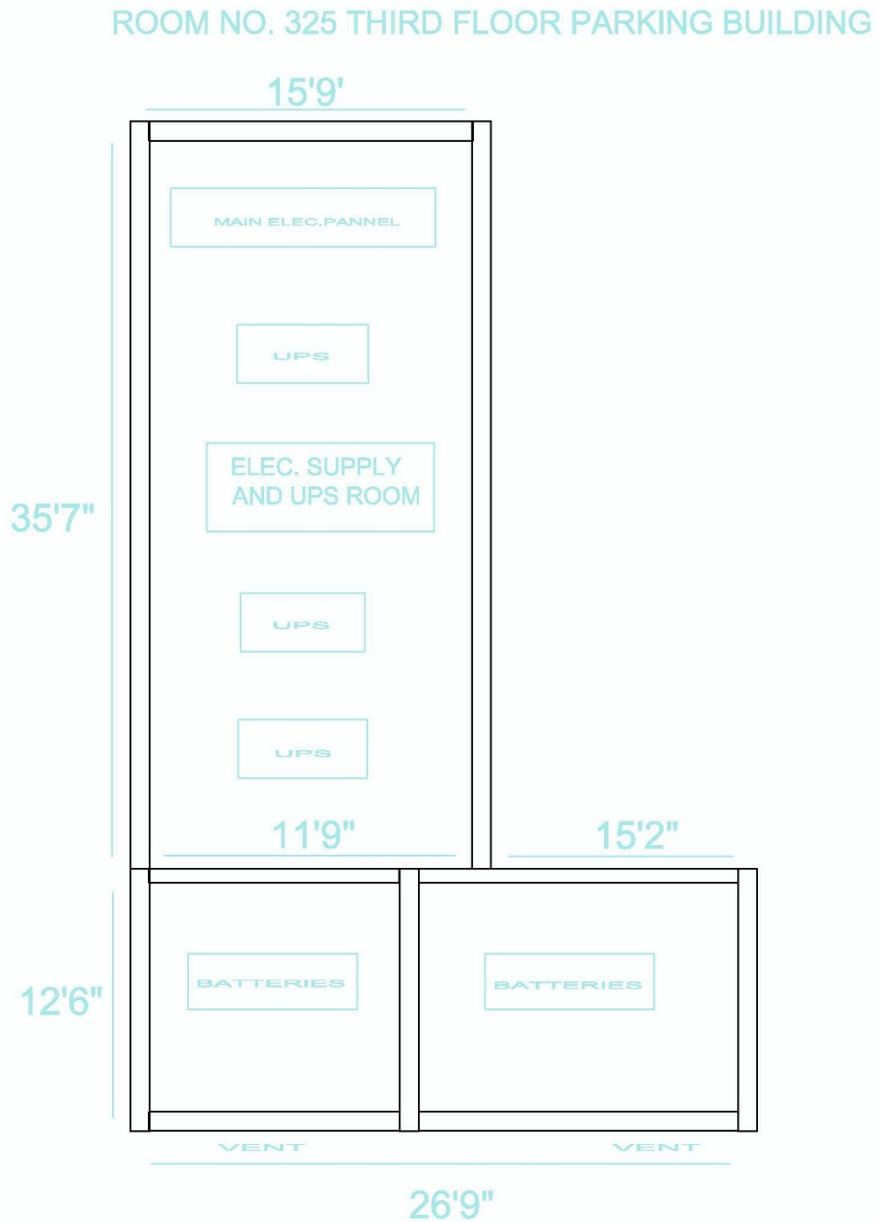
Annexure – B

Floor Layout of Room No. 215

ROOM NO. 215 SECOND FLOOR PARKING BUILDING



Annexure – C Floor Layout of Room No. 325



Annexure – D

Graphic of NOC Centre with All Equipment



Annexure – E

NOC Room Top View Drawing



Annexure – F

NOC ROOM LEFT SIDE DRAWING

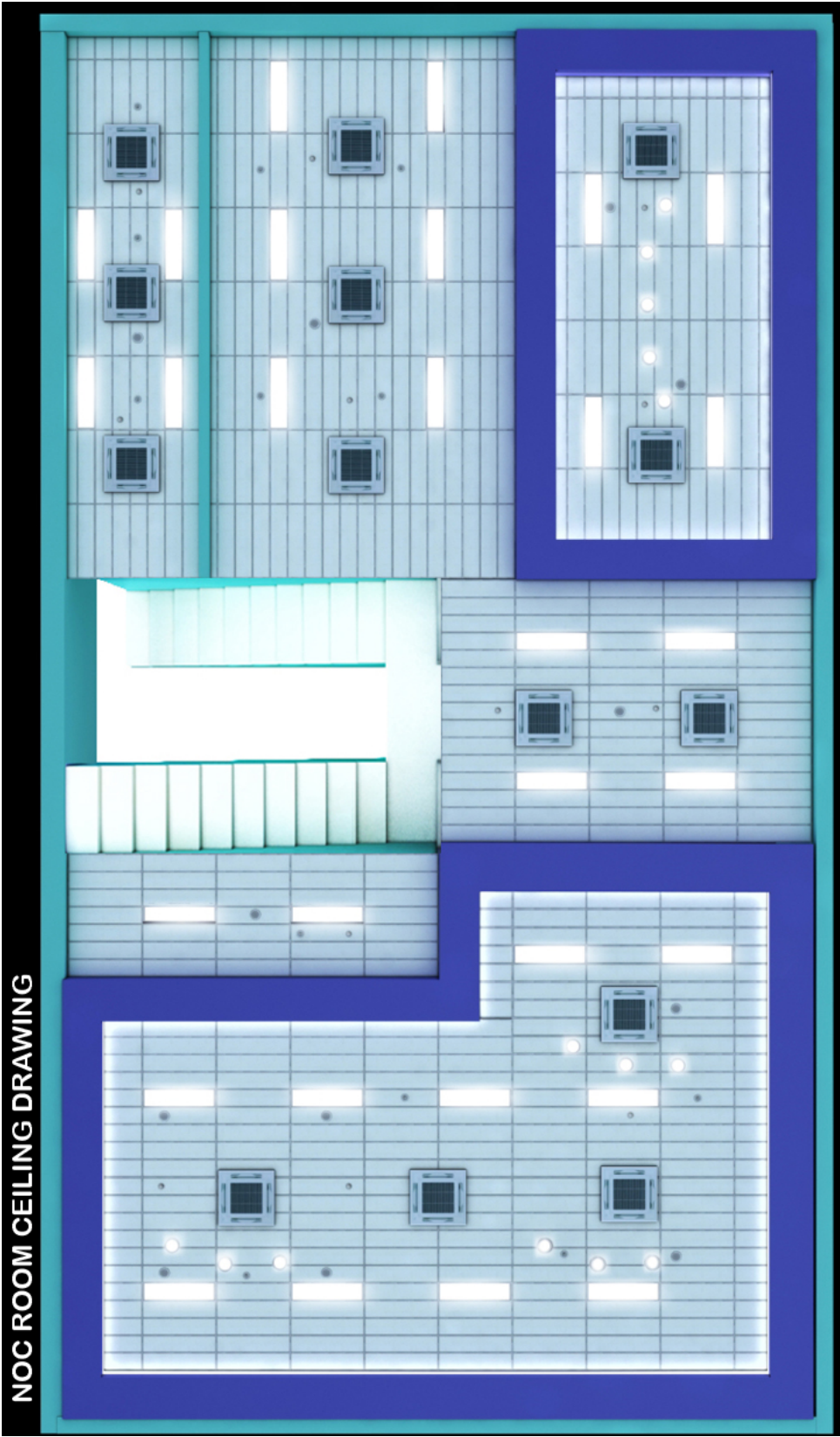


Annexure – G

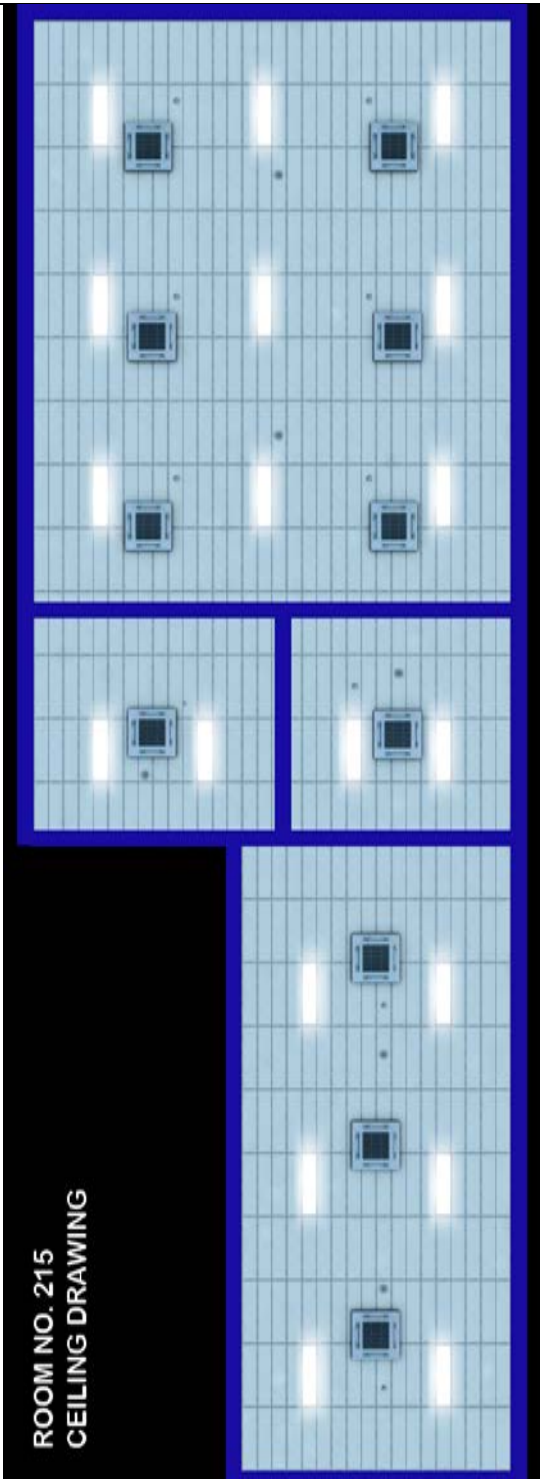
NOC ROOM RIGHT SIDE DRAWING



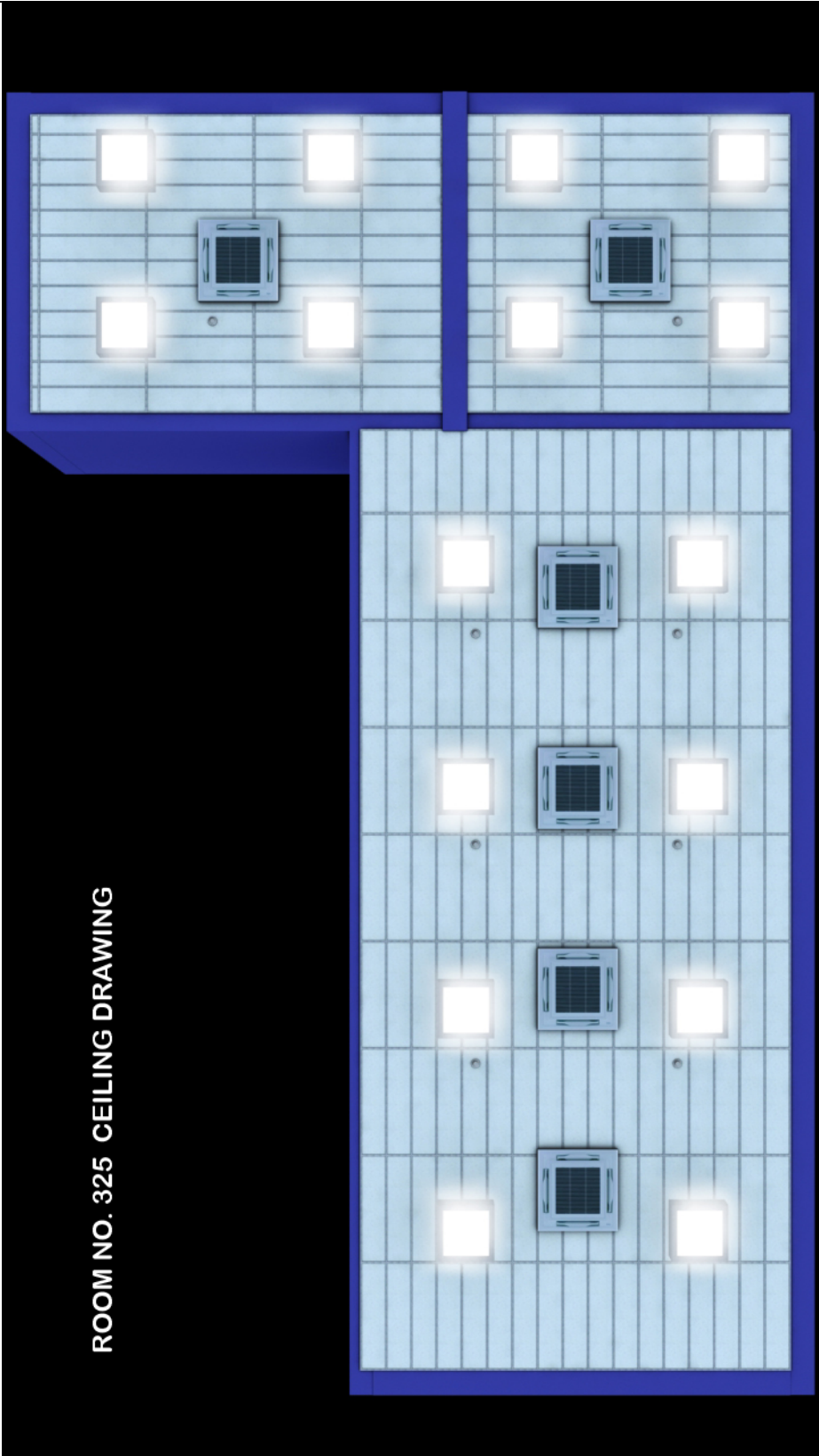
Annexure – H
NOC Room Ceiling Drawing



Annexure – I
Room 215 Ceiling Drawing



Annexure – J
Room 325 Ceiling Drawing



ROOM NO. 325 CEILING DRAWING