

**NOTICE INVITING TENDER FOR
OFFICE INTERIOR FURNISHING, ELECTRICAL, HEATING
VENTILATION & AIRCONDITIONING (HVAC) AND ALLIED
CIVIL WORKS**



(A Government of India Enterprise)

You focus on exports. We cover the risks.

CHANDIGARH BRANCH

**1st Floor, W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial
Area, Phase-1, Chandigarh-160002**

Ref: ECGC//BR/01/23-24

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SECTION 1

1. Introduction

1.1 Invitation to Bidders

By way of this NOTICE INVITING TENDER ('NIT') Document (hereinafter referred to as 'the Bid Document' or 'the Tender Document') **ECGC Limited** (hereinafter referred to as 'ECGC / the Company'), a company wholly owned by Government of India and set up in 1957, invites competitive Bids from reliable resourceful bonafide and experienced firms / companies / individual contractors (hereinafter referred to as ('**the Bidder(s)**')), who have experience in similar nature of work, for any Government of India Public Sector Companies/ PSU Banks / PSU Insurance companies for **Office Interior Furnishing, Electrical, Heating Ventilation & Air Conditioning (hereinafter referred as 'HVAC') and allied Civil Works**, in an office space area of 2200 square feet **located at 1st Floor, W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial Area, Phase-1, Chandigarh-160002.**

The "Technical Bid" and "Financial Bid" along with the supporting documents would be received in physical form. The Financial Bid will be opened by Authorized Representative of the Company after Technical evaluation.

The Bidder(s) are advised to study the Tender Document carefully. Submission of Bids shall be deemed to have been done after careful study and examination of the Tender Document with full understanding of its implications.

The Bid Document can be downloaded from the Company's website www.ecgc.in.

Please note that all the required information as sought in the Tender document is required to be provided by the bidders. Incomplete or Conditional information may lead to rejection of the Bid. The Company reserves the right to change the dates mentioned in this Tender Document, which will be communicated to the Bidder(s), and shall be displayed on the Company's website. The information provided by the Bidder(s) in response to this TENDER Document will become the property of ECGC and will not be returned. ECGC reserves

the right to amend, rescind or reissue this Tender Document and all subsequent amendments, if any. Amendments or changes shall be displayed at ECGC's website only.

1.2 Schedule of events:

Date of Notification	19/04/2023
Bid Document Availability	The Bid Document can be downloaded from website up to 09/05/2023
Earnest Money Deposit	Rs.1,85,000/- only
Pre-bid Queries (if any)	28/04/2023
Address for Communication and submission of bid	ECGC Ltd., Chandigarh Branch, PHD Chambers (House) 1st Floor, Sector-31 A, Chandigarh-160031.
E-mail & Phone no.	chandigarh@ecgc.in 0172-5003627/28/29
Date and time limit for receipt of bids	10/05/2023 up to 17:30 hours
Date & Place of opening of Technical Bid / Pre- qualification Bid	11/05/2023 at 14:30 hours Chandigarh Branch, PHD Chambers (House) 1st Floor, Sector-31 A, Chandigarh-160031.
Date of opening of Financial Bid	Within 15 (fifteen) days of opening of Technical Bids. Date will be communicated to Bidder(s) who will qualify in the Technical Bids. The bidders will be informed one day in advance in case the bidders want to be present while the financial bid is opened. Only one person from each bidder can attend such bid opening.
Validity period of Bid	90 days from the last date of submission of Bid
In the event of any of the above-mentioned dates being declared as a holiday the tender will be opened on the next working day at the appointed time.	

Note: Time lines are subject to change at the sole discretion of ECGC Ltd.

SECTION - 2

2. Disclaimer

The information contained in this Tender Document or information provided subsequently to Bidder(s) in documentary form by or on behalf of ECGC, is provided to the Bidder(s) on the terms and conditions set out in this Tender document and all other terms and conditions subject to which such information is provided.

This TENDER Document is neither an agreement nor an offer and is only an invitation by the Company to the interested parties for submission of Bids. The purpose of this TENDER Document is to provide the Bidder(s) with information to assist the formulation of their bids.

This TENDER Document does not claim to contain all the information that each Bidder may require. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this TENDER Document and where necessary obtain independent advice at their own cost, if any. ECGC shall incur no liability under any law, statute, rules or regulations as to accuracy, reliability or completeness of this document.

The Company may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this Tender Document. No contractual obligation whatsoever shall arise from the Tender process until a formal letter from the duly authorized representative of the Company communicating award of Tender is received by the selected Bidder.

ECGC reserves the right to reject any or all the bids received in response to this document at any stage without assigning any reason whatsoever. The decision of ECGC in this regard shall be final, conclusive and binding on all the parties.

SECTION - 3

3 Instructions for Bidder(s)

3.1 General Instructions

- 3.1.1 The Bidder, irrespective of its participation in the bidding process, shall treat the details of the documents as privileged, secret and confidential.
- 3.1.2 Before bidding, the Bidder(s) are requested to visit the ECGC website <https://www.ecgc.in> and also carefully examine the Tender Document and the General and Special Terms and Conditions of the Contract (TCC) contained therein, and if there appears to be any ambiguity or discrepancy between any terms they should immediately refer the matter to ECGC for clarifications.
- 3.1.3 The Bidders are advised to study the terms and conditions of contract carefully before bidding and they shall be deemed to have fully acquainted themselves with the same.
- 3.1.4 The details of work to be carried out and its scope are given in the specifications and Schedule of Quantities of these documents which also indicate a brief description of the Project which is to be executed.
- 3.1.5 The Bidder should quote their (own) rates for undertaking the work.
- 3.1.6 The Bidders should note that the information, if any, in regard to the site and local conditions, as contained in these tender documents has been given merely to assist the Bidders and is not warranted to be complete.
- 3.1.7 The Bidders, in their own interest, are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, in respect of the site conditions including but not restricting to the following which may influence or effect the work or cost thereof under the contract:
 - (a) Site conditions including access to the site, existing and required roads and other means of transport/communication for use by him in connection with the work.
 - (b) Requirement and availability of land and other facilities for his enabling works, stores and workshops etc.

- (c) Ground condition including those bearing upon transportation, disposal, handling and storage of materials required for the work or obtained there from.
- (d) Source and extent of availability of suitable materials including water etc. and labours (skilled and unskilled) required for work and laws and regulations governing their use and employment;
- (e) The type of equipment and facilities needed preliminary for and in the performance of the work and for successful completion of work.
- (f) All other information pertaining to and needed for the work including information as to the risks, contingencies and other circumstances which may influence or affect the work or the cost thereof under this contract.

3.1.8 The Bidders should note and bear in mind that ECGC Ltd. shall bear no responsibility for the lack of acquaintance of the site and other conditions or any information relating thereto, on their part. The consequences of the lack of any knowledge as aforesaid on the part of the Bidders shall be at their risk and cost and no charges or claims whatsoever consequent upon the lack of any information, knowledge or understanding shall be entertained or payable by ECGC Ltd.

3.1.9 No employee of the ECGC Ltd is allowed to work under or as a contractor for a period of two years after his retirement from ECGC Ltd services, without the prior approval of the ECGC Ltd. Any bid is liable to be rejected if either the bidder or any of his employees is found at any time to be such a person who had not obtained the permission of the ECGC Ltd as aforesaid before submission of the tender or engagement in the bidder's service.

3.1.10 Canvassing in connection with Tenders is strictly prohibited and the bids submitted by the Bidders who resort to canvassing shall be liable to be rejected.

3.1.11 ECGC does not bind itself to accept the lowest of any Bid or any other bid received and shall have the right to reject any Bid without assigning any reason whatsoever. ECGC also reserves the right to re-issue the

Tender Document and is not liable for any cost that might have been incurred by any bidder at the stage of bidding.

3.1.12 No queries or change in requirements specifications/line items will be entertained in terms of the Bid process, except if such changes are advised or are approved by the Company.

3.1.13 The Company reserves the right to cancel the NIT or issue corrigendum notices to the NIT due to unavoidable circumstances and no claim in this respect will be entertained whatsoever.

3.2 Cost of Bidding:

The Bidder shall bear all the Costs and expenses associated with the preparation and submission of its Bid, and the Company will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the Bidding process.

ECGC does not bind itself to accept the lowest bid and reserves the right to reject any or all the quotations received, without assigning any reason whatsoever and is not liable for any cost that might have been incurred by any Bidder at the stage of Bidding.

3.3 Eligibility Criteria:

3.3.1. Legal status of the Bidder shall be sole proprietor, partnership firm, Limited Liability Partnership or Company. If bidder found to have applied severally for this Tender, all his bids will be rejected. Several bids by related parties will also be rejected.

3.3.2. The Bidder should not have been blacklisted / barred / disqualified by any Govt. Financial Institutions / Banks / Government/Semi-Government departments/ regulator/ statutory body/ judicial or any other authority in India.

3.3.3. In addition to above, participants fulfilling the following eligibility criteria will be considered as technically qualified:

- i. Bidder shall produce credential in form of completion certificate of 1 (one) similar nature of work in Tri-city (the metropolitan areas of Chandigarh, Mohali and Panchkula) of the minimum value of 75 Lakh put to tender during last 3 (three) years prior to the date of

issue of this tender notice.

or

- ii. Bidder shall produce credentials in form of completion certificate of 3 (three) similar nature of work in Tri-city (the metropolitan areas of Chandigarh, Mohali and Panchkula) of the minimum value of 40 Lakh amount put to tender during last 3 (three) years prior to the date of issue of this tender notice; (Only completed work shall be the criterion).

Note:

- i) Copy of Completion Certificate duly signed by the competent authority pertaining to past works shall be submitted with their bid. In the required certificate it should be clearly stated that the work has been completed to their satisfaction and also that no penal action has been initiated against the executed agency i.e., the tenderer.
- ii) Payment Certificate will not be treated as completion certificate. Copy of completion certificate without actual date of completion will not be entertained.
- iii) Completion certificate of any similar work carried out for a PSU for a minimum value of Rs.50 lakh (if any) may also be furnished in addition to above documents.

3.3.4. Audited balance sheet for previous five financial years must be submitted as per **Annexure- B**. Average annual financial turn-over during the last 05 (five) previous financial year with latest FY ending on 31st March 2022, should be at least 250 Lakh value and as per pre-qualification Performa detailed in **Annexure-A**.

3.3.5. Valid Professional Tax Receipt Challan for the relevant period, Valid PAN issued by the IT Department, Govt. of India, Valid Goods and Services Taxpayer Identification Numbers (GSTIN) under GST Act 2017 as per notification No: - 4374 -F(Y) dated 13.07.2017 & Income Tax Acknowledgement Receipt for Assessment Year 2022-23 to be submitted.

3.3.6. A declaration (Affidavit) in this respect has to be furnished by the prospective bidders as per prescribed format vide **Annexure- G** without

which the Technical/Pre-qualification Bid shall be treated non-responsive. Time period is essence of project no excuses will be entertained in regard of working, contractor have to perform the work with in time schedule otherwise the penalties will be imposed.

3.3.7. The documentary evidence of the Bidder's qualifications to perform the Contract in its Bid will be accepted only if it is established that the same are to the Company's satisfaction.

3.3.8. Bidder must have an office minimum 5 (Five) years old and should be functional from the Tri-city where the project is located. Bidder may produce documentary evidence in support of the same. ECGC may disqualify if any of the above requirement is not furnished in proper format.

3.4 Documents Comprising the Bid:

3.4.1 Documents comprising the Bid envelope should contain the following completed forms/documents in accordance with the clauses in the Bid and duly signed by the authorized representative of the Bidder and stamped with the official stamp of the Bidder (Board Resolution, if applicable, authorizing representative to bid and make commitments on behalf of the Bidder to be attached):

- (i) Technical/Pre-qualification Bid Form as per Annexure-A
- (ii) Price/ Commercial Bid as per Annexure-H
- (iii) Supporting documents as mentioned in Annexure-B to G.

3.4.2 The Bid form and the documents attached to it shall not be detached from one another and no alteration or mutilation (other than filling in all the blank spaces) shall be made in any of the forms or documents attached thereto. Any alterations or changes to the entries in the attached documents shall only be made by a separate covering letter otherwise it shall not be entertained for the Bidding process.

3.5 Language of Bid

The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Company and supporting documents and printed literature shall be submitted in English.

3.6 Preparation of Bids

- 3.6.1 The bid shall be in A4 size papers, numbered with index and highlighted with technical/Pre-qualification specification details. Bids should be spirally bound or fastened securely before submission. Bids submitted in loose sheets shall be disqualified.
- 3.6.2 The Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The person or persons signing the Bids shall authenticate all pages of the Bids, except for un-amended printed literature.
- 3.6.3 All documents submitted in the context of this Tender Document, whether typed, written in indelible ink, or un-amended printed literature, should be legible / readable. Non-compliance to this clause shall result in Bid being considered as non- responsive, and shall be rejected at the outset.
- 3.6.4 The Bidder, for the purpose of making the Bid, shall complete in all respects, the form(s) annexed to the Tender Document, quote the Rates, with Amount (prices) and furnish the information/ documents, called for therein, and shall sign and put date on each of the forms/documents in the space provided therein for the purpose. The Bidder shall affix its initial on each page of the Bidding Documents.
- 3.6.5 No questions or items in the annexures shall be left blank or unanswered. Where bidders have no details or answers to be provided a 'No' or 'Nil' or 'Not Applicable' statement shall be made as appropriate. Forms with blank columns or unsigned forms will be summarily rejected.
- 3.6.6 The Bidder should ensure that there are no cuttings, over-writings, and illegible or undecipherable figures to indicate their Bid. All such Bids may be disqualified on this ground alone. The decision of the Company shall be final and binding on the Bidder. The Bidder should ensure that unrealistic (lower than workable rates, or excessively high rates), ambiguous or unquantifiable costs / amounts are not included in the Bid, which would disqualify the Bid.
- 3.6.7 Tender containing any condition leading to unknown / indefinite liability, are liable to be summarily rejected.

- 3.6.8 The Bid shall contain the address, Tel. No., Fax No. WhatsApp number and e- mail id, if any, of the Bidder, for the purposes of serving notices required to be given to the Bidder in connection with the Bid.
- 3.6.9 The Bid shall be signed by a person or persons duly authorized by the Bidder with signature duly attested. In the case of a body corporate, the Bid shall be signed by the officers duly authorized by the body corporate with its common seal duly affixed.
- 3.6.10 The Bidder, at his own responsibility, costs and risk should visit the site to check the Drawing of Tender on Scale Print, ascertain the working conditions and local authority rules/ regulations / restrictions if any and other information required for the proper execution of the work and obtain all information that may be necessary for preparing the Bid as mentioned in the Notice Inviting Tender, before submitting the bid with full satisfaction. The successful Bidder shall not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site conditions which existed before the commencement of the work or which in the opinion of the Company might be deemed to have reasonably been inferred to be so existing before commencement of work. Necessary permission, wherever required, to be taken from the nodal contact person of ECGC – Shri Bijaya Shankar Sahu, Branch Manager, Chandigarh Branch.
- 3.6.11 The quantities of various items given in the Bill of Quantity are approximate. The quantities of work may vary at time of allotment / execution of work. Company reserves the right to omit / delete any item(s) of work from the schedule before the order for purchase of the same has been placed by the Vendor. The schedule of quantities shall be filled in as follows:
- (i) The rates column to be legibly filled in both English figures and English words.
 - (ii) Amount column to be filled in figures for each item and the amount for each subhead as detailed in the "Schedule of Quantities".
 - (iii) All corrections are to be initialed.

3.6.12 The Bidders should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct workable and self-supporting. If called upon by the Company, detailed analysis of any or all the rates shall be submitted by the contractor. The Company shall not be bound to recognize the contractor's analysis.

3.7 Submission of Tender

3.7.1 Each Bidder can submit only one Bid.

3.7.2 Bids shall be submitted in two parts i.e. (a) Technical/Pre-qualification Bid and (b) Financial/Commercial Bid.

a. Envelope No.1 (Technical/Pre-qualification Bid)

The Envelope No.1 shall contain 1) Technical bid as per **Annexure – A**; 2) Supporting documents for Technical bid and 3) Earnest money deposit in the form of Crossed Demand Draft of Rs. 1,85,000/-(Rupees One Lakh Eighty Five Thousand only) in favor of ECGC Ltd. payable at Chandigarh, for "Notice inviting Tender for Office Interior furnishing, Electrical, Heating, Ventilation and air conditioning (HVAC) and allied civil work at ECGC Ltd.'s Chandigarh office." This envelope shall be superscribed "Envelope No.1 (Technical Bid and Earnest Money) for "Notice inviting Tender for Office Interior furnishing, Electrical, Heating, Ventilation and air conditioning (HVAC) and allied civil work at ECGC Ltd.' Chandigarh office." The tenders not accompanied by the earnest money deposited by demand draft are liable to be rejected as NON-RESPONSIVE.

b. Envelope No.2 (Financial Bid)

Envelope No.2 shall contain Financial Bid as per **Annexure - H** on the letter head of the bidder duly filled in with complete details and description including all data which are to be supplied by Bidders as specified in this Bid. The bidder shall quote their rate for each & every item in Schedule of Quantities rate column, and arrive at the amount of that item by multiplying quoted rate with quantity of the item. The quoted rate should be whole number. The bids containing

fractions, any notes and conditions will be rejected. This envelope shall be super scribed " Envelope No.2 (Financial Bid) for "Notice inviting Tender for Office Interior furnishing, Electrical, Heating, Ventilation and air conditioning (HVAC) and allied civil work at ECGC Ltd.' Chandigarh office."

- 3.7.3 The tenders are to be submitted in one non-window envelope containing technical and financial bids in two separate non-window envelopes each sealed and clearly identified as to envelope number and contents as indicated above. Both envelopes shall be contained in a large envelope super scribed "Notice inviting Tender for Office Interior furnishing, Electrical, Heating, Ventilation and air conditioning (HVAC) and allied civil work at ECGC Ltd.'s Chandigarh office.". Bids are liable to be rejected if all Bids (Technical/Pre-qualification Bid and Financial Bid) are not received together and in separate envelopes.
- 3.7.4 The outer envelope shall be addressed to the Company at the given address: Branch Manager, ECGC Ltd, Chandigarh Branch, PHD Chambers (House) 1st Floor, Sector-31 A, Chandigarh-160031, Up to **5.00 PM. on 10/05/2023**. Sealed tenders are to be delivered in person to the Nodal contact person nominated for the purpose or put in a sealed tender box kept in the office before the stipulated time.
- 3.7.5 All envelopes should indicate the name and address of the bidder on the cover.
- 3.7.6 If the envelopes are not sealed and marked, the company will assume no responsibility for the Bid's misplacement with premature opening.
- 3.7.7 Bidder shall apply with self- attested photocopies of all credentials and other relevant documents such as valid certificates, valid Partnership deed (in case of Partnership firm), current Professional Tax deposit Challan/ Professional Tax clearance certificate, PAN card, Trade License from the respective Company, Municipality, Panchayat, etc. for participating in this Tendering process of ECGC Limited.
- 3.7.8 Any Technical/Pre-qualification and Financial Bid not conforming to the above list of documents will be rejected.
- 3.7.9 The Technical/Pre-qualification Bid should not contain any price

information. Such bid, if received, will be rejected.

3.8 Bid Prices

- 3.8.1 Prices are to be quoted in Indian Rupees only and the quotation shall be in figures as well as words and if there is any discrepancy between the two, the lowest amount will only be accepted.
- 3.8.2 Prices quoted by the Bidder shall remain fixed during the Bidder's performance of the Contract and shall not be subject to variation on any account, including exchange rate fluctuations, during the validity period of the contract. GST, Cess etc. levied by Central or State Governments may be charged as per actuals, and are allowed to be varied. A Bid submitted with an adjustable price quotation will be treated as non-responsive and shall be rejected.
- 3.8.3 The work is to be carried out on first Floor level as per actual site condition and requirement. Please note that materials and machines may be required to be carried on head load and the same must be accounted in the costing and no separate cost shall be allowed for head load.

3.9 Partial bids

- 3.9.1 Partial Bids will not be accepted and shall be rejected. Bidder(s) shall have to quote for the entire scope of work.

3.10 Period of Validity of Bids

- 3.10.1 Bids shall remain valid for a period of 90 days from the last date of submission of Bids. If the Bidder withdraws the Bid, any time after deadline prescribed for submission of the bid till the period of Bid validity his Earnest Money Deposit shall be forfeited.
- 3.10.2 In exceptional circumstances, the Company may solicit the Bidder's consent to an extension of the period of validity of the Bid on the same terms and conditions. The request and the responses thereto shall be made in writing. At this point, a Bidder may refuse the request without risk of exclusion from any future Tenders or any debarment.
- 3.10.3 The Company reserves the right to call for fresh quotes any time during the validity period of the Bid, if considered necessary.

3.11 ADDITIONAL INFORMATION: Bidder may include additional information which will be essential for better understanding of the proposal. This may include diagrams, excerpts from manuals, or other explanatory documentation, which would clarify and/or substantiate the bid. Any material included here should be specifically referenced elsewhere in the bid.

3.12 GLOSSARY: Provide a glossary of all abbreviations, acronyms, and technical terms used to describe the services or products proposed. This glossary should be provided even if these terms are described or defined at their first use or elsewhere in the bid response.

3.13 Deadline for Submission of Bids

3.13.1 Bids must be received by the Company at the address specified, no later than the date & time as specified in the “Schedule of Events” in Invitation to bid.

3.13.2 In the event of the specified date for submission of Bids being declared a holiday for the Company, the bids will be received up to the appointed time on the next working day.

3.13.3 The Company may, at its discretion, extend the deadline for submission of Bids by amending the appropriate terms and conditions in the Bid Document, in which case, all rights and obligations of the Company and Bidders previously subject to the deadline will thereafter be subject to the extended deadline, which would also be advised to all the interested Bidders on the Company’s website.

3.13.4 ECGC is not responsible for non-receipt of bids within the specified date due to any reason including postal delays or holidays.

3.13.5 Any Bid received after the deadline for submission of Bids prescribed, will be rejected. No Bids shall be returned.

3.14 Late Bids

Any Bid received after the deadline for submission of Bids prescribed, will be rejected.

3.15 Modification and Withdrawal of Bids

3.15.1 The Bidder may modify or withdraw its Bid after the Bid’s submission, provided that written notice of the modification, including substitution or

withdrawal of the Bids, is received by the Company, prior to the deadline prescribed for submission of Bids, the Bidder may do so without any penal action including debarment or exclusion from any future Tenders / contracts / business, provided the Bidder submits its decision to the Company in writing, along with its reasons for the same.

3.15.2 No Bid shall be modified after the deadline for submission of Bids.

3.15.3 No Bid shall be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period 90 days from last date of submission of Bid. Withdrawal of a Bid during this interval shall result in forfeiture of EMD and may further result in penal action including debarment or exclusion from any future Tenders / contracts / business.

3.15.4 Bidders who wish to be present at the time of opening of Tender may be present at the Office address as mentioned above on the date and time fixed for opening of the Tender.

3.16 Preliminary Evaluation

3.16.1 Bids not confirming to the requirement of the Tender may not be considered by ECGC. However, ECGC reserves the right at any time to waive any of the requirements of the Tender.

3.16.2 The Company will examine the Bids to determine whether they are complete, whether the required formats have been furnished, the documents have been properly signed, and that the Bids are generally in order.

3.16.3 Prior to the detailed evaluation, the Company will determine the responsiveness of each Bid to the Bid Document. For purposes of these clauses, a responsive Bid is one, which conforms to all the terms and conditions of the Bid Document without any deviations.

3.16.4 The Company's determination of a Bid's responsiveness will be based on the contents of the Bid itself, without recourse to extrinsic evidence.

3.16.5 If a Bid is not responsive, it will be rejected by the Company.

3.16.6 ECGC reserves the right to verify the validity of bid information and reject any bid, where the contents are found incorrect whether partially or fully, during the process of Tender or even after the issuance of work

order.

3.16.7 During the scrutiny, if it comes to the notice of the Company that the credential(s) and/or any other paper(s) of any bidder is / are incorrect/ manufactured/ fabricated, that bidder(s) will not be allowed to participate in the tender and that application will be rejected outright. If found necessary, the Company shall verify the credential(s) and/or other document(s) of the Bidders before opening of price bid and/or of the lowest Bidder before issuance of the work order. After verification, if it is found that the document(s) submitted by the lowest Bidder is/are either manufactured or false, the work order shall not be issued in favour of the said Bidder.

3.16.8 During the evaluation of the bids or at any time before or after issuance of the work order, if it comes to the notice of the Company that the credential(s) and/or any other documents(s) of any bidder is / are incorrect/ manufactured/ fabricated, and/or if any bidder has made wilful misrepresentations or fraudulent claims as regards any material fact, such bidder(s) will be made ineligible to participate in the tender process resulting in rejection of the concerned bid or cancellation of the work order, as the case may be. The Company reserves its right to lawfully proceed against such bidders, inter alia, for recovery of damages and/or otherwise.

3.17 Evaluation of Technical Bids

3.17.1 Sealed bids shall be opened by designated Tender opening Committee at the specified time and place.

3.17.2 Only those Bidders and Bids which have been found to be in conformity of the eligibility terms and conditions during the Technical Bid evaluation would be taken up by the Company for further detailed evaluation. The Bids which do not qualify the eligibility criteria and all terms during Technical evaluation will not be taken up for further evaluation.

3.17.3 The Company reserves the right to evaluate the Bids on technical & eligibility parameters.

3.17.4 The Technical Evaluation would be first carried out as per the Eligibility Criterion detailed In Clause 3.3 above and relevant Annexure such as

A, B, & C.

3.17.5 During evaluation and comparison of Bids, the Company may, at its discretion ask the Bidders for clarification of their bid. The request for clarification shall be in writing and no change in prices or substance of the Bid shall be sought, offered or permitted. No post Bid clarification at the initiative of the bidder shall be entertained.

3.18 Evaluation of Price Bids and Finalization

3.18.1 The Bidder(s) from the list of earlier shortlisted Bidder(s) shall be deemed eligible for further evaluation and Price/Commercial bids for these Bidder(s) shall be opened.

3.18.2 Company may waive off any minor infirmity or non-conformity or irregularity in a Bid, which does not constitute a material deviation, provided such a waiving does not prejudice or affect the relative ranking of any Bidder. Bidder(s) having any doubt/ queries/ concerns with any clause of this document or selection process shall raise their concern within 7 (seven) days of release of Tender Document. ECGC will not be liable to accept or provide any explanation towards any doubt/ concerns later on whatever the same may be.

3.18.3 An item rate tender containing percentage below/above will be summarily rejected. However, where a tenderer voluntarily offers a rebate for payment within a stipulated period. This may be considered.

3.18.4 The queries may be communicated only through the e-mail id provided, which is chandigarh@ecgc.in

3.18.5 Bidder(s) bidding in the process shall give as a part of the Bidding documents a statement on their letter head, as per the format provided under **Annexure - E**, that they have no objection with any clause of the Tender Document.

3.19 Contacting the Company

3.19.1 The Bidder may submit in writing any tender enquiry on matters where clarifications or additional information is desired as per the dates mentioned in the schedule.

3.19.2 If considered appropriate, the ECGC Ltd reserves the right to issue addendum(s) or amendment(s) to any condition/ specifications/

schedules to all Bidders before the date of submission. Tenders submitted by the Bidders shall be deemed to cover the effect of such addendum(s)/ amendment(s) issued and such addendum(s)/ amendment(s) duly signed by the Bidders shall be submitted along with the tenders.

3.19.3 No Bidder shall contact the Company on any matter relating to its Bid, from the time of opening of Price/Commercial Bid to the time the Work order is issued.

3.19.4 Any effort by a Bidder to influence the Company in its decisions on Bid evaluation, Bid comparison or contract award may result in the rejection of the Bidder's Bid and may be barred from any future Tenders / contracts / business with ECGC.

3.20 Award Criteria

3.20.1 Only the Bidders who qualify the technical bid shall be eligible to participate in financial bid. Bidder who quotes the lowest (L-1) shall be awarded the Contract. ECGC will notify the successful Bidder in writing, by letter or by e- mail, that its Bid has been accepted. The notification of award will constitute the formation of the offer to contract. The selected Bidder should convey acceptance of the award of contract by returning duly signed and stamped duplicate copy of the award letter within 10 (ten) working days of receipt of the communication along with copy of signed agreement as per **Annexure-J**.

3.20.2 In case the selected Bidder fails to accept the award then the L2 Bidder among the Bidder(s) (other than the Bidder who has failed to accept the award) will be considered for the award and so on.

3.20.3 On acceptance of tender, the name of the authorized representative(s) of the Bidder who would be responsible for taking instructions from the Employer/Architect shall be communicated to the Employer/Architect.

3.20.4 The Bidder shall submit the insurance cover for the work in the form of **Contractor's All Risk Insurance Policy (CAR)** policy within seven (7) days from the acceptance of award of tender letter, from Insurance

Company approved by IRDA.

3.21 Company's Right to Accept Any Bid and to reject any or All Bids

3.21.1 Notwithstanding anything mentioned above, the Company reserves the right to accept or reject any or all Bids or to cancel the Bidding process at any time prior to contract award, without incurring any liability to the affected Bidder or Bidder(s) or any obligation to inform the affected Bidder or Bidders of the grounds for the Company's action.

3.21.2 All decisions taken by the Company are binding and final.

3.22 Earnest Money Deposit (EMD) & Performance Bank Guarantee

3.22.1 Earnest Money may be deposited through (a.) Demand Draft (DD) issued from any schedule bank in favour of "ECGC Limited" payable at Chandigarh. It should be submitted under sealed cover along with the Bid documents. Bids submitted without EMD are liable to be rejected. However, all Micro and Small Enterprises (as defined in the Micro, Small and Medium Enterprises Development Act, 2006) are exempted from depositing EMD amount. The eligible firms claiming exemption under Micro and Small Enterprises need to submit certificate of Registration under Ministry of Micro, Small and Medium Enterprises, GOI.

3.22.2 EMD of the unsuccessful bidders will be returned to them latest on or before the 30th day after receipt of acceptance of tender from the successful bidder. The EMD of successful Bidder shall be refunded after submission of 3% Performance Bank Guarantee. No interest will be paid on EMD.

3.22.3 Forfeiture of Earnest Money Deposit: The Earnest Money shall be forfeited –

- a. If the Bidder withdraws the Bid after the deadline prescribed for submission of bids.
- b. In case of a successful Bidder, if the Bidder fails within the specified time limit to accept the award of contract.
- c. If the successful bidder does not start work within the time specified in tender document or refuses accept the award of tender.
- d. The successful bidder shall furnish Performance Bank Guarantee of 3% of the value of the contract within 07 (seven) days of acceptance

of tender award letter. The Performance Bank Guarantee will be released after successful completion of the project duly certified by the Architect. The Company may terminate the contract in the event the successful bidder fails to furnish the Performance Bank Guarantee for an amount equal to 3% of the value of the contract.

3.23 Special Note: It may be noted that the work under the contract will have to be carried out from 8:00 AM to 08:00 PM unless otherwise approved by the building management team. There are strict rules when works may be performed however building is a live structure and noise can be transmitted some considerable distance from its source hence under no circumstances noise making jobs can be allowed like Percussion drilling and explosive fasteners ,Tile cuttings,Angle grinding, Floor grinding ,Attaching fittings such as sprinkler pipe work, ceiling track etc. to the underside of the soffit.

A. Noises which have proven to be disruptive and must be carried out outside the General hours i.e. 8:00 pm to 8: 00 AM and on Sunday with prior information to the building management team and after obtaining the work permit.

B. The relocation of ladders, mobile scaffolds, and wheeled rubbish carts may also cause a considerable amount of noise.

Contractor should follow rules of Godrej Eternia building guide lines for such civil work strictly.

SECTION - 4

4. Terms and Conditions of Contract (TCC)

4.1 Definitions:

In this Section, the following terms shall be interpreted as indicated herein below:

- i. "Architect" means the Architect appointed by ECGC Limited for this project.
- ii. "The Company" means ECGC Limited.
- iii. "Vendor" is the successful Bidder whose financial Bid has been accepted and to whom notification of award has been given by the Company.
- iv. "The Services" means the scope of services which the Vendor is required to provide to the Company under the Contract.
- v. "The Contract" means the agreement entered into between ECGC and the Vendor, and signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;
- vi. "The Contract Price" means the price payable to the Vendor under the Contract for the full and proper performance of its contractual obligations;
- vii. "The Project" means Office Interior furnishing, Electrical, Heating Ventilation Air Conditioning (HVAC) and allied works at ECGC LTD, 1st Floor, (Carpet Area 2219 Sqft), W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial Area, Phase-1, Chandigarh-160002.
- viii. "The Project Site" means designated locations of the Company as may be specified in Contract.
- ix. "Departmental Schedule" means the (i) Public Works Department Schedule of CPWD /DSR Rates in Chandigarh or Tri-city rates; (ii) Latest edition of the book published for the specification of various works by CPWD/DSR.
- x. "Drawings" means the graphical representation of the design and execution of the Project, the components, framework, and dimensions prepared by the Architect in consultation with Vendor within 07 (seven)

days from the date of acceptance of tender award letter.

- xi. "Start date" means the date of start of the work; which shall be 07 (seven) days from the date of acceptance of tender award letter.
- xii. "Site Engineer" means the person posted at site who shall be appointed by Architect and will work under the orders of Architects and the Company to inspect the works.
- xiii. "The works" shall mean the work or works to be executed or done under this contract.
- xiv. "The Schedule of Quantities" (SOQ) shall mean the schedule of quantities as specified and forming part of this Request for Tender.
- xv. "Priced Schedule of Quantities" shall mean the schedule of quantities duly priced with the accepted quoted percentage of the contractor.

4.2 Scope of Work

- 4.2.1 The Scope of Work includes Office Interior furnishing, Electrical, Heating Ventilation Air Conditioning (HVAC) and allied works at ECGC LTD, 1st Floor (Carpet Area 2219 Sqft), W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial Area, Phase-1, Chandigarh-160002 as per details given in accordance with the "Specifications" and "Schedule of Quantities" at **Annexure H** and as per the Drawings.
- 4.2.2 The Vendor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Vendor finds any discrepancies therein, he shall immediately and in writing refer the same to the Company whose decision shall be final and binding.
- 4.2.3 The rates quoted against individual items are inclusive of everything necessary to complete the said items of work within the contemplation of the contract and beyond the unit price. It includes furnishing all materials, labour, tools, equipment, Municipal Fees for water supply, Royalty on road materials (if any), electricity and other charges of

Municipalities or statutory local bodies, all statutory and levy/ cess, transportation charges required for carriage and supply of materials, Toll charges, loading and unloading charges, handling charges, overhead charges, taxes applicable, etc. and its management necessary for, and incidental to, the construction and completion of the work. All work, during its progress and upon completion shall conform to the lines, elevations and grades as shown on the drawings furnished by the Architect. Should any detail essential for efficient completion of the work be omitted from the drawings and specifications it shall be the responsibility of the contractor to inform the Architect and to furnish and install such detail with the Company's concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use. No extra claim in this regard beyond the specified rate as per work schedule whatsoever in this respect will be entertained.

4.2.4 The Vendor shall provide and maintain proper sheds for the proper storage and adequate protection of the materials etc., and other work that may be executed on the site including the tools and materials and remove same on completion. No separate charges shall be paid for traffic control measures, shoring, shuttering, dewatering, curing etc. and the rates of respective items or works are to be deemed as inclusive of the same.

4.2.5 Company may in their absolute discretion issue further drawings and/or written instructions, details, directions and explanations, which are, hereafter collectively, referred to as "the Company's instructions" in regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work. Should the Vendor desire to substitute any materials and workmanship, he/they must obtain the approval of the Company in writing in advance.
- b) Any discrepancy in the drawing or between the schedule of quantities and/or drawings and/or specifications.
- c) The removal from the site of any defective materials brought thereon

by the contractor and the substitution of any other material thereof.

- d) The demolition/removal and/or re-execution of any work executed by the contractors.
- e) The dismissal from the work of any persons deployed on the Project Site thereupon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned and those arising during the maintenance period (Defect Liability period).

No variation shall vitiate the contract.

4.2.6 The contractor shall forthwith comply with and duly execute any work comprised in instructions contained herein, provided always that verbal instructions, directions and explanations given to the Vendor's or his representative upon the works by the Company shall if involving a variation be confirmed in writing to the Vendor/s within **seven days**. No works for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without prior written permission of the Company.

4.2.7 Rates of Extra items: Rates of Extra items shall be determined in the following order of preference whereby only when the first rate is completely ruled out, can the second rate be opted for and so on until the fourth rate which shall be the final rate if none of the preceding rates are found suitable.

First: - Similar comparable item rate quoted in the SOQ,

Second: - Similar nearest comparable item rate quoted in the SOQ,

Third: - Nearest comparable CPWD Schedule or rates/or practices;

Fourth: - Market rates substantiated by purchase bills/vouchers

4.2.8 No Additional/supplementary work/item, other than work/items mentioned in the printed tender be carried out by the contractor without prior approval of the Architect and Company.

4.2.9 The responsibility for stacking the serviceable materials (as per decision of the Company/ Architect) obtained during dismantling of existing structures/walls/tiles except those for disposing off under salvage value item & property/ materials of ECGC which are required to be handed over to ECGC lies with the Vendor and nothing will be paid on this account. In case of any loss or damage of serviceable materials prior to handing over the same to ECGC, full value will be recovered from the Vendor's bill at rates as will be assessed by the Architect.

4.2.10 The Vendor shall remove all unserviceable materials/debris obtained during execution at place as directed. The Vendor shall dress up and clear the work site after completion of work as per direction of the Architect. The debris shall be disposed off by the Vendor. No extra payment will be made on this account.

4.2.11 The under-noted records books at the site of work shall be maintained in addition to normal routine requirements by the contractor:

- (a) Daily progress record;
- (b) Work site order book;
- (c) Instruction by the Company's Officers;
- (d) Test registers of other materials/fittings fixtures equipment as stipulated in the tender;
- (e) Register of drawings and working details;
- (f) Log book of defects;
- (g) Hindrance register giving details of commencement and removal of each hindrance;
- (h) Dismantled materials account register;
- (i) Supply and consumption register of scare / costly materials like laminates special paints white cement, or any material as directed by Architect or Company;
- (j) Specifications C.P.W.D. & I.S.I. as applicable to the contract;
- (k) IS: 1200 relating to measurements;
- (l) Conversion Table IS 786.

These registers are to be signed by the Site Engineer as and when

required.

4.2.12 The Vendor shall do photography / video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work.

4.2.13 On completion of the works, the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Employer and Architects.

4.3 Drawings and Programme of work

4.3.1 The Vendor in consultation with the Architect shall prepare drawings of the work to be executed. All works shall be carried out in conformity with the drawings and scope of work and in consultation of the project architect.

4.3.2 On finalizing the drawings, the Vendor shall furnish:

- a) Construction schedule showing all activities of work in details and in the form of Bar Chart proposed to be completed within the stipulated period duly signed as token of acceptance.
- b) Details of equipment, Machinery and labour to be deployed on the work.

4.3.3 All the drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Company & Architects shall be given access to such drawings or schedule of quantities whenever necessary. In case any detailed drawings are necessary, contractor shall prepare such detailed drawings and/or dimensional sketches therefore and have it confirmed by the Company prior to taking up such work.

4.3.4 The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least 10 (ten) days ahead from the time when it is required for implementations so that the Employer may be able to give decision thereon.

- 4.3.5 Two copies of each of the drawings and one copy of each of the condition of contract specification tender preamble and bill of quantities will be provided for the use of the Vendor who must satisfy himself as to the accuracy of the said copies in every detail, and make all other copies necessary for the conduct of the work.
- 4.3.6 One copy of each drawing or sketch furnished to the Vendor shall be kept at the Project Site and the Architect or Site Engineer or any person authorised by the Company shall have free access to the drawings and sketches whenever they desire
- 4.3.7 Before actual commencement of work the Vendor shall submit a programme of construction of work with methodology clearly showing the required materials, men and equipment.
- 4.3.8 Any ambiguity observed shall be brought to the notice of Company and be executed after obtaining approval from the Company.

4.4 Commencement of work and Duration

The work shall start from the Start Date. The project, as per the scope of work and Drawings should be completed within 90 days from the issue of work order.

4.5 Co-operation and safety

- 4.5.1 All works are to be carried out by the Vendor who shall be in close co-ordination with the Architect, Site Engineer and the Company. The Vendor shall at all times give access to workers employed by the Architect and Officials of the Company or any men employed on the buildings and to provide such parties with proper sufficient and if required special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc. in any work where directed by the Company as may be required to enable such workmen to lay or fix pipes, electrical wiring, special fittings etc. The quoted rates of the tenders shall accordingly include all these above-mentioned contingent works.
- 4.5.2 The work should also be carried out with due regard to the convenience of the common area users and other occupants of the building, if any. All arrangements and programme of work must be adjusted

accordingly. All precautions must be taken for the protection of the public and safety of any adjacent roads, streets, walls, houses, buildings, all other erections, matters and things and the Vendor shall take down and remove any or all such scaffolding, etc. as occasion shall be required or when ordered to do so and shall fully reinstate and make good all matters and things distributed during the execution of works to the satisfaction of the Company/Architect. The Vendor must see that all damages to any property which, in the opinion of the Architect are due to the negligence of the contractor are promptly rectified by the Vendor at his own cost and expenses and according to the direction and satisfaction of the Architect.

4.5.3 The Vendor shall carefully execute the work without disturbing or damaging underground or overhead service utilities viz. Electricity, Telephones, Gas, Water pipes, Sewers, Lifts, etc. In case disturbances of service utilities is found unavoidable the matter should immediately be brought to the notice of the Architect and necessary precautionary measures as would be directed by the Architect shall be carried out at the cost and expenses of the Vendor. If the service utilities are damaged or disturbed in any way by the Vendor during execution of the work, the cost of rectification or restoration of damages as would be fixed by the Architect concerned will be recovered from the Vendor.

4.5.4 The Vendor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- (a) have full regard for the safety of all persons and the Works.
- (b) provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Architect for the protection of the Works and/or for the safety and convenience of its workers, the public and/or others,
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation,
- (d) ensure that all lights provided by the Vendor shall be screened so as

not to interfere with any signal light of the railways or with any traffic or signal lights of any local or other authority.

(e) Vendor should provide a Contractor All Risks Policy as explained in this Tender document(s).

4.5.5 The Vendor shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed in or upon any boarding, gantry, building structure other than those approved by the Company.

4.5.6 The Vendor shall give due notice to the Company and Architects whenever any work is to be buried in the earth, concrete or in the bodies of walls or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the option of the Architect be either opened up for measurement at the contractor's expense or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the notes of the Employer shall be accepted as correct and binding on the contractor.

4.5.7 The Vendor shall afford the Site Engineer every facility and assistance for examining the works and materials for checking and measuring work and materials. The Site Engineer shall have no power to revoke, alter, enlarge or relax any requirements of the contractor or to sanction any day work, additions, alterations, deviations, or omissions or any extra work whatever, except in so far as such authority may be specially conferred in written by the Company.

4.5.8 The Site Engineer shall have power to give notice to the contractor or to his foreman of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Company is obtained. The work will from time to time be examined by the Architects, Nodal Officer on behalf of the Company and the Site Engineer. But such examination shall not in any way exonerate the contractor from the obligation to remedy and defects

which may be found to exist at any stage of the work or after the same is complete. Subject to the limitations of this clause the Vendor shall take instructions only from the Nodal Officer of the Company. Nodal Officer of the Company to be kept informed about progress of the work from Site Engineer and Architect.

4.6 Authorized Representative of Vendor and Vendor's Employees

- 4.6.1 The Vendor shall not assign the agreement or subcontract any portion of the work. The whole of the works included in the contract shall be executed by the Vendor and the Vendor shall not directly or indirectly transfer or assign the contract or any part, share or interest therein nor, shall take a new partner without a prior written consent of the Company and no sub-contracting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress. The contractor, may however, appoint and authorize representative in respect of one or more of the following purposes only:
- a. General day to day management of work.
 - b. To give requisition for Departmental materials, Tools etc., if any, to receive the same and sign hand receipts thereof.
 - c. To attend measurements when taken by the ECGC's Officers and sign the records of such measurements which will be taken upon acceptance by the Vendor. The selection of the authorized representatives shall be subject to the prior approval of the concerned Architect in writing. Even after first approval, the Architect may issue at any subsequent date, revised directions without any reasons, about such authorized representative and the contractor shall be bound to abide by such directions.
- 4.6.2 The Contractor shall employ technically qualified and competent work force having the appropriate skill or ability to perform their job efficiently who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Employer/Architects.
- 4.6.3 The contractor shall employ local laborers on the work as far as possible. No laborers below the age of sixteen years and who is not an

Indian National shall be employed on the work.

- 4.6.4 Any laborer supplied by the contractor to be engaged on the work on day work basis either wholly or partly under the direct order or control of the Company or his representative shall be deemed to be a person employed by the contractor.
- 4.6.5 The Vendor shall arrange to provide first aid treatment to the laborers engaged on the works whenever required. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works, report such accident to the Company and also to the competent authority where such report is required by law.
- 4.6.6 Dismissal of Vendor's employees: The Vendor shall on the request of the Company immediately dismiss from works any person employed thereon by him who may in the opinion of the employer be unsuitable or incompetent or who may misconduct himself. Such discharges shall not be the basis of claim for compensation or damages against the Company or any of their officers or employee.

4.7 Procurement, Quality, Approval and Rejection of Materials

- 4.7.1 All materials required to complete execution of the work shall be supplied by the Vendor after procurement from authorized and approved source. Contractor shall not use modified/redirected old material of other projects.
- 4.7.2 Samples of all materials to be supplied by the Vendor and to be used in the work shall have to be approved by the Architect and checking the quality of such materials shall have to be done by the Architect in consultation with the Company.
- 4.7.3 All materials and workmanship shall be in accordance with the specifications laid down in the Tender and the Architect reserves the right to test, examine and measure the materials/ workmanship direct at the place of manufacture, fabrication or at the site of works or any suitable place. The Vendor shall provide such assistance, instrument, machine, labour and materials as the Architect may require for examining, measuring and testing the works and quality, weight or quantity of materials used and shall supply samples for testing as may

be selected and required by the Architect without any extra cost.

- 4.7.4 All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workman like manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars and instructions as may from time to time be given by the Company as proposed by Architect during the execution of the work, and to its entire satisfaction.
- 4.7.5 If the work is suspended by reason of rain, strike, lockouts or any other cause, the contractor shall take all necessary precautions and care for the protection of work and at his own expenses and shall make good any damage arising from any of these causes.
- 4.7.6 The Vendor shall cover up and protect from damage, from any cause, all new work and supply all temporary doors, protection to windows, and any other requisite protection for the execution of the work whether by himself or special tradesmen or subcontractor and any damage caused must be made good by the contractor at his own expenses.
- 4.7.7 The Company shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Company/Architect are not in accordance with specification or instructions, the substitution or proper re- execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions. In case the Vendor refuses to comply with the order, the Company shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental there to as certified by the Company shall be borne by the Vendor or may be deducted from any money due to or that may become due to the Vendor. No certificate which may be given by the Architects shall relieve the Vendor from his liability in respect of unsound work or bad materials.

- 4.7.8 Any cement/ equipment/ basic material lying at Vendor's custody which is found at the time of use to have been damaged shall be rejected and must immediately be remove from the site by the Vendor or disposed of as directed by Architect at the costs and expenses of the Vendor.

4.8 Completion of the Project

- 4.8.1 All the supply and the work must have to be completed in all respects within the time specified in Notice Inviting Tender from the date of commencement of the work. Time for completion as specified in the tender shall be deemed to be the essence of the contract.
- 4.8.2 The Vendor shall be responsible for the true and perfect setting out of the work and for the correctness of the position, levels, dimensions and alignments of all parts of work, if any rectification or adjustment becomes necessary the Vendor shall have to do the same at his own cost according to the direction of the Architect. During progress of works, if any, error appears or arises in respect of position, level, dimensions or alignment of any part of the work, contractor shall at his own cost rectify such defects to the satisfaction of the Architect. Any setting out that may be done or checked by either of them shall not in any way relieve the contractor from their responsibility for correctness and rectification thereof.
- 4.8.3 For cogent reasons over which the Vendor will have no control and which will slow down the progress, [contractor shall maintain hindrance record, duly signed by the Architect, on same day of such occurrence / event, and approved by company] extension of time for the period lost may be granted on receipt of application from the Vendor before the expiry date of contract. No claim whatsoever for idle labour, additional establishment, enhanced cost of materials and labour and hire charges of tools & plants etc. would be entertained under any circumstances. The Vendor should consider the above factor while quoting this rate.
- 4.8.4 The Vendor shall not be entitled for any compensation for any loss due to delays arising out of modification of the drawing, addition & alterations of specifications.

4.9 Payments

- 4.9.1 The works will be paid for as "measured work" on the basis of actual work done and not as "lump sum" contract.
- 4.9.2 Payment shall be made via electronic fund transfer only to the bank account specified, as per the form provided under **Annexure-D**, in the Tender response.
- 4.9.3 All bills shall be submitted by the Vendor in the form prescribed by the Company. Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents. The bills in proper forms must be duly accompanied by detailed measurements in support of the quantities of work done and must show deductions for all previous payments, retention money etc. The bill shall be checked at site by Site Engineer and thereafter the Architect shall issue a certificate after due scrutiny of the Vendor's bill which may be further verified by the Company and the Vendor shall be entitled to payment thereof, within the period of **15** days honoring/interim certificates named in these documents, as per final verified amount by the Company.
- 4.9.4 10% of the value of each running bill shall be deducted as Retention Money, till the amount so accumulated equals 10% of the work order. The Retention Money shall be refunded after Defect Liability Period provided all defects are attended satisfactorily. Such certificate shall only include the value of said material and goods as and from such time as they are reasonably, properly required and not prematurely brought to or placed adjacent to the work.
- 4.9.5 All payments shall be subject to TDS and any other taxes as applicable from time to time and any other amounts as may be deductible / recoverable as per the terms and conditions of contract.
- 4.9.6 No payment shall be made in advance on award of the contract. No mobilization Advance and secured Advance will be allowed.
- 4.9.7 It may be noted that ECGC will not pay any amount / expenses / charges/ fees / travelling expenses / boarding expenses / lodging expenses / conveyance expenses / out of pocket expenses other than

the agreed amount as per the purchase order / contract.

- 4.9.8 Any decrease in taxes must be passed on to ECGC.
- 4.9.9 No adjustment of Price or Price escalation of any kind will be allowed.
- 4.9.10 The final bill will be released on satisfactory completion of the entire work and compliance of all the terms and conditions / obligations mentioned and on proper submission of the bill together with the measurements. Any sum of money due and payable to the Vendor (including any EMD returnable to him) under this contract may be appropriated by the Company and set off against any claim of the Company for the payment of sum of money arising out of this tender or under any other contract made by the Vendor with the Company.
- 4.9.11 The Vendor shall, upon the request of the Company furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the works under this contract. If the Vendor shall use materials less than what he is required under the contract, the value of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the Company shall be final and binding on the contractor as to the amount of materials, the Vendor is required to use for any work under this contract.

4.10 Indemnity

- 4.10.1 Vendor shall indemnify, defend and hold harmless the Company from and against any and all liability, losses, costs and expenses (including reasonable attorney's fees) relating to or arising out of the breach of this Agreement, the negligence or willful misconduct of Vendor or its employees or agents. No party shall however be liable for any loss or damage arising from reliance on any information or materials supplied by the other party or any third party on behalf of the other party, or for any inaccuracy or other defect in any information or materials supplied by the other party or any third party on behalf of the other party. In addition to this, the vendor shall keep the Company saved, harmless and indemnified against claims if any of the workmen or any other person and all costs and expenses as any be incurred by the Company

in connection with any claim that may be made by any workman or any other person.

4.10.2 The contractor shall pay all fees required to be given or paid under any statute or any regulation or by-law of any local or other statutory authority which may be applicable to the works and shall keep the ECGC protected against all penalties and liabilities of every kinds for breach of such statute regulation or law.

4.10.3 The Vendor shall also fully indemnify the Company in respect of any cost, charges or expenses arising out of any claim or proceedings at law and also in respect of any award of compensation of damages arising there from.

4.11 Liquidated Damages

In case, completion of the project is delayed due to reasons attributable to the Vendors, the Company shall impose liquidated damages @ 0.5 % (Zero-point five percent) on awarded contract value for each week of delay subject to a maximum of 10% (ten percent) of the awarded contract value.

4.12 Insurance and Defect Liability Period:

4.12.1 The Vendor are required to take Contractor's All risk Insurance Policy (CAR Policy) and Workmen Compensation Policy with respect to the work and the workmen within 7 (seven) days from the acceptance of tender award letter with an IRDA approved Insurance Company in the name of the Vendor from the date of commencement of work till the end of Defect Liability Period. The value of the work to be insured would be 125% of the contract value for CAR Policy.

4.12.2 The CAR policy should have additional coverage under third party liabilities. The liabilities should be one lakh rupees per accident. The premium receipt and the policies should be submitted to the Company. The contractor shall fully indemnify the Company against all claims which may be made against the Company by any member of the public or other third party in respect of anything which may arise in respect of the works or in consequence thereof. The contractor shall also fully indemnify the Company against all claims which may be made upon the Company, whether under the Workmen Compensation Act or any

other Statute in force during the currency of this contract or at common law in respect of any employee of the Vendor or any sub- contractor. The Vendor shall be responsible for anything which may be excluded from the insurance policies above referred to.

4.12.3 Defect Liability Period is 12 (twelve) months from the date of satisfactory completion of the work, as certified by Architect, unless otherwise specified.

4.12.4 During the course of Defect Liability Period the Vendor has to rectify all the defects noticed free of charge.

4.12.5 In case the Vendor fails to attend the rectification work within 7 (seven) days of reporting the same in writing, Company will have the liberty to carry out the said work through any other means at the cost & risk of the Vendor. Such expenditure shall be recovered from the Retention Money or any other amount due to the Vendor in this or any other contract. The Defects Liability Period shall be extended for as long as defects remain to be corrected.

4.12.6 While carrying out the rectification work, Vendor should ensure that the surroundings should be protected against any possible damage. In case of any damage, the same should be made good by the contractor at his cost.

4.13 Representation and Warranties

4.13.1 Vendor shall be required to comply with statutory and regulatory requirements as imposed by various statutes, labour laws such as (a) Contract Labour (Regulation Abolition) Act, 1970, (b) Apprentice Act, 1961, (c) Minimum Wages Act, 1948, (d) Employees' Provident Fund and Miscellaneous Provisions Act, 1952; (e) Employees State Insurance Act, 1948, (f) Minimum wages according to the rates notified and/or revised by the State Government from time to time under the Minimum Wages Act, 1948; (g) Safety and welfare standards as per the provisions of the Building and other Constructions applicable in Chandigarh; etc., local body rules, state and central Government Body statutes, and any other regulatory requirements applicable on the Vendor, and shall produce the same for records of ECGC Limited and

/ or its Auditors and / or its regulator on demand. If he fails to do so, the Company may at its discretion, take necessary measures over the Vendor and appropriate the amounts against the invoices of the Vendor. The Vendor shall also make himself liable for any pecuniary liabilities arising out on account of any violation of the provision of the said Act(s).

4.13.2 Vendor shall be required to obtain valid Registration Certificate & Labour License from respective Regional Labour Offices where construction work by them is proposed to be carried out.

4.13.3 The Vendor shall give all notices required by said act, rules, regulations and Byelaws etc. and pay all fees payable to such authorities for execution of the work involved. The cost, if any, shall be deemed to have been included in his quoted rates, taking into account all liabilities for licenses, fees for footpath encroachment and restorations etc. He shall indemnify the Company against such liabilities and shall defend all actions arising from such claims or liabilities.

4.13.4 The Vendor shall employ “A” grade Licence holder Electrical contractor to complete the electrical work in the scope of the tender.

4.13.5 The Vendor shall comply with the Company’s internal guidelines, instructions, manuals, scrutiny lists, procedures, further specifics and requirements (“Guidelines”) in relation to the Services, as may be provided in writing by the Company to the Service Provider. However, in the event there is a conflict between the guidelines and the terms set out in the Tender, the terms set out in the Tender shall prevail.

4.14 Termination

4.14.1 The Company may terminate all or any part of the Contract at any time during the term without assigning any reason, by giving 15 (fifteen) days prior written notice to the Vendor. In the event of termination, Company's liability shall be to the extent of the work already rendered by the Vendor and availed by Company under this Contract. In case the contract is terminated by the Company on account of any breaches committed by the Vendor in breach of its obligations under the Contract,

the company may invoke the PBG given by the Vendor.

- 4.14.2 Any notice correspondence etc. issued to the authorized representative or left at his address, will be deemed to have been issued to the Vendor.

4.15 Entire Agreement

It is expressly agreed between the parties that the bid received from the Vendor along with its annexures, Tender Award Letter, Notice for Tender Document, any addendum or corrigendum issued thereafter and the completed Annexures thereto constitutes the Entire Agreement between the Parties.

4.16 Confidentiality

The Vendor and/or its personnel shall keep confidential at all times any/all information that is shared by the Company or Architect or has come to their knowledge during the performance of Services under the Contract.

4.17 Intellectual Property Law

- 4.17.1 All the manuals, guidelines, documents, drawings etc. provided by company shall be treated as existing intellectual property rights of the Company therein shall continue to vest with the Company. Any royalties or patents or the charges for the use of such intellectual property that may be involved in the contract shall be included in the price.
- 4.17.2 As per prevailing Government Notification, the Contractor will have to submit the receipt of payment of royalty to the Government for use of sand, stone materials, laterite, moorum, gravel, earth etc. to the Architect before preparation of bill for payment, when they collect the materials directly from the source. If they collect the materials from the authorized quarry holder or commercials establishment who directly or indirectly pay the royalty to the Government, necessary certificate or cash memo for sale in that respect from them shall have to be produced to the Architect failing which necessary deduction from the dues of the contractor may be made as fixed by the Architect in consultation with the Company.
- 4.17.3 The Contractor shall save, protect and indemnify ECGC from and against all claims, demands, suit and proceedings for and/or an account of infringement of any patent rights, design, trade mark of name of other protected right in respect of any constructional plant, machine, work,

materials, thing or process used for or in connection with works or temporary works or any of them.

4.18 Relationship between Company and Vendor

The relationship between Company and Vendor is solely that of an independent contractor and the relationship is on a principal-to-principal basis. Nothing in this Agreement shall constitute the Parties as partners, joint ventures, or co-owners, or constitute either Party as the agent, employee or representative of the other, or empower either Party to act for, bind or otherwise create or assume any obligation on behalf of the other, and neither Party shall hold itself out as having authority to do the same.

4.19 WAIVER

Any modification to the terms and conditions can be made only in writing and signed by parties hereto. Any failure or delay by the Company to enforce any provision or right available to it under this Agreement shall not be deemed to be a waiver of such provision or right and shall not preclude the Company from exercising the same subsequently.

4.20 Survival

The termination of the Contract shall not affect the rights of and or obligations of the Vendor which arose prior to the termination.

4.21 Force Majeure

4.21.1. Notwithstanding the provisions of Contract, the Vendor shall not be liable for, liquidated damages, or termination for default, if and to the extent, that, the delay in performance, or other failure to perform its obligations under the Contract, is the result of an event of Force Majeure.

4.21.2. For purposes of this clause, "Force Majeure" means an event beyond the control of the Vendor and not involving the Vendor's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Company in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

4.21.3. If a Force Majeure situation arises, the Vendor shall promptly notify the Company in writing of such condition and the cause thereof.

Unless otherwise directed by the Company in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

4.22 Governing Law and Jurisdiction

The Courts in Chandigarh, shall alone have jurisdiction for the purposes of adjudication of any dispute of differences whatsoever in respect of or relating to or arising out of or in any way touching the works awarded or the terms and conditions of the Contract.

SECTION – 5**ANNEXURE – A****ELIGIBILITY /TECHNICAL/ PRE-QUALIFICATION BID**

Sr No	Description	Details
1	Name of the Company/ Firm/ Individual	
2	Legal Status (eg. Proprietorship, Partnership, Limited Liability Partnership, Company etc.	<Certified copy of the Certificate of Incorporation of Company issued by the Registrar of Companies / Partnership Deed etc. to be attached>
3	Registered Physical Address	
4	Correspondence Address	
5	Business profile of the company/firm (attach a separate write-up or brochure regarding business activities of the company/firm)	
6	Date of incorporation	
7	Board of Directors/ Management/ Promoters/ Partners/ Proprietor	(i)
		(ii)
		(iii)
		(iv)
		(v)
8	Contact Person Details (Name, Landline and mobile Number, e-mail id)	
9	E-mail id of the bidder,	
10	PAN of the bidder	<copy required>
11	TIN of the bidder	<copy required>
12	GST Registration No.	<copy required>

13	Work experience in similar nature of work in terms of Clause 3.3 (a) (i) & (ii) of NIT	< Evidences in form or work completion certificates should be provided along with the bid >
14	Annual turnover for the last five financial years	< IT returns acknowledgments and / or Audited Financial Statements / statements certified by Chartered Accountants to be provided for last five financial years ending on 31.03.2022.
15	Power of Attorney/authorization for signing the bid documents	
16	The Bidder should not have been blacklisted / barred / disqualified by any Govt. Financial Institutions / Banks / Government / Semi-Government departments/ regulator / statutory body/ judicial or any other authority in India.	< A self-declaration by the Bidder on its letter head >
17	The Bidder's Firm should not be owned or controlled by any Director or Employee of ECGC Ltd.	< A self-declaration by the Bidder on its letter head >
18	Projects taken up and completed during last 5 years	Details
19	Any project not completed due to any reason in last 5 years	Details
20	Ongoing projects	Number: Value:

		Details: Start date: Name of party/entity: Nature of Work:
21	Any penalty imposed for delay or no-completion in past 5 years	Details
22	Status of ongoing/ completed litigation & arbitration related to projects	Details

.....

Signature of the authorized Signatory of Company/Firm/ Individual
(Company Seal)

Name:

Date: Designation:

Contact No (Mobile)Fax No.:

Email Id

ANNEXURE-B

ANNUAL TURNOVERS FOR THE LAST FIVE FINANCIAL YEARS

Furnish certified copies of audited balance sheet and profit & loss account (audited) for the last five preceding years-

S.No.	Financial Year	Turnover from renovation and repairing work [Rs in Lakhs]	Turnover from all other sources (Rs in Lakhs)	Remarks
1	2017-18			
2	2018-19			
3	2019-20			
4	2020-21			
5	2021-22			

Note:

1. Please attach certified copies of the latest Income Tax, Balance Sheet and Profit & Loss account statement to support the information furnished, failing which your firm shall be summarily disqualified.
2. Where copies are required to be furnished, the same are to be self-certified.
3. Please attach Certificate of financial soundness of your firm issued by Bank
4. Additional sheets may be used for providing information and the same shall be signed and stamped by the Bidder.

SIGNATURE OF THE BIDDER WITH SEAL

DATE:

ANNEXURE-C**EXPERIENCE PROFILE DETAILS OF SIMILAR WORKS AND ALL
WORKS COMPLETED IN LAST FIVE YEARS**

S. No.	Descrip tion of the Work	Name and address of the Tenderer	Contra ct No. and date	Date of award of work	Stipulat ed date of comple tion	Actual date of comple tion	Value of comple ted work (in Lakhs)	Penal ty if any	Work completion certificate enclosed
1.									
2.									
3.									

NOTE:

- i. Contractor must enclose the work completion letter or certificate issued by competent authority of tenderee of earlier works. Any other letter such as work order copies, running bill advises, architect's letters etc. shall not be accepted as proof of having completed the works.
- ii. Additional sheets may be used for providing information and the same shall be signed and stamped by the Tenderer.

SIGNATURE OF THE BIDDER WITH SEAL AND DATE:

ANNEXURE – D

BANK DETAILS OF THE BIDDER

Sr No	Description	Details
1	Name of the Bank	
2	Address of the Bank	
3	Bank Branch IFSC Code	
4	Bank Account Number	
5	Type of Account	

.....

Signature of the authorized Signatory of Company/Firm/Proprietor (Company Seal)

Name : Designation :

Contact No (Mobile)

Email Id

ANNEXURE – E

ACKNOWLEDGEMENT

To,
ECGC Ltd.,
Chandigarh Branch,
PHD Chambers (House), 1st Floor,
Sector-31 A, Chandigarh-160031.

Dear Sir/Madam,

**SUBJECT: RESPONSE TO THE REQUEST FOR PROPOSAL FOR
“OFFICEINTERIOR FURNISHING, ELECTRICAL, HEATING VENTILATION
& AIR CONDITIONING (HVAC) AND ALLIED CIVIL WORKS”, AT ECGC
LTD, 1st Floor, W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial Area,
Phase-1, Chandigarh-160002**

Having examined the Request for Proposal Document including Annexures, the receipt of which is hereby duly acknowledged, we, the undersigned offer to provide services in accordance with the scope of work as stated in the Tender Document within the cost stated in the Bid.

- (1) If our Bid is accepted, we undertake to abide by all terms and conditions of this Tender.
- (2) We certify that we have provided all the information requested by ECGC in the requested format. We also understand that ECGC has the right to reject this Bid if ECGC finds that the required information is not provided or is provided in a different format not suitable for evaluation process for any other reason as it deems fit. ECGC's decision shall be final and binding on us.
- (3) We agree that ECGC reserves the right to amend, rescind or reissue this Tender Document and all amendments any time during the tendering.
- (4) We agree that we have no objection with any of the clauses and bidding

process of this Tender Document.

.....

Signature of the authorized Signatory of Company/firm/Proprietor(Company Seal)

Name: Designation:

Contact No (Mobile):

Email ID:

ANNEXURE-F

FORMAT FOR LETTER OF AUTHORIZATION

(To be submitted on the Bidder's letter head)

To

ECGC Limited,
Chandigarh Branch,
PHD Chambers (House),
1st Floor, Sector-31 A,
Chandigarh-160031

Letter of Authorization for Attending Bid Opening for Tender

Any one of the following persons is hereby authorized to attend the bid opening on _____(date) in the tender for work: **“OFFICE INTERIOR FURNISHING, ELECTRICAL, HEATING VENTILATION & AIR CONDITIONING (HVAC) AND ALLIED CIVIL WORKS”**, at the following address: ECGC Ltd., ECGC Ltd., Chandigarh Branch, PHD Chambers (House), 1st Floor, Sector-31 A, Chandigarh-160031 mentioned on behalf of M/s.____ (Name of the Bidder) in the order of preference given below:

Order of Preference Name Designation Specimen Signature

I

II

(Authorized Signatory of the Bidder)

Date_____

(Company Seal)

1. Maximum of one person can be authorized for attending the bid opening.
2. Permission for entry to the hall where bids are opened may be refused in case authorization as prescribed above is not submitted or for any other exigency.

ANNEXURE G

AFFIDAVIT

(To be furnished in Non – Judicial Stamp paper of appropriate value duly notarized)

1. I, _____ the undersigned do certify that all the statements made in the attached documents for the work **“OFFICE INTERIOR FURNISHING, ELECTRICAL, HEATING VENTILATION & AIR CONDITIONING (HVAC) AND ALLIED CIVIL WORKS”**, at ECGC LTD, Chandigarh Branch, 1st Floor, W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial Area, Phase-1, Chandigarh-160002 are true and correct. In case of any information submitted proved to be false or concealed, the application may be rejected and no objection / claim will be raised by the under-signed.
2. The under-signed also hereby certifies that neither our firm/partners nor any of constituent partners have been debarred to participate in tender by ECGC LTD. or any other body during the last 5 (five) years prior to the date of this NIT.
3. The under-signed would authorize and request any Bank, person, Firm or Company to furnish pertinent information as deemed necessary and / or as requested by the company to verify this statement.
4. The under-signed understands that further qualifying information may be requested and agrees to furnish any such information at the request of the Authority.
5. Certified that I have applied in the tender in the capacity of individual / as a partner of a firm & I have not applied severally for the same tender.
6. I/ We hereby agree and undertake that we have not directly or through any other person or firm offered, promised or given nor shall we offer, promise

or give, to any employee of ECGC involved in the processing and/or approval of our proposal/ offer/ bid/ tender/ contract or to any third person any material or any other benefit which he/she is not legally entitled to, in order to obtain in exchange advantage of any kind whatsoever, before or during or after the processing and/or approval of our proposal/offer/bid/tender/contract.

Signature of the declarant identified by me

Signature of Advocate

Seal & Signature of Notary

ANNEXURE –H

SPECIFICATIONS

S.NO	DESCRIPTION		PAGE NO
1	PART-A	INTERIOR FURNISHING	58-73
2	PART-B	ELECTRICAL	74-83
3	PART-C	HVAC	84-90

BILL OF QUANTITY

S.NO	DESCRIPTION		PAGE NO.
1	PART-A	INTERIOR FURNISHING	91-111
2	PART-B	ELECTRICAL	112-120
3	PART-C	HVAC	121-123
4	PART-D	SUMMARY-A + B + C	124-125

SPECIFICATIONS – PART A

INTERIOR FURNISHING

1. GENERAL DATA

GENERAL

The work under this tender shall be executed strictly in accordance with constructional and material requirements defined under these specifications. The contractor shall carefully acquaint himself with these specifications to determine his contractual obligations for work. Architect instruction shall be binding over and above specification described in BOQ, in writing only with CC to Owner.

DRAWINGS/DIMENSIONS PROCEDURE

Figured dimension on drawings shall supersede measurements by scale and drawings to a large scale take precedence over these to a smaller scale. Dimensions or directions in the specifications shall be checked on site. The dimensions where stated do not allow for wastage, laps, joints etc. The levels, measurements and other information concerning the existing site as shown on the drawings are responsibility of bidder, shall verify them for himself and examine the nature of the ground, conduct procedure & coordinated from electrical, HVAC and fire BOQ items.

Procedure for coordination is, creating mockup sample and all trades work men shall install items, shall conduct operational coordination, physical execution satisfaction in accordance to drawing, or modification suggested from feedback from team at work, shall be understood consented by all trade work men. Drawing shall be kept permanently displayed at site, with necessary pictures. Marking leveling and dimensions permanently marked at site. Owner and Architect representative have discretion to observe witness coordinated team work for up to mark work progress, take note and pictures for record.

For items which are many in count, or designs that are repeated multiple sites, one true unit sample set at site with manufactures test certificate and again tested for workmanship and specification at site, during procedure. by bidder, not test certificate shall issue by Owner/architect. Owner and Architect representative have discretion to observe witness coordinated teamwork for up to mark work progress, take note and pictures for record

CO-ORDINATION OF DRAWINGS

Before commencement of work, the contractor shall correlate all relevant structural, architectural, and service drawings and satisfy himself that the information available there from is complete and unambiguous.

Any discrepancy shall be brought to notice for timely rectifications for architect response if any, that may take up to 15 days. Communication shall be done in advance, no time extension is available to contractor in this response time and shall not be entertained as hindrance.

The contractor shall be responsible for any error/difficulty in execution/damage incurred owing to any discrepancy in the drawings which has been overlooked by him and has not been brought to the notice of the Project Manager/Architect before execution.

B.I.S. CODES OF PRACTICE

Wherever any reference is made in the specifications to any Bureau of Indian Standards (B.I.S.) or Indian Standards (I.S.) Code of practice, it shall be understood to indicate the latest version of the code of practice in usage all the time of construction. All civil and structural work shall carry out as per latest C.P.W.D. specification for material and workmanship unless specified otherwise.

SETTING OUT

The CONTRACTOR shall be responsible for the true and proper setting out of the work in relation to original points, lines, and levels of reference and for the correctness of the levels, dimensions, and alignment of all part of the work and for the provision of all necessary instruments, appliances and labor in connections therewith. If any time during the progress of the work any error appears or arises in the position of levels, dimensions, or alignment of any part of work the contractor on being required to make good shall at his own expenses rectify such errors to the satisfaction of the Architect. The checking of any line or level by the Architect shall not in any way relieve the contractor of his responsibilities.

The contractor shall provide all required setting out pillars and one or more permanent benchmarks in some place before the start of the work, from which all important center

lines and levels for excavations will be set. The contractor shall provide all labor and material for setting out at his own cost.

The setting out pillars & permanent benchmarks shall consist of masonry pillars with top neatly plastered and horizontal as per the approval of Architect. Benchmarks shall be well connected with GTS, or any other benchmarks approved by Architect.

2.0 CIVIL WORKS:

- i) All work shall be done strictly according to the items described in the schedule of quantities & rates and as per latest applicable CPWD specifications or latest BIS Codes. In the event of any item not finding a place in C.P.W.D. specification or in BIS codes, the matter will be referred to the Architect for decision. The decision of Architect shall be final regarding the specifications to be adopted. All Standards, codes, Technical Specifications, Codes of Practice referred to shall be of the latest editions including all applicable official amendments and revisions whether such reference has been made or not.
- ii) Testing of materials / works shall be carried out as per latest CPWD specification / BIS codes from approved test laboratory. The contractor shall carry out all such tests at his own cost & time. The nos. of samples to be submitted for testing and the frequency of testing shall be as specified in the specifications / standards or codes.
- iii) All the works shall be carried out in accordance with drawings, specifications, description of item in schedule of quantities or as per the direction of ARCHITECT to his full satisfaction. If the substitution of any approved / specified material and make, due to its non – availability, with an alternative one, becomes necessary, the agency must get specific approval of the same before placing order for purchase of materials.
- iv) Providing and operating necessary measuring and testing devices and materials are included in the Contractor's scope of work. The quoted price shall be inclusive of the cost of all such tests, which are required to ensure achievement of specified quality. No separate payment for testing shall be made.
- v) All finished work must be truly vertical & horizontal or in any other plane as specified. The rates quoted by the agency must include the cost for taking necessary measures to achieve it.

- vi) Any scaffolding used shall be of double vertical supports and no portion of scaffolding shall touch the wall surface.
- vii) The workmanship is to be the best available and of a high standard. Use must be made of special trades men in all aspects of the work and allowance must be made in the rates for so doing. Contractor shall maintain uniform quality and consistency in workmanship throughout.
- viii) Any work not conforming to specifications or workmanship shall be rejected and the same shall be rectified or removed and replaced with work of the required standard of workmanship at no extra cost to the employer.
- ix) Rates quoted for the items shall be valid for carrying out the item of work at any and / or all floor heights.

INTERIOR WORK

3.0 FULL BODY VITIFIED / GLAZED/CERAMIC TILE AT FLOOR/ DADO

The samples of tiles/ slabs to be submitted to the Architect for approval. Final decision will be based on the decision of the Architect /engineer or authorized official. For floor tiles, all edges to be sorted for straight edges before lying. Tiles will be laid after approval from the Architect. Joints for all flooring to run in a straight line and should not exceed 1.5mm for stones and 1mm for tiles and should be filled with laticrete epoxy grouting of approved shade to the full depth. water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness. Rate shall include soaking the tiles in water for at least two hours before lying. Curing, cleaning the surface.

For wall tiles: The tiles shall be uniform size and color conforming to IS : 15622 . The rear face of the tiles shall be grooved and/or recessed to provide an adequate key for the plaster. The tiles shall be laid true and plumb over a cement screed 15mm thick composed of 1 part cement and 3 parts coarse sand. Before laying the tiles, the plaster shall be allowed to harden and then roughened with wire brushes. The back of the tiles shall be buttered with a coat of gray cement slurry and set in the bedding mortar. The tiles shall be firmly set in the mortar bedding and tamped and corrected to proper plane and lines. The joints shall be tight, regular, and uniform and shall be as fine as possible and finished neat in pigmented horizontal to form required pattern.

After lying, the tiles shall be thoroughly washed and clean to the satisfaction of the Architect.

4.0 WALL PANELLING

4.1 MATERIAL

Material received at site shall be of approved quantity and with marking. Without approval no material shall be ordered. Received material shall be handled with due care to protect against any harmful loading, unloading shifting, storing. Place of stone shall be well ventilated, dry and covered to prevent damping and moisture contamination.

4.1.1 Timber

The timber shall be of the best of its kind available, properly seasoned and of mature growth. It shall be free from decay and insect attack, saps, warps, cracks, knots & knot holes and any other defects which may affect the looks or harm the strength of the member. All the timber shall be seasoned as per CPWD Specifications.

4.1.2 Plywood

- (i) Unless otherwise stated, only BWR / BWP grade plywood boards shall be used. Plywood shall comply with standards and specifications. Face veneers may be either commercial or decorative on both sides or one side commercial and the other decorative. Type of face veneer and grade of plywood boards shall be, as specified.
- (ii) CROSS GRAIN/ LONG GRAIN FLEXIPLY: - Shall have flexibility and high bending quality. It can be cold formed to curved surface requirements. Made of gurjan species, exclusively with phenolic resin and conditioned to undergo any sort of rigorous climatic changes such as alternate wetting and drying. Shall not require any external heat or water sprays which are the conventional for post forming.
- (iii) ELASTICITY: - Cross grain 200N/mm²
- (iv) DENSITY: - 0.75gm/cc
- (v) BENDING RADIUS: -

6mm	10mm diameter
8mm	12mm diameter

12mm	30mm diameter
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4.1.3 Block boards:

All Block boards and formed boards shall be of specified thickness, uniform in colour texture, finish. They shall comply to IS code and shall bear IS marking. They shall be pressed with exterior quality phenol formaldehyde resin in hot press. Unless otherwise stated, grade I (Exterior grade) block board shall be used for construction. Face veneers shall be commercial on both faces.

4.1.4 MDF Boards

- (i) MDF of exterior grade with no VOC content shall be used. All MDF board where specified shall be Phenol Formaldehyde bonded and generally conform to IS code and shall bear IS marking.
- (ii) MDF Boards shall not be used in wet areas such as toilets, bathrooms etc. and location subject to direct water. At every joint of the cladding an expansion gap of 3mm to 6mm should be provided.

4.1.5 Laminate Sheets

Laminate shall be of the brand, catalogue surface finish, colour as specified and approved by the Architect. All laminates shall be in finish as per design intent unless mentioned otherwise. Laminates shall comply with standards and specifications.

4.1.6 All fittings and fixtures shall be as specified in Schedule of Items or on drawing by Architect. Approved makes only shall be used for respective items. Fittings shall be guaranteed by the manufacturer for its performance.

4.1.7 Adhesives and glue shall be as per IS for exterior quality and water repellent.

4.1.8 Fabric shall be of approved make and shade and fixed with approved adhesive as specified by Architect. Wall fabric shall achieve Class 1 surface spread of flame.

4.1.9 Fasteners: All fixing anchor, bolts, screws, nuts, washers or other miscellaneous anchoring/ fixing devices shall be of nonmagnetic stainless steel and approved by Architect and shall provide adequate strength.

4.1.10 High Pressure Laminate (HPL) / compact laminate Panels

Compact Laminate shall be as per IS 2046 (Indian Standard) and as per fire retardant BS-476/97 standard. The solid compact laminate (Phenolic Core Board) shall be based on thermostatic resin, homogeneously reinforced with cellulose fiber and laminate on both side with suede finish, scratch and impact resistant, to achieve the cubicles dimensions joint-less partitions.

1 mm thk BRTISH BUFF / stone laminate laminate of Marino / Greenlam approved colour, make as approved, glued with approved phenol formaldehyde based adhesive or approved equivalent overlaying on substrate without any gap/air bubbles pressed uniformly to line level and plumb, item complete with all edge lipping with water based PU TW lipping mounted flush to surface as per detailed drawings and Architects recommendations: all accessories, fixing implements , men material and lift upto 6 mtrs. Finished complete with all necessary masking with avg. mim 10mm wide masking tape before applying polish to edge lipping and getting mock up approved by Architect /Engineer in charge. Item to include protecting finished item by avg. 20 microns thk polythene sheet till handover of facility complete

The cubicle system will be equipped with heat and bacteria resistance. The modular cubicle shall possess 100% resistant properties towards: Water, chemical, impact.

Following criteria shall be involved in selection of compact laminate

- a) No solvent are used in production
- b) No heavy materials are used.
- c) The energy requirements during curing are extremely low.
- d) Recycling is possible.
- e) More than 60% of raw materials are renewable.
- f) The durability of the product ensures the performance of the composite throughout its entire life cycle.

5. PLYWOOD

Plywood to be used shall be grade BWR, i.e., it shall have bounded with BWR (Boiling Water Proof) type synthetic resin adhesive shall be equal or superior quality that is laid down in IS: 303-1960.

The veneers for all grades shall be either rotary cut or sliced. The Veneers shall be sufficiently smooth to permit even spread of glue. The thickness of all veneers shall be uniform, within a tolerance 5%, corresponding veneers on either side of center one shall be of the same thickness and species. The requirement of thickness of the face and core veneers shall be as follows:

In 3 ply board up to 5 mm thick, the combined thickness of the face veneers shall not exceed twice the thickness of the center ply.

In a multiply boards, the thickness of any veneers shall not more than thrice the thickness of any other veneers.

The sum of the thickness of the veneers in one direction shall approx. To the sum of the thickness of the veneers at right angles to them and shall not be greater than 1-5 times this sum except for 3-ply as specified in (a).

6. FLUSH DOORS

All flush doors shall be solid core type with well-seasoned block board core. The entire bonding shall be in highly water-resistant type liquid phenol Formaldehyde Synthetic Resin Adhesives of the hot-pressed type. Teak wood 12 mm thick lapping all rounds had to be provide and should be included in the rates. Both the faces shall be commercial hardwood type ready for lamination or painting.

i. ADHESIVES

Adhesive shall be Phenol Formaldehyde Synthetic resin conforming to B.W.P. (Boiling Waterproof) type specified in IS: 848-1974. Only synthetic resin adhesive shall be used for bonding cores members to one another, including core frame, and for lapping, glazing frame, Venetian frame, and other exposed parts where such binding is done.

ii. NAILS, SPIKES, SCREWS & BOLTS

Nails, spikes, and bolts shall be of the best quality mild steel or length and of length and weight approved by the Architect. Nails shall comply with IS:1959 -1960 or equivalent approved quality samples. Brass headed mails are to comply with B.S.1210. Wire staplers shall comply with B.S.1494 or equivalent.

iii. WORKMANSHIP

All carpenter's work shall be done by skilled workmen using proper tools. All joints shall as far as possible, be mortised and tenoned and glued with best quality approved waterproof glue. Where mortise tenon joints are not possible, the joints shall be securely nailed with the longest nails that may be used without splitting the wood. Whenever it is necessary or an adequate joint cannot be formed by nailing, the members shall be lapped or jointed by GI straps or extra wood blocks. All joints shall be done with neatness and as approved and directed by the Architect.

7. PARTITIONS AND CABINET WORK

General: Partitions, cabinets, etc. shall be fabricated and workshop as far as practicable and then brought inside the building ready to set in place. The various members shall be worked in the best manner known to the trade, mortised and tenoned, doweled, blocked, and glued together to avoid the use of nails as far as possible. The details shall be closely followed, molding clearly cut and miters accurately made. Free edge of shutters, Shelves, partitions, sides etc. shall be provided with first class teakwood edging pvc edge tape as mentioned in individual item, glued and nailed in approved manner. Shelves, where shown fixed, shall be supported on aluminum or other cleats or in other manner as approved by the Architect. Adjustable shelves shall brass sockets and pins as detailed on drawings. Drawer bottoms shall be of 6 mm commercial ply, unless otherwise mentioned. Drawer front, sides and back shall be as mentioned in item. The drawers shall slide on Soft closer telescopic channel as shown in drawing.

Timber skirting where called for shall be of first class Burma teakwood, cut to required sizes, Planed smooth on visible faces and fixed in position in approved manner. Cut-outs, opening, etc. shall be provided in the counters and cabinets to accommodate sinks, wash basins, cooking, ranges, pipes, etc. as shown on drawings as required at site.

7.1 69 mm thick Everest drywall partition system, which include "Everest Steel" G.I framework (180GSM Galvanizing; 345 Mpa Yield Strength), comprising of 51mm Floor and Ceiling track profile, 0.5mm thick, having two equal flanges of 32mm, fixed to the floor and ceiling, in plumb with each other, with sleeves and screws at 610mm; Vertical G.I studs of size 51mm, 0.5mm thick, having one flange of 42mm and another flange of 44mm and two equal lips of 5mm insert fixed into the track profiles at 610mm centers.

9mm Everest Heavy Duty Fibre Cement board (Confirming to IS 14862; Type - B) are screw fixed to the either side of the framework with 25mm drywall screws, respectively, at 300 mm centers. Glass wool of 48kg/m³ density and 50mm thickness will be placed in between the cavity of frame.

Jointing and Finishing: Finally edges of the board are to be jointed and finished so as to have a flush look which includes filling and finishing with Everest compound of std. make with Self adhesive Fiber glass mesh tape

7.2. WPC (wood polymer composite)

Amer Profile panels of wood polymer composite panel of size i.e. 213 mm wide and 21 mm total thickness and length 2500 mm as shown in drawings. The color and pattern of the WPC panels shall be (wenge dark brown wood color) or approved by architect. The reputed brands for WPC shall be its color appearance, thickness, width and length, falling mass impact resistance, heat Reversion etc. These panels shall be fixed with aluminum sections of size 25mmx37.5 mm filled with wooden packing to hold screws and then fixed to the main structure members. Complete in all respect as approved by architect and engineer in charge.

7.3 Glass partition

Glass partition of 10mm Toughened Glass using slim line System-45 Frames clip in profile to a height of maximum 3m or as per drawing. The Fixed glass to be fixed using BP45 Profiles at Top & Bottom & fixed frame cleat. The profile size to be 45x20MM to be fixed on to the floor/ ceiling as per the architect design. H Junction profile to be used at all Glass to Glass vertical joints, 90 Deg L Junction Profiles and T Junction profiles necessary as per design. In case of Glass overall panel MP45 & BP45 Over panel Profile to be used. The EPDM rubber shall be used for fixing glass of 10 mm. The Profile shall be matt natural anodized, the Profile Manufacturer to supply all the necessary clips, seals and fixing accessories for the system. All Profiles to be with 2 mm Gauge thickness Excluding 20 Micron of Anodizing.

Paint

Vapour Permeable, superior Lime finish for Interior, formulated by Pure Lime Plaster. After cleaning of surface and removing any loose or flaking materials, apply two coats of **Stucco Grassilo**; Lime Plaster based finish on one coat of quartz primer mixed with sealer of approved shade to achieve desired finish, excluding the cost of surface

preparation and scaffolding, applying by special trowel and appropriate tools, all complete.

Acrylic Emulsion Paint

100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives. New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm. (on ceiling and wall)

SPECIAL NOTES

1. All laminate shall be 1.0mm thick. on vertical surfaces & 1.5mm thick. On horizontal surfaces unless otherwise specified.
2. All hardware like multipurpose locks, hinges, handles, magnetic catches etc. shall be used only after written approval of samples.
3. Rates of all furniture items including three coats of synthetic enamel paint/sprit polish etc. as specified in the BOQ.
4. Each cabinet shall be powder coated handle, Godrej, lock/spring loaded hinges brass ball catches and shutter to be fixed using hinges of approval quality.
5. Wherever not specified all exposed surfaces of partition and other woodwork shall be finished with three coats of synthetic enamel paint/polish in natural shade as applicable. Nothing extra shall be paid for the same.

8. FALSE CEILING ITEMS

i.Plain Gypsum board False Ceiling

False ceilings make the ceiling level look clean and defined. They are economical and improve the look of the room / area and cover up all the exposed and unpleasant looking wires, cables and pipes while providing support to lighting arrangement. They absorb sounds and generally have fire- resisting properties.

Being lightweight they are easy & quick to install, have light reflectance, sound absorption, thermal insulation properties.

- ii. **Material** 12.5 mm thick. Gypsum plaster boards, galvanized iron framing, cleats and steel expansion fasteners, jointing tape.

iii. GENERAL NOTES FOR FALSE CEILING WORK:

- iv. The false ceiling design can be stepped/ curved/architectural design etc however only plane / horizontal surface shall be measured for the purpose of payment. The same shall include gypsum verticals, coves etc. to be provided as per design.
- v. Existing floor to slab height on the site shall vary from 3.00mtrs .to3.2 mtr. Ceiling shall be hung from the existing slab through hanger's/ channels. Rate quoted in the tender shall be applicable for all floor levels/ all floor height including scaffolding, etc complete. The rate of false ceiling items also includes 6mmply backing for supporting light fixtures in the false ceiling and shall not be charged separately.
- vi. All GI steel to be marked with "GYPSTEEL" which is as tandar dhologram of India gypsum.

All Board to be marked with " GYPSTEEL" which is as tandar dhologram of India gypsum.

vii. Gypsum False Ceiling:

Plain gypsum board MR/FR grade ceiling: 12 mm thick Plain gypsum MR/FR grade false ceiling Suspension (considering all levels with require all fabrication work and fitting from RCC slab to false ceiling level & The rate shall be considered in sqm for all floors and at all heights ,offsets whether cove light or fixed gypsum boards size upto 100 mm to 1200 mm in the false ceilings including all costs) .Work complete as per the manufacturers specification of Saint Gobain or approved make- M/F Suspended Ceiling 1 hour fire rated.

Providing and fixing Suspended ceiling using Gypsum or equivalent of Ultra G. I. Perimeter Channels of size 0.55mm thick having one flange of 20mm and another flange of 30mm and web 27mm along with perimeter of ceiling ,screw fix ed to brick wall/ partitions with the help of nylon sleeves and screws, at min. 600 mm centers. Then suspending G. I. intermediate channel of size 45mm, 0.9mm thick with two flanges of 15mm each from the soffit at 1220mm centers with ceiling angle of width 25mm x 10mm x 0.55mm thick fixed to soffit with G.I. cleat and steel expansion fasteners .Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two flanges of 26mm each with lips of 10.5mm are then fixed to intermediate channel with the help of connecting clip and in direction perpendicular to the intermediate channel at 457mm centers. 12mm gypsum MR/FR grade Board (conforming to IS2095

part 1 2011) is then screw fixed to ceiling section with 25mm dry walls Screwed at 230mm centers. Screw fixing is done mechanically either with screw driver or drilling machine with suitable attachment. Finally, the boards are to be jointed and finished so as to have a flush look which includes filling and finishing the edges of the boards with jointing compound, Joint paper tape.

Cutouts For light fittings, grill diffusers shall be made. Necessary cutting / providing openings in the ceiling for AC fixtures, grills, electrical fittings, or other utility services ,hatch openings etc. shall be provided by the Contractor and cost of making such modifications shall be included in the price. No separate charges for cutting / providing opening will be paid. Joints between the two-gypsum board, (Board placed staggered) gypsum board and wall will have suitable tape and finishes with plaster of Paris so as to have crack free joints.

The item includes providing and fixing trap door of size 600 X1200mm as per approved sample of Ceiling panels comprise of a powder-coated beaded steel frame with gypsum / ply wood board door. Each panel features a push-latch closing mechanism with door retaining safety cable & hook. Suspenders from ceiling to support the frame and trap door firmly along with necessary hilti fastener, cleats, screws, angles ,packing ,etc .complete work. Work complete including all type of tools, tackles, finishing etc. complete as per approved sample & instruction of Architect/Client/ PMC. sample mock shall be approved from Architect/Client.

viii. Vertical Linear Baffle Ceiling

Horizontal level suspended ceiling comprising of Vertical Linear Baffle Ceiling made out of Aluminum Extrusion in Aluminum alloy grade 6063 T5. The baffle blade shall be in size of 50x100x3600mm in powder coated to Wood grain/Plain finish (Red Oak, Cherry, Black & White)..The baffle shall be electro statically polyester powder coated to a coating thickness of 60-80 micron. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV –A Test for 1000hours as per ASTM G-154 – (Cycle – 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation within a manufacturing batch shall be delta E<1 using Excite/BYK Gardner instrument and gloss level 25±5 at 60° as per ASTM D523 (Not applicable of Wood Grain Shade). The baffle blade shall be suspended using Slotted U-profile of 20 x 30 x 3700mm (Thk-1.5mm) having slots in module of 25mm to keep baffles a tan on-center spacing in

multiples of 25mm. Longer lengths of Baffle to be connected by Baffle Joiner and the ends to be fixed with End caps. Baffles should have an on center.

9. LIST OF APPROVED MAKE:

S. No.	Item	Description
1	Full body Verified Tiles	Simpolo , Kajaria, Johnson or equivalent
2	Ceramic Tiles	Simpolo , Kajaria, Johnson or equivalent
3	Tile Adhesive	Latticrete , Unitile, Pidilite or equivalent
4	Cement: OPC 53 Grade	Shall be ordinary Portland cement 53 grade manufactured by JK Cement, A.C.C. Cement by Associated Cement Companies Ltd., Ambuja cement , Ultratech cement.
5	White Cement	j.K., Birla , or equivalent
6	Reinforcement Steel: Tmt-Fe-500	Tata Tmt, Tata Tiscon, Jindal, Sail, Sail, RATHI tore steel.
7	Structural Steel	Sail, Tisco, Ispat , Tata
8	Ready-Mix Concrete	Acc, Ultratech, Ns.
9	Screws / Nails & other accessories	GKW / Nettleford or equivalent
10	Water Proofing Compound	Cico, Dr. Fixit, Pidilite, Fosroc.
11	Polysulphide Sealant	Shall Be Pidiseal By M/S Pidilite Industries Ltd.
12	Hinges And Drawer Slide(Heavy duty telescopic channels)	Hettich /Ozone/ Haffle
13	Locks, Handles	Godrej, Dorset, Harrison Or Eq. Approved Architect.
14	Door Closers, Floor Springs, Hardware for main Glass doors (patch fittings)	Dorma / Euro/ Ozone / Enox / Doorset or equivalent

15	Aluminum section for partition	Jindal, Indial , Tata steel or equivalent
16	Plain/ Toughened Glass	Saint- Gobain , Indo Asahi , Modi , Trutuf or equivalent
17	Mirror	Saint Gobin, Jolly, Modi-Guard
18	Silicon	G E / Dow corning / Wacer
19	Window Hardware	Approved By Architect.
20	Paint , polish	Shall Be of First Quality Manufactured By :(Paints And Primers) Berger Paints, Asian Paints, Dulex Nerolac Paint
21	POP Punning and putty	Shall Be Gold Size Putty by Gyprock / India Gypsum / Birla , Asian paint
22	Expansion Bolts For Fixing	Shall Be Dash Fasteners Of Appropriate Size By Hilti Or M/S. DevAshish Trades Or Approved Eq. Chandigarh.
23	Flush Doors	Green Ply, Merino, Archid, Century, or equivalent
24	Laminates, Decorative Laminate	Marino, Sunmica, Greenlam, Archid.
25	Plywood, Block Board, MDF	Century, Greenlam, Green Ply, ArchidMarino or equivalent
26	Veneer	Green , Duro , Century or equivalent
27	Adhesive	Fevicol, Araldite, Anchor or equivalent
28	Solid Surfaces (Curion)	DUPOINT/HI-MAC/ STARON OR equivalent
29	False ceiling Gypsum Board	India Gypsum / Saint Gobin / Asia
30	False Ceilings: Grid (As Approved)	Armstrong/ AMF With Micro Look Edges or as approved.
31	GI Sections	India Gypsum / Saint Gobin / Jindal or

		equivalent
32	Rolling and vertical Blinds	RM, NL or equivalent
33	Heat Reflective Film and frosted film	Garware Or Approved Eq.
34	CP Fittings	Jaquar / Kohlar or equivalent
35	Sanitary Ware	Jaquar /Hindware / or equivalent
36	Sanitary Fittings	Jaquar /Hindware or equivalent
37	Stainless Steel Sink	Nirali, Nilkanth, Orient.
38	C.I.Pipe / RWP	Bengal Iron Corporation or equivalent ISI make Rif, Sif, Bis.
39	G.I. Pipe	Tata, Jindal, Zenith or equivalent
40	Cpvc pipe	Astral/Supreme or equivalent
41	C.I Brass La Pips	Electro Steel, Kesoram Or Approved Equilent.
42	U.P.V.C Pipe	Astral, Finolex, Prince, Supreme.Supreme Make (Is Type " B' Is 13592 Swr Range
43	Shuttering	Shall be Indian Plywood Manufacturing Co. Bombay or Swastik by Sudershan Plywood
44	Loft Tank	Syntax, Uniplast, Sheetal.
45	Hardware Fittings	Ecie, Sigma, Everite.
46	Wood Preservative	Wood Guard Or Approved Eq/Ici.
47	Furniture hardware	Central Locks Of Godrej/ Equivalent, Heavy Telescopic Channels Should Be Of Hettich or equivalent approved. All Hinges Should Be "Eco Mat Clip-On Hinges" Of Hettich or equivalent approved.
48	Hand Drier	Jaquar , Askon or equivalent
49	Refrigerator	Samsung, Whirlpool, Godrej With Ss Finish, Or As per approval
50	Microwave	LG, Samsung, Equivalent Make/Range.

SPECIFICATIONS – PART B

ELECTRICAL

1. Scope:

This specification is intended to cover the requirements of supply, installation, testing and commissioning of electrical wiring installation and other accessories required for its satisfactory operation. This covers the essential requirements or precautions regarding wiring installations for ensuring satisfactory and reliable service.

2. Standards:

The Electrical wiring installations and other accessories shall comply with latest IS: 732 - 1989 and National Electrical code - 1985.

3. Construction:

Wall mounted switch boards shall be installed such that the bottom is at a minimum height of 1.35 m above finished floor level wherever applicable, as indicated in the drawing.

Equipment which is on the front of a switch board shall be so arranged that inadvertent personnel contact with live parts is unlikely during the manipulation of switches, changing of fuses or similar operation.

In every case in which switches and fuses are fitted on the same pole, these fuses, shall be so arranged that the fuses are not live when their respective switches are in 'OFF' position.

No fuses other than fuses in instrument circuit shall be fixed on the back or behind a switch board panel or frame.

4. Capacity of circuit:

Lighting Circuits shall not have more than a total of ten points of fans, 5A socket outlets and light points and its total load shall not exceed 800 watts. Lights, fans, and 5A socket outlets can be wired on a single common circuit. If fan circuit is drawn separately, circuit shall not be used more than eight points and load shall not exceed more than 800 watts. In the circuit, the neutral and earth wires can be looped up to 10points. From distribution boards Neutral & Earth wires shall be run for every circuit.

The power circuits shall not have more than two outlets per circuit if load to be fed by

each outlet is less than 1KW, and if load is more than 2KW, each outlet shall be connected to a separate circuit.

Switches: All switches shall be placed in the live conductor of the circuit and no single pole switch or fuse shall be inserted in the earth or earthed neutral conductor of the circuits. Single pole switches (other than for multiple control) carrying not more than 15amperes may be of the piano flush type and the switch shall be 'ON' When the knob is down.

Lamp holders : Lamp holders for use on brackets and the like shall have not less than 1.3 cm nipple and all those for use with flexible pendant shall be provided with cord grips. All lamp holders shall be provided with shade carriers. Where centre contact Edison screw lamp holders are used, the outer or screw contact shall be connected to the 'middle wire' or the neutral or to the earthed conductor of the circuit.

Lamps: All incandescent lamps, unless otherwise specified shall be hung at a height of not less than 2.5 m above the finished floor level.

Ceiling rose: a) A ceiling rose or any other similar attachment shall not be used on circuit, the voltage of which normally exceeds 250 volts.

A ceiling rose shall not embody fuse terminals as an integral part of it.

Every socket outlet shall be controlled by a switch. The switch controlling the socket shall be on the 'live' side of side line. 5 Amps and 15 Amps socket-outlet shall normally be fixed at any convenient place 60 cm above the floor level or near such level as indicated in drawing. 15 Amps socket outlets in kitchen shall be fixed at convenient place 23cm above the working platform. In a room containing a fixed bath or shower, there shall be no socket outlet and there shall be no provision for connecting a portable appliance.

5.0 CONDUITS:

FRLS PVC CONDUIT

Conduits shall be heavy gauge rigid PVC of minimum thickness of 2mm.

Conduits shall be ISI marked confirming to IS: 9537 (Part-3)-1983. All conduit and conduit accessories shall be of PVC. Conduits shall be joined together by vinyl type cement / solvents. Minimum size of conduit shall be 25mm dia. Conduit shall be fixed on ceiling or wall. Exposed visible conduits shall be concealed in wall, ceiling etc. or hidden inside cabinets, or inside ceiling conduits shall be fixed on surface of wall with clamps at regular interval as called for elsewhere. For termination of PVC conduits into switch outlet boxes, PVC female adapters shall be used. Wherever conduit run exceeds 10-meter, circular junction boxes shall be provided to facilitate pulling & inspection of wires. Inspection boxes shall be located to have access and replacement of wires in future, in co-ordination with other installation, to the satisfaction of the Consultant Engineer-in-charge. Conduits shall be bend using suitable size springs. Long radius bends shall be provided. Heating shall not be used to bend the conduits. Size of conduit shall depend upon number and size of wires to be drawn.

6. Testing of wiring:

The following tests shall be carried out on all types of wiring on completion of the work & before energizing the installation:

- i) Insulation resistance test,
 - ii) Electrical continuity test,
 - iii) Earth continuity test,
 - iv) Earth electrode resistance test,
 - v) Switch polarity test.
- i) Insulation Resistance test :

The insulation resistance shall be measured by using 500 v megger between the following points.

Phase and neutral conductor with all fuses in position and all switches in closed condition and main switch in OFF position with lamps and other devices removed.

Between earth and whole system of conductors with all fuses in place, all switches closed and all lamps in position.

Between all conductors connected to one phase of the supply of the above tests shall not be less than 50 divided by the number of points on the circuit. Where a whole installation is being tested, a lower value than that given by the above formula is acceptable subject to a minimum of one mega ohm.

The insulation resistance in mega ohm as obtained by each of the above tests shall not be less than 50 divided by the number of points on the circuit. Where a whole installation is being tested, a lower value than that given by the above formula is acceptable subject to a minimum of one mega ohm.

(ii) Electrical continuity test :

Each and every circuit shall be tested for electrical continuity by using a multimeter.

(iii) Earth continuity test :

The earth continuity conductor including metal conduit shall be tested for electrical continuity and the resistance of the same along with the earthing lead measured from the connection with the earth electrode to any point in the earth continuity conductor in the complete installation shall not exceed one ohm.

iv) Earth electrode resistance test :

The earth electrode resistance shall be tested as specified in section

(v).Switch polarity test :

Test shall be made to verify that all switches in every circuit have been fitted in the same conductor throughout and such conductor shall be marked for connection to the phase conductor.

7. Distribution Boards :

All the distribution boards shall be with MCBs as described in the respective schedule.

The distribution boards shall be controlled by a switch fuse, miniature circuit breaker or an isolator as described in the respective schedule. Each outgoing circuit shall be provided either with MCB or a fuse on the phase. The neutral shall be connected to a

common link and be capable of being disconnected individually for testing purposes.

The distribution boards shall be located as indicated in the respective electrical working drawings and as directed by Engineer - in - charge. The distribution boards shall be fixed on wall in the niche provided and marked with the details of circuits, source of supply, size of incoming wires Etc.,

All marking shall be clear and legible.

The total load of the consuming devices shall be evenly distributed between the number of ways of distribution board.

The consuming devices circuit shall be connected to distribution board in proper sequence, so as to avoid unnecessary crossing of wires.

Cables shall be connected to a terminal only by crimped lugs.

Cables shall be rigidly fixed in such a manner that a clearance of at least 2.5cm is maintained between conductors of opposite polarity or phase and between the conductors and any material other than insulating material.

The incoming and outgoing cables shall be neatly bunched.

8. Fire extinguishers

This is one of the main and most important type of fire safety gadget which needs to be positioned at strategic locations. The Fire Extinguisher including all accessories shall be delivered and should be brand new. The contractor should also guarantee that all the components supplied by the contractor are licensed and legally obtained. The fire extinguishers procured must include comprehensive on-site warranty of -1- year for all type of fire extinguishers except modular automatic fire extinguishers which shall carry a warranty of -3- years from the date of installation and commissioning of the equipment. The Service Provider shall be fully responsible for the manufacturer's warranty in respect of proper design, quality and workmanship of all equipment's,

accessories, etc., covered by the offer.

The contractor must warrant all equipment's, accessories, spare parts etc., against any manufacturing defects during the warranty period. As per requirement of details all fire extinguisher with date of installation and due date of refilling shall be made available in the premise. A demonstration shall be given by the service provider after every 3-4 months to the staff with proper explanation.

Following are the general norms to be followed while positioning the Fire extinguishers at various locations in an office:

In a normal size office of 1200 sq. ft. – 1500 sq. ft. maximum of 6-8 fire extinguishers are to installed as under:

8.1 CO2 gas type 4.5 kgs–Conforming to IS15683.



8.2 ABC Powder type/DCP type 4.0 kgs or approved kg–Conforming to IS 15683.



8.3 Modular type at UPS and Electrical junction 2 /3 kgs or approved

Automatic detection and suppression in one single system, no human intervention is needed for the activation purpose; no power back up needed; easy to install and automatic discharge at set pre-defined temperature. ABC powder automatic fire extinguishers for 24 x 7 protection of unmanned closed areas shall be placed 1 above the UPS and if there is a possibility above the Main Electrical DB. If the size of a office is large suitable fire extinguishers of different type shall be installed as per the recommendations of the Security Officer / Fire Officer / or norms. These directives are suggestive, in case of any modifications or additional security requirement etc. is assessed based on the geographical or local situation, concurrence for the same needs to be obtained from the client.

9 CABLES

All PVC insulated FRLS copper conductor stranded cables shall be 650 volts grade and shall generally conform to IS-1554-1988 and meet the signal cabling requirement of the system manufacturer. Strands of cables shall not be cut to accommodate & connect to the terminals. Terminals shall have sufficient cross-sectional area to take all the strands. Cables shall be laid by skilled and experienced workmen using adequate rollers to minimize stretching of the cable. The cable drums shall be placed on jacks before unwinding the cable. Great care shall be exercised in laying cables to avoid forming kinks. At all changes in direction in horizontal and vertical planes, the cable shall be bent smooth with a radius as recommended by the manufacturers.

All cables shall be laid with minimum one diameter gap and shall be clamped at every meter and shall be tagged for identification with aluminum tag and clamped properly. Tags shall be provided at both ends and all changes in directions both sides of wall and floor crossings. All cable shall be identified by embossing on the tag the size of the cable, place of origin and termination. These shall be measured on linear basis including the fittings required like, end termination junction boxes.

10 CONDUITING & WIRING FOR TELEPHONE & COMPUTER SYSTEM

The rates for conduit work shall include:

1. All necessary specials and fittings.

2. M. S. inspection, junction and outlet boxes as required.
3. 3/5 mm thick Perspex sheet covers for inspection & junction boxes.
4. All fixing accessories such as clips, nails, brass screws/brass washers, etc.
5. 2 mm dia G.I. pull wires in conduit work, wherever necessary.
6. Providing and fixing approved saddle, hooks and grouting the same as required in the case of all exposed conduit work.
7. Embedding conduit and allied fittings including the outlet boxes in walls, floors etc., during construction and/or in chases including cutting chases and making good with cement mortar as necessary in the case of concealed conduit work.
8. Painting all inspection, junction and outlet boxes.
9. PVC conduit for concealed conduit wiring.
10. Painting of Hylam /Perspex sheet cover from inside to suit the colour of the surrounding wall with two coats of paint.
11. Supply and fabrication of G.I. outlet boxes.
12. The outlet cover plate for Telephone outlets shall be made of I.S.I. grade Urea Formaldehyde Molding powder. The cost of outlets shall include the cost of cover plates, cadmium fixing screws etc. also.
13. Numbering of wires on both ends of the wires for easy identification with PVC ferrules.

10.1 CABLES, MAINS AND SUB-MAINS

The rates for all items of work shall include:

1. Embedding conduits and allied fittings in walls, floors, etc., during construction and/or in chases including cutting chases and making good as necessary in the case of concealed conduit work.
2. Providing and fixing approved saddles, hangers, trays etc., and grouting the same as required for exposed conduits where called for. Providing dash fasteners for the threaded MS down rods(primer coated) used for hanging the cable \trays.
3. Providing and fixing junction boxes with 5 mm thick 'Hylam' sheet covers.
4. Effecting adequate and proper connections at terminations.
5. Ensuring that provision is left in various buildings components and trenches as the work proceeds, for incorporation of cable supports at a later date.
6. Providing all fixing accessories such as clamping devices, nuts and bolts,

screws etc.

7. Clamping to supports where laid in trenches.
8. Excavation of trenches and bringing the trenches to exact level as required.
9. Providing sealing compound, thimble, solder etc., at joints and terminations as called for.
10. Providing proper supports for cable terminal boxes as called for.
11. Wherever cables pass through walls, ceiling, paved area or below roads provide sleeves/ Hume pipes and making good as necessary.

10.2 DISTRIBUTION BOARDS

- i. The supporting rigid steel frame work.
- ii. 1.6 mm thick MS boxes complete with dust proof and vermin proof covers and locking arrangements, mounted flush with surfaces.
- iii. All fixing accessories such as dash fasteners, bolts, nuts, screws, etc. as required.
- iv. Building into masonry/concrete work including all necessary cutting and grouting with cement mortar 1:2.
- v. Effecting adequate and proper connections.
- vi. Effecting proper bonding to earth.
- vii. Painting/lettering on switches and distribution boards the location they serve and providing on each board its circuit diagram.
- viii. Touching up all damaged paint over exposed work with one coat of red oxide primer and two finishing coats of approved synthetic enamel paint.
- ix. Main Distribution Board and Final Distribution Boards shall be fabricated by Contractor with the specified equipment.

Provide 6 Amps. SP MCB for Light Points Circuits, 20 Amps. SP MCB for Power Circuits and 32 Amps. SP MCB for 1.5 Ton AC Unit.

10.3 FIXING OF LIGHTING FIXTURES AND FANS

1. Receiving the fixtures from the Owners' stores and assemble the same at site and testing the fixture before fixing.
2. All components that may be required to make the installation complete in all respects such as:
 - a. Suitable length of down rod, hanger and connecting wires, where called for.
 - b. Wires for connecting the fixtures to the point through connector blocks.

- c. All wood and metal blocks to serve as base of fixtures.
- d. Bonding with common earth wires.
- 3. Drilling holes in supports where required.
- 4. Fixing clamps, GI bolts and nuts, clips, brass screws, dash fasteners and other fixing accessories as required, including leaving necessary provision for fixing at time of concreting.
- 5. Approved enamel painting for hanger rods, clamps and other components and fixing accessories as called for.
- 6. Testing and commissioning of all fixtures and fans after installation.
- 7. The lighting fixtures shall be suitable for 230 Volts, single phase 50 cycles A.C. supply system.
- 8. Incandescent lamps shall be 100 Watts (maximum) and fluorescent lamps shall be 18 watts and 36 watts.
- 9. Use G.I. suspenders and clamping to the slab with dash fasteners (4 per fitting), including turn buckle arrangements for adjustable heights for hanging. They should be the same suspenders as used for hanging the False Ceiling grid ceiling.

SPECIFICATIONS – PART - C

3. TECHNICAL SPECIFICATION OF HVAC WORK:

1.0 GENERAL:

Intent of these specifications is to define the requirements for design, supply, installation, testing and commissioning of air conditioning system. The contractor's liability shall not be limited to the scope of work mentioned, but shall also extend to achievement of the desired conditioned as per the BASIS OF DESIGN, complete, safe and satisfactorily operating System as approved by the Project Architect Any alternations / additions, apparatus, material and labour required in order to achieve the completeness of the A/C system as above shall be deemed to be included in contractor's scope without any extra charge whether the same have been covered or not in the specifications and drawings. However, any changes required in design and installation shall be brought to the notice of the Architect and due approval shall be obtained therefore.

The entire work shall be performed in accordance with the terms and conditions and generally as per the scope drawings set forth in the documents and shall comply with the relevant Bureau of Indian Standards Specifications and Good Engineering Practices.

Any material supplied by the contractor, if damaged in any way during cartage or execution of work or otherwise shall be made good by the contractor at his own cost.

1.1 SUBMISSION BY THE CONTRACTOR:

The contractor shall submit three complete sets of drawings to the Architect /Engineer-in-charge after completion of the work. These drawings must give following information.

Refrigerant distribution system layout drawing.

Schematic diagram of various controls used in air conditioning System.

Schematic diagram of electrical installation for air conditioning System, and ferrule drawings.

Detailed maintenance schedule for smooth running of the air conditioning system.

1.2 GUARANTEE:

The contractor shall guarantee the installation for a period of 12 months from the date of erection / take-over certificate respective of the date of supply / erection of any

equipment. Guarantee shall cover all components of the A/C System, irrespective of the nature of item, any consumable items like refrigerant gas, oil, etc. if the loss of the same is due to reasons attributed to contractor. Any damage or defect that may arise or lie discovered or in any way be connected with the equipment or fittings supplied by him or in the workmanship shall deemed necessary by the Engineer-in-charge. The achievement and maintaining of prescribed conditions throughout the Guarantee period shall be the responsibility of the contractor.

Contractor shall also provide routine preventive maintenance to the system for the trouble-free operation of the system, and remove any faults that may arise during the guarantee period without any cost.

1.3 SCOPE AND STIPULATIONS:

This section relates to describe in general scope of work within this contract and stipulations.

Scope: The scope of work includes supply, installation, testing and commissioning of the Air Conditioning system installation for the application mentioned herein above.

The scope of work for the air conditioning system shall be as per the schedule of quantities and scope drawings.

Drawings: The tender drawings which are enclosed herewith shall serve as scope drawings. They indicate the general scheme of the air conditioning system requirement. However, actual location, distance, levels will be governed by actual field conditions, contractor shall check architectural, structural, water supply, drainage, false ceiling, lighting and other services plans to avoid possible installation conflicts. Should drastic changes from original plan be necessary to resolve such conflicts, the contractor shall notify the Architect and secure written approval before the installation is started. Contractor must submit the coordinated shop floor drawings prior to execution of HVAC Works and get the approval of Project architect

Discrepancies if any in plans may promptly be brought to attention of the Project architect for a decision.

Shop / Working Drawings: The contractor shall submit to the consultant detailed shop/working drawings covering all items of equipment and installation.

Shop / working drawings shall show detailed dimensions of all equipment's, space

requirements for access, repair and maintenance for equipment's, frame details, support details, foundation drawings etc. The shop/working drawings shall also contain details that require for A/C equipment's installation, cutouts, openings, framework, and foundations etc. that require for the A/C system.

No fabrication and installation should be put into execution until these drawings are approved by the Project architect.

The contractor shall initially submit in triplicate the drawings prepared by him for checking and verification by the Project architect. The contractor shall submit adequate copies of final drawings as required by Project architect on approval.

Codes and Regulations:

The installation shall be in conformity with bye-laws and regulations of local authorities concerned in so far as these become applicable to the installation. The installation shall be in conformity with the relevant Indian Standard Codes and Practices

Compliance with all the applicable laws/rules pertaining to materials and workers/personnel shall be the liability of contractor.

In case if the drawings and/or specifications require something, which violates the bye-laws and the regulations shall govern the requirement of this installation and the fact shall be brought to the notice of the Project architect/EIC.

Materials & Workmanship: The materials used by the contractor shall be new, free from defects and of the best quality and workmanship and shall be in conformity with the latest and best engineering practice.

Testing/Quality Assurance programme:

(i) All equipment's and space conditions shall be tested to establish equipment ratings and indoor space conditions. The test results shall be furnished to the Engineer in Project architect as per the tender.

(ii) After testing and commissioning, all equipment's shall be labelled in an approved manner.

(iii) All equipment shall be guaranteed for the specified ratings with + / - 3% tolerance.

(iv) **Supervision:** The work shall have to be carried in best workman like manner and supervised by competent erection engineers having adequate experience in the similar kind of work.

(iv) **Clean Up At the Work Site:** It is contractor's responsibility to keep site clean during

the execution, installation, and after the execution of work, from debris, rubbish and wastage of any material used by him.

1.4 SCHEDULE OF QUANTITIES:

The quantities of piping, cabling, etc. mentioned in the tender documents are tentative and are given for tenderer's guidance and to have uniform basis for tendering.

The contractor should carry out detailed calculations for estimating the quantities of variable quantity items on approval of drawings. Any increase or reduction in the quantities of variable items shall be payable or deducted at the unit rate for that particular item. Any extra item not covered under the schedule of quantities but needed for the completion of the work shall be first approved by the Project architect. In case, the estimated quantity exceeds the quantity mentioned in Schedule of Quantities by over 5% written approval from the owner and the Project architect should be obtained before delivering the item/s, failing which, no claim for increase in final Contract Value may be entertained on this account.

1.5 APPROVAL OF DRAWINGS:

The approval of the drawing by the Project architect shall in no way relieve the contractor from the responsibility of providing a complete and satisfactory installation and achieving and maintaining the stipulated design conditions. Any errors, omissions and shortfalls shall be rectified, and made good free of cost to the owner regardless of the fact that the installation may in the first place have been carried out as per the approved drawings.

1.6 MODE OF MEASUREMENT:

Piping (bare / insulated), cabling, earthing etc. physical measurements and geometrically worked out quantities shall be considered without any additions for bends, reducers, fittings, valves, strainers etc.

2.0 HEAT LOAD

2.1 The tenderer should work out heat load and air quantity independently and confirm the same to the Project Architect.

(a) Description of the work to be carried out:

The estimated peak air conditioning requirement of the various areas with occupancy and all other internal loads as listed in the table.

(i) Each floor is having centralized Variable Refrigerant flow Air-conditioning System as per the attached BOQ.

(ii) Each indoor unit (FCU)/Cassettes should have individual Temperature controller and each floor should have one central station to control the FCU/ Cassettes 's of entire block.

3.0 VARIABLE REFRIGERANT FLOW SYSTEM

3.1 VARIABLE REFRIGERANT FLOW TYPE SYSTEM:

The system shall be Variable Refrigerant Flow type multi-unit air-conditioning system complete with indoor and outdoor units with individual controller for cooling & heating type operations. System shall be BMS compatible; contractor shall be responsible for coordination between BMS and Air conditioning. Supply/ Installation of Modular type VRF Outdoor System, equipped with Efficient Scroll 100% Inverter compressor, Hot & Cold both option, special acrylic precoated heat exchanger, low noise condenser fan, auto check function for connection error, auto address setting of following capacity. Outdoor shall be capable to operate in Ambient conditions (Cooling / Heating) from -5 Deg C to 52 Deg C and from -15 Deg C to 24 Deg C. VRF / VRV must be equipped with Variable Energy Efficiency Regulation device feature which shall be enabling the ODU to perform in #3 Modes (Basic Mode / Turbo Mode and High Efficiency Mode) with varied EER in all three modes.

4 LIST OF APPROVED MAKES:

1.	FRLS P.V.C. conduits and accessories	BEC (Black) / Polypack/ AKG /Di-plast
2.	FRLS P.V.C. insulated copper conductor wires 1100 volts grade	Polycab/ESC /Havells /Bonton/Finolex
3.	MCCB, s and Accessories	Schneider/ABB / Legrand
4.	Miniature circuit breakers/ DB	Schneider/ABB / Legrand
5.	Switches, plugs, telephone	Honeywell/Crabtree/Legrand/outlets (Modular Type)
6.	Gang Box & sockets	Make same as make of switch
7.	G.I Pipe	Tata/Jindal

8.	Telephone wires	Polycab/ESC /Havells /Bonton
9.	PVC insulated Aluminum/copper conductor armored cables of 1100 V/	Polycab/KEI/Havells /Bonton 11000-volt grade
10.	PVC insulated flexible copper conductor cables of 1100 V/ 11000-volt grade	Polycab/ESC /Havells /Bonton
11.	FRLS PVC insulated Twisted / shielded Copper L.V. Cable	Finolex/Excel / Skytone /Havells / Bonton/KEI
12.	Cable Glands Chromium plated Brass heavy-duty glands	double compression, weatherproof with rubber washers and gaskets of Comet make
13.	Cable Lugs	Dowells crimping type
14.	Light fixtures	Jaquar/ Philips /Wipro/ Havells
15.	Special light fixtures	As per BOQ
16.	Day light/Occupancy Sensor	Schneider/Wipro/ Philips/Keselec
17.	Indicating Lamps	L & T/Schneider/ seimens
18.	Terminal Blocks	Elmex
19.	SPD	Mersen/OBO
20.	Industrial socket outlet	Legrand / Bals/Clipsal/Hensel/ ABB socket and top
21.	Maintenance Free Earthing	Alltec / Teksai /Duval Messien
25	Telephone Tag Block	Krone
26	Cable Tray	KME/ Era Control System
27	Raceway – with sheet steel	KME/ Era Control System
28	Special Cable Tray	OBO Batterman /Applicam Industries
29	Wire Mesh Tray	Legrand – Cablofil
30	Floor Access Box	M.K / Legrand
31	SDB's and Panels	Honeywell , XLS 3000 ,Johnson control , Nohmi

32	Fire Alarm system	Honeywell / Bosch
33	P A System	Bosch
34	CCTV IP Based	Sony , Mobiteh , Mountxross, Bosch
35	Any other items	Sample to be approved by Project architect
36	Fire extinguishers	Ceasefire, Firestone, Kanex, Lifeguard, Minimax, Nitin, Omex, Safex, Safe zone, Supermax, Swastik, Zenith and Equivalent.
37	NETWORKING	Make AMPS / D- Link

The names of manufacturers are mentioned in order of preference. The Contractor shall quote rates for materials of first preference only and that the Contractor has satisfied himself regarding the availability of the materials and that only materials called for under first preference shall be supplied and installed. In the event of the materials of makes called for are not available and alternative makes are approved (by the consultant) for incorporation in the work, the rates quoted shall be suitably amended based on the price variation between the specified makes and alternative makes on the day the alternative makes are accepted.

BILL OF QUANTITY – PART A

SR. NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	DISMANTLING WORK				
1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	CUM	9.46		
2	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :Of area beyond 3 sq. metres	EACH	3.00		
3	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	CUM	9.46		
4	Dismantling Sanitary fixtures such as European/Indian/Orissa W.C., PVC / China ware cistern, Wash Hand Basin, Urinal Pot, Sinks and CP Fittings and disposal of dismantled material within a distance of 100 Mtr. complete in all respect as required by Engineer-in-Charge.				
4.1	European/Indian/Orissa W.C.,	EACH	2.00		
4.2	PVC / China Ware Cistern	EACH	2.00		
4.3	Wash Hand Basin / Urinal Pot	EACH	2.00		
4.4	CP Bib Cock/Angle Cock/Stop Cock/Shower/Bottle Trap	EACH	5.00		
4.5	Bathroom Accessories such as Soap Dish, Towel Rail, Towel Ring, Towel Bracket, Mirror, Toilet Paper Holder, Seat Cover, Jet Pressure and all other accessories.	EACH	4.00		
	NEW CIVIL WORK				
5	Half brick masonry with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.with full curing with water for 7 days Cement mortar 1:3 (1 cement :3 coarse sand)	SQM	36.08		
6	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor,etc., up to floor five level, excluding the cost of centering, shuttering and finishing : 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	CUM	12.89		
7	Providing and applying 12 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand)	SQM	72.17		
8	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	SQM	144.49		
9	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : Water thinnable cement primer	SQM	144.49		

10	Providing and applying With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	SQM	9.03		
11	Finishing walls with 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives. New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm. (on ceiling and wall)	SQM	265.41		
12	Providing and fixing of Vapour Permeable, superior Lime finish for Interior, formulated by Pure Lime Plaster. After cleaning of surface and removing any loose or flaking materials, apply two coats of Stucco Grassilo ; Lime Plaster based finish on one coat of quartz primer mixed with sealer of approved shade to achieve desired finish, excluding the cost of surface preparation and scaffolding, applying by special trowel and appropriate tools, all complete as per manufacturers specification with direction of Engineer-In-Charge.	SQM	51.63		
13	Providing and laying water proofing treatment in sunken portion / slab floor of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. (The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.) BASF/ Fosroc / Sikka / CICO / STP/ Pidilite/CHRYSO	SQM	10.54		
FLOORING					
14	Providing and laying Full body Vitrified tiles (Fusonyx Beach) in floor with sizes 1200X1800x9mm with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness. This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m. (on floor and wall) Approved tiles make - SImpolo/Kajaria/ Johnson o or equivalent Approved Tile Adhesive - Roff/ Fosroc/ Home Pride/ Asian / Dr. Beck / Max/ Flamaflor or equivalent	SQM	207.28		
15	Providing and laying Full body Vitrified tiles (Fusonyx Beach) in wall with sizes 1200X1800x9mm with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness. This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m. (on floor and wall) Approved tiles make - SImpolo/Kajaria/	SQM	16.73		

	Johnson o or equivalent Approved Tile Adhesive - Roff/ Fosroc/ Home Pride/ Asian / Dr. Beck / Max/ Flamaflor or equivalent				
16	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement and matching pigments etc., complete. Approved tiles make - SImpolo/Kajaria/ Johnson o or equivalent	SQM	11.60		
17	Providing and fixing 1st quality ceramic glazed wall tiles Matt/Semi Matt/Glosy/Highly Gloss finish/Highlighter/emboss conforming to IS :15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottle green, black of size 600 x 300 mm as approved by Engineer-in- Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:4 (1 cement: 4 fine sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete. Approved tiles make - SImpolo/Kajaria/ Johnson o or equivalent	SQM	49.12		
	CEILING				
18	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c,				

	including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) : 2011 (Board with BIS certification marks) Approved make - Armstrong/Anakon or equivalent	SQM	199.93		
19	Providing & fixing horizontal level suspended ceiling comprising of Vertical Linear Baffle Ceiling made out of Aluminum Extrusion in Aluminum alloy grade 6063 T5. The baffle blade shall be in size of 50x100x3600mm in powder coated to Woodgrain/Plain finish (Red Oak, Cherry, Black & White)..The baffle shall be electrostatically polyester powder coated to a coating thickness of 60-80 micron. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV –A Test for 1000hours as per ASTM G-154 – (Cycle – 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation within a manufacturing batch shall be delta E<1 using Excite/BYK Gardner instrument and gloss level 25±5 at 60° as per ASTM D523 (Not applicable of Wood Grain Shade). The baffle blade shall be suspended using Slotted U-profile of 20 x 30 x 3700mm (Thk-1.5mm) having slots in module of 25mm to keep baffles at an on-center spacing in multiples of 25mm. Longer lengths of Baffle to be connected by Baffle Joiner and the ends to be fixed with End caps. Baffles should have an on center spacing of 200mm. Approved make - Armstrong/Anakon or equivalent	SQM	8.56		
PARTITION AND PANELLING WORK					
20	Providing wood work in frames for panelling. sawn and fixed in position with necessary stainless steel screws etc. Kiln seasoned and chemically treated hollock wood	CUM	0.30		
21	Providing and fixing 69 mm thick X1350 mm height , Everest drywall partition system, which include "Everest Steel" G.I framework (180GSM Galvanizing; 345 Mpa Yield Strength), comprising of 51mm Floor and Ceiling track profile, 0.5mm thick, having two equal flanges of 32mm, fixed to the floor and ceiling, in plumb with each other, with sleeves and screws at 610mm; Vertical G.I studs of size 51mm, 0.5mm thick, having one flange of 42mm and another flange of 44mm and two equal lips of 5mm insert fixed into the track profiles at 610mm centers. 9mm Everest Heavy Duty Fibre Cement board (Confirming to IS 14862; Type - B) are screw fixed to the either side of the framework with 25mm drywall screws, respectively, at 300 mm centers. Glass wool of 48kg/m3 density and 50mm thickness will be placed in between the cavity of frame. Jointing and Finishing: Finally edges of the board are to be jointed and finished so as to have a flush look which includes filling and finishing with Everest compound of std. make with Self-adhesive Fibber glass mesh tape. The rate shall be inclusive labour for cutouts for electrical, telephone, computer conduits etc. Approved make -Green ply / Nuwud/ Century or equivalent	SQM	17.57		

22	Providing and fixing 69 mm thick Everest drywall partition system, which include "Everest Steel" G.I framework (180GSM Galvanizing; 345 Mpa Yield Strength), comprising of 51mm Floor and Ceiling track profile, 0.5mm thick, having two equal flanges of 32mm, fixed to the floor and ceiling, in plumb with each other, with sleeves and screws at 610mm; Vertical G.I studs of size 51mm, 0.5mm thick, having one flange of 42mm and another flange of 44mm and two equal lips of 5mm insert fixed into the track profiles at 610mm centers. 9mm Everest Heavy Duty Fibre Cement board (Confirming to IS 14862; Type - B) are screw fixed to the either side of the framework with 25mm drywall screws, respectively, at 300 mm centers. Glass wool of 48kg/m3 density and 50mm thickness will be placed in between the cavity of frame. Jointing and Finishing: Finally edges of the board are to be jointed and finished so as to have a flush look which includes filling and finishing with Everest compound of standard. make with Self-adhesiveFiber glass mesh tape. The rate shall be inclusive of labour for cutouts for light fixtures,AC grills,diffusers etc, Approved make -Green ply / Nuwud/ Century or equivalent	SQM	142.11		
23	Supply and Fixing of Glass partition of 10mm Toughened Glass using slim line System-45 Frames clip in profile to a height of maximum 3m or as per drawing.The Fixed glass to be fixed using BP45 Profiles at Top & Bottom & fixed frame cleat . The profile size to be 45x20MM to be fixed on to the floor/ ceiling as per the architect design. H Junction profile to be used at all Glass to Glass vertical joints, 90 Deg L Junction Profiles and T Junction profiles necessary as per design.In case of Glass overall panel MP45& BP45 Overpanel Profile to be used. The EPDM rubber shall be used for fixing glass of 10 mm .The Profile shall be matt natural anodized, the Profile Manufacturer to supply all the necessary clips, seals and fixing accessories for the system. All Profiles to be with 2 mm Gauge thickness Excluding 20 Micron of Anodizing. Approved makes Dorma , Geze (SS fitting) Saint gobain/Modi Guard/Asai (Glass)	SQM	22.50		
24	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double acting hydraulic floor spring type fixing Glass Door handle one set and one no. lock for single glass door arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge. Approved makes Dorma, Geze (SS fitting) Saint gobain/Modi Guard/Asai (Glass)	SQM	14.870		

25	Providing, fixing partition skinning with 6 mm thk BWP Grade Ply board of approved make on partitions or as advised and approved by Architect. Item shall be complete with all accessories, fixing implements including approved self-tapping and self-drilling corrosion resistant metal alloy screws, men material and lift upto 6 mtr. Finished complete to correct line level and plumb and getting mock up approved by Architect/Engineer in charge. Providing and applying intumescent fire retardant starch solution, all in melamine spreader base in 1:3:4 proportion [starch : APP: Melamine] To apply by brush on the face, inner side of ply board skin of partition, with consistent spread without any unapplied patches, in 2 coats one after the other after complete drying of 1st coat. Item to include, all tools and tackle, adhesives, accessories, men, material and lift upto 9 mtr item finished dried complete. FR application to be got approved from Architect/Engineer in charge before final application, item to be completed in all respects as per drawings and instructions from Project in charge. Approved make -Green ply / Merino / Century or equivalent	SQM	46.63		
26	Providing, fixing on Architect recommended partition, avg. 1 mm thk select laminate of MERINO /ARCHIDLAM /SONEAR /CENTURLAM AND GREENLAM approved colour, make as approved, glued with approved phenol formaldehyde based adhesive or approved equivalent overlaying on substrate without any gap/air bubbles pressed uniformly to line level and plumb, item complete with all edge lipping with water based PU TW lipping mounted flush to surface as per detailed drawings and Architects recommendations: all accessories, fixing implements, men material and lift upto 6 mtrs. Finished complete with all necessary masking with avg. mim 10mm wide masking tape before applying polish to edge lipping and getting mock up approved by Architect/Engineer in charge. Item to include protecting finished item by avg. 20 microns thk polythene sheet till handover of facility complete. Item to be completed in all respects as per drawings and instructions from Project in charge (FLUSH DOOR and over partition on both side) Approved make -Green ply / Merino / Century or equivalent	SQM	341.66		
27	Providing ,fixing on Architect recommended partition, avg. 1 mm thk BRTISH BUFF / stone laminate laminate of Marino / Greenlam approved colour, make as approved, glued with approved phenol formaldehyde based adhesive or approved equivalent overlaying on substrate without any gap/air bubbles pressed uniformly to line level and plumb, item complete with all edge lipping with water based PU TW lipping mounted flush to surface as per detailed drawings and Architects recommendations: all accessories, fixing implements , men material and lift upto 6 mtrs. Finished complete with all necessary masking with avg. mim 10mm wide masking tape before applying polish to edge lipping and getting mock up approved by Architect /Engineer in charge. Item to include protecting finished item by avg. 20 microns thk polythene sheet till handover of facility complete. Item to be completed in all respects as per drawings and instructions from Project in charge. Approved make -Green ply / Merino / Century or equivalent	SQM	54.09		

28	Providing, fixing partition skinning with avg 19 mm thk BWP Grade Plyboard on over Al. skeletal frame/wooden frame, as approved by Architect item complete with all accessories, fixing implements including approved self-tapping and self-drilling corrosion resistant metal-alloy screws, men material and lift up to 40 mts., finished complete to correct line level and plumb, and getting mock-up approved by Architect/Engineer-in-charge. Providing and Applying approved make 2 coat of fire retardant paint as per manufacturer's recommendations. Item to include, all tools & tackle, accessories, men material and lift up to 40 mts., item finished dried complete. FR application to be got approved from Architect /Engineer-in-Charge before final application. Item to be completed in all respects as per drawings & instructions from Project-in-charge/ Archit Approved make - Green ply / Merino / Century or equivalent	SQM	21.47		
29	Providing and fixing full height partly solid and partly open shelves/nieces 300mm deep to be used as display board . These nieces and shelves shall be made 19 mm BWP plywood board and 6 mm BWP plywood for rear surface as per detailed architectural drawings. The internal and external surface of the display board shall be covered with 1 mm thick laminate as per the pattern shown in the drawings the central portion of display board of the size 6'-6" X8'-6" shall not be covered with laminate. The skirting 4" height shall be 19 mm thick BWP and recessed by 1" and covered with 1 mm laminate of approved colour . The rate shall be included cutting and fixing of light including space for laying wiring and making conduits, DB, Point and other accessories. The rate shall including making good surface of the time of making .(storage/display in waiting area , Meeting Room)	SQM	35.97		
30	WPC (INTERIOR) Providing supplying, fabricated and fixing Amer Profile panels of wood polymer composite panel of size i.e. 213 mm wide and 21 mm total thickness and length 2500 mm as shown in drawings. The colour and pattern of the WPC panels shall be(wenge dark brown wood color) or approved by architect . The reputed brands for WPC shall be its color appearance, thickness, width and length , falling mass impact resistance , heat Reversion etc . These panels shall be fixed with aluminum sections of size 25mmx37.5 mm filled with wooden packing to hold screws and then fixed to the main structure members . This item is inclusive of all accessories, packing charges, cutting Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 20m. Approved make -Wood Craft / Merino / Century or equivalent	SQM	53.65		
	PANTRY				
31	Providing & fixing of 600mm cabinets for under shelf and fixing them and the cabinets will created with 18mm ISI 710 BWP grade waterproof plywood and backside of boxes we will use the 9mm plywood and to cover the cabinets we use 0.8mm laminate and front shutters of HDHMR exterior grade with European standard acrylic sheet with superior high gloss and backing of 1mm laminate. The edges of front panel will covered with acrylic sheet also.	SQM	3.50		
31.1	Soft Close innotech by Hettich 600mm width, 470mm depth and 100mm height.	Each	2		
31.2	Soft close innotech by Hettich for Grain trolly 450mm width, 470mm depth and 200mm height	Each	3		

31.3	Soft Close innotech by Hettich for pot and pan 600mm width, 470mm depth and 150mm height	Each	1		
31.4	Pvc cutlery by Hettich grey colour width 600mm will placed in under hob carcass	Each	1		
31.5	Soft close Glass Bottle pull out width 300mm will place right side of hob.	Each	2		
31.6	Auto lid waste bin having weight capacity of 14 ltr. Will placed under the sink	Each	1		
31.7	Caster wheels made of nylon rollers 2" diameter wheels, set of 4. Rotate 360 degrees. Super silent & sturdy. Soft and non-skid wheels won't mark floors colour: black / wheel diameter 2" 60 kg load capacity per wheel capacity for all four wheels combined)	Each	24		
31.8	Full overlay soft close hinges by hettich integrated soft close for overlay door, opening angle 110° for door thickness upto 24 mm screw on mounting plate	Each	9		
31.9	G profile handle for all the cabinets to open the cabinets with colour options (Aluminum, Rose Gold, SS, Black or Iron Grey matt)	Each	3		
31.10	Dishrack 600mm width on top of the sink with Dip tray	EACH	1		
31.11	Gas pump of 10kg used above the micro unit and one above on the refrigerator as per drawing	EACH	3		
31.12	Providing and placing Philips Daily Collection 1 Burner 1500 Watts Induction Cooktop (Auto-Off Function, HD4920/00, Black)	EACH	1		
31.13	Providing and placing Samsung 28 L Convection Microwave Oven (CE1041DSB3/TL, Black, SlimFry) Visit the Samsung Store	EACH	1		
31.14	Liv pure ro type: electric with storage warranty details :-1 year on product technology: ro+uf water purification capacity :- 7 litres includes: water purifier, user manual, warranty card and service center details type of tank: food grade plastic	EACH	1		
31.15	Providing and placing SAMSUNG Stylish Grande 192 Litres 3 Star Direct Cool Single Door Refrigerator with Stabilizer Free Operation (RR20T2Y2YS8/NL, Elegant Inox)	EACH	1		
Miscellaneous items					
32	Providing and placing Photocopy Machine Canon ImageRunner 2420L Laser Multifunction Printer	EACH	1		
Furniture - The furniture shall be supplies reputed brand Godrej / Haworth Or equivalent brands (For supply, installation & fixing of furniture, though, two makes have been mentioned Godrej & Haworth. However, for supplying of chairs and tables vide BOQ nos. 34,35,36,37,38 & 40, it shall be mandatorily of Godrej).					

33.1	Providing & Placing Conference Table 1800 X 800 X 750 Work top--Made of 25mm Thick Pre-laminated twin board of E1-P2 grade and approved shade conforming to IS- 12823:1990, Edge banded with matching 2 mm thick PVC lipping. Soft closing dual access flap provided for access to power supply and data cables. Under structure-The Under- structure consists of mixture of 25mm and 18mm Pre-laminated twin board of E1-P2 grade and approved shade conforming to IS-12823:1990, Edge banded with matching 2 mm thick PVC lipping. Anodised aluminum alloy 63400 - WP profile is added at bottom edges for improving the aesthetics. The product has a knock-down construction. Wire Management-A wire raiser made of 0.8mm CRCA MS IS:513. It is epoxy polyester powder coated (DFT 40-60 microns) for flow of wires and cables. A Power box with 2 cutouts on either sides for standard 8 module Anchor Roma is provided. Beside each cutout, an additional cutout with plate is provided for mounting Audio Visual Cables(eg. HDMI,VGA-A,etc).The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines. The Certifying agencies should be accredited by NABCB.	EACH	2		
33.2	Product should be GREENGUARD,SCS IAQ certified. The certificates mentioned in the specification must be issued by an authorized certificate issuer. The certificates must mention product name along with manufacturers name. The certificate must be verifiable from the authorised issuer's website.				
34	Providing and placing the mid back chair seat/back assembly(Godrej MARVEL MID-BACK (CHAIR)): the cushioned seat should be made of injection molded plastic outer & inner. plastic inner should be upholstered with stitched cover and moulded high resilience polyurethane foam of density 45 ± 2 kg/m ³ ,and hardness load 16 ± 2 kgf for 25% compression.the stitched cover should be made from spacer fabric and leatherette. cushioned back should be made of pu foam with insitumoldedmse.r.w round tube of size 1.9 ± 0.03 cm x 0.16 ± 0.01 28cm. it upholstered with spacer fabric and leatherette.seat size : 47.0 cm. (w) x 48.0 cm. (d) back size : 45 cm. (w) x 60.5 cm. (d) armrests the armrest top should be moulded from polyurethane(pu) and mounted on to a drop lift adjustable type tubular armrest support made of 03.81 ± 0.03 cm x 0.2 ± 0.01 cm thkmse.r.w tube. the armrest height adjustable up to 6.5 ± 0.5 cm in 5 steps.the armrest structure should be powder coated (dft 40-60 micron).active bio-synchro mechanism (fu3401/3402): the adjustable tilting mechanism should be designed with the following features:• 360° revolving type.• front-pivot for tilt with feet resting on ground and continuous lumbar support ensuring more comfort.• tilt tension adjustment can be operated in seating position	EACH	22		

	<p>• 5-position tilt limiter giving option of variable tilt angle to the chair.</p> <p>• seat/back tilting ratio of 1: 2</p> <p>• the mechanism housing should be made up of hpdc aluminum black powder coated.</p> <p>• seat depth adjustment should be integrated in the seat through a sliding mechanism. seat depth adjustment range should be of 6.0 ± 0.5 cm.</p> <p>• adjustable back support back frame should be connected to the up/dn mechanism housed in plastic t spine. it can be adjusted in the range of 7.42 ± 0.5 cm for the comfortable back support to suit individual need.</p> <p>• pneumatic ht. adjustment the pneumatic ht adjustment has an adjustment stroke of 10.0 ± 0.3 cm.</p> <p>9) twin wheel castor : 5 nos. twin wheel castors should be injection moulded in plastic having 6.0 ± 0.1 cm wheel diameter and assembled to pedestal. The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidlines. Product should be GREENGUARD/IAQ/BIFMA/GRIHA certified. The certificates mentioned in the specification must be issued by an authorized certificate issuer. The certificates must mention product name along with manufacturers name. The certificate must be verifiable from the authorised issuer's website.</p>				
35	<p>Providing and Placing (Godrej Trident Senior Main Table) (1804*750*750) the Trident Senior Main Desk size shall be 1804 Width x 450 Depth x 750 Height. Top shall be made up of PVC membrane pressed of 25 mm thick MDF - one side laminate board with 0.4 mm PVC membrane Pressed on to tops. The top shall be having duck nose and half round profile edges and top is made in only one finish which is European Ash. The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidlines.</p>	EACH	6		
36	<p>Providing and Placing (Trident BACK UNIT) the Godrej Trident Senior back unit size shall be 1804 Width x 450 Depth x 750 Height. Top shall be made up of PVC membrane pressed of 25 mm thick MDF - one side laminate board with 0.4 mm PVC membrane Pressed on to tops. The top shall be having duck nose and half round profile edges and top is made in only one finish which is European Ash. The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidlines.</p>	EACH	6		

37	<p>Providing & Placing Godrej MARVELK with no wheels (Chair)</p> <p>Visitor's Chair : The contoured lumbar area can be adjusted to suit your back profile .T-spine structure: This supports the contoured chair back, providing flexibility in the back height adjustment. Height adjustable arms: The wide, soft edged PU top armrests provide complete support to elbows and forearms. The height of armrests can be adjusted as per need. Active bio-synchro mechanism: The Active Bio-Synchro mechanism senses your body weight and tilts accordingly even as the seat glides in tandem with the back. This provides full contact and continuous support to the back in all tilt positions. The chair comes with 5 position tilt limiter Seat depth adjustment: The seat depth adjustment helps fit different body types.The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines. The Certifying agencies should be accredited by NABCB. Product should be GREENGUARD / GRIHA / SCS IAQ certified. The certificates mentioned in the specification must be issued by an authorized certificate issuer. The certificates must mention product name along with manufacturers name. The certificate must be verifiable from the authorised issuer's website.</p>	EACH	12		
38.1	<p>Providing and placing Godrej Impress Main Table (1800*900*750) The Main table shall be of size 1800 Width mm x 900 mm Depth x 750 mm height. Top surface of the table shall made up of MDF (Medium density fibre) board duly finished with Veneer and final coating of PU. The Main desk should contain in built key board pull out tray for keeping keyboard of computer. The front modesty panel of the table shall be made up of MDF board of size 1640 mm x 600 mm x 16mm which shall also be duly finished with Veener and PU coating. For personal storage one mobile pedestal (3 drawer unit) shall be provided of size 510 mm Width x 635 mm Height and 445 mm Depth. The storage pedestal shall also be made up of MDF duly finished with veener& final coating of PU. The Side shall be of size 1200mm Width x 445mm Depth x 660 mm Height. The side unit shall be made up of MDF board duly finshed with Veneer and final finish by PU Coating. The design of the side unit shall be such that it can be placed on either side of the main table. The side unit shall contain open space for keeping cpu in extreme right side, one closed storage shutter at extreme left end & open space in the middle with one shelf for keeping files. The thickness of the top of the side unit shall be 25mm.</p>	EACH	1		
38.2	<p>The Size of the Back unit shall be 2215mm width x 410 mm Depth x 2000mm height. The back unit shall be made up of MDF board duly finished with veneer & final finish by PU coating. Below storage shall be provided with wooden shutters & the upper left & right side of the back unit shall also be provided with wooden shutters. The middle 3 door shutters should be of glass of minimum 5mm thick for display purpose. The hardness of the PU coating shall be 1.5H .The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines.</p>				

39	Providing and fixing full height partly solid and partly open shelves/nieces / low height storag' b'low 2'-6" . These nieces and shelves shall be made 19 mm BWP plywood board and 6 mm BWP plywood for rear surface as per detailed architectural drawings. The internal and external surface of the display board shall be covered with 1 mm thick laminate as per the pattern shown in the drawings the central portion of display board of t'e "ize'8""6" X6'-6" shall be covered with laminate as per detailed architectural drawings . The rate shall be included cutting and fixing of light including space for laying wiring and making conduits, DB, Point and other accessories. The rate shall including making good surface of the time of making	sqm	10		
40	Providing (Godrej MARVEL WITH HEADREST(Chair)) and placing the high back Revolving Chair Pedestal Base Aluminum Die Cast with ABS/Nylon Twin Caster Wheels Minimum 5 Nos, of 50 mm Size. Arm Material pu foam bonded chrome coted. seat material PU Foam Covered With pure leatherite. Material of Fabric Back Cover / Material for Backrest Leatherite. Material of Fabric of Seat Cover leatherite. Chair Type Advance Bio Synchronic. Height Adjustment ± 5 (mm) up to 100 mm. Arm With. Type of backrest support backrest. ymmetrical lumber support. Arm Type Adjustable. Ergonomic Seat Design Yes. Back type height adjustable. backrest has separate adjustable headrest No. Seat type sliding. Number of arm movement 2(up & down). Lumber support N.A. Overall Chair Height ± 15 mm 1125. Backrest Height ± 15 mm 730 millimetre. Backrest Width ± 10 mm 480 millimetre. Seat Height ± 15 mm 450. Seat Width ± 10 mm 480. Seat Depth ± 10 mm 480 millimetre. Thickness of MS Plate Joining the under structure with Seat 2 millimetre. The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines. Product should be GREENGUARD/IAQ/BIFMA/GRIHA certified.The certificates mentioned in the specification must be issued by an authorized certificate issuer. The certificates must mention product name along with manufacturers name. The certificate must be verifiable from the authoris'd issuer's Website.	sqm	1		

	<p>frame should be connected to the up/dn mechanism housed in plastic T spine. it can be adjusted in the range of 7.42 ± 0.5 cm for the comfortable back support to suit individual need. pneumatic ht. adjustment: the pneumatic height adjustment has an adjustment stroke of 10.0 ± 0.3 cm. pedestal assembly the pedestal should be high pressure die cast polished aluminum and fitted with 5 nos. twin wheel Castors. the pedestal should be 65.0 ± 0.5 cm. pitch-center dia. (75.0 ± 1.0 cm. with castors.) twin wheel castors: the twin wheel castors should be injection moulded in black polypropylene. Overall Dimensions of Chair Seat Height -44.5 to 54.5 cm. Height -114-131.5 cm. Width & Depth of Chair as measured f-om base - Width-76.1 cm and Depth-66.5 cm. The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines. The Certifying agencies should be accredited by NABCB. Product should be GREENGUARD GOLD, GRIHA, BIFMA LEVEL 2, SCS IAQ certified. The certificates mentioned in the specification must be issued by an authorized certificate issuer. The certificates must mention product name along with manufacturers name. The certificate must be verifiable from the authoris'd issuer's website.</p>				
41	<p>Providing & Placing Sofa 2 Seater Dimensions W x H x D (mm) 1500 x 890 x 820 Primary Material-Pinewood Upholstery Material-Fabric Seat Height (cm)-44. The OEM Should have the Quality and Safety Certification like ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018,ISO 5001:2018.The Certifying agencies should be accredited by NABCB.</p>	EACH	2		
42	<p>Providing & Placing Sofa 1 Seater Dimensions W x H x D (mm) 1070 x 890 x 820 Primary Material-Pinewood Upholstery Material-Fabric Seat Height (cm)-44. The OEM Should have the Quality and Safety Certification like ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018,ISO 5001:2018.The Certifying agencies should be accredited by NABCB.</p>	EACH	2		
43	<p>Providing & Placing Center Table it should be a center table glass : it should be 12 ± 0.3 mm thick black tinted toughened glass uv glued with bushes made in ss 202 grade for fixing with understructure , should be a center table understructure : it should be a welded assembly made in ss202 grade having dia. 12 ± 0.04 as per should be :1762. Width of table= 112.0 cm, Depth=60.0 cm, height=35.1 cm. The OEM Should have the Quality and Safety Certification like ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018,ISO 5001:2018.The Certifying agencies should be accredited by NABCB.</p>	EACH	2		

44	Supplying & Placing Reception table in completely knock down conditions with an overall size 2400mm X 820mm X 1000mm that is to be assembled at site. The top shall have the size 2300mm X 695mm made up of 49mm thick Pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. The upper top shall have the size 1400mm X 300mm with 49mm thick. The top profile shall be in rectangle shape with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. The side edges shall be covered with die casted aluminum profile. The table top and upper top shall be supported on particle board base strip. The table shall have a front panel having size 1390mm X 750mm with 49mm thick Pre-laminated particle board. A wire manager cap shall be provided on the top of the table for power connection. The end wall of the table on the side shall be topped by gable end. It shall be made up of 49mm thick Pre-laminated particle board and profile shall be in linear shape with one clipped corner. The top shall be FINISHED WITH 1 MM HIGH GLOSS LAMINATE & WPC PANELS WITH 16 MM THICK ITALIAN STONE ON COUNTER TOP & SIDE.	EACH	1		
45	Providing & Placing Optimizer Overall Dimensions of SD - 2 Single Drive Cover Unit 2 Bay(U/C + Fittings + Cover) shall be 2400mm(W)x400mm(D)x2121.5mm(H). The Construction shall be rigid knock down made out of 0.8 thick CRCA steel conforming to IS : 513 . Each body shall have a main unit plus add on units (1,2,3,4) . Finish shall be Epoxy polyester powder coated thickness of 40 microns . Shelf construction shall be made from CRCA steel 0.8 mm thick IS :513 .Uniformly distributed load capacity of 100 Kg . Undercarriage shall have construction in welded frame made of HR sheet 3 mm thick conforming to IS : 2062. The Movements shall be Drive Type configuration : In case of D2,D3 & D4 movement of units is achieved mechanically through a PU Drive Wheel and Sprocket -Chain-Tensioner arrangement mounted rigidly onto body size. For D2 each movable undercarriage shall be provided with 2 rollers on the shaft for driving , 2 antifriction ball bearing for rolling.The roller assembly comprises of a die-cast step wheel, 2 deep-groove ball bearings and a MS shaft. The step wheel is made of cast steel and is fitted onto the MS shaft using a feather key. The two ball bearings are then fastened on either side of the step wheel using circlips.	EACH	1		

45.1	<p>This entire roller assembly is then snap-fitted into a wheel housing. The wheel housing is fixed in the U channel of the understructure using machine screws. This wheel-housing is made of engineering plastic material made by injection-molding process. The entire roller assembly is designed to withstand the maximum loads of the body. Fittings shall be centralized locking arrangement through locking stiffener mounted onto back of single last unit so that it gets locked on channels when all the units are brought together. The Recess handle lock is of Godrej make & placed at suitable height .The 'sprocket-chain' arrangement is covered by a 1 mm thk. CRCA sheet Drive Unit Cover with dimensions 1202mm x 398mm x 87mm and is fixed onto the side of the body. The PU handwheel is rigidly fixed at suitable height on side of the body & projects out of cover by another 99.0 mm. Fixed unit (SD) does not have the Drive Unit Cover. When the last unit is twin movable, hinged doors as accessories are provided for the end bodies, so in this case locking stiffener is mounted onto drive unit cover; and with tile fascia option, it will be mounted in the recess of vertical trim.</p>				
45.2	<p>Each Drive Type units shall have Locking Knob near the drive wheel for manual locking of individual units when a person is using those units. Knob shall be rotated to unlock position when units are to be moved. End stoppers shall be provided to prevent derailment.The nuts & bolts are galvanized / blackodized / Zn Plated. Also total no. of loading levels per under structure shall be 10 for SD2. Label holder - It is an aluminum extrusion of length 396mm for LD/SD and 796mm for TD, fitted on to front cover of body. The Paper is 300GSM matt milky white sticker paper, to be inserted into the aluminum extrusion. The length of paper is 394mm for LD/SD and 794mm for TD. Over that a transparent plastic of corresponding length of 150-200 micron polythene is to be inserted.The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines. The Certifying agencies should be accredited by NABCB. Product should be GREENGUARD, GRIHA,SCS IAQ, certified. The certificates mentioned in the specification must be issued by an authorized certificate issuer. The certificates must mention product name along with manufacturers name. The certificate must be verifiable from the authorised issuer's website.</p>				

46	<p>Providing & Placing Optimizer Overall Dimensions of LD - 2 Single last Drive Unit 2 Bay(U/C + Fittings + Cover) shall be 2400mm(W)x400mm(D)x2121.5mm(H). The Construction shall be rigid knock down made out of 0.8 thick CRCA steel conforming to IS : 513 . Each body shall have a main unit plus add on units (1,2,3,4) . Finish shall be Epoxy polyester powder coated thickness of 40 microns . Shelf construction shall be made from CRCA steel 0.8 mm thick IS :513 .Uniformly distributed load capacity of 100 Kg . Undercarriage shall have construction in welded frame made of HR sheet 3 mm thick conforming to IS : 2062. The Movements shall be Drive Type configuration : In case of D2,D3 & D4 movement of units is achieved mechanically through a PU Drive Wheel and Sprocket -Chain-Tensioner arrangement mounted rigidly onto body size. For D2 each movable undercarriage shall be provided with 2 rollers on the shaft for driving , 2 antifriction ball bearing for rolling. LD under structure has 2 nos. of anti-tilt bearing assembly. The roller assembly comprises of a die-cast step wheel, 2 deep-groove ball bearings and a MS shaft. The step wheel is made of cast steel and is fitted onto the MS shaft using a feather key. The two ball bearings are then fastened on either side of the step wheel using circlips.</p>	EACH	1		
46.1	<p>This entire roller assembly is then snap-fitted into a wheel housing. The wheel housing is fixed in the U channel of the under structure using machine screws. This wheel-housing is made of engineering plastic material made by injection-moulding process. The entire roller assembly is designed to withstand the maximum loads of the body. Fittings shall be centralized locking arrangement through locking stiffener mounted onto back of single last unit so that it gets locked on channels when all the units are brought together. The Recess handle lock is of Godrej make & placed at suitable height .The 'sprocket-chain' arrangement is covered by a 1 mm thk. CRCA sheet Drive Unit Cover with dimensions 1202mm x 398mm x 87mm and is fixed onto the side of the body. The PU hand wheel is rigidly fixed at suitable height on side of the body & projects out of cover by another 99.0 mm. Fixed unit (SD) does not have the Drive Unit Cover.</p>				
46.2	<p>When the last unit is twin movable, hinged doors as accessories are provided for the end bodies, so in this case locking stiffener is mounted onto drive unit cover; and with tile fascia option, it will be mounted in the recess of vertical trim. Each Drive Type units shall have Locking Knob near the drive wheel for manual locking of individual units when a person is using those units. Knob shall be rotated to unlock position when units are to be moved. End stoppers shall be provided to prevent derailment.The nuts & bolts are galvanized / blackodized / Zn Plated. Also total no. of loading levels per understructure shall be 10 for LD2. Label holder</p>				

47	<p>Providing & Placing Optimizer Overall Dimensions of TD - 2 Twin Drive Unit 2 Bay(U/C + Fittings + Cover) shall be 2400mm(W)x800mm(D)x2121.5mm(H). The Construction shall be rigid knock down made out of 0.8 thick CRCA steel conforming to IS : 513 . Each body shall have a main unit plus add on units (1,2,3,4) . Finish shall be Epoxy polyester powder coated thickness of 40 microns . Shelf construction shall be made from CRCA steel 0.8 mm thick IS :513 .Uniformly distributed load capacity of 100 Kg . Undercarriage shall have construction in welded frame made of HR sheet 3 mm thick conforming to IS : 2062. The Movements shall be Drive Type configuration : In case of D2,D3 & D4 movement of units is achieved mechanically through a PU Drive Wheel and Sprocket -Chain-Tensioner arrangement mounted rigidly onto body size. For D2 each movable undercarriage shall be provided with 2 rollers on the shaft for driving , 2 antifriction ball bearing for rolling. The roller assembly comprises of a die-cast step wheel, 2 deep-groove ball bearings and a MS shaft. The step wheel is made of cast steel and is fitted onto the MS shaft using a feather key . The two ball bearings are then fastened on either side of the step wheel using circlips . This entire roller assembly is then snap-fitted into a wheel housing.</p>	EACH	2.00		
47.1	<p>The wheel housing is fixed in the U channel of the understructure using machine screws. This wheel-housing is made of engineering plastic material made by injection-molding process. The entire roller assembly is designed to withstand the maximum loads of the body. Fittings shall be centralized locking arrangement through locking stiffener mounted onto back of single last unit so that it gets locked on channels when all the units are brought together. The Recess handle lock is of Godrej make & placed at suitable height .The 'sprocket-chain' arrangement is covered by a 1 mm thk. CRCA sheet Drive Unit Cover with dimensions 1202mm x 398mm x 87mm and is fixed onto the side of the body. The PU handwheel is rigidly fixed at suitable height on side of the body & projects out of cover by another 99.0 mm. Fixed unit (SD) does not have the Drive Unit Cover. When the last unit is twin movable, hinged doors as accessories are provided for the end bodies, so in this case locking stiffener is mounted onto drive unit cover; and with tile fascia option, it will be mounted in the recess of vertical trim. Each Drive Type units shall have Locking Knob near the drive wheel for manual locking of individual units when a person is using those units. Knob shall be rotated to unlock position when units are to be moved. End stoppers shall be provided to prevent derailment</p>				

	.The nuts & bolts are galvanized / blackodized / Zn Plated. Also total no. of loading levels per understructure shall be 20 for TD2. Label holder - It is an aluminum extrusion of length 396mm for LD/SD and 796mm for TD, fitted on to front cover of body. The Paper is 300GSM matt milky white sticker paper, to be inserted into the aluminum extrusion. The length of paper is 394mm for LD/SD and 794mm for TD. Over that a transparent plastic of corresponding length of 150-200 micron polythene is to be inserted.TD units are designed with tie rod assembly options as well. it acts as a substitute to the back panels (only in twin body) if the customer chooses to not have back panels. The assembly consists of 2 tie rods, 4 fixing brackets and 2 turnbuckles. The tie rods are fixed in a shape of 'X' between two opposite shelves. The tie rods are made of 4mm diameter rods of MS while the fixing brackets are made of 2mm thk. CRCA Steel conforming to IS: 513 Gr.D. This assembly is available for both heights – 1980H and 2361H. The OEM should be having valid ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 certificates as per NABCB guidelines. The Certifying agencies should be accredited by NABCB. Product should be GREENGUARD, GRIHA,SCS IAQ, certified. The certiifcates mentioned in the specification must be issued by an authorized certificate issuer.				
48	It consists of 'C' section 2 mm thk HR sheet & Square 25.4mm X 2mm thk ERW tube – both connected by screws. Prior to the grouting of the guide channels with the help of raul plug & screw, ensure the ground is level. The rail channels are of 3 lengths i.e., 800mm, 1600mm and 2400mm.	EACH	1.00		
49	It consists of 'C' section 2 mm thk HR sheet & Square 25.4mm X 2mm thk ERW tube – both connected by screws. Prior to the grouting of the guide channels with the help of raul plug & screw, ensure the ground is level. The rail channels are of 3 lengths i.e., 800mm, 1600mm and 2400mm.	EACH	1.00		
	JOINERY				
50	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia& length (hold fast lugs or dash fastener shall be paid for separately). Sal wood	CUM	0.20		
51	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws. 35mm thick including ISI marked Stainless Steel butt hinges with necessary screws. Approved make -Green ply / Merino / Century or equivalent	SQM	11.15		
52	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	each	30.00		

53	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	EACH	5.00		
54	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
54.1	250x10 mm	EACH	5.00		
54.2	100x10 mm	EACH	5.00		
55	Providing and fixing aluminum die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	EACH	5.00		
56	Providing and fixing ZEBRA BLIND having Composition :- Polyester 100% , Width :- 280 cms Thickness :- Solid 0.49 mm (Tolerance 5%) / Sheer 0.19 mm (Tolerance 5%) Repeat Size :- Solid 75 mm (Tolerance 5%) / Sheer 50 mm (Tolerance 5%) Weight :- 177.4g / (Tolerance 5%) Fabric Type :- Light Filtering This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m. Approved make -Shades /RM brand / NL or equivalent	SQM	41.5		
B	PUBLIC HEALTH				
57	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps JAQUAR , Kohler , Jaguar or Equivalent	Each	3		
58	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge. JAQUAR, Kohler , Build Pro or Equivalent	Each	3		
59	Providing and fixing SS Waste Coupling 32 MM SIZE HALF thread with 130mm height for wash basin and sink, of approved quality and colour. . Make : JAQUAR CAT NO - ALE -544-NFT,Kohler , Build Pro or Equivalent	Each	3		
60	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, JAQUAR ,KOHLER, NEEL KANTH ,cutting and making good the walls wherever required. Kitchen sink with drain board of 510x1040 mm bowl depth 250 mm	Each	1		
61	Providing and fixing P.V.C. waste pipe for sink or wash basin . Flexible pipe of 32 mm dia. Viking,Cera,Supreme	Each	1		
62	Providing and fixing Single lever sink mixer with swinging spout on upper side (wall mounted model) with connecting legs and wall flanges of approved quality and colour. Jaguar Kohler , Build Pro or Equivalent	EACH	1		

63	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :Rectangular shape 453x357 mm. TATA ESAI, Saint Gobin or Equivalent	Each	3		
64	Providing and fixing toilet paper holder C.P Brass. JAQUAR ,Kohler , Build Pro or Equivalent	Each	3		
65	Providing and fixing SS grating of approved quality and colour. Rectangular type with openable circular lid 125 mm nominal size square 100 mm diameter of the inner hinged round grating. KOHINOOR CAT NO 1050 , CERA , HINDWARE, VIKING or equivalent This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	7		
66	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in -charge. JAQUAR CAT-N0.-ALE-ESS-547,Kohler, Build Pro or Equivalent in specification This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	3		
67	Providing and fixing SS angle valve for basin mixer and geyser / W/C points of approved quality conforming to IS:8931 15mm nominal bore. JAQUAR CAT NO:- APP -101-053 OR Kohler , Build Pro or Equivalent This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	12		
68	Providing and fixing SS . soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, JAQUAR CAT NO ; -CAN -CHR 1131N , Kohler , Build Pro or Equivalent in specification This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in charge at all floors/ ht upto 38m.	Each	4		
69	Providing & Fixing in position C.P./ Aluminum Khunti of approved make (to the approval of Engineer-in-Charge) fixed into wall with CP brass screws and rawl plugs etc. complete in all respect. Aluminum khunti with 6 pegs ,	EACH	4		
70	P/F in position PVC flexible tube connection of approved make (to the approval of Engineer-in-Charge) Complete in all respect.a) PVC tube connection of size 15 mm x 300 mm with C.P. Brass nut . MAKE:- JAQUAR , Kohler , Build Pro or Equivalent	Each	5		
71	Providing and fixing single piece slim concealed cistern body with installation Simless wall hung wc with pp soft close seat cover, hinges, accessories set, size 370x510x360mm control plate opal , JAQUAR Kohler , Build Pro or Equivalent This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in charge at all floors/ ht upto 38m.	EACH	3.00		

72	Providing and fixing in position URINAL WITHOUT SENSOR WITH FIXING ACCESSORIES SET, SIZE: 480X300X740MM. This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	EACH	1.00		
73	Providing and fixing in position SENSOR FLUSHING VALVE FOR URINAL WITH COMPLETE KIT (BATTERY OPERATED) (SUITABLE FOR URINAL URS-WHT-13255) JAQUAR Kohler , Build Pro or Equivalent This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	EACH	1.00		
74	Supply, installation, testing and commissioning of WR UPVC soil waste vent or antisiphon age pipes as per IS-13592 (06 Kgf pressure) of approved make/quality including cutting, jointing, wastage, including cost of joinery (like elbow, tee, bend, washer, jute plugging with cement slurry, covering the pipes with PCC, cutting old CI pipe, M-seal etc.) complete in all respects and making connection with existing outer CI pipe as directed including dismantling & disposal of old. The rate shall include chasing of walls, laying of pipes as per standard working procedures at all level. All the internal drainage pipes should be tested for any leakage etc. The rate includes the cost of all types of clamping and no other separate rate shall be given. Approved make/brand of UPVC- Prince/ Supreme/ Finolex / Ashirvad or equivalent				
74.1	110 mm o/d SWR UPVC pipe line laid complete	metre	20.00		
74.2	90 mm o/d SWR UPVC pipe line laid complete	metre	20.00		
75	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls. Flowguard/ Astral/ Ashrivad/ AKG/Supreme				
75 .1	20 mm nominal outer dia Pipes	Metre	20		
75.2	25 mm nominal outer dia Pipes	Metre	20		
76	Providing and fixing PVC Floor traps conforming to I.S.I. Specification of approved firm/make of the self cleaning design including cement concrete 1:2:4 under and around the floor trap where required upto floor level complete in all respects including cutting and making good the walls and floors, etc. minimum depth of water should be 150mm with a minimum seal 50mm. Complete in all respects as directed. Approved make/brand of UPVC- Prince/ Supreme/ Finolex / Ashirvad or equivalent ,				
76 .1	75x 60 mm size with deep seal	Each	2		
76.2	110 x 90 mm with deep seal	Each	3		

BILL OF QUANTITY – PART B

ELECTRICAL

S. No	DESCRIPTION	UNIT	QTY	RATE	Amt.
I	SUB HEAD (I) : INTERNAL WIRING				
77	Point wiring				
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm HFFR copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS copper conductor single core cable etc. as required.				
	Group B	Point	100		
78	Group/Loop Control Point wiring in PVC conduit, with modular type switch :-				
	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS copper conductor single core cable in surface/ recessed PVC conduit and earthing the point with 1.5 sq. mm FRLS copper conductor single core cable etc. as required.				
	Group B	Point	15		
79	Power plug wiring in Medium class PVC conduit (2 x 4 Sq.Mm.) :				
	Wiring for light/ power plug with 2X4 sq. mm FRLS copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No. 4 sq. mm FRLS copper conductor single core cable for loop earthing as required.	mtr	40		
80	Circuit / Sub main wiring in Medium class PVC conduit Pipe :-				
	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire.	mtr	100		
	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire.	mtr	125		
	4 x 10 sq.mm. + 2 x 6 sq.mm. Earth wire	mtr	50		
	4 x 16 sq.mm. + 2 x 6 sq.mm. Earth wire	mtr	50		
81	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
	20 mm	mtr	50		
	25 mm	mtr	50		
	32 mm	mtr	80		
82	Supply and fixing of suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 5 pin 5/6 amps modular socket outlet and 5/6 amps. modular switch, connection etc. as required.	Each	15		
83	S/F power plug point modular type accessories :-				

	Supply and fixing of suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps. modular switch, connection etc. as required.	Each	5		
84	S/F modular type blanking plate :-				
	Supply and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	10		
85	Supply and fixing of Pop-up type flush-mounting 8 modules box with modular Type 2 nos.5 pin 6 Amp.socket,one no. 6Amp.one way switch, one call bell push,one no.RJ-45 Modem Jack for Computer (One Module) and one no. Telephone Socket (RJ-11) One Module) with matt aluminum finish, Soft opening cover with damper and push & slide locking system, all fixing accessories as per site requirement all as required & specified. Make:- LEGRAND / MK	Each	15		
86	Supply and fixing of Pop-up type flush-mounting 3 modules box with modular Type 1 no. 5 pin 6 Amp.socket, one no. 6Amp.one way switch) with matt aluminum finish, Soft opening cover with damper and push & slide locking system, all fixing accessories as per site requirement all as required & specified. Make:- LEGRAND /MK	Each	15		
87	Supply and fixing of 100 mm x 25 mm, 1 compartment under floor trunking made out of 1.6mm thick GI sheet complete with all accessories and fixing accessories as per site requirement all as required & specified. Make:- LEGRAND / MK / OBO	mtr.	14		
88	Supply and fixing of coupler/joint sleeve for triple compartment under floor trunking size 100 mm x 25 mm with all accessories and fixing accessories as per site requirement all as required & specified. Make:- LEGRAND / MK / OBO	Each	6		
89	Supply and fixing of Fixing bracket (GI) under floor trunking size 100mmx 50mm with all accessories and fixing accessories as per site requirement all as required & specified. Make:- LEGRAND / MK / OBO	Each	10		
90	Providing and fixing 12 Watt recessed down light dimension D85mmX H 80mm , cut into size 75mm , beam angle 38 degree . Body shape :- Round (WH , BK) Model -Grace. This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	54		
91	Providing and fixing Magnetic track profile flood light 20 watt dimension D600mmX W22 X H 22mm , beam angle 120 degree . LED-Brands- osram , Angles :-120 degree (Model No :- NL-MT01) . This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	13		

92	Providing and fixing Magnetic track laser blade light 12 watt dimension D220mmX W22 X H 22mm , beam angle 120 degree . LED-Brands- osram , Angles :-24 degree (Model No :- NL-MT02) . This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	18		
93	Providing and fixing Magnetic track Spot light 12 watt dimension 45 dia X L 100 , LED Brand Beam angle 24 degree . (Model No :- NL-MT03) . This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	17		
94	Providing and fixing 3m Magnetic track . This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	5		
95	Providing and fixing 2m Magnetic track . This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	7		
96	Providing and fixing Magnetic track power supply Driver .This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	12		
97	Providing and fixing LED HANGING LIGHT Led Modern Style Crystal ball Shaded Pendant Chandelier . Modern LED Meteor Shower Pendant Lamp Acrylic Pendant Light Chandelier Ceiling Light Bar Dining Room tower inside White/Gold Size: 1Heads 44cm*50cm*150cm, Can be customized Main Materials: Acrylic+ Hardware Voltage: 85-265V Light source: LED Color: Gold Finish: Laser Cutting Light source Included 600MM Cylinder Height Material: Metal, Acrylic .This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	9		
98	Providing and fixing Acco Led 4 Feet Profile Light 38W (WHITE) .This item is inclusive of all accessories, packing charges, Transportation, Labour installation complete in all respect as approved by architect and engineer in-charge at all floors/ ht upto 38m.	Each	8		
II	FIRE DETECTION & ALARMING SYSTEM				
	INTELLIGENT ADDRESSABLE FIRE DETECTION & FIRE ALARM SYSTEM:				

99	Supply, installation, testing & Commissioning of Microprocessor based Multi-loop(1 Loop Fire Alarm Panel), Addressable IP30 Rated Fire Alarm Control Panel with 5 Inch Touch Screen Display, 10000 event & alarm log history .Panel Should be capable of programming from Toch Screen ; PC & Mobile App . The panel should be equipped with sufficient numbers of loops considering 15 % spare capacity in each loop. Each loop shall have a capacity of minimum 159 analog addressable devices. Panel should be capable of Networking with Repeater Panels through RS 485 port. Panel should have 2 Nac Circuits for any third party activation. Panel should have programmable 160 Fire Zones. Panel to be functional on 240 volts AC power supply, automatic battery charger, 24 volts sealed lead acid batteries sufficient for 24 hours normal working and 30 mins in alarm condition. The panel shall be capable of integrating with OEM PA/VA System for Emergency Communication in case of Fire. Panel should be capable of integrating thorough OEM 2 ways Communication Fire Fighters System via input modules. Panel as per New UL 10th Edition. Approved Make: Honeywell, XLS 3000, Johnson Control (IFC Series), Nohmi	Each	1		
100	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed tempreature thermistor complete with base as required	Each	1		
101	Supplying, installation, testing & commissioning of intelligent analog addressable photo thermal detector complete with mounting base complete as required.	Each	17		
102	Supplying, installation, testing & commissioning of response indicator on surface /recessed MS Box having two LED, metallic cover complete with all connections etc as required	Each	10		
103	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	Each	1		
104	Supplying, installation, testing & commissioning of addressable fire control module complete as required.	Each	2		
105	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	Each	3		
106	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required	Each	2		
107	Supplying, installation, testing & commissioning of 6W ceiling speaker complete as required	Each	18		
108	Supply, installation, testing & Commissioning of 16 zone, voice alarm controller with USB, MP3 player with seamless integration facility with main fire alarm panel for voice evacuation complete as required. Make:- Honeywell, BOSCH.	Each	1		
109	Supply, installation, testing & Commissioning of 16 zone call station with gooseneck mic with integration with Voice alarm controller for voice evacuation complete as required. Make:- Honeywell, BOSCH.	Each	1		

110	Supply, installation, testing & Commissioning of Rack Mounted minimum 240 W, Power Amplifier as per technical specification as specified in tender. Make: Honeywell, BOSCH	Each	1		
111	Supply, installation, testing & Commissioning of Online UPS 1 kva 800 Watts Tower UPS with 1 hour battery backup. Operating Temperature Range 0 to 40 Degree @ 100% Load @ 50 Degree with 50% Load, Storage Temperature -15°C~60°C, Relative Humidity 0-95% No condensates, Acoustic Noise 40 dBA @ 1 Meter, Cooling Forced air cooling by the internal fans, Input Socket IEC C13, Output Socket IEC C14, No of output sockets 3 No's, Rated Input Voltage 208/220/230/240 Vac, Maximum working input voltage range 160 to 300 Vac @ 100% Load, 100 to 300 Vac @ 50% Load, Input Power Factor 0.99, Input THDi% 5%, Generator Set Yes 1.5 x UPS Capacity, Rated kVA 1000 VA, Rated kW 800 Watts, Load type Resistive load/ lagging load/ non-linear load/ transformer load/ lighting load, Load power factor range 0.5~1 lagging, Load Crest Ratio 3:1, Online Efficiency 88%, Rated Battery Voltage 36 Vdc, Battery Type VRLA (Valve Regulated Lead Acid Battery), 12VDC, Battery backup Back UP : 936VAH, Maximum charging current 10 Amps, ECO Mode Available, Communication (Independent SCI) Available, Intelligent Card slot (Independent SCI) Available, OVCD Available, EPO Function Available, Intelligent Fans Speed control Available, Auto restart function Available, Cold start Available complete in all respects as approved and desired by the Engineer in-charge at site. MAKE: Eaton, APC, GE	Each	1		
112	Supplying & laying of 2x1.5 sqmm fire survival armoured cable, 600/1000V rated with annealed copper conductor having glass mica fire barrier tape covered by an extruded layer of Cross Linkable Ethylene Propylene Rubber (EPR) insulation and LSZH inner bedding, steel wire armouring & LSZH outer sheath complete as required.	Mtr.	200		
113	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.				
113.1	Speaker cable Single pair, 2-core, 1.5 sqmm	Mtr.	200		
114	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
114.1	20 mm	mtr	80		
114.2	25 mm	mtr	80		
III	SUB HEAD (III) : EPABX SYSTEM				

115	Supply, installtion, testing & commissioning of the Switching system of the EPABX should be designed with IP at the core allowing fully distributed IP solutions across data networks in 19" Rack Mountable,7 universal slots in single Node and should support card Analog Extension Card , Digital Extension Card , for the respective addition / expansion. Analog & Digital extensions can be increased in the steps of 8, 16 & 32 Ports .Analog Trunks , PRI, BRI Trunks, E1 & SIP Trunks . Single card/module should support 2 or more PRIs, It should support 100% IP or 100 % TDM or a hybrid of IP/TDM technologies.1.2. The EPBAX configured for 02 trunk lines, 20 analog extension card and 2 Sip Extension with its license .The system should support IP Communication Devices (wired and wireless) e.g. IP Phones (Hard and Soft phones), Mobile IP Phones, multimedia PCs, SIP phones, Video phones (Hard & soft), etc.1.3. The system should also support Legacy TDM communication devices (Digital and analog 2 Wire telephone instruments with or without caller-id (Both FSK and DTMF), Fax, modems, ISDN phones etc. 1.6. The proposed system should support direct SIP integration with Microsoft Lync 2013 including following. Vendor should provide proper document towards certification with Microsoft Lync 2013 integration.1.16. The system should support at least 228 analog extensions in a single node and up to 600 analog Extensions in multiples nodes,at least 400 Digital Phones in a single node and 600 digital phones in multiple node,support at least 600 SIP extensions in a single node,Support 600 DECT/SIP DECT phones.support at least 224 DECT base stations and over 4000 SIP-DECT Base stations.should support minimum 56 Analog Trunks ,56 ISDN BRI trunks,14 PRI Trunks.Fax over IP with T.38 Interface and should support minimum 140 channels.240 SIP access channels.1.26. The system should have in-built Auto Attendant and Voice Mail system.Make : Cisco, Aastra, Nortel, Ericsson, Mitel	Each	1		
116	Supply, installation, testing & commissioning of analog phone with caller id and hand free facility complete along with erection of the same with connections, testing etc. complete in all respects .Make: Beetel, P-Tel, Binatone, Panasonic, Siemens. .	Each	10		
117	Supply and erection of 20 pairs MDF with krone modules & lockable box complete in all respect. Make: Krone, M-Tel, Reliance, A-Tel, Airtele	Each	1		
118	Supply & erection of 02 pair 0.5mm PVC dual sheathed telephone cable as per ITD Specification 113-B with up to amendments complete along with erection of the same with connections, testing etc. complete in all respects. Make: Delton, Havell's, Finolex, RR kabel, Polycab, Himcom	mtr	100		
119	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
119.1	20 mm	mtr	40		

119.2	25 mm	mtr	40		
IV	SUB HEAD (IV) : NETWORKING SYSTEM				
120	Supply, Installation Testing and commissioning of Category 6 Unshielded Twisted Pair 23 AWG, 4 pair 100W cable shall be compliant with ANSI/TIA/EIA-568-C.2 Additional Transmission Performance Specifications for 4-pair 100W Category 6Cabling. Tested upto 600 MHZ; Construction: 4 twisted pairs separated by internal X shaped, 4 channel, polymer spine / full separator. Half shall not be accepted.Outer Diameter 6.1 mm nominal;Temperature Range -20° to +60°C complete in all respect. Make : D-Link, Panduit, R&M	mtr	305		
121	Supply, Installation and Commissioning of CAT6 UTP 24AWG PATCH CORD:1M, Plug 30U' Snagless complete in all respect . Make : D-Link, Panduit, R&M	Each	16		
122	Supply, Installation and Commissioning of Patch Panel UTP Keystone- 24 Port- loaded made of powder coated steel,Improved cable management with cable management bar, UL94V-0 rated or equivalent complete in all respect . Make : D-Link, Panduit, R&M	Each	1		
123	SITC of I/O with Faceplate and SMB . Make : D-Link, Panduit, R&M	Each	2		
124	Supply, Installation, Testing and Commissioning of Wall Mount 15U x 600 W x 600 D, Front Glass Door (tinted,Toughened) with Lock & Key, 2 pairs of 19" Mounting Rails with U-Marking , Welded Side Walls, Min Accessories : 1U Cable Manager (1), Hardware Packet (1 Pkt), 6 Socket 5 Amp. Power Distribution Unit (1 No), Roof Mounted Fan Unit / 90 CFM /230V AC.as per DIN 41494 Standards (1 No) complete in all respect .Make:DLink, Netrack, Mountxross, Rittal, Panduit	Each	1		
125	Supply, erection, testing & commissioning of Display Information sytem working on LAN, 55" 4K , UHD, Digital Signage,4000;1DVI-D,DP1.2,HDMIX2, HDCP2.2, Stereo mini Jack,USBX2, RS232C(in/out),RJ45, 300NITS, MagicInfo Premium software, Multi Display Control Software, WI-FI,Auto Source recovery & switching, 8Gb with Stand Memory complete in all respects.Make Samsung, Sony, LG, Toshiba, Hitachi	Each	2		
126	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
126.1	20 mm	mtr	40		
126.2	25 mm	mtr	40		
V	SUB HEAD (V) : CCTV SYSTEM				

127	Supply, erection, testing & commissioning of IP indoor Camera 1/2.8" SONY Starvis Back-illuminated CMOS Sensor 2 MP ,2.7-13.5mm Motor Zoom Auto Focus Lens ,AF,WDR; Super Starlight With Internal POE Main Stream: 1080P@30fps, 3M@15fps; 3MP HD Lens, With IR-CUT 2.7-13.5mm Motor Zoom Auto Focus Lens HDR, Defog, Flicker Control, 2D DNR, 3D DNR, Back Light control, Motion Deduction, Privacy Masking 3 Rectangular Zone, Compression H.264/H.264+/ H.265/ H.265+/ JPEG/ AVI / MJPEG, Electronic Shutter Time Auto: PAL 1/25-1/10000Sec; NTSC 1/25-1/10000 Sec, Protocol: TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP ,DNS, DDNS, RTP, RTSP, RTCP, NTP, SMTP, ONVIF 2.4, Camera makes Sony / Mobitech, Mountxross, Bosch, Axis/Pelco should be compatible with same make of NVR. IE Brower IE8-11, Google Chrome, Firefox, Safari, Mac Safari, Smart Phone iPhone, iPad, Android, Android Pad, Image Config Saturation/ Brightness/ Contrast /Sharpness, Mirror, 3D NR , White Balance, FLK(Flicker Control) Main Stream: 1080P/720P@30fps; 3MP HD Lens, With IR-CUT/(H.264/H.265) , IR range: 30M , Recording Mode NVR/NAS/CMS/Web complete Approved Make : Sony, Mobitech, Mountxross, Bosch, Axis, Pelco	Each	2		
128	Supply, erection, testing & commissioning of PoE Spliliter 12 v 1 Amp, IP66 For High Voltage Protection complete in all respects as approved and desired by the Engineer in-charge at site. Make : Honeywell, Mountxross, Bosch, Axis, Pelco	Each	2		
129	Supply, erection, testing & commissioning of 5CH NVR H.265 1 HDD 5CH NVR, Video Input 5-ch, Max Resolution 6MP, Bandwidth Incoming 50Mbps; Outgoing 40Mbps, HDMI/VGA Output HDMI 1- ch, 3840×2160, 1920×1080, 1281×720, 1024×768, 1366×768, 1440×900, 1281×800 VGA 1-ch, 1920×1080, 1281×720, 1024×768, 1366×768, 1440×900, 1281×800, Audio Output 1xRCA, Decoding Format IH+265/H.265/H.264, Recording Resolution 6MP/5MP/4MP/3MP /1080P/UXGA/ 720P/ VGA/ 4CIF/DCIF/2CIF/CIF/QCIF, Preview Capability 1×6MP, 1×5MP, 1×4MP, 1×3MP, 4×1080P, 5×720P, 5×4CIF, Synchronous Playback 1×6MP, 1×5MP, 1×4MP, 1×3MP, 3×1080P, 4×720P,. Make :Honeywell, Mountxross ,Bosch, Axis, Pelco	Each	1		
130	Supply, erection, testing & commissioning of upports 16* 10 / 100M POE port and 2*10/100/1000M RJ45 ports+ 1* 10/100/1000M Fiber port, Support IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.3af / at, store and forward, Compatible with IEEE802.3at (30W) and IEEE802.3af (15.4w), Ethernet port supports 10 / 100M adaptive and POE functions, With DIP switch support 10M transmission rate via cat.6 transmission distance of up to 250 meters, LED indicators for monitoring power, link, activity and speed, Compatible with 1U Rack-mount chassis Installation, Bandwidth 9.2Gbps (non-blocking), . Make CISCO, Allied Telisis, Mountxross, Netgear, Ruckus	Each	1		

131	Supply, erection, testing & commissioning of HDD Formatted capacity 6 TB, Data transfer rate (max) Buffer to host Host to/from drive (sustained) 6 Gb/s 171 MB/s, Cache (MB) 64, Rotational speed (RPM) IntelliPower, Load/unload cycles 4 300,000, Non-recoverable read errors per bits read <1 in 10 ¹⁴ , Operating (2 ms, read/write) 30, Operating (2 ms, read) 65, Non-operating (2 ms) 250, Average power requirements (W) Read/Write 5.90, Idle 4.90, Standby and Sleep 0.40 complete in all respects as approved and desired by the Engineer in-charge at site. Make WD, Toshiba	Each	1		
132	Supply, Installation, Testing & Commissioning of offline 1 KVA UPS with Input power factor - 0.99, Output power factor - 0.8, OVCD inbuilt, DC V 36v, Efficiency : Above 90% complete in all respects as approved and desired by the Engineer in-charge at site. Make: Eaton, APC, Emerson	Each	1		
133	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
133.1	20 mm	mtr	10		
133.2	25 mm	mtr	10		
	TOTAL OF ELECTRICAL WORK				

BILL OF QUANTITY – PART C

HVAC

134	CHW TYPE AIR HANDILING UNIT.				
	Supply of Ceiling Mounted Chilled Water, AHU, double skin, type with casing, IP55 TEFC motor, DIDW forward curve blower, 4 Row, 12 mm water cooled coil, filter, SS 304 drain pan, as per specification .				
	Entering Air Temperature 76 deg .F DB / 63 deg .F WB				
	Leaving Air Temperature 56 deg .F DB / 55.5 deg .F WB				
	Entering Chilled Water temperature - 7.5 Degree Celcius . Leaving water temperature - 12.5 C (Verify with Developer / Actual readings)				
	CFM (TR) STATIC PRESSURE				
	6000 CFM ma. (15.0 Tr) 40 mm	1	NOS		
	Make: Edgetech/Airtech				
(B)	INSTALLATION PART (AHU)				
135	CHW TYPE AIR HANDILING UNIT.				
	Installation Testing & Commissioning of Ceiling Mounted Chilled Water , AHU ,double skin ,type with casing,IP55 TEFC motor, DIDW forward curve blower, 4 Row, water cooled coil, filter, SS 304 drain pan, as per specification .				
	CFM (TR) STATIC PRESSURE				
	6000 CFM ma. (15.0 Tr) 40 mm	1	NOS		
136	CHILLED WATER PIPING & VALVE , FITTINGS				
136.1	CHILLED WATER PIPING				
	Supply, installation, testing & commissioning of chilled water pipes in				
	MS class " C" construction complete with fittings, bends, elbows, unions & supports, sleeves as per specifications				
	50mm dia.	8	RMT		
	Make: Jindal(Hissar)				
136.2	CHILLED WATER PIPING INSULATION				
	Supply, installation, testing & commissioning of insulation for chilled water piping. The insulation should be complete as follows. Consider 19mm Thick , Nitrile Rubber fixed using adhesive as per Manufacturers recommendation etc				
	50 mm dia	6	RMT		
136.3	DRAIN PIPING				
	Supply, Installation testing & commissioning of PVC drain piping having 6mm thick nitrile foam insulation wrapped with taping	6	RMT		
	40 mm dia.				
136.4	BALL VALVES				

	Installation, testing & commissioning of following sizes of butterfly valve with lug type construction, bolts, supports etc. The valves should be insulated by making 19mm thick nitrile foam & covered with black tape 50 mm dia.	RO	NOS		
136.5	BALANCING VALVE				
	Supply, installation, testing & commissioning of following sizes of balancing valve with matching flanges, bolts, supports etc. The valves should be insulated by making 24 G aluminum sheet box and filling loose TF thermo Cole applied as per specifications 50 mm dia.	1	NOS		
	Make: Zoloto/Advance				
136.6	Y- STRAINER				
	Supply, installation, testing & commissioning of following sizes of Y strainer with matching flanges, bolts, supports etc.				
	50 mm dia.	1	NOS		
	Make: NVR/Castle/Sant				
136.7	2 WAY MIXING VALVE ON/OFF TYPE (Use 2 way valve if the Mall has a Primary /Secondary chilled water loop)				
	with Digital display Temp controller				
	50 mm dia -	1	NOS		
	Make: Anergy				
136.8	PRESSURE GAUGE & THERMOMETER				
	Necessary pressure gauges and thermometers				
	Pressure gauges	0	NOS		
	Thermometers	0	NOS		
136.9	AHU Panel with Cable from Panel to AHU (BCH)	1	NOS		
	Make: BCH				
137	Supply, installation, testing & Commissioning of Incomer cable 4 core 2.5mm from indoor to starter panel (Supply for incomer will be inclient's scope)	10	RMT		
	Make: Polycab /Havells/Bonton				
(C) SHEET METAL WORKS (DUCTING)					
138	SHEET METAL WORKS .				
138.1	Supply, Installation, Testing & Commissioning of Site Fabricated ducting with 6mm Thick Insulation Inside Duct complete as per drawings.				
	24 G Ducting	100	Sqm		
	22 G for Plenum and Connections	40	Sqm		

	Make: Tata/Sail/Jindal				
138.2	Volume control dampers in supply air collar for control of air supply through diffusers	2.5	Sqm		
	Make: Airflow/Pineair/Uniaire				
138.3	Diffusers				
	Aluminum extruded , powder coated supply / Return air diffusers	4.5	Sqm		
	Make: Airflow/Pineair/Uniaire				
138.4	Canvas flexible connection between AHU & duct	1	NOS		
139	THERMAL & ACOUSTIC INSULATION:				
139.1	Duct insulation with 13 mm/9mm thick Nitrile foam insulation with adhesive SR 505 to prevent cooling losses from the duct	35	Sqm		
	Make: Armacell/A-Flex/K-Flex				
139.2	12mm Thick Glasswool Acoustic Lining soundproof insulation for the static piece of the duct connection	12	Sqm		
	Make: Armacell/A-Flex/K-Flex				
139.3	S/I/T/C of 3 star rating Hi Wall split AC unit complete with Indoor & Outdoor unit of 1.5 TR capacity along with polyurethane rubber pipe fixed on copper tube of required size up to 20 m length & suitable standard MS stand for outdoor unit complete in all respect and of approved make as per direction of engineer in charge with digital type automatic copper wound 4kva stabilizer (Make Voltas/Hitachi/Carrier/Blue Star)	1			
140	CIVIL WORKS				
	Chiseling of walls for routing of pipes/cables. Finishing of same. Breaking and making of openings in consultation with Architect for routing pipes, cables, fresh air etc. ; Scaffolding etc or any other civil work for carrying out AC work.		LUMSUM		
	GRAND TOTAL				

BILL OF QUANTITY – PART D

SUMMARY (A+B+C)

S. N	DESCRIPTION	UNIT	AMOUNT
PART-A (INTERIOR FURNISHING)			
1	Dismantling Work	Rupees	
2	New Civil Work	Rupees	
3	Flooring	Rupees	
4	Ceiling	Rupees	
5	Partition and Panelling work	Rupees	
6	Pantry	Rupees	
7	Miscellaneous items	Rupees	
8	Furniture & Fixture	Rupees	
9	Joinery	Rupees	
10	Public Health Work	Rupees	
PART-B (ELECTRICAL)			
1	Internal Wiring	Rupees	
2	Fire Detection & Alarming System	Rupees	
3	EPABX System	Rupees	
4	Networking System	Rupees	
5	CCTV System	Rupees	
PART-C (HVAC)			
1	CHW Type Air Handling Unit	Rupees	
2	Installing Part (AHU)	Rupees	
3	Sheet Metal Work (Ducting)	Rupees	
4	Civil Work	Rupees	
	GRAND TOTAL PART-A+B+C	Rupees	
	ADD GST	Rupees	
	TOTAL(PART-A+B+C) AFTER GST	Rupees	

Amount Words:

Signature of the Tenderer/s
With the Seal of the Company

Date:

ANNEXURE – I

SCOPE OF WORK

The scope of work shall be generally as given in the Bill of Quantity, summary of items and as mentioned below:

INTERIOR FURNISHING: Dismantling/ Removing of existing furnishing, furniture, false ceiling, wooden partitions, panelling, electrical work, door, windows, cabinet, AHU, Ducting etc. And flooring wall and floor, granite ,skirting, brick work, plaster, cut out patch repair, pvc spout in balcony, UPvc door, window, sliding,louvers door, partitions, glazed door, flush door, repairing existing door/shutter, panelling, wall paper, Lacquer Glass, paint, p.o.p, false ceiling, plumbing work, piping, sanitary work, geyser, tables and counters, storage cupboards unit, cabinet, overhead storage, mobile compactors storage, locker cabinet, sofa, chairs, company logo, shutter ,honeycomb shades ,roller blinds, photo frames, artificial plant, grass truffle, outdoor roof cover (awning, green plants (outdoor wall), natural green plants (with pots), anti-birds net, auto sanitizer dispenser, refrigerator, water dispenser, microwave, hot case, rolling shutter, collapsible shutter, dishwasher, induction stove, wall clock, signage, etc.

x. ELECTRICAL:

Electrical work including all Low & Medium Voltage, Sub Distribution Panels, Distribution Boards, Raceways and Cable Trays, Cables, Mains & Sub Mains, Earthing, Point Wiring, Telephone, Computer, T.V. System, Lighting/ Fixtures, Addressable Fire Alarm and Pa System, fire extinguishers cylinders, CcTv, Access Control System, Fire Fighting System, Screen, IP -PBX system, Ups, networking, conduiting, etc.

xi. HEATING VENTILATION & AIR CONDITIONING (HVAC):

HVAC Work Including Outdoor Unit, Indoor Unit, Cassette Ac – (.8,1,1.3,1.5,2.0) Ton, Hi-Wall Type Indoor, TFA, Y-Joint, Clean Air Filter/Central Controller Refrigerant piping, UVGI Lamp, Air cooled Split Ac System, MS Stand, Control Cable, Air Distribution, Duct Damper, Grills, Air Diffusers, Thermal Insulation, Louvers, Inline Fans, etc.

Contractor shall maintain open format drawing and person at site, to incorporate updates from site working conditions. Shall submit such drawing revisions as Drawing R/A Bill 1, 2, 3 and final.

ANNEXURE-J

DRAFT CONTRACT

THIS CONTRACT ("Agreement") is made and executed at, on this ____ day of _____, 2023

BY AND BETWEEN

ECGC Limited, a Public Sector Enterprise wholly owned by Govt. of India and a Company duly incorporated under the provisions of the Companies Act, 1956 having Corporate Identity Number U74999MH1957GOI010918 and PAN No. AAACE296K having its Regional office at New Delhi NBCC Office Complex, Block- III, 4th Floor, East Kidwai Nagar, Delhi-23 and Branch office at Chandigarh, ECGC Ltd., Chandigarh Branch, PHD Chambers (House) 1st Floor, Sector-31 A, Chandigarh-160031 hereinafter referred to as "The Company" through its authorized representative (Name & Designation).....(which expression shall unless it be repugnant to the context or meaning thereof be deemed to mean and include its successors in business and assigns) of the **FIRST PART**.

And

_____, a Company/ Firm, with PAN No..... and having its Office at _____ hereinafter referred to as "**The Vendor**" through its authorized representative _____ (which expression shall unless it be repugnant to the context or meaning thereof be deemed to mean and include its successors in business and assigns) on the **OTHER PART**.

Both the Vendor and the Company shall individually be referred to as Party and collectively be referred to as Parties.

WHEREAS:

- A. The Company is in the business of providing credit risk insurance and related services for exporters and banks and has several branch offices all over the country. The Company is intending to engage services for Office Interior furnishing,

Electrical, Heating, Ventilation and Air Conditioning (HVAC) and allied civil works in its office situated at Chandigarh 1st Floor, W1-I, Tower-A, Godrej Eternia, Plot no. 70, Industrial Area, Phase-1, Chandigarh-160002 ("**Purpose**"):

- B. The Vendor has represented to the Company that it has the requisite expertise and resources to provide the Services and has come out as the Successful bidder to the Tender having Reference no.....
- C. Based on such representations, the Company has engaged the Vendor to perform the Purpose, and the Vendor has agreed to provide such professional Services to the Company, as per the terms of this Agreement.

NOW THESE PRESENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. AGREEMENT PERIOD:

- a. The term of the Services shall be valid and operative for a period of, commencing with effect from till unless terminated earlier in accordance with the provisions of this Agreement.

2. SCOPE OF SERVICES:

As mentioned at Clause 4.2 of Section 4 of TCC and Annexure – I of the NIT.

3. NOTICES:

All notices, requests and other communications to any Party hereunder shall be in writing either by hand delivery/postal/courier to their respective addresses mentioned above or through an email as hereunder;

For Vendor:

For Company:

- 4. Both the Parties agree to the conditions mentioned in the Tender Document dated under Reference no.....Such Tender document shall form part of this agreement.

5. Both Company and Vendor shall sign such further and other documents, cause such meetings to be held, resolutions passed and do and perform and cause to be done and performed such further and other acts and things as may be necessary or desirable in order to give full effect to this Agreement and every part thereof.

IN WITNESS WHERE OF THE PARTIES HERETO HAVE HEREINTO SET AND SUBSCRIBED THEIR RESPECTIVE HANDS AND SEALS, THE DAY, THE MONTH AND THE YEAR FIRST HEAREINABOVE WRITTEN.

Signed, sealed and delivered in presence of:

On behalf of ECGC Ltd.	On behalf of <u>Vendor</u>
Signature_____	Signature_____
Name:	Name:
Designation	Designation
Address:	Address:
Witness	Witness
Signature_____	Signature_____
Name:	Name:
Address:	Address: