



Government of West Bengal
Directorate of Forests
Office of the Ex-Officio Director, Garchumuk Zoological Park &
Divisional Forest Officer, Howrah Division,
Dalmia Park, Stadium Complex, Howrah-711101.
Phone No.-2641-1772, E-mail : dfohowrah@gmail.com

e-Tender for Selection of bonafide persons / agencies / companies, including consortium and partnership firms to undertake various works under Ex-officio Director, Garchumuk Zoological Park and Divisional Forest Officer, Howrah Division.

e-NIT No: WBZA-34/Water Monitor Lizard/GZP of 2023-24

Notice Inviting e-Tender No.: WBZA-34/Water Monitor Lizard/GZP of 2023-24

**e-TENDER FOR CONSTRUCTION OF WATER MONITOR LIZARD ENCLOSURE
AT GARCHUMK ZOOLOGICAL PARK, ULUGHATA, HOWRAH UNDER HOWRAH DIVISION.**

The Ex-Officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division, invites e-tenders for the following work from the eligible Contractors as detailed in the table below:

	Name / particulars of the Work	Estimated Amount	Earnest Money @2% of estimated value (Rs)	Period of Completion
1.	Construction of water Monitor Lizard enclosure at Garchumuk Zoological Park, Ulughata, Howrah.	8,34,645.78	19,895/-	60 (Sixty) days from the date of final order
	Add 18% GST	1,50,236.24		
	Total	9,84,882.03		
	Add 1% L.W.Cess	9,848.82		
	Grand Total	9,94,730.85		
	Say	9,94,731/-	19,895/-	

Sl.No.	Particulars	Date & Time
1	Date of uploading N.I.T. Documents–Online (Publishing Date)	24/02/2024
2	Documents download start date (Online)	24/02/2024 from 10.00 AM
3	Documents download end date (Online)	01/03/2024 up to 3.00 PM
4	Bid submission start date (Online)	24/02/2024 from 10.00 AM
5	Bid submission closing date (Online)	01/03/2024 (3.00 PM)
6	Last Date of submission of Earnest Money Deposit (Offline)	01/03/2024 (3.00 PM)
7	Bid opening date for Technical Proposal (Online)	04/03/2024 3.00 PM
8	Date of uploading technically qualified bidders (Online)	To be notified in due course
9	Date of opening Financial Bids (Online)	To be notified in due course

Note:

- 1) In case of any unscheduled holiday or on days of Bandh or natural calamity on the aforesaid dates, the next working day will be treated as scheduled / prescribed date for the same purpose.
- 2) The Tender Inviting Authority may change the venue of opening the Technical or Financial Bids in case of exigent circumstances like breakdown of communications link or conditions of force majeure.
- 3) The Tender Inviting Authority reserves the right to defer the date of opening of either Technical or Financial Proposal or both, if required.

Detail of e-TENDER Notice, Terms and Conditions, BOQ, etc will be available from website <http://wbtenders.gov.in>

1. In the event of e-filing, intending bidder may download the tender documents from the website <https://wbtenders.gov.in> directly with the help of Digital signature Certificate. **Necessary Earnest Money may be remitted through Demand Draft issued from any Authorized Banks in favor of “Ex-Officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division” payable at Howrah and scanned copy to be uploaded during online submission of tenders.**
2. Both **Technical Bid** and **Financial Bid** are to be submitted concurrently duly digitally signed in the website <https://wbtenders.gov.in>
3. Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per prescribed Time Schedule.
4. The **FINANCIAL OFFER** of the prospective tenderer will be considered only if the **TECHNICAL BID** of the tenderer is found qualified by the ‘Tender Committee’ formed by the Ex-Officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division, Dalmia Park, Stadium Complex, Howrah - 711101.
5. Original Drafts/ Pledged Instruments should be submitted to the Ex-Officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division, Dalmia Park, Stadium Complex, Howrah - 711101 in sealed envelope. Last Date of submission of original Earnest Money (Offline) is **01/03/2024 (up to 3.00 PM).**

5. Eligibility criteria for participation in the tender.

5.1 For first call of NIT:

- i. Intending tenderers should produce credentials of a similar nature of work of the minimum value of 40% of the estimated amount put to tender during 5(five) years prior to the date of issue of this tender notice; or,
- ii. Intending tenderers should produce credentials of 2(two) similar nature of work, each of the minimum value of 30% of the estimated amount put to tender during 5(five) years prior to the date of issue of this tender notice; or,
- iii. Intending tenderers should produce credentials of one single running work of similar nature of work which has been completed to the extent of 80% or more and value of which is not less than the desired value at (i) above;
- iv. In case of running works, only those tenderers who will submit the certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executed agency, i.e. the tenderer.

For 2nd call of NIT:

- i. Intending tenderers should produce credentials of a similar nature of work of the minimum value of 30% of the estimated amount put to tender during 5(five) years prior to the date of issue of the tender notice; or,
- ii. Intending tenderers should produce credentials of 2(two) similar nature of work, each of the minimum value of 25% of the estimated amount put to tender during 5(five) years prior to the date of issue of the tender notice; or,
- iii. Intending tenderers should produce credentials of one single running work of similar nature of work which has been completed to the extent of 75% or more and value of which is not less than the desired value at (i) above;
- iv. In case of running works, only those tenderers who will submit the certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executed agency, i.e. the tenderer.

For 3rd call of NIT:

- i. Intending tenderers should produce credentials of a similar nature of work of the minimum value of 20% of the estimated amount put to tender during 5(five) years prior to the date of issue of this tender notice; or,
- ii. Intending tenderers should produce credentials of one single running work of similar nature of work which has been completed to the extent of 70% or more and value of which is not less than the desired value at (i) above;
- iii. In case of running works, only those tenderers who will submit the certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executed agency, i.e. the tenderer.

- 5.2 Bonafied, resourceful contactor / agencies having experience of similar nature or civil construction work should have satisfactorily completed at least 1 similar work or civil construction work within a period of 12 months for a magnitude of 50% of the amount put to the tender under the state Government or its undertaking or the Central Government or its undertaking or any Statutory Body during the last 3 (Three) years from the date of issue of the Notice And verifiable letters/ documents supporting it should be submitted along with Technical Bid. There is no need of EPF and ESI code number.
The Tenderer should have annual turnover more than 20% of the Estimated amount in each year during last 3 (Three) financial years or total more than 60% during last 3(three) financial years plus current financial year and supported with Audited Sheet /Audited Income tax documents/ return to be submitted along with Technical Bid.

- 5.3 **Document:** Income Tax Acknowledgement Receipt for the latest Assessment year, P.T. Deposit Challan for the Current year, PAN Card, VAT / GST Registration Certificate/Copy of Latest VAT/GST return, Service tax registration/return of ST-2/Copy of Latest ST-3 (if any), are to be accompanied with the Technical Bid Documents.

[Non-statutory documents]

- 5.4 **Affidavit (Y):** The prospective bidders or any of their constituent partner shall neither have abandoned any work nor any of their contract have been rescinded, debarred or blacklisted during the last 3 (*three*) years by any Government or PSU. Such abandonment or rescission will be considered as disqualification towards eligibility. A declaration in this respect through affidavit has to be furnished by the prospective bidders without which the Technical Bid shall be treated as non-responsive and be submitted along with technical bid.

5.5 Registered Labour Co-operative Societies are required to furnish valid Bye Law, Current Audit Report, Minutes of last A.G.M (preferably), valid certificate from A.R.C.S. along with other relevant supporting papers and be submitted along with technical bid.

5.6 Earnest Money:

The amount of Earnest Money @ 2% (*two percent*) of the Estimated Amount put to tender in the shape of Bank Draft of any authorized banks & banks included in Finance Dept Memo no 6426-F(Y) Kolkata 25/7/12, Memo No. 7791 F(Y) dt 9/11/2015 & other orders thereof drawn in favour of “**Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division payable at Howrah. Scanned copy be submitted along with Technical Bid and hard copy (original EMD) be submitted separately in the above office address within closing date.**”

6. Bid shall remain valid for a period of 180 days from the first date of closing. If the bidder withdraws the bid during the validity period of bid, the Earnest Money as deposited will be forfeited forthwith without assigning any reason thereof.

**INSTRUCTION TO BIDDERS
General guidance for e-Tendering:**

Instructions / Guidelines for electronic submission of the tenders have been annexed for assisting the contractors to participate in e-Tendering.

i) Registration of Contractor:

Any contractor willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, through logging on to <https://wbtenders.gov.in> The contractor is to click on the link for e-Tendering site as given on the web portal.

ii) Digital Signature certificate (DSC):

Each contractor is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) or other certified agencies of Government of India on payment of requisite amount. Details are available on the Web Site. DSC is given as a USB e-Token.

iii) The contractor can search & download N.I.T. & Tender Document(s) electronically from computer once he logs on to the website by using the Digital Signature Certificate (DSC). This is the only mode of collection of Tender Documents.

iv) Participation in more than one work:

A prospective bidder shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm.

v) Submission of Tenders: Tenders are to be submitted through online to the website in two folders at a time for each work, one in Technical Proposal & the other is Financial Proposal before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

Technical Proposal:

The Technical proposal should contain scanned copies of the following in two covers (folders)

(a). Statutory Cover Containing the following documents:

1. NIT
2. Scan copy of EMD
3. AFFIDAVIT - “Y”

(b). Non-statutory Cover containing the following documents: As listed in eligibility criteria given in NIT Para 5.1 to 5.5.

Sl.	Category Name	Sub-Category Description	Document Name	
A.	CERTIFICATES	CERTIFICATES	(For details see Clause 3 of ITB & relevant clauses of NIT)	
			1	P.T. deposit receipt Challan
			2	GST Registration Certificate
			3	I.T.R. Acknowledgement Receipt
			4	I.T. PAN Card
			5	Voter ID Card / Aadhar Card
B.	COMPANY DETAILS	COMPANY DETAILS	1	Proprietorship Firm - Trade License.
			2	Partnership Firm - Registered Partnership Deed, Registered Power of Attorney, Trade license.
			3	Pvt. Ltd. Company - Registration Certificate under Company's Act, MOA & AOA, Registered Power of Attorney, Trade license.

			4	Registered Un-employed Engineers and Labour Co-operative Societies Limited.
C.	CREDENTIAL	CREDENTIAL	1	Experience Profile- List of completed Projects of similar nature.
			2	Completion Certificate from the concerned.
D.	EQUIPMENTS	PLANT& MACHINERIES (OPTIONAL)	1	Authenticated copy of invoice, challan and way bill (Machinery)
		LABORATORY (OPTIONAL)	2	Authenticated copy of invoice, challan and way bill (Laboratory)
E.	FINANCIAL (INFO)	TURN OVER	1	Authenticated copy of the Income Tax Returns
			2	Last Three years Audited Balance Sheet
		PAYMENT CERTIFICATE	3	Only Payment Certificate of work issued by the Concerned Supervisor and not the TDS certificate
F.	DECLARATION	STRUCTURE & ORGANISATION	1	Details of Structure and Organization ITB Section B Form III.
		AFFIDAVIT	2	An affidavit made that no adverse report against the bidder
		TECHNICAL STAFF	3	An affidavit mentioning the name of the technical staff as described in Clause 3(l).

N.B.: Failure of submission of any of the above mentioned documents as stated will render the tenderer liable to be rejected for both statutory & non statutory cover.

THE ABOVE STATED NON-STATUTORY / TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER

Click the check boxes beside the necessary documents in the My Document list and then click the tab “Submit Non Statutory Documents’ to send the selected documents to Non-Statutory folder. Next Click the tab “Click to Encrypt and upload” and then click the “Technical” Folder to upload the Technical Documents.

1. Tender Evaluation Committee (TEC) 1. Tender Committee constituted for the purpose will function as Chairman of Committee for selection of technically qualified contractors.
2. Opening of tender: Will be made as per sequence.
3. Opening of Technical Proposal: Technical proposals will be opened by the Tender Inviting Authority or his/her authorized representative as per the Date & Time schedule mentioned in the N.I.T. electronically from the website stated in Clause 2 of this NIT using their Digital Signature Certificate.
4. Intending tenderers may remain present if they so desire.
5. Cover (folder) for Statutory Documents Will be opened first and if found in order, cover (folder) for Non-Statutory Documents will be opened. If there is any deficiency in the Statutory Documents the tender will summarily be rejected.
6. Decrypted (transformed into readable formats) documents of the non-statutory cover will be downloaded & handed over to the “Tender Committee”.
7. Summary list of technically qualified tenderers will be uploaded online.
8. Pursuant to scrutiny & decision of the “Tender Committee” the summary list of eligible tenderers & the serial number of work for which their proposal considered will be uploaded in the web portals
9. During evaluation the committee may summon of the tenderers & seek clarification /information or additional documents or **Original hard copy** of any of the documents already submitted & if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

AFFIDAVIT - "Y"

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

- 1) I, the under-signed do certify that all the statements made in the attached documents are true and correct. I have all machineries as per NIT & all will be at site during entire period of work. 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 Farm M/S..... nor any of constituent partner had been debarred to participate in tender by the any Government Department during the last 3 (three) years prior to the date of this N.I.T. I/We have presently..... nos of works in my hand & I would finish the work in time.
- 3) The under-signed would authorize and request any Bank, person, Firm or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Department 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 Department.
- 5) Certified that I have applied in the tender in the capacity of individual/ as a partner of a firm/authorized representative of company or society and I will not handover the job to any other person except my employee to supervise.

Signed by an authorised officer of the Farm.

Title of the officer

Name of the Farm with Seal

Date:

SPECIAL TERMS AND CONDITIONS

1. Deployment of Qualified Engineer at Work Site:

- a. The Contractor shall deploy Qualified Engineer to execute for Construction of Work costing Rs 50 Lakh or above.
- b. The work shall not be executed in absence of qualified Engineer.
2. No price escalation / price variation shall be allowed till completion of work including extended period of completion.
3. Refund of Security Deposit will only be made after successful maintaining of appropriate service level of the work for at least 12 (twelve) months from the date of completion of the work.
4. The prospective bidders or any of their constituent partner shall neither have abandoned any work nor any of their contract have been rescinded, debarred or blacklisted during the last 3 (*three*) years by any Government or PSU. Such abandonment or rescission will be considered as disqualification towards eligibility. (A declaration in this respect through affidavit has to be furnished by the prospective bidders without which the Technical Bid shall be treated as non-responsive.)

5. Checking of Design and its Drawings:

5.1 The contractor shall check all design and drawings developed by the Authorized farm of the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

5.2 The contractor shall discuss the deficiencies/discrepancies found in design and Drawings with the above authorized farm.

5.3 The contractor shall ensure that designed parameters are within limits and specification of relevant IS codes and NBO whichever is applicable.

5.4 In case of any differences of IS code or PWD/NBO provisions notice, the parameter of the provision providing higher safety and Durability of Structural Design shall be followed.

5.5 in case of any difference of opinion found in developed design and checking design, it shall be discussed by both the parties to resolve it adherence of IS code with relevant Codal Provision and rectify accordingly with mutual agreements for correctness as per provision in respect of safety and durability of structure.

6. Variation in Quantities:

6.1 The contractor shall execute the work up to enhancement of quantity of work of any of the items or nos. of items up to 25% more as included in the tender schedule on same accepted rates.

6.2 The Contractor shall agree if any of the item or nos. of items quantities reduced by the Director WBZA without any claim.

6.3 In case of any new item or items not included in tender Schedule and is to be executed for construction up to the value of 25% more of tender estimated amount plus the value of items not operated which are included in tender schedule as decided by the Director WBZA, the contractor shall submit his rates along with analysis for reasonability of rates so submitted. If tender committee finds the rates are on higher side, the contractor shall attend the negotiation with modified

rates to finalize the item for execution and continuation of work without loss of time. The analysis submitted by the contractor shall be supported by the market rates if any of the item otherwise not appearing in PWD SOR/2015 and its components parts involved like Cement etc for which rates are already available in PWD SOR. The item which is available in PWD SOR but not in the tender Schedule, the analysis of rates shall be worked out as per Rates available in the PWD SOR against such items. In case the tender committee finds it necessary to call for negotiation of accepted rate in contract for repercussion of deletion/variation of any major items, rate appearing on higher side, contractor should agree to negotiate freely with analysis of rates.

7. Assurance of Material's Quality- All materials test results should confirmed to IS code provisions. The test results not as per the provisions, the material lot and source shall be rejected for further procurement and the material so unloaded in store/site, shall be removed.

7.1 **CEMENT-** the cement lot received in store/ at site for execution of work shall be procured from the approved manufactures (Ambuja, Birla, ACC etc) dealers/stock holders and the invoice/challan for dispatch and procurement payment bill etc shall be submitted with the authorized representative of the Director WBZA.

7.1.1 The Cement Sample of the lot as decided by the authorized representative shall be collected and tested for its strength and setting times along with chemical tests in Govt. approved Labs. All arrangements shall be made by the contractor of his own cost.

7.2 **Aggregates:**

7.2.1 **Coarse aggregate** shall be procured from the approved dealer of Pakur Variety and invoice/challan for dispatch and procurement payment bill etc shall be submitted with the authorized representative of the Director WBZA.

7.2.2 The sample shall be collected from the lot unloaded at site for its testing in approved Govt lab for Crushing Strength, Water Absorptions, Flakiness and Elongation test, Abrasion and Impact/ Californian Tests. Or any other tests if necessary.

7.2.3 The above sample may also be stored in transparent jar sealed for future quality comparison of the lot unloaded at site.

7.2.4 **Fine aggregate** shall be procured from the approved mines/ river bed as specified in PWD SOR/West Bengal Mines Authority for use of construction work.

7.2.5 The lot sample shall be collected and tested in the approved Govt. Lab for Sieve Analysis, Fineness Modulus, Water Absorption, Chemical tests, Specific Gravity test etc.

7.2.6 The above sample may also be stored in transparent jar sealed for future quality comparison of the lot unloaded at site.

7.2.7 The moisture content as per varied climatic condition at site shall be tested for controlling the W/C ratio in Concrete mix.

7.2.8 The bulking of Fine Aggregate if so necessary shall be tested as per IS code.

7.3 **Reinforcement Steel:**

7.3.1 The reinforcement steel shall be procured from the approved dealer/stock Holder of the manufactures as listed in the schedule i.e. SAIL/TATA/RINL and the invoice/challan for dispatch and procurement payment bill etc shall be submitted with the authorized representative of the Ex-Officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

7.3.2 The lot procured and unloaded at site/store shall ensure that each bar carry the manufacturer's trademarks.

7.4 **Water used for Construction and Curing:**

7.4.1 The source of water shall be decided before start of work.

7.4.2 The source so decided or developed Water sample shall be tested in Govt. approved lab.

7.5 **Admixture/Super-plasticizers**

7.5.1 ISO approved brand shall be procured from the authorized dealer of the manufacture.

7.5.2 The item collected in store/at site, shall be supported by invoice no, Technical Data Sheet for its genuine purchase.

7.6 **Concrete:**

7.6.1 The casting of Concrete cubes shall be tested on prescribed frequency as per IS code or as directed by authorized representative of the Ex-Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

7.6.2 The sample of concrete for casting the test cube shall be collected from that mixture as directed by authorized representative of the Ex-Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

7.6.3 All the cube samples shall be carried out for the prescribed period with respect to date of casting as per IS code in the Govt. approved Lab.

7.6.4 The slump test shall be carried out at site of work as per IS code provision.

7.6.5 In case the test results not as per the provision, batch mix shall be cancelled and concrete shall be removed as directed by the representative by the Ex-Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

7.6.6 The mix design cubes shall be casted as per IS provision for specimen and shall be tested in approved Lab before start of concrete work.

7.7 **Brick:**

7.7.1 First class brick procured source shall be decided before construction.

7.7.2 The material unloaded at site shall be supported by challan /invoice.

7.7.3 The required test shall be carried out as per IS code like Water Absorption, Crushing strength, ringing test as directed by the representative by the Director WBZA.

8.0 Pile Test:

8.1.1 The periodic Pile Load test shall be arranged for selected site by the representative by the Director WBZA.

8.1.2 If necessary the Ultrasonic test for pile shall be arranged by the contractor at his own cost.

9.0 Any other test so required shall be arranged and conducted by the contractor as per IS code provision for want of characteristics strength and any other reason.

10. Refund of EMD:

10.1 The Earnest Money of all the Technical unsuccessful tenderers deposited in favor of the concerned Director will be refunded by the said DIRECTOR, on receipt of application from tenderers.

10.2 The Earnest Money of all other tenderers shall be refunded after release of acceptance letter in favor of the qualified lowest bidder on receipt of application from tenderers, except the bidder who is awarded the contract work EMD shall be retained until deposition of Security Deposit.

PART - A GENERAL CONDITIONS

1.0 Registered Labour Co-operative Societies are required to furnish valid Bye Law, Current Audit Report, Minutes of last A.G.M (preferably), valid certificate from A.R.C.S. along with other relevant supporting papers.

2.0 The bidder participated in more than one tender, and appearing as the lowest (L1) bidder in all tenders or in some of the tenders, the technical committee shall decide the number of tenders to be accepted for award of tenders works based on the bidder financial status capacity as submitted in the technical bids arriving closer to the equivalent of the total requirements of eligibility against each tender. The bidder shall accept the decision taken by the tender committee. The bidder shall not have any right to choose the tenders to be awarded.

3.0 **Design may change (even during execution) based upon decision of Zoo authority and Contractors will follow the revised drawings and construct work as per accepted rates.**

4.0 **Running payment** for work may be made to the contractor as per availability of fund. The contractor may get a running payment if the gross amount of each running bill is 25% & more of the agreement amount.

5.0 Security Deposit:

- (a) The Security Money as per G.O. No. 796-I(Y) Dtd. 25/02/22 of the F.D.A.B. Govt. Of W.B.) @ 10% of the quoted value (offered rate) may be deposited or (adjusted) from the final bill of the successful Tenderer to whom a Letter of Acceptance has been issued.
- (b) The successful bidder should execute an agreement as per given format shall have to signed on Stamp Paper (cost of Stamp Paper shall be borne by tenderer) and signed agreement shall have to notarized from Public Notary and accordingly formal / final work order will be issued.
- (c) Security Deposit will be released **at least after 12 (twelve) months from the date of completion of work without any interest.**
- (d) In terms of Finance Deptt.,- Audit Branch, Govt. of West Bengal Memo No. 4608-F(Y), Dtd. 18/07/2018, Additional Performance Security when the bid rate is 80% or less of the estimate put to tender and no increased in scope of work or projects during execution phase and accordingly final Security Deposit will be 20% in this situation.

6.0 All materials required for the proposed work including **Cement of ISO / BIS APPROVED Manufacturers only, Steel, (TATA/SAIL/RINL only) , & all coarse aggregates of Pakur variety only sand and boulder, other materials** shall be as specified and approved brand in conformity with relevant code of practice (latest revision) and PWD / SOR specifications, and shall be procured and supplied by the agency at their own cost only from "authorized dealers" as defined u/s 2(11) of the West Bengal Value Added Tax Act, 2003, including all taxes. Authenticated evidence for purchase of all materials are to be submitted along with receipted Challan and authenticated test certificate before start of work in stages. If required by the Engineer-in-Charge, further testing from any Government approved Testing Laboratory shall have to be conducted by the agency at their own cost. **Constructional Labour Welfare CESS @ 1% (one percent) of cost of construction will be deducted from every Bill of the contractor.**

7.0 There shall be no provision of Arbitration. Hence Clause 25 of 2911(ii) stands omitted vide notification no 558/SPW dt. 13.12.2011 of Pr. Secretary, PW & PW (Roads) Deptt. In any dispute, which is even not solved after appealing to Member Secretary, WBZA dispute redressed committee vide GO no 8182-F(Y) Kolkata 26/9/2012 is to be followed.

8.0 No Mobilization /Secured advance will be allowed.

9.0 The contractor shall execute the work in such a manner so that steady proportionate progress of the work is maintained during execution of work.

- 10.0 Refund of Security Deposit** will only be released after successful maintaining of appropriate service level of the work at least from 12 (twelve) months from the date of completion of the work to the entire satisfaction of the Engineer-in-Charge is mandatory.
- 10.1 If any defect / damage are found during the period as mentioned above, the contractor shall make the same good at his own cost true to the specification at par with instant project work. On failure to do so, penal action against the contractor will be imposed by the Department as deemed fit.
11. Site of work and necessary drawings shall be provided to the contractor in phase wise. No claim in this regard will be entertained.
12. The Bidder, at his own responsibility and risk is advised to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Financial Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction, the cost of visiting the site & expenditure, if any, shall be at his own expense. This office is not liable for any local problems/hindrances and bidders are requested to follow necessary steps as per Laws & procedure thereof.
13. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Department.
14. The intending tenderer are required to quote the rate *online*.
15. No zoo animals / birds etc. should be disturbed during the works.
16. During scrutiny, if it comes to the notice of the Tender Inviting Authority that the credential or any other paper found incorrect / manufactured / fabricated / fake, such Tenderer bids shall be rejected without any prejudice bids, bidder would not be allowed to participate in the tender.
17. The Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.
18. The contractor's any of the documents on verification if found incorrect / manufactured / fabricated / fake or false in that case awarded contract work liable to be terminated with imposition of penalties or penalized as deemed fit. The balance work shall be awarded on risk and cost basis tender.
19. The decisions of the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division shall be final and binding to follow in case of any discrepancy arises between two similar clauses contained in contract agreement.
20. The construction of the project work as mentioned in the schedule will have to be undertaken immediately on receipt of work order and the work must be completed as mentioned in the work order in conformity with "BAR CHART".
21. No extension of time will be allowed under any circumstances. (Except flood, earthquake, unforeseen reasons or any circumstances beyond control) Penalty of 1% for delay of 30 days, 2% for 45 days. Thereafter if work progress not improved, the work shall be terminated with forfeiture of Security Deposit and Balance bill payments if so due and balance work shall be completed at risk and cost basis contract.
22. Materials will have to be procured by the contractors by themselves following the standard & specifications of PWD/PHE Schedules of the district, subject to the approval of the undersigned or his authorized Officers. Timber/logs must have valid receipt from registered dealer along with Transit Pass reference no. In case of supply of any material by the department, the cost of such material will be recovered from the bill of the Contractor.
23. The tenderers are required to inspect the sites, site plans and specifications of the works before submission of the tender and future ignorance of any such item will not be entertained.
24. Royalty for any material, if obtained from Forest area, will have to be paid by the contractor. Even if the material is procured from other Govt. Deptt's resources, the receipt for payment of such material must be shown and photocopies to be attached with the bill. Extra payment for such payment of Royalty etc. will not be entertained.
25. All tools & plants required for execution of the works should be owned / hired in the name of Company or contractor at own cost.
26. Brick works, cement concrete works & plastering works and similar works which require curing should be done for the period as prescribed in the P.W.D. Schedule of Rates.
27. The Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division reserves the right to terminate the agreement at any point of time of execution of the work within the schedule of time of completion of the tendered work, If performance quality and / or progress of various items of work are not satisfactory, or delayed or violate any term & condition of agreement.

28 The contractor is liable to pay the skilled, unskilled and other labour wages as per existing rules. Local skilled Forest Protection committee members may be involved but is not mandatory. They may also use machines/ equipments on their own for completion of the work.

29 Deduction of STDS, TDS, Service Tax & Other tax etc, if applicable shall be made as per rule in vogue. **The tender value inclusive of all direct & indirect taxes** (VAT, Service Tax, Labour Welfare Cess, GST etc)

30 The successful tenderer will not assign the work or part of the work to any other contractor as sub contract work.

31 The contractor may, however authorize any person working under his farm on roll as employee to supervise the day to day work, submit the requisition of materials, attend the measurement when taken by the authorized officer and record his signature on the work measurement note books. The authority there to duly approve by the Ex-Officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah or its authorized representative.

In case of any dispute the decision of the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division will be final and binding for completion of work. However if contractor is not satisfied, he is liberty and free to represent to the higher Authority without suffering the progress.

32 The tender notice along-with all terms & conditions, tender Schedule as hoisted on website for tender notice work will form the part of the agreement to be executed.

33 The Tender inviting authority reserves the right if practicable to split the work amongst the lowest bidders appearing with same rate or to award the work any one of two whose Credentials are superior over other. It is therefore requested to submit the list of works completed and list of works in progress along with work wise details for last three years period including last three financial years turnover along with Audited sheets.

34 Location of the works will be finalized by the by the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division after joint inspection.

35 Any part while signing agreement realized as typographical mistake in case of Unit, Rate, Quantity, Amount, any type of nomenclature in items of works / item itself including description etc. shall not be altered and whatsoever as stated in documents shall be included in the agreement. The operation of such item is reasonable and practicable shall be decided by the Director WBZA whether to execute for construction or to drop and call for as additional new item rates as per contained in terms and conditions of tender.

36 **Work order will be issued subject to approval of fund from higher Authority.**

PART - B

GENERAL INSTRUCTIONS TO TENDERERS

1. **INCOME TAX CERTIFICATES:** A Certificate of Income tax clearance from the appropriate authority in the forms prescribed there for duly indicating annual turnover. These certificates shall be valid for one year from the date of issue or for the period prescribed therein for all tenders submitted during the period. Copy of last assessment order duly certified as true copy by the chartered accountant shall also be submitted.

2.0 Information on type of holding details of the Tenderer's organization shall be submitted as follows:

2.1 **IN CASE OF FIRMS WITH SOLE OWNERSHIP:** Full name, experience and address of the proprietor and nature of business.

2.2 **IN CASE OF PARTNERSHIP FIRMS:** The names of all the partners with addresses and their experience. A copy of the partnership deed/ instrument of Partnership duly certified by a Notary Public shall be enclosed.

2.2.1 The value of work shall be taken in the same proportion of share of partnership deed.

2.2.2 If the partnership deed do not speak of percentage share of each partner, it shall not be considered as Credential for qualifying Eligibility criteria.

2.3 **IN CASE OF COMPANIES:** Date and place of registration including date of commencement certificate in case of public companies and the nature of business carried out by the Company. Certified copies of memorandum and Articles of Association are also to be furnished. Also indicate names, addresses and experience of the Directors.

3. **RETURN OF SECURITY DEPOSIT:** If the contractor fully performs and completes the work in all respects to the entire satisfaction of authority and presents an absolute "**No Demand Certificate**" in the prescribed form and returns properties belonging to Zoo authority taken, borrowed or hired by him for carrying out the said works and shall be released only after the Guarantee Period of 12 months is completed satisfactorily.

4. **No interest** shall be payable by the Zoo authority on Earnest Money Deposit, Security Deposit or on any moneys due to the contractor.

5.0 COMMENCEMENT AND COMPLETION OF WORK

5.1 The contractor shall commence the work within the time indicated in the Letter of Intent / acceptance and shall proceed with the same with due expedition without delay. The responsibility of successful Tenderer under this Contract commences from the date of issue of the Letter of Intent.

5.2 If the successful tenderer fails to commence the work within the stipulated time, Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division, at its sole discretion, will have the right to terminate the contract. The Security Deposit will stand forfeited without any further reference to him without prejudice to any and all of Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division's other rights and remedies in this regard.

5.3 All the works shall be carried out under the direction and to the satisfaction of the Zoo authority.

6.0 MEASUREMENT OF WORK AND MODE OF PAYMENT

6.1 All payment shall be made in the name of contractor by Account's Payee Cheque. 6.2

For progress / running bill payments, the contractor shall present detailed measurement book and sheets in triplicate duly indicating all relevant details based on technical documents and connected drawings for the work done during the month. These measurement sheets shall be prepared jointly with Engineer and signed by both the parties.

6.3 These measurement sheets will be checked by the Engineer and quantities and percentages eligible for payment under different groups shall be decided by him. The abstract of quantities and percentages so arrived at based on the terms of payment shall be entered in the **Measurement Book** and signed by both the parties.

6.4 Based on the above quantities, contractor shall prepare the bills in the prescribed proforma and work out the financial value. These will be entered in the Measurement Book and signed by both the parties. Payment shall be made after affecting the necessary recoveries due from the contractor.

6.5 Measurement shall be taken jointly by persons duly so authorised by the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division and the Contractor and shall follow the relevant provisions of IS code and PWD / SOR 2015 for recording and taking measurements.

6.6 The Contractor shall bear the expenditure involved, if any, in making the measurements and testing of materials to be used/ used in the work. The Contractor shall, without extra cost to Zoo authority, provide all the assistance with appliances and other things necessary for measurement.

6.7 If, at any time due to any reason whatsoever, it becomes necessary to re-measure the work done, in full or in part, the expenses towards such re-measurement shall be borne by the Contractor.

6.8 Final measurement bill shall be prepared in the proforma prescribed for the purpose, based on the certificate issued by the Engineer that the entire work as stipulated in the tender specifications has been completed in all respects to the entire satisfaction of Zoo authority. The Contractor shall give 'No Claim' and 'No Demand' certificates. All the tools and tackles loaned to him should be returned in condition satisfactory to Zoo authority. The abstract of final quantities and financial values shall also be entered in the Measurement Book and signed by both the parties.

7.0 RESPONSIBILITIES OF CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS, ETC.

The following are the responsibilities of the Contractor in respect of observance of local laws, employment of personnel, payment of taxes etc.:

7.1 As far as possible, unskilled workers shall be engaged from the local areas in which the work is being executed.

7.2 The contractor at all times during the continuance of this contract, shall in all his dealings with the local labour for the time being employed on or in connection with the work, has due regard to all local festivals, religious and other customs.

7.3 The Contractor shall comply with all State and Central Laws, Statutory Rules, Regulations, etc., such as The payment of wages Act, The Minimum Wages Act, The workmen's Compensation Act, The Employer's Liability Act, The industrial Disputes Act, The Employees' Provident Fund Act, Employees' State Insurance Scheme, the Contract Labour (Regulations and Abolition Act, 1970) and other Acts, Rules and Regulations for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at site. The contractor shall give to the local Governing Body, Police and other concerned Authorities all such notice as may be required under law.

7.4 The Contractor, in the event of his engaging 20 or more workmen, will obtain independent license under the Contract Labour (Regulations and Abolition Act, 1970) from the concerned authorities based on the certificate (Form-V) issued by the principal employer.

7.5 The contractor shall pay all taxes, fees, license charges, deposits, duties, tolls, royalty, commissions or other charges which may be leviable on account of any of his operations connected with this contract. In case WBZA make any such payment, it shall be recovered from the contractor bill.

7.6 The contractor shall be responsible for the provision of health and sanitary arrangements more particularly described in the Contract Labour (Regulations and Abolition Act, 1970) and safety precautions as may be required for safe and satisfactory execution of the contract.

7.7 The contractor shall be responsible for proper accommodation including adequate medical facilities for the personnel employed by him.

7.8 The contractor shall be responsible for the proper behaviour and observance of all regulations by the staff employed by him.

7.9 The contractor shall ensure that no damage is caused to any person / property of other parties working at site. If any such damage is caused, it shall be the responsibility of the contractor to make good the losses and compensate them.

7.10 Any delay in completion of works or non-achievement of periodical targets, due to reasons attributable to the contractor, will have to be compensated by the contractor either by increased manpower and resources at no extra cost to Zoo authority.

7.11 The contractor will be directly responsible for payment of wages to his workmen. A pay-roll sheet giving details of all payments made to the workmen duly signed by the contractor's representative should be furnished to the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division, if called for.

7.12 In case of any class of work for which there is no specification laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.

7.13 **No idle labour charges** will be admissible in the event of any stoppage of work resulting in the contractor's workmen being rendered idle due to any reason at any time.

7.14 The contractor shall keep the area of work clean and shall remove the debris etc while executing day-to-day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The contractor will also demolish all the hutments, sheds, offices, etc. constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the Engineer and the expenses recovered from the contractor.

7.15 The contractor shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The contractor shall be responsible to ensure that the quality, assembly and workmanship as per specifications and mode of operations conform to the required dimensions and clearance given in the drawings and/ or as per the instructions of the Engineer.

7.16 No land belonging to Zoo shall be occupied by the Contractor without written permission of the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

8.0 RESPONSIBILITIES OF CONTRACTOR IN RESPECT OF SAFETY OF MEN, EQUIPMENT, MATERIAL AND ENVIRONMENT.

8.1 One safety officer shall be deployed by the contractor to observe all safety rules and obeyed taken care of concerning working group of contractor. He will also council from time to time all field staff. The contractor shall be responsible for the safety of the equipments /materials and work to be performed by him and shall maintain all lights, fencing, guards, signs and other protection necessary for the purpose. The contractor shall arrange for such safety devices as necessary and shall carried out the requisite site test of handling equipments, lifting tools, tackles, etc as per usual standards and practices.

8.2 The contractor shall provide the listed items to it's work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorised WBZA officials.

- (a) Safety Helmets conforming to IS-2925
- (b) Safety Belts conforming to IS-3521
- (c) Safety shoes conforming to IS-1989
- (d) Eye, Ear & Face Protection devices conforming to IS-8520 and IS-8940, IS-5983
- (e) Hand & body protection devices conforming to IS-2573, IS-6994, IS-8807 & IS-8519.

- (f) Rubber gloves for electrical purposes confirming to IS-4770
- (g) Industrial safety gloves (leather & cotton gloves) confirming to IS-6994
- (h) Industrial and safety rubber knee boots confirming to IS- 5557

8.3 All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, safety nets, ladders, equipment etc. used by the contractor shall be of approved brands.

8.4 All electrical equipment, connections and wiring for construction power, its distribution and use shall conform to the requirements of Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works. All electrical appliances including portable electric tools used by contractor shall have safe plugging system to source of power and be appropriately earthed.

8.5 The contractor shall not use any hand lamp energised by electric power with supply voltage of more than 24 volts. For work in confined spaces, lighting shall be arranged with power source of not more than 24 volts.

8.6 Where it becomes necessary to provide and / or store petroleum products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulations laid down in the relevant Government Acts, such as Petroleum Act, Explosives Act, petroleum and Carbides of Calcium Manual of the Chief Controller of Explosives, Government of India etc. Prior approval of the authorised WBZA official at the site shall also be taken by the contractor in all such matters.

8.7 No work at site shall be allowed to carry out after sunset unless it becomes necessary to complete the job and sufficient light arrangements and protection means adopted. Otherwise such situation to arise is to be avoided. The contractor shall have arrangement at his cost (wherever not specified) appropriate illumination at all work spots for safe working, when natural daylight may not be adequate for clear visibility.

8.8 In case of a fatal or disabling injury / accident to any person at construction sites due to lapses by the contractor, the victim and / or his / her dependents shall be compensated by the contractor as per statutory requirements.

8.9 In case of any delay of progress due to lapse of the contractor or on Administrative ground, contractor shall apply the extension of period of contract for completion of work as per extended period.

8.10 Necessary precautions and arrangements including sprinkling of water during work as acceptable to Zoo authority for safety and reducing environmental pollution have to be made by the contractor. No claim on this account shall be entertained on this account and the contractor's rates shall be deemed to have taken this into account.

9.0 INSURANCE

9.1 The Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division shall not arrange for insuring the materials / property of Zoo covering the risks during transit, storage, erection and commissioning. The Contractor has to arrange on his own insurance pertaining to their scope of work for all workers and to arrange for accident risk policy/ workmen compensation policy, materials like Cement, Reinforcement steel and other bought out items and other valuable building materials during its transport, storage, till it goes to the permanent work, their all T & Ps and, IMTEs and fixed assets which they may acquire and deploy at site. Proper insurance cover against any eventuality such as earthquakes, floods and other calamities has to be taken by the contractor for constructed and completed structures at site till these are handed over to the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division.

9.2 It shall be the sole responsibility of the contractor to insure his workmen against risks of accidents and injury while at work as required by the relevant Rules and to pay compensation, if any, to them as per Workmen's Compensation Act. The contractor shall also insure his staff against accidents. The work will be carried out in a protected area and all the Rules and Regulations of Zoo in the Project Area which are in force from time to time will be followed by the contractor.

9.3 If due to negligence and/or non-observance of safety and other precautions, any accident / injury occurs to any other persons/ public, the contractor shall pay necessary compensation and other expenses if so required, contractor shall initiate case for legal action against defaulter workman and such employee shall not be allowed to continue to work at site.

9.4 The contractor will take necessary precautions and due care to protect the material, while in his custody from any damage/ loss till the same is taken over by zoo. In case of any theft of material under contractor's custody, matter shall be reported to police by the contractor immediately and copy of FIR and subsequently police investigation report may be initiated for claim with insurance agency.

10. For any purpose whatsoever, the employees of the contractor shall not be deemed to be in the employment of Zoo.

11 GUARANTEE: In the event of the contractor failing to repair the defective works within the time specified by the Engineer, WBZA may proceed to undertake the repairs of such defective works at the contractor's risk and cost, without prejudice and recover the same from SD amount.

12 TERMS AND CONDITIONS FOR CIVIL, STRUCTURAL AND FINISHING WORKS

12.1 CONTRACTOR'S SITE OFFICE / SUPERVISION. The Contractor shall establish an office at Site and keep posted an authorised, responsible officer with valid Power of Attorney for the purpose of the contract if the contractor himself not available during the progress. Any order or instructions of the Engineer or his duly authorised representative, communicated to the contractor's representative at site office will be deemed to have been communicated to the contractor at his legal address for immediate compliance.

12.2 SUPERVISORY STAFF AND WORKMEN

12.2.1 The contractor shall deploy all the experienced skilled, semiskilled and unskilled workmen required for all the works under this specification.

12.2.2 The supervisory staff including qualified Engineers deployed by the contractor shall ensure proper out-turn of work and discipline on the part of the labour put on the job by the contractor and in general see that the works are carried out in a safe and proper manner and in coordination with other labour and staff deployed directly by WBZA or other contractors of WBZA / other agency.

12.2.3 During the course of construction, if the progress is found unsatisfactory, or in the opinion of WBZA, if it is found that the skilled workmen like welder, fitters, technicians etc. deployed are not sufficient, contractor shall arrange more work force to cope up progress.

12.2.4 The Contractor shall ensure deposit of provident funds and get necessary ESI of their deployed workmen, employees at site and produce documents to WBZA in respect of these as desired by WBZA from time to time as per the Govt. rules.

12.3. TOOLS AND PLANTS / IMTEs

12.3.1 All T&Ps and IMTEs which are required for successful and timely execution of the work covered within the scope of this tender, shall be arranged and provided by the contractor at his own cost in working condition. Indicative lists of T&Ps and IMTEs to be arranged by the contractor as bar chart prepared for each item of work.

12.3.2 The day to day and routine maintenance of T&Ps should be carried out by contractor as per manufacturer's schedule at his cost. These shall be maintained in good working condition during the entire period of use. T&Ps in defective / damaged condition shall be rectified promptly to the full satisfaction of WBZA engineer. Contractor shall maintain records for maintenance of major T&Ps which shall be made available for Inspection whenever required. Any delay in progress shall be on contractor's account.

12.3.3 Increasing / shortening of the crane boom to suit work requirements shall have to be arranged by the contractor at his cost. All necessary manpower, tools, support, consumables, illumination etc. will have to be arranged by contractor at his cost.

12.3.4 Consolidation of ground and arrangements of sleepers/ sand bag filling etc for safe operation /movement of equipment including cranes/trailers etc shall be the responsibility of the contractor at his cost.

12.3.5 Contractor shall ensure deployment of serviced and healthy T&Ps including cranes, lifting tackles, wire ropes, Manila ropes, winches and slings etc. History card and maintenance records for major T&Ps will be maintained by the contractor and will be made available to Zoo Engineer for inspection as and when required. Identification for such T&Ps will be done as per Zoo Engineer's advice.

12.3.6 Retesting / re-calibration /standard Tape shall also be arranged at regular intervals during the period of use as advised by Zoo Engineer with in the contract price. The contractor will also have alternate arrangements for such IMTE so that work does not suffer when the particular instrument is sent for calibration.

13.0 MATERIALS

13.1 The Zoo authority will not supply any material. All the material arranged by the contractor shall confirm these specifications and supported by the documentary proof for purchase of material from the authorised dealer and source.

13.2 All materials to be provided by the contractor shall be of best kind in conformity with the specifications laid down in the contractor or as per relevant Indian Standard/PWD SOR.

13.3 It shall be the responsibility of the contractor to obtain prior approval of WBZA, regarding suppliers, type of electrodes etc. before procurement of welding electrodes / TIG wires. On receipt of electrodes at site these shall be

subjected to inspection and approval by WBZA. The contractor shall inform WBZA details regarding type of electrodes, batch No., date of expiry etc. and produce test certificate for each lot / batch with correlation of batch / lot number with respective test certificate. Without valid test certificate, the use of welding electrodes is prohibited.

14.0 Stacking and Storage of Materials

14.1 Fine Aggregate- it should be stacked on a dry brick pavement floor and should be made fit as per the required Zone by mixing the missing sizes. The detail of stacking, cleaning etc should be done as per PWD SOR and Zone should be followed as per IS Code.

14.2 Coarse Aggregate- it should also be stacked over the Brick pavement.

14.3 Reinforcement Steel- it should be placed as per the direction of the Authorized person of the Director.

14.4 The cement should be placed in dry room over wooden floor as per the direction/ PWD SOR. The cement brand, Date of Manufacturing etc all the details must be clearly visible over the waterproof bags of Cement.

NOTE-

It is to ensure while collecting the above materials for mixing that the natural surface soil is not mixed up with the above materials. If so happened, then it must be kept aside and should be washed before prior use.

15.0 Grid Layout plan-

It should be got approved at site before commencement of work before excavation of foundation and got approved by Director's Authorized Person.

16.0 SITE DRAINAGE

16.1 All water including sub-soil water which may accumulate on the Site during the progress of the works or in trenches and excavations, including monsoon period shall be removed by the contractor from the Site to the satisfaction of the Engineer. It will also be responsibility of the contractor to de-water all the foundation pits, trenches with suitable de-watering methods like, pumping out, well point system etc. considering the depth of water table at plant site. All such expenditure on **de-watering** shall be deemed to be included in quoted rates.

Note- the casting of concrete work at shallow water ground level, the dewatering should be on continuous process at such location extra use of cement in concrete 10%-12% shall be insure as per IS code without any extra cost, same should be included in quoted rate.

17.0 SAFETY CODE

17.1 It is to note that Explosives shall not be used at work site by contractor except rare permitted by the Director's Authorised WBZA. Where explosives are used, the same shall be stored in a special magazine to be provided by and at the cost of the contractor who shall be liable for all damages, losses and injury to any person or property and shall be responsible for complying with all statutory obligations in this respect. Further, the contractor is required to provide proper Safety Net System wherever the hazard of fall from height is present as per instructions of Engineer of the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division at site. The safety net shall be duly tested and shall be of ISI mark and the nets shall be located as per site requirement to arrest and avoid any consequences of a possible fall of persons working at different heights.

17.2 The contractor will be responsible for Health, Safety & Environment management at site for the construction activities to be carried out by them in accordance with safety rules and regulations.

17.3 Contractor shall ensure pre employment medical check for all staff & workers. And arrange adequate minimum First Aid facilities with trained staff. If necessary, contractor shall call ambulance to meet with required emergency treatment.

18.0 NUISANCE : The Contractor shall not at any time do, cause or permit any NUISANCE on Site or do anything which shall cause unnecessary disturbance or inconvenience to owners, tenants or occupiers of other properties near the Site and to the public generally.

19.0 MATERIAL OBTAINED FROM EXCAVATION

Materials of any kind obtained from EXCAVATION on the Site shall remain the property of WBZA and shall be disposed of as the Engineer may direct, at no extra cost.

20.0 TREASURE, TROVE, FOSSILS etc.

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the site shall be the absolute property of WBZA and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing, shall immediately upon

discovery thereof and before removal acquaint the Engineer with such discovery and carryout the Engineer's directions as to the disposal of the same.

21.0 PROTECTION OF WORKS

21.1 Trees designated by the Engineer shall be protected from damage during the course of the Works and earth level. Where necessary, such trees shall be protected properly.

21.2 The contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Engineer for the protection of the Works or for the safety and convenience of those employed on the Works or the public.

21.3 The contractor shall have total responsibility for protecting his works till it is finally taken over by the Engineer. No claim will be entertained by the Engineer for any damage or loss to the contractor's works and the contractor shall be responsible for the complete restoration of the damaged works to its original condition to comply with the specifications and drawings. Should any such damage to the contractor's works occur because of other party not under his supervision or control, the contractor shall make his claim directly with the party concerned. The contractor shall not cause any delay in the repair of such damaged works because of any delay in the resolution of such disputes. The contractor shall proceed to repair the work immediately and no cause thereof will be assigned pending resolution of such disputes.

21.4 Contractor shall be fully responsible for the security of his workmen/ employees/ associates/all kinds of materials deployed by the contractor / tools and plants. Contractor shall also be responsible for the security of all the executed works, under execution works and completed works till the period it is fully taken over by WBZA.

22.0 RECORD FOR MATERIALS CONSUMED

The contractor shall maintain and furnish to the Engineer the RECORD OF MATERIALS consumed in the works for each activity. The statement showing the theoretical vis-à-vis actual consumption of specified materials, such as structural /reinforcement steel, cement, bitumen, lead, paint etc., shall be enclosed along with the Running Bills submitted by the contractor. Contractor has to also furnish the test results of the materials used in the work as per IS specifications.

23.0 PROTECTION OF EMBEDMENTS BOLTS ETC.

The contractor shall ensure proper protection to the satisfaction of the Engineer, of all bolts, inserts, embedment's etc. from weather etc/ by greasing, rapping them with gunny bags or canvas or by any other means as directed by Engineer. Cost of such protections shall be deemed to be included in the rates quoted for the item.

24.0 QUALITY ASSURANCE

The contractor has to establish / arrange at site the field testing facilities for testing of civil construction materials and concrete cubes for ensuring the proper quality, grade and strength of the materials used in the construction in line with approved field quality check list of WBZA. Contractor has to submit detailed report for testing of all material used etc. All testing shall be done as per IS code specifications/ WBZA's quality plan. If further test is required by the engineer to be carried from outside laboratory, the cost of the same shall be borne by the contractor.

25.0 METHOD OF MEASUREMENT-

Method of measurements shall be as per standard specification included in the tender. For other items, measurement shall be as per relevant IS CODE.

26.0 ARRANGEMENTS

26.1 WBZA shall try to assist and provide the Electric connection and water supply to the extent of availability with Zoo Authority on charges as admissible by the Concerning Authority. The contractor shall have their own arrangement for portable water required in access of the capacity to share water. Similarly, electric power supply as per line capacity available with the zoo authority shall share for the requirement but contractor should have its individual arrangements with DG set for construction purpose in access requirement and during load shedding.

26.2 For obtaining the connection the contractor shall install/ lay necessary pipelines and electric wiring covered in plastic conduits at his own cost.

27.0 PROGRESS REPORT:

Daily work progress report shall be maintained and the next day work should be carried out like curing, excavation, etc and discussed with the authorized person of Director.

1.0 DEFINITION OF TERMS

Throughout the Tender Documents including the Enquiry Letter, the following words shall have the meanings assigned to them herein, unless the subject matter or the context requires otherwise.

1.1 The '**Purchaser**' or the Ex-officio Director, Garchumuk Mini Zoo office at Dalmia Park, Stadium Complex, Howrah which expression shall include its successors and assigns; acting through its Fabrication Plant (FP), or its authorised officers or its Engineer or other employees authorised to deal with any matters with which these persons are concerned, on its behalf.

1.2 The '**Tenderer**' shall mean the Firm/Company/Organisation, which quotes against the Tender Enquiry issued by the Purchaser. It may also be referred as '**Bidder**'.

1.3 The '**Contractor**' shall mean the individual, firm or company whose Offer is accepted by WBZA and enters into Contract with WBZA and shall include their executors, administrators, successors and permitted assigns.

1.4 The '**Contract**' shall mean and include the agreement, the work order, the accepted appendices of rates, Schedules of Quantities, if any, General Conditions of Contract, Special Conditions of Contract, Instructions to Tenderers, the drawings, the technical specifications, the special specifications, if any, the tender documents and the Letter of Intent/ Acceptance letter issued by WBZA. Any conditions or terms stipulated by the Tenderer in the tender documents or subsequent letters shall not form part of the Contract unless specifically accepted in writing by the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division in the Letter of Intent and incorporated in the Agreement. It may also be referred as '**Contract Document**'.

1.5 The '**Sub-contractor**' shall mean the person/firm/company/organisation to whom any part of the work has been sub-contracted by the Supplier, with the written consent of the Purchaser and shall include his heirs, executors, administrators, representatives and assigns.

1.6 The '**Engineer**', for the purpose of this Contract shall mean an engineer, person or company duly appointed as such from time to time or such other officials as may be duly authorised and appointed and notified in writing by purchaser to act as engineer. In cases where no such Engineer has been so appointed, the word 'Engineer' shall mean the Purchaser or his duly authorised representative. It may also be referred to as **Engineer-in-Charge**.

1.7 The '**Equipment**' shall mean and include plant and stores on which work is to be done by the Contractor under the Contract.

1.8 The '**Work**' shall mean and include supply of all categories of labour, specified consumables, tools and tackles required for complete and satisfactory construction, site transportation, handling, stacking, storing, erecting, testing and commissioning of the equipment; as defined in the Tender Documents, to the satisfaction of WBZA. It may also be referred as '**CONTRACT WORK**'.

1.9 The '**Tender Document**' shall mean and include the instruction to Tenderers , general conditions, bidding conditions, specific conditions, specifications, schedules, drawings, form of tender, schedule of prices and quantities, contained in the Tender and any subsequent modifications thereof.. It may also be referred as '**Tender Specification**'

1.10 The '**Offer**' shall mean and include the technical and commercial documents including specifications, schedule of prices and quantities, drawings etc submitted by the Tenderer in response to the tender enquiry and any subsequent clarifications thereof. It may also be referred as '**Bid**'.

1.11 '**Acceptance of offer**' shall mean issue of letter of intent/award or memorandum or detailed Order/Contract communicating the acceptance of offer, to the successful Tenderer.

1.12 The '**Letter Of Intent**' shall mean the intimation by a letter / fax to the Tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the contractor commences from the date of issue of this letter and all the terms and conditions of contract are applicable from this date.

1.13 The '**Site**' shall mean the site of the proposed work at place for which NIT published by the DIRECTOR WBZA.

1.14 The '**Completion Time**' shall mean the period specified in the Letter of Intent or date mutually agreed upon for completing the work to the satisfaction of the Engineer, being of required standard and conforming to the specifications of the Contract including extension period.

1.15 The '**Tests**' shall mean and include such test or tests to be carried out by the Contractor as are prescribed in the

Contract or considered necessary by the Ex-officio Director, Garchumuk Zoological Park & Divisional Forest Officer, Howrah Division in order to ascertain the quality, workmanship, performance and efficiency of the contracted work or part thereof.

Sd/-
Ex-Officio Director,
Garchumuk Zoological Park &
Divisional Forest Officer, Howrah Division

GENERAL SUMMARY

Tender reference No.: **WBZA-34/Water Monitor Lizard/GZP of 2023-24**

Sl. No.	Description	Amount. (Rs.)
1.	Construction of water Monitor Lizard enclosure at Garchumuk Zoological Park, Ulughata, Howrah.	9,94,731/-
	TOTAL Amount	9,94,731/-

Time of Completion _____ days / months

I/We offer to execute the work: _____ (Tenderer should quote rate in the BoQ of Financial Bid but not here).

- a) At par with Rs. _____ (Rate to be quoted in Financial Bid) as per priced schedule of quantities.
- b) _____ % _____ (in words) above the priced schedule of quantities.
- c) _____ % _____ (in words) below the priced schedule of quantities.

Total :Rs. _____ (Rate quoted as in Financial BOQ)

(Signature of Tenderer with official seal)

(Signature of Tender inviting Authority)

(Signature of Tender accepting Authority)

Signature of Witness: _____

Name of Witness: _____

Address: _____

SPECIFICATION OF WORKS

WBZA-34

4

ABSTRACT OF COST		
CONSTRUCTION OF WATER MONITOR LIZARD ENCLOSURE AT GARCHUMUK ZOOLOGICAL PARK, HOWRAH, WEST BENGAL		
SL.NO.	DESCRIPTION	AMOUNT
1.00	CIVIL WORKS	
		8,34,645.78
3.00	ADD SUB TOTAL (A)	8,34,645.78
	GST 18% ON SUB TOTAL (A)	1,50,236.24
4.00	ADD TOTAL (INCLUDING GST)	9,84,882.03
	L. CESS 1% ON TOTAL	9,848.82
	GRAND TOTAL	9,94,730.85
	SAY	9,94,731.00
Rupees Nine Lakh Ninety Four Thousand Seven Hundred Thirty One Only		

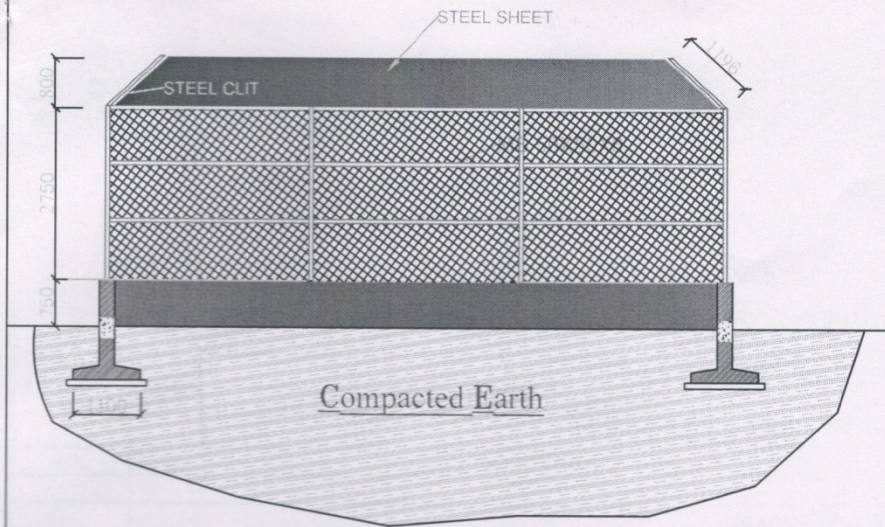
CONSTRUCTION OF WATER MONITOR LIZARD ENCLOSURE AT GARCHUMUK ZOOLOGICAL PARK, HOWRAH, WEST BENGAL						
Sl. No.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	UNIT RATE	AMOUNT	REMARKS
1.00	<u>P-1, It-1</u> Surface Dressing of the ground in any kind of soil including removing vegetation inequalities not exceeding 15 cm depth and disposal of the rubbish within a lead upto 75 m as directed.	100.00	Sq.M.	10.00	1000.00	
2.00	<u>P-268, It-19</u> Clearing compound premises of shrubs, plants, jungles etc. by cutting and removing as directed (Specific permission of Engineer-in-Charge prior to execution will be necessary). (Payment to be made on area cleared)	100.00	Sq.M.	11.00	1100.00	
3.00	<u>P-1, It-2(a)</u> Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete.					
	(a) Depth of excavation not exceeding 1,500 mm.	20.41	Cu.M.	119.27	2434.54	
4.00	<u>P-1, It-3(a)</u> Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work)					
	(a) With earth obtained from excavation of foundation.	66.00	Cu.M.	77.54	5117.64	
5.00	<u>P-2, It-4(A)</u> A) Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on measurement of finished quantity)	22.67	Cu.M.	951.83	21576.80	5th Corr;Dated-16.04.2019,P-1,SI no-4
6.00	<u>P-14,It. 1</u> Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	15.61	Sq.M.	357.00	5572.77	3rd Corr;Dated-04.06.2018,P-1,SI no-1
7.00	<u>P-47, It. 3.</u> Supplying and laying Polythene Sheet (150gm / sq.m.) over damp proof course or below flooring or roof terracing or in foundation or in foundation trenches.	15.61	Sq.M.	24.00	374.64	
8.00	<u>P-23,It. 1</u> Cement concrete with graded jhama khoa (30 mm size) excluding shuttering In ground floor and foundation.					
	(a) 1:3:6 proportion	5.23	Cu.M.	4633.00	24244.49	3rd Corr;Dated-04.06.2018,P-9,SI no-26
9.00	<u>P-5, It. 10(c)</u> Pre-construction Anti- termite measures : c) Anti-termite treatment to the soil under floor with chemical emulsion by admixing chloropyrofos emulsifiable concentrate (1% concentration) with water by weight including drilling vertically 12mm. dia holes at the junction of floor and wall at 300mm. interval to reach the soil below using hand operated pressure pump to squirt chemical emulsion into the pump to squirt chemical emulsion into the holes at the rate of one litre per hole. The holes shall be sealed after operation to match with the existing floor. The entire work is to be carried out as per specification laid down in para 4.3.1.4 of code I.S.- 6313 (Part-III)-1981. (Mode of measurement will be per Sq.m of plan area of plinth treated.)	72.00	Sq.M.	110.00	7920.00	

10.00	P- 6, It - 10 (d) Pre-Constructional Anti-termite measures: (d) Treatment to the back filling of R.C.C. foundation with chemical emulsion by admixing chloropyrofos emulsifiable concentrate (1% concentration) with water by weight at the rate of 7.5 ltr. per sq.m. of the vertical surface of the substructure of each side of the foundation. The work shall be carried out as per specification as described in para 6.3.1 of code IS-6313 (part-II) 1981 (Mode of measurement will be per sq.m. of vertical area of foundation treated).	72.00	Sq.M.	137.00	9864.00	
11.00	P- 26, It - 10(i) Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. i. Pakur Variety	7.90	Cu.M.	6485.17	51246.46	FOOTING & G.L.-P.L.
12.00	P-42, It - 36(a) Hire & labour charges for shuttering with centering & necessary staging upto 4m. Approved stout props & thick hard wood planks of approved thickness with regarding bracing of concrete slabs, beams, columns, lintel curved or straight including fitting, fixing & striking out after completion of works. (Foundation & upto P.L.) as per decision & direction of Engineer-In-Charge. (a) 25 mm to 30 mm thick wooden shuttering as per decision & direction of Engineer-In-Charge.	199.75	Sq.M.	328.00	65518.00	FOOTING & G.L.-P.L.
13.00	P- 43, It - 40(a-i-l) Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc. including supply for rods, initial straightening & removal of loose rust (if necessary), cutting to requisite length hooking & bending to correct shape placing in proper position & with 16 gauge black annealed wire at every inter- section, complete as per drawing & direction. a) For works in foundation, basement & upto roof of ground floor/ upto P.L. (l) Tor steel or Mild steel	2.61	M.T.	60433.00	157711.74	10th Corr,P-1,SI no-1
14.00	P - 15/ it-8, Brick work with 1st class bricks in cement mortar (1:4) (a) In ground floor	6.75	Cu.M.	5483.00	37010.25	3rd Corr;Dated-04.06.2018,P-1,SI no-4
15.00	P- 26, It - 10(i) Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. i. Pakur Variety (a) In ground floor	7.90	Cu.M.	6485.17	51246.46	Rate Analysis
16.00	P- 42, It-36(a) Hire & labour charges for shuttering with centering & necessary staging upto 4m. Approved stout props & thick hard wood planks of approved thickness with regarding bracing of concrete slabs, beams, columns, lintel curved or straight including fitting, fixing & striking out after completion of works.(upto roof of ground floor) (a) 25 mm to 30 mm thick wooden shuttering as per decision & direction of Engineer-In-Charge. (a) In ground floor	63.05	Sq.M.	328.00	20680.40	
17.00	P - 192 It-1, Labour for Chipping of concrete surface before taking up Plastering work.	74.80	Sq.M.	21.00	1570.80	
18.00	P - 189/ It-1(i-b,c & ii-c), Add : P - 193/it-23(i & ii) Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary (Ground floor).[Excluding cost of chipping over concrete surface] (i) With 1:6 cement mortar (b) 20mm thick plaster (1:6 cement sand mortar) external plaster (a) In ground floor	74.80	Sq.M.	166.00	12416.80	3rd Corr;Dated-04.06.2018,P-49,SI no-a-1-c;ii-c;i-b
19.00	P - 192 It-15, Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc. (NOTE:Cement 0.152 cu.m per 100 sq.m.)	62.38	Sq.M.	34.00	2120.99	

20.00	<p>P. 74/ It-48 Supplying & laying as per IRC-SP:063-2004 paver unit of any shade of approved quality as per relevant IS code, laid in pattern as directed in pavement, footpath, driveway (paver block only), etc including necessary underlay complete in all respect with all labour and material. [Border concrete if necessary to be paid separately]. Note: Sub-grade CBR should not be less than 5. (c) 60 mm thick interlocking designer concrete paver block M - 35 grade for light-traffic zone, commercial & office complex, tourist resort as per IS: 15658-2006 (over 20-40 mm medium sand bed on 250mm thk WBM/ WMM base course & 250 mm thk bound gnauar /granular sub-base course including cost of sand for sand bed but excluding cost of base, sub-base course & subgrade preparation.)</p>					12th Corri.
	(ii) Coloured Decorative	50.00	Sq.m	1108.00	55400.00	
21.00	<p>P. 269/ It-8.01(SOR, Road & Bridge Works) Construction of cement concrete kerb with channel with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M10 grade foundation 150 mm thick, kerb channel 300 mm wide, 50 mm thick in PCC M20 grade, sloped towards the kerb, kerb stone with channel laid with kerb laying machine, foundation concrete laid manually, all complete as per clause 409 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). (The rate is inclusive of cost of all materials, labour, hire and usage charges of machinery and all incidental charges in this connection.) A) Using Concrete Mixer</p>	19.68	Mtr.	530.00	10428.28	
22.00	<p>P-99, I-1 M.S. structural works in columns, beams etc. with simple rolled structural members (e.g. joists, angle, channel sections conforming to IS: 226, IS: 808 & SP (6)- 1964 connected to one another with bracket, gussets, cleats as per design, direction of Engineer-in-charge complete including cutting to requisite shape and length, fabrication with necessary bolting, metal arc welding conforming to IS: 816- 1969 & IS: 1995 using electrodes of approved make and brand conforming to IS:814- 2004, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumables such as electrodes, gas and hire charge of all tools and plants and labour required for the work including all incidental chages such as electricity charges, labour insurance charges etc. Payment to be made on the basis of calculated weight of structural members only in finished work as per IS specified weight. Payment for gusset, bracket, cleat, rivets, bolts and nuts may be make by adding the actual weight of such items with the weight of finished structural members or 7% of weight for finished structural members weighing not less than 22.5 Kg. / m. or 15 % of weight for finished strctural members weighing less than 22.5 Kg. / m. may be increased allow for bracket cleat etc. III) For built up sections / strctural members of specified sections weighing not less than 22.5 Kg./m</p>	3.06	MT	72603.00	222497.12	(3rd Corr; Dated- 04.06.2018, P-84, SI no-1
23.00	<p>P-81, I-9(b) Galvanised corrugated iron sheet work (excluding the supporting frame work) fitted and fixed with 10 mm. dia J or L hook-bolts, limpet and bitumen washers and putty complete with 150 mm. end lap and one corrugation minimum side lap. (Payment to be made on area of finished work)(GCI sheet to be supplied by contractor) (i) In Roof- b) With 0.63 mm thick sheet</p>	27.00	Sq.m.	644.00	17388.00	
24.00	<p>P-222, I-11 Supplying, fitting, fixing, Chain link fencing of approved quality with R.C.C posts wooden posts or iron posts by means of galvanised "C" clips to grid of horizontal strands of galvanised high tensile spring steel wire of 12 S.W.G which have to be tensioned and fixed to the vertical posts by means of galvanised special clips, bolts and nuts etc. (VI) 25 mm. x 25 mm. x 12 g</p>	136.80	Sq.m.	367.00	50205.60	
TOTAL						8,34,645.78



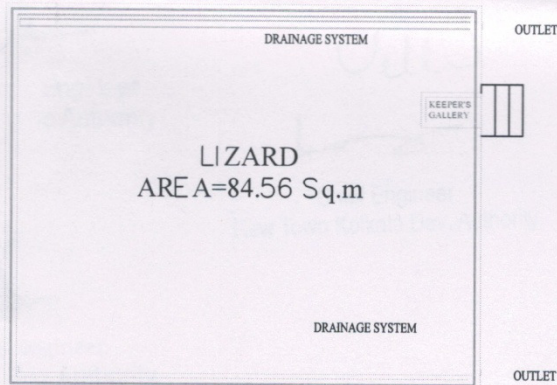
**Executive Engineer
West Bengal Zoo Authority**



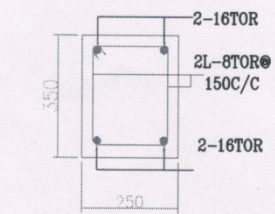
**A-A SECTION ELEVATION OF
LIZARD ENCLOSURE**

SCHEDULE OF FOOT

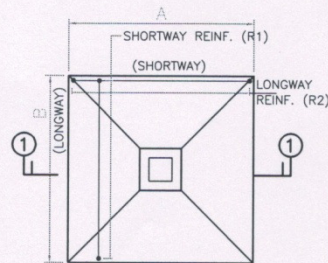
FOOTING MKD.	FOOTING SIZE AXB	FOUNDATION	
		total depth (D)	
F	1100X1100	250	



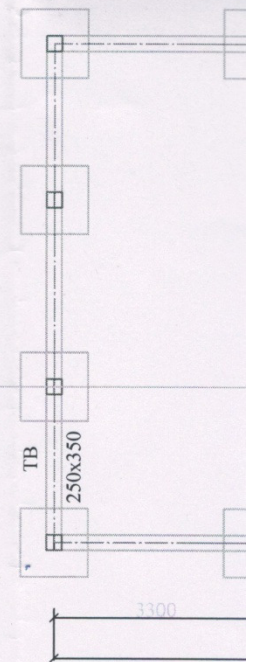
**PLAN OF
LIZARD ENCLOSURE**



**TYP. SEC OF TIE BEAM (TB)
SCALE 1:30**



**DETAIL OF FOOTING F3
SCALE-1:50**

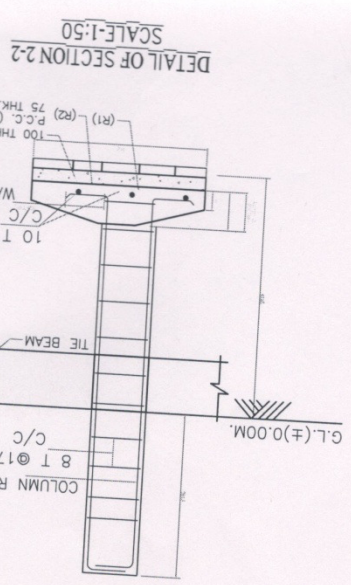


DYNAMIC
 DRAWN BY: S. MATY
 SCALE: 1:100
 SUBMITTED BY:

TITLE:
 PLAN, SECTION & ELEVATION OF
 WATER MONITOR LIZARD
 AT GARCHUMUK ZOOLOGICAL
 GARDEN, ULUBERIA,
 FOUNDATION LAYOUT, SECTION
 AT 2-2, DETAILS OF BEAM, FOOTING,
 COLUMN.

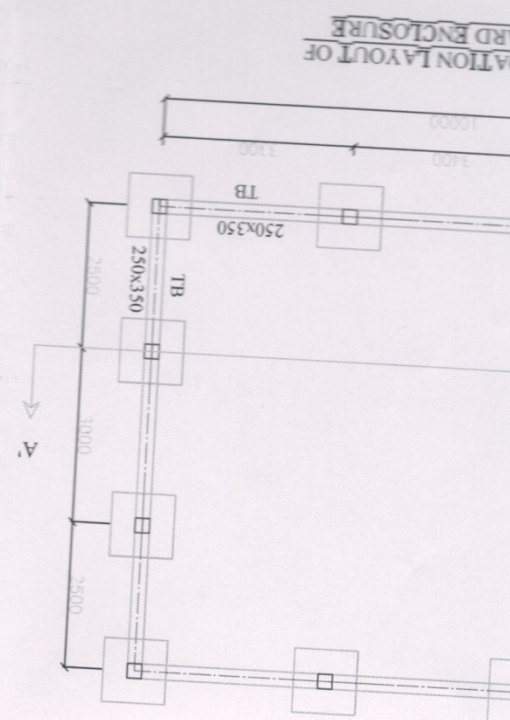
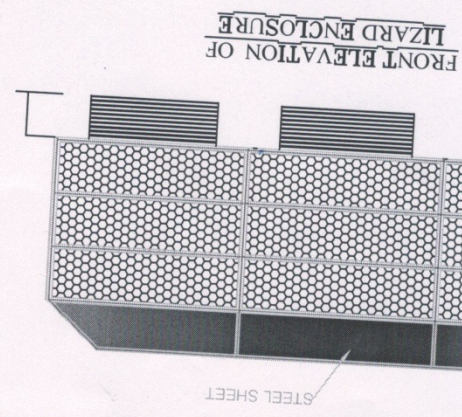
SCHEDULE OF COLUMN

LEVEL	FND.	COL. MKD.	LINKS AS SPECIFIED. 8 T @ 150 C/C
CL.	4-121	250x250	
ROOF			



REINFORCEMENT

DEPTH	SHORT WAY (R1)	LONG WAY (R2)
(p) in. depth	12 T @ 125 C/C	12 T @ 125 C/C



Sd/-
 Ex-officio Director,
 Garchumuk Zoological Park &
 Divisional Forest Officer, Howrah Division

Copy forwarded for information to:

1. The Member-Secretary, West Bengal Zoo Authority, West Bengal
2. The Chief Conservator of Forests, Conservation & Extension, West Bengal.
3. The Conservator of Forests, P & G Circle, West Bengal.
4. The Office File
5. Office Notice Board.

Sd/-
Ex-officio Director,
Garchumuk Zoological Park &
Divisional Forest Officer, Howrah Division