



NIT No- VIII-166-MF-2019-20/1920 /ILS

Dt. 26 /08/2019

INSTITUTE OF LIFE SCIENCES
(An autonomous Institute of the Department of Biotechnology, Govt. of India)
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e-TENDER DOCUMENT

**Name of the work: Repair and renovate of structural glazing
/Alco paneling of Auditorium building, R&D &
Guest house cum hostel & S.O.C at Campus- I &
II.**

Total E.C.- Rs 7,50,983.00
E.M.D.- Rs 15020.00

A.O, ILS, BHUBANESWAR

For and on behalf of Director, ILS.

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The D.N.I.T. contains 16 (Sixteen) pages only.

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING

The **Director**, Institute Of Life Science , Bhubaneswar invites item rate e-tenders on behalf of Institute Of Life Science , Bhubaneswar (A Autonomous Government of India) from approved and eligible contractors of ILS (Civil Wing) and non-ILS registered contractors of appropriate class of Public Works Organizations like CPWD, DOP, MES, Railways and State PWD (R&B) of Odisha for the following work. Agencies of similar work are also eligible to tender for this work subject to fulfillment of experience conditions.

<u>S. No.</u>	<u>Description</u>	<u>Details</u>
i)	NIT No.	VIII-166-MF-2019-20/1920/ILS Dt. 26 /08/2019
ii)	Name of Work:	Repair and renovate of structural glazing / Alco paneling of Auditorium building, R&D & Guest house cum hostel & S.O.C at Campus- I & II.
iii)	Estimated Cost	Rs 7,50,983.00
iv)	Earnest Money	Rs 15020.00
v)	Period of Completion	Two Months
vi)	Last date and time of online submission of tender	17.00 hours on 17.09.2019
vii)	Time and date of online opening of Documents	11.30 hours on 18.09.2019
viii)	Time and date of opening of Online Financial Bids	To be intimated latter after technical evaluation
ix)	Period during which hard copies of EMD, Registration Certificates, Undertaking and other Documents to be submitted to Division office	To be submitted during office on or Before the online submission of tender

1. The intending bidder must read the terms and conditions of Tender document carefully. He should submit his bid if he considers himself eligible and he is in possession of all the certificates/ documents required.
2. Information and Instructions for bidders for e-tendering posted on website shall form part of bid document.
3. The bid document consisting of NIT, plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from <http://www.tenderwizard.com/ILS> or www.ils.res.in Or www.eprocure.gov.in at free of cost.
4. For e-tendering of this tender, ILS has engaged e-portal maintained by M/s ITI Limited, Bhubaneswar. Intending bidders shall have to register with M/s ITI Limited, Bhubaneswar to participate in the tendering process. For details kindly visit website <http://www.tenderwizard.com/ILS> or contact Shri SANJIB MOHAPATRA (Mobile No. 9937488749 or 7377708585). If needed they can be imparted training on online bidding process as per details available on the website.
5. The intending bidders must have valid class-III digital signature to submit the bid.
6. The bid can be submitted only after depositing e-tender Processing Fee (Online through e-Payment) in favour of ITI Limited within the period of bid submission. **E-tender processing fee is non-refundable.**

7. Copies of eligibility documents and EMD as specified in the notice inviting tender shall be scanned and uploaded on the e-tendering website within the period of tender submission. Bidders can upload documents in the form of JPG format, PDF format and any other format as permissible by the e-tendering portal.
8. Bidders must ensure to quote rate of each item. The column meant for quoting rate in figures appears in dark yellow colour and the moment rate is entered, it turns sky blue. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO). After submission of the bid online the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
9. After submission of bid online, it can be revised any number of times before specified time on last date of submission of bid. While submitting the revised bid, bidder can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
10. Financial bids shall be opened online only for bidders for whom EMD and other documents are found in order and who are found to be eligible to bid for work. On opening date, the bidder can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
11. If the contractor is found ineligible after opening of bids, his bid shall become invalid.
12. If any discrepancy is noticed between the eligibility documents as uploaded at the time of submission of bid and hard copies as submitted physically by the bidder, the bid shall become invalid and.

List of eligibility Documents to be scanned and uploaded online within the period of bid submission:

- a) The contactors who are interested to participate in the tender shall furnish Scan copies of their Registration Nos. / Trade License No., GST No. & pan card.
- b) The Bidders are required to deposit the EMD in favour of **Director, ILS** for **Rs.15020 /- (Rupees fifteen thousand twenty only)**
- c) List of similar works completed last five years, duly supported by completion certificate issued by the competent authority. Similar works mean one no. of repair and renovation of building work such as dismantling, aluminum door & partition works , water supply etc. amounting to Rs 3.00 lakh. Or two similar works each costing not less than 3.00 lakh during last five years. The contractors are required to give details of such work in standard Performa enclosed at annexure – II.
- d) Scan Copies of **partnership deed in case of partnership firms/ memorandum of articles of association and power of attorney or authorization to the person who signs the tender in case of companies,**
- e) **Labor license must required for submission of tender.**

List of eligibility Documents to be Submitted Offline within the period of bid submission in a Envelope:

- b) The contactors who are interested to participate in the tender shall furnish Xerox copies of their Registration Nos. / Trade License No., GST No. & pan card.

- b) The Bidders are required to deposit the Original EMD in favour of **Director, ILS** for **Rs.15020 /- (Rupees fifteen thousand twenty only)**
- c) List of similar works completed last five years, duly supported by completion certificate issued by the competent authority. Similar works mean Repair and renovate of structural glazing /Alco paneling etc. amounting to Rs 6.00 lakh. Or two similar works each costing not less than 3.00 lakh during last five years. The contractors are required to give details of such work in standard Performa enclosed at annexure – II. **The agency must be visit site before quoting the rate.**
- d) Copies of **partnership deed in case of partnership firms/ memorandum of articles of association and power of attorney or authorization to the person who signs the tender in case of companies,**
- e) **Labor license must required for submission of tender.**

All the above offline document must be received in sealed envelope & must be either delivered by hand or posted at the following address so as to reach not later than the last date/time specified in the NIT to **DIRECTOR INSTITUTE OF LIFE SCIENCES, NALCO SQUARE, BHUBANESWAR-23**. The name and mailing address of the Applicant (bidder) shall be clearly marked on the envelopes. **Bids received late i.e. after the due date and timing for receipt of bids shall not be accepted/considered for evaluation and such bids shall be returned unopened.**

Terms & Conditions :

The tender shall be submitted in Two Bid systems having 2 (Two) parts online:

- (i) **Technical Bid:** All required documents submitted to be online.
- (ii) **Financial Bid:** The Financial Bid of bidders, who qualify at Technical Bid Evaluation, will be opened thereafter.
- (iii) **Manual Submission of Following Documents:**

The following documents are to be sent to **DIRECTOR, INSTITUTE OF LIFE SCIENCE, NALCO SQUARE, BHUBANESWAR, 751023**, separately in a sealed envelope superscripted as: e-Tender for (Name of Work) The sealed enveloped should reached on or before last date & time submission of e-Ternder. i.e before the due date of submission of online bidding.

- c) The contactors who are interested to participate in the tender shall furnish Xerox copies of their Registration Nos. / Trade License No., GST No. & pan card.
- b) The Bidders are required to deposit the Original EMD in favour of **Director, ILS** for **Rs.15020 /- (Rupees fifteen thousand twenty only)**
- c) List of similar works completed last five years, duly supported by completion certificate issued by the competent authority. Similar works mean **Repair and renovate of structural glazing /Alco paneling etc. amounting to Rs 6.00 lakh. Or two similar works each costing not less than 3.00 lakh during last five years.** The contractors are required to give details of

such work in standard Performa enclosed at annexure – II. **The agency must be visit site before quoting the rate.**

- d) Copies of **partnership deed in case of partnership firms/ memorandum of articles of association and power of attorney or authorization to the person who signs the tender in case of companies,**
- e) **Labor license must required for submission of tender.**

A. EARNEST MONEY DEPOSIT (EMD)

A.1 - The Bidders are required to deposit the EMD in favour of **Director, ILS** for **Rs.15020 /- (Rupees fifteen thousand twenty only)**

Work in following forms only.

a. Demand Draft in favour of DIRECTOR, INSTITUTE OF LIFE SCIENCES and payable at BHUBANESWAR drawn on any Indian Scheduled Bank in a separate envelope super- scribing “EMD”

A.2 - EMD in any other form shall not be accepted.

A.3 - ILS shall summarily reject any bid not accompanied by the EMD as mentioned above.

A.4 - After evaluation of financial bids, the EMD of unsuccessful bidders will be returned within a month from the end of the tender validity period.

A .5 - The EMD of the successful bidder will be retained as part of the security deposit.

A .6 - The EMD of the bidder, whose Technical bid is found not acceptable, will be returned as soon as scrutiny of Technical bid has been completed.

A .7 - No interest shall be paid on the EMD.

B. VALIDITY OF BID

B.1 - Bids shall remain valid and open for acceptance for a period of **two months** from the date of opening of Technical Bid. Should the bidder fail to keep the bid open for acceptance as stated above or if the bidder withdraws his bid before the expiry of the said period or makes any modification in terms and conditions of the bid which are not acceptable then ILS without prejudice to any other right or remedy shall be at liberty to forfeit his 50% EMD absolutely.

B.2 - In exceptional circumstances, prior to expiry of the original validity period, ILS may request the bidders for an extension in the period of validity by no of days as may be required. The request and the responses thereto shall be made in writing or by cable or fax. A bidder may refuse the request without forfeiting his EMD. A bidder agreeing to the request will neither be required nor be permitted to modify his bid but will be required to extend the validity of his EMD correspondingly.

C. SUBMISSION AND OPENING OF BIDS:-

Tender should Open & submitted through Online only in the web portal www.tenderwizard.com/ILS

D. Terms and conditions: -

1. The successful bidder will have to provide a **security deposit** of specified amount to ILS. The total security deposit including the earnest money deposited with the tender shall be 5% (five percent) of the contract value of the work. The Earnest Money deposited at the time of deposit tenders will be adjusted as part of the total security deposit required. The Security Deposit shall be deducted from final bills @ 5% of work done till the total security deposit (including the EMD) reaches required total amount i.e. 5% of the contract value of the work. The security deposited shall be released on vendors request after completion of warranty period i.e 6 months with effect from completion date.
2. The work will be executed based on the specification as stated in the tender document.
3. The contactors who are interested to participate in the tender shall furnish Xerox copies of their Registration Nos. / Trade License No., GST No. & pan card.
4. **The work should be started immediately after issue of work order and should be completed within two months from** the date of issue of work order. Otherwise, penalty @ 1% of tender value will be charged to the Contractor per week of delay.
5. No extension of time will be allowed, if the above work is not completed within the stipulated time. ILS reserves the right to get it completed through any other source without sending any intimation to the contractor.
6. After completion of the work the Contractor shall clean the site and remove debris from the site to outside of ILS.
7. The Contractor shall abide by the laws of the land for payments to labourers etc.
8. The payment shall be made after successful completion of the work as per the actual measurement of the work done confirming to specification and design, drawing etc. as per NIT term & condition.
9. Income Tax, Sales Tax, etc. shall be deducted from the payment to be made to the Contractor as per the existing law.
10. In case of extra items (not provide in BOQ), same item will be paid as per DSR considered for the NIT.
11. The court situated at Bhubaneswar shall have jurisdiction to decide any dispute or litigation, if arises in future beyond the above mentioned rules & regulations
12. **Safety Guidelines should be obeyed by the bidder.**

E-TENDERING INSTRUCTIONS TO BIDDERS

General:

The Special Instructions (for e-Tendering) supplement 'Instruction to Bidders', as given in this Tender Document. Submission of Online Bids is mandatory for this Tender. E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Suppliers / Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, ILS BHUBANESWAR has decided to use the portal www.tenderwizard.com/ILS through an ASP, M/s. ITI Ltd., Bhubaneswar.

Instructions:

1. Tender Bidding Methodology:

Two Stage Online Bidding

2. Broad outline of activities from Bidders prospective:

1. Procure a Class III Digital Signature Certificate (DSC)
2. Register on the e-Procurement portal www.tenderwizard.com/ILS
3. Create Users on the above portal
4. View Notice Inviting Tender (NIT) on the above portal
5. Download Official Copy of Tender Documents from the above portal
6. Seek Clarification to Tender Documents on the above portal. View response to queries of bidders, posted as addendum, by ILS
7. Bid-Submission on the above portal.
8. Attend Public Online Tender Opening Event (TOE) on the above portal - Opening of Technical Part
9. Post-TOE Clarification on the above portal (Optional) – Respond to ILS's Post-TOE queries.
10. Attend Public Online Tender Opening Event (TOE) on the above portal - Opening of Financial Part (Only for Technical Responsive Bidders)

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the above portal.

3. Digital Certificates:

For integrity of data and authenticity / non-repudiation of electronic records, and to be complaint with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC), of Class III, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

4. Registration :

To use the Electronic Tender portal www.tenderwizard.com/ILS, vendors need to register on the portal. Registration of each organization is to be done by one of its senior persons vis-à-vis Authorised Signatory who will be the main person coordinating for the e-tendering activities. In the above portal terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal, and follow further instructions as given on the site. Pay Annual Registration Fee as applicable. (Rs 2000+ GST as applicable)

Note: After successful submission of Registration details and Annual Registration Fee, please contact to the Helpdesk of the portal to get your registration accepted/activated.

1. The Bidder must ensure that after following above, the status of bid submission must become – “Submitted”.
2. Please take due care while scanning the documents so that the size of documents to be uploaded remains minimum. If required, documents may be scanned at lower resolutions say at 150 dpi. However it shall be sole responsibility of bidder that the uploaded documents remain legible.
3. It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.
4. The Financial part/BOQ may be downloaded and rates may be filled appropriately. This file may also be saved in a folder on your computer. Please don't change the file names & total size of documents (Preferably below 5 MB per document) may be checked.

Bid submission

The entire bid-submission would be online on the Tenderwizard portal i.e. <https://www.tenderwizard.com/ILS>

Broad outline of submissions are as follows:

- (i) Submission of Bid Parts (Technical & Financial)
- (ii) Submission of information pertaining to Bid Security/ EMD.
- (iii) Submission of signed copy of Tender Documents/Addendums.

The TECHNICAL PART shall consist of Electronic Form of Technical Main Bid and Bid Annexure. Scanned/Electronic copies of the various documents to be submitted under the Eligibility Conditions, offline submissions, instructions to bidders and documents required to establish compliance to Technical Specifications and Other Terms & Conditions of the tender are to be uploaded.

The FINANCIAL PART shall consist of Electronic Form of Financial Main Bid and Financial Bid Annexure, if any. Scanned copy of duly filled price schedule (Section VII) for both packages are to be uploaded. If required, additional documents in support of taxes, quoted duties etc may also be uploaded.

Tender Processing Fee:-

You pay processing fee (0.1% of ECV + GST as applicable (Min. 500/- & Max 5000/- + GST as applicable)) through online (Credit card/ Debit card/ Net Banking), when participating in the e-tender.

Offline Submissions:

The bidder is requested to submit the as above mentioned documents offline **DIRECTOR, INSTITUTE OF LIFE SCIENCE, NALCO SQUARE, BHUBANESWAR, 751023** on or before the

date & time of submission of bids specified in covering letter of this tender document, in a Sealed Envelope. The envelope shall bear (name of the work), the tender number and the words 'DO NOT OPEN BEFORE' (due date & time).

Public Online Tender Opening Event (TOE)

The e-Procurement portal offers a unique facility for 'Public Online Tender Opening Event (TOE). Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. For this purpose, representatives of bidders (i.e. Supplier organization) duly authorized. Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on the portal. As soon as a Bid is decrypted, the salient points of the Bids are simultaneously made available for downloading by all participating bidders. The medium of taking notes during a manual 'Tender Opening Event' is therefore replaced with this superior and convenient form of 'Public Online Tender Opening Event (TOE)'. The portal a unique facility of 'Online Comparison Statement' which is dynamically updated as each online bid is opened. The format of the Statement is based on inputs provided by the Buyer for each Tender. The information in the Comparison Statement is based on the data submitted by the Bidders. A detailed Technical and / or Financial Comparison Statement enhance Transparency. Detailed instructions are given on relevant screens. The portal has a unique facility of a detailed report titled 'Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/Downloading'. There are many more facilities and features on the portal. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

Important Note: In case of internet related problem at a bidder's end, especially during 'critical events' such as – a short period before bid-submission deadline, during online public tender opening event it is the bidder's responsibility to have backup internet connections. In case there is a problem at the e-procurement / e-auction service-provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of ILS by the bidders in time, then ILS will promptly reschedule the affected event(s).

Other Instructions

For further instructions, the vendor should visit the home-page of the portal. The complete help manual is available in the portal for Users intending to Register / First-Time Users, Logged-in users of Supplier organizations. Various links are also provided in the home page.

Important Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups and minimize teething problems during the use of the said portal.

The following 'FOUR KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to:

1. Obtain individual Digital Signature Certificate (DSC) well in advance of your first tender submission deadline on the portal.
2. Register your organization on the portal well in advance of your first tender submission deadline on the portal

3. Get your organization's concerned executives trained on the portal well in advance of your first tender submission deadline on the portal

4. Submit your bids well in advance of tender submission deadline on the portal (There could be last minute problems due to internet timeout, breakdown etc)

While the first three instructions mentioned above are especially relevant to first-time users on the portal, the fourth instruction is relevant at all times. Minimum Requirements at Bidders end Computer System with good configuration (Min P IV, 1 GB RAM, Windows 7) Broadband connectivity. Microsoft Internet Explorer 8.0 or above. Digital Certificate(s) Vendors Training Program Necessary training to each and every registered bidder under this portal shall be impacted by the ASP, M/s. ITI, Bhubaneswar, if required, before participation in the online tendering.

For any further assistance, please contact Mr Sanjeeb Mahapatra (07377708585), Helpdesk-011-49424365/080-40482000 ITI email ID for mailing communication:-
twhelpdesk404@gmail.com / twhelpdesk680@gmail.com/ twhelpdesk614@gmail.com

FORM OF AGREEMENT

(To be executed on non-judicial stamp paper of Rs.100/-)

Agreement No. _____ Dated _____

THIS AGREEMENT is made on ____ day of ____ (month), ____ (year) between ILS., AN AUTONOMOUS INSTITUTE OF THE DEPARTMENT OF BIOTECHNOLOGY, GOVT. OF INDIA hereinafter called ILS, (which expression shall, wherever the context so demands or requires, includes their successors in office and assigns) on the one part and M/s. _____ hereinafter called the Contractor (which expression shall wherever the context so demands or requires, include his/their successors and assigns) on the other part. WHEREAS the ILS is desirous that certain works should be executed viz. (brief description of the work)..... and has by Letter of Acceptance dated ____ accepted the tender submitted by the contractor for the execution, maintenance and completion of such works at a total contract price of Rs.----- (Rupees-----only).

Now THIS AGREEMENT WITNESSETH as follows:

- 1. In this agreement, words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to.
- 2. The following documents in conjunction with Addendum/ Corrigendum to Bid Documents shall be deemed to form and be read and construed as part of the agreement viz:
 - a. This Form of Agreement
 - b. The Letter of Award dated _____
 - c. Priced Schedule (Bill) of Quantities
 - d. Notice Inviting Tender and Instructions to bidders-
- 3. The aforesaid documents shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities or discrepancies, shall take precedence in the order set out above.
- 4. The ILS hereby covenants to pay to the contractor in consideration of the execution , completion of work at contract price at the time and in the manner prescribed by the contract.

In WITNESS whereof the parties hereto have caused their respective common seals to be here into affixed (or have herewith set their respective hands and seals) the day and year first above written.

SIGNED, SEALED AND DELIVERED BY

M/S. _____ (for contractor) _____ (for ILS)

In the capacity of _____ in the capacity of _____

On behalf of Contractor

On behalf of ILS

In the presence of in the presence of

- 1. _____ 1. _____
- 2. _____ 2. _____

Annexure - II

List of similar works completed during last 5 years.

Sl no.	Clients name and address with contact number	Name of the work.	Scope of work	Agreement / Letter of Award No.	Contract Value (Rs. In lakh)		Location	Date of start	Date of completion		Ref to Suppor-ting Docum-ents submit-ted by bid-der
					Awarded	Actual			As per LOA	Actual	
1	2	3	4	5	6	7	8	9	10	11	12

Note-1: The bidder shall produce an attested copy of the referred completion certificate from the owner companies indicating name of work, description of work done by the bidder, date of start, date of completion(contractual & actual including extensions if any), value of material supplied free of cost by the client. When the owner company is private one, the certificate from the company must be supported by TDS certificate issued by the company. The bidder should be in position to produce original certificate if required.

Note-2: ILS reserves the right to cross checks the certificate(s) directly with the issuing authority /authorities/clients or any other firm/ party.

Note-3: Information must be furnished on only works carried out by the bidder in his firm's own name. Works carried out as a partner in joint venture shall not be included in this Performa.

Note-4: The bidder shall number the page of the documents submitted by him against Pre-qualification requirements/Criteria and such reference number of relevant completion certificate(s) against completed work(s) if any shall be indicated under Column.no.11 of above table.

Signature of Authorised Representative of the bidder.....

Bidder's Stamp-----

Name of the work: Repair and renovate of structural glazing /Alco paneling of Auditorium building, R&D & Guest house cum hostel & S.O.C at Campus- I & II.

Sl. No	Description of items	Unit	Quantity	Rate	Amount
	Providing and supplying aluminum extruded tubular and other aluminum sections as per the architectural drawings and approved shop drawings , the aluminum quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminum frame work. Nothing extra shall be paid on this account).	Kg	175.00		
2	Providing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: The items conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminum cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard / environment including: double sided spacer tape , setting blocks and backer rod , all of approved grade , brand and manufacture as per the approved sealant design , within and all around the perimeter for holding glass. Fabricating and supplying serrated M.S. hot dip galvanised / Aluminum alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon separator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers. Providing and fixing in position flashings of solid aluminum sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to	SQM	240.00		

	<p>seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight. Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete.</p> <p>This item includes cost of all inputs of designing, labour for fabricating and installation of aluminum grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer- in-Charge</p>				
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3	<p>Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12-6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, descants, including primary seal and secondary seal (structural silicone sealant) etc. all complete , as specified and as directed by the Engineer-in-Charge.</p> <p>(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Air gap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.</p>	Sqm	8.00		
	Total amount				

(In word :.....)

1. All charges shall include the cost of Labour, material, taxes, GST and other incidentals. Nothing extra shall be paid beyond the BOQ rate.
2. The work should be executed as per CPWD / IS Specification.
3. The work will be done according to the direction of Engineer in charge.

A.O, ILS, BHUBANESWAR

For and on behalf of Director, ILS.