



**West Bengal Zoo Authority  
Office of The Director  
North Bengal Wild Animals Park,**

5<sup>th</sup> Mile, Sevoke Road, Salugara, Siliguri-734008 (W.B.)  
Email Id: - [dirnbwap@gmail.com](mailto:dirnbwap@gmail.com)

Memo No.787/NleT-28(TPQA)/NBWAP/2024-25

Dated, 05/08/2024

**NleT No. 28/NBWAP/2024-25**

**TENDER FOR CONSULTANCY SERVICES FOR THIRD PARTY QUALITY CONTROL, QUALITY ASSURANCE OF DIFFERENT WORKS FOR CIVIL/ELECTRICAL/OTHER STRUCTURE PROJECT WORKS & SUPERVISION AT NORTH BENGAL WILD ANIMALS PARK (BENGAL SAFARI), SILIGURI UNDER WEST BENGAL ZOO AUTHORITY.**

The Director, at North Bengal Wild Animals Park (Bengal Safari), Siliguri under West Bengal Zoo Authority invites e-Tenders for the following work(s) from the eligible Contractors as detailed in the table below. [Collection (downloading) and Submission (uploading) of Tender can be made online through the website <https://wbtenders.gov.in> only].

**List of Work(s):**

Project No.	Name of work	Amount Put to Tender (Rs.)	Earnest Money (Rs.)	Price of Set of Tender Document (Rs.)	Period of Completion of the work
(1)	(2)	(3)	(4)	(5)	(6)
28	CONSULTANCY SERVICES FOR THIRD PARTY QUALITY CONTROL, QUALITY ASSURANCE OF DIFFERENT WORKS FOR CIVIL/ELECTRICAL/ OTHERS PROJECT WORKS AND SUPERVISION AT NORTH BENGAL WILD ANIMALS PARK (BENGAL SAFARI), SILIGURI UNDER WEST BENGAL ZOO AUTHORITY.	1% of project cost up to maximum 10 Lacks	Rs. 4,000.00	0.00/-	Till the end of the Project

You are invited to submit your most competitive tender for the following works:-

Brief Description of the Works	Financial Proposal	Period of Engagement
<p>Third party quality control and quality assurance of different Check civil/electrical/others works undertaken at NBWAP. The scope of services would include the following:-</p> <ul style="list-style-type: none"> <li>(i) To make survey and lay-out and benchmark fixation before commencement of the work.</li> <li>(ii) To supervise technically as per specification of approved plan and estimate of the scheme on behalf of the Director, North Bengal Wild Animals Park, Siliguri.</li> <li>(iii) To prepare Work Measurement Note Book form time to time as per rules in vogue.</li> <li>(iv) To check volume of work in the field with the bill and estimate as and when submitted by the Contractor.</li> <li>(v) To appraise Director, North Bengal Wild Animals Park about progress and quality of work from time to time.</li> <li>(vi) To ensure the quality of works along with workman ship in conforming to technical specifications, contract documents, Designs/drawings, relevant Indian Standards.</li> <li>(vii) To ensure sound construction and installation procedures using the appropriate equipments and standardized implementation procedures.</li> <li>(viii) To undertake monitoring of the site selection, all the work is carried out as per agreed design and specifications, and quality of output at various stages of construction as per bid specifications.</li> <li>(ix) To carry out the field test required for assuring the quality in the presence of the competent authority.</li> <li>(x) To adhere to standards and guidelines as specified in the each tender of TPQA time to time.</li> <li>(xi) To recommend appropriate corrective actions even suspension of works where the quality of work is likely to be of poor quality or would risk early breakdown.</li> </ul> <p><u>Location Details:</u> 1. Under the premises of North Bengal Wild Animals Park.</p>	<p>1-1 of project cost up to maximum 10 Lacks</p>	<p><b>Till the end of the project</b></p>

**\*\* Test includes as par following table:**

Materials	Laboratory Tests	Field Tests
SOIL	Grain size distribution	Field Moisture Content
	Liquid Limit & Plastic Limit	Field Density by Core Cutter method
	Standard Proctor Test	-
CONCRETE	Sieve analysis of aggregates	Slump test
	AIV test of aggregate	In situ cube test
	Water absorption	

**A. DATE AND TIME SCHEDULE (SEQUENCE OF TENDER)**

Sl. No.	Event particulars	Date and Time	
1	Date of uploading of NleT Documents in departmental website and @ <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a> (Publishing Date)	05/08/2024	
2	Date and Time for downloading of Documents from website <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a>	Start	05/08/2024 (05:30pm)
		End	13/08/2024
3	Date and time of Bid submission through the website @ <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a>	Start	05/08/2024 (06:00pm)
		End	13/08/2024 (5:00pm)
4	Date time and place of opening of Technical Bid through the website @ <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a>	16/08/2024 (11:00am)	
5	Date of uploading of technically qualified bidders after Technical Bid evaluation through website @ <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a>	To be notified after opening of Technical Bid.	
6	Date time and place of opening of Financial Bid through the website @ <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a>	To be notified after opening of Technical Bid.	
7	Date of uploading of list of bidders along with their rates and also if necessary for further negotiation in offline mode for final rate	To be notified later	

Detail of e-Tender Notice, Terms and Conditions, Plan, BOQ, etc will be available from website:-

<http://wbtenders.gov.in>

1. Intending bidder may download the tender documents from the website <https://wbtenders.gov.in> directly with the help of Digital signature Certificate.
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 should 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 Evaluation Committee' formed by the Director, North Bengal Wild Animals Park, Siliguri.**
5. All prospective tenderer shall be allowed to participate in one or more than one of the above mentioned works in this notice. But separate application with supporting documents and EMD should be submitted separately for each work.
6. In case of any unscheduled holiday or bundh or natural calamity on the aforementioned dates, next working day will be treated as scheduled/prescribed date for the same purpose.
7. Tender inviting authority reserves the right to defer the time and date of opening of the Technical or Financial or both bids.

## **INSTRUCTION TO BIDDERS**

### **Section – A**

#### **1. General Guidance for e-Tendering**

**1.1** Instructions / Guidelines for tenderers for electronic submission of the tenders online have been shown in Web site <https://wbtenders.gov.in>

#### **1.2 Registration of Contractors**

Any contractor willing to take part in the process of e-tendering will have to be enrolled and registered with the Government e-Procurement System.

#### **1.3 Digital Signature Certificate (DSC)**

Each contractor is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders.

#### **1.4 Collection of Tender Documents**

The contractor can search and download NIT and tender documents electronically from computer once he logs on to the website mentioned in Clause 1.1 using the Digital Signature Certificate. This is the only mode of collection of tender documents.

#### **1.5 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 or registered company. If found to have applied severally in a single job, all his applications will be rejected for that job.

### **2. Submission of Tenders:**

#### **2.1 General process of submission:**

Tenders are to be submitted online through the website stated in Clause 1.1 in two folders, at a time for each work, one is Technical Proposal and the other is Financial Proposal, before the prescribed date and time mentioned in the list attached. Using the Digital Signature Certificate (DSC), the documents are to be uploaded, virus scanned and digitally signed. Tenderers should specially take note of all the addendum/corrigendum related to the tender and upload the latest documents as part of the tender.

#### **2.2 Technical Proposal**

The Technical Proposal should contain scanned copies and/or a declaration in standardized formats of the following in two covers (folders).

#### **A. Technical File (Statutory Cover) containing**

- i. NOTICE INVITING TENDER (NIT) **(to be submitted in “NIT” Folder).**
- ii. Section B (Form I, Form II, Form III, Form IV–AFFIDAVIT, Form VI (AFFIDAVIT to be furnished in Non-judicial stamp paper of value not less than Rs. 10/- (Ten) only from the attested by notary separately for each project**(to be submitted in “FORMS” Folder).**
- iii. **Earnest Money Deposit (EMD) and the cost of Tender Documents (Tender Fees)** is to be remitted by the Tenderer as mentioned in the NIT document in favour of **“Director, North Bengal Wild Animals Park, Siliguri, W.B.”.**
- iv. Instructions to Bidders. **(to be submitted in “ITB” Folder)**

v. General Terms & Conditions of Contract. **(To be submitted in “GT AND CC” Folder)**

vi. Technical Specification. **(To be submitted in “TS” Folder)**

**vii. Submission of EMD:**

Regarding Earnest Money Deposit, it should be deposited to the pooling account of the State Government maintained with the Focal Point Branch of ICICI Bank at R. N. Mukherjee Road, Kolkata as per The Finance Department, Government of West Bengal guideline (Memo No. 3975-F(Y) dt.28.07.2016).

**viii. Addenda/Corrigenda, if published:** Contractors are to keep track of all the Addendum/ Corrigendum issued with a particular tender and upload all the above, digitally signed, along with the NIT. Tenders submitted without the Addendum/Corrigendum will be treated as invalid and liable to be rejected.

**B. My Document (to be submitted in technical envelope)**

Sl. No.	Category Name	Sub-Category Description	Document Name	
			(For details see Clause 3 of ITB & relevant clauses of NIT)	
A.	CERTIFICATES	CERTIFICATES	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
			6	Enlistment Certificate
			7	ESI & EPF Registration Certificate
B.	COMPANY DETAILS	COMPANY DETAILS	1	Proprietorship Firm - Trade Licence.
			2	Partnership Firm - Registered Partnership Deed, Registered Power Attorney, Trade licence.
			3	Pvt. Ltd. Company - Registration Certificate under Company's Act, MOA & AOA, Registered Power of Attorney, Trade licence.
			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	1	Authenticated copy of invoice, challan and way bill (Machinery)
		LABORATORY	2	Authenticated copy of invoice, challan and way bill (Laboratory)
E.	FINANCIAL (INFO)	TURN OVER	1	Authenticated copy of the Income Tax Returns
		PAYMENT CERTIFICATE	2	Only Payment Certificate of work issued by the Concerned Supervisor and not the TDS certificate
F.	DECLARATION	STRUCTURE & ORGANISATION	1	Details of Structure and Organisation Section B Form II.

		AFFIDAVIT	2	An affidavit made that no adverse report against the bidder Form III
		TECHNICAL STAFF	3	An affidavit mentioning the name of the technical staff as described.

### **2.3. Financial Proposal**

i) The financial proposal should contain the Bill of Quantities (B.O.Q.) in one cover (folder). The contractor is to quote the rate in the space marked for quoting rate in the B.O.Q.

ii) Only downloaded copy of the B.O.Q. are to be uploaded quoting the rate, virus scanned & digitally signed by the contractor.

### **3. Eligibility Criteria for participation in tender:**

(a) The intending bidders should have proper licence for engaging labourers on contract.

(b) All categories of prospective Tenderers shall have to submit valid and up to date Professional Tax receipt challan, GST registration certificate, Income Tax return Acknowledgement receipt, PAN card issued by Income Tax Department, Voter ID card, ESI & EPF Registration Certificate and Trade licence in respect of the prospective tenderer. In addition to the above, any contractor who has executed any type of tender works in Directorate of Forests, Govt. of West Bengal and West Bengal Zoo Authority, should submit previous credentials for his past performance, completion certificate from respective employer, the completion certificate and credentials should be signed by the officer not below the rank of Deputy Conservator of Forest, any other certificate signed by other officials will not be entertained (Non Statutory Documents).

(c) Where an individual person holds a Certificate in his own name duly issued to him against the company or the firm of which he happens to be a director or partner, such individual person shall, while submitting any tender for and on behalf of such company or firm, invariably submit a copy of registered power of attorney showing clear authorization in his favour, by the rest of the directors of such company or the partners of such firm, to submit such tender. The Power of Attorney shall have to be registered in accordance with the provisions of the Registration Act, 1908. (Non-statutory Documents).

(d). Neither prospective Tenderer nor any of the constituent partners had been debarred to participate in any Tender by the P.W.D., P.W.(R)D & P.W.(C.B.)D, Housing Department, W.B. or C.P.W.D. or M.E.S or Railways; during the last 5 (five) years prior to the date of this NIT. Such debarring will be considered as disqualification towards eligibility. (A declaration in this respect has to be furnished by the prospective bidders as per prescribed format). [Non-statutory Documents]

(e).The partnership firm shall furnish the Registered Partnership Deed and the Company shall furnish the Memorandum of Association (MOA) and Article of Association (AOA.) [Non-statutory Documents]

(f).Registered Un-employed Engineers' Co-operative Societies / Labour Co- operative Societies are required to furnish the following documents : - [Non-statutory Documents]

- i) Current "No Objection Certificate" from the Assistant Registrar of Co-operative Societies.
- ii) Supporting documents showing area of operation.
- iii) Bye-laws duly approved by the Assistant Registrar of Co-operative Societies.
- iv) Name with address and signature (in original) of the present Board of Directors of the Co-operative Society
- v) Copies of Minutes of last Annual General Meeting and Audit Report of the Co-operative Society with the evidence of submission of the same to the concerned Authorities, duly attested.

(g).The prospective Tenderers or any of their constituent partner shall neither have abandoned any work nor any of

their contract have been rescinded during the last 5 (five) years. Such abandonment or rescission will be considered as disqualification towards eligibility.

(h).Joint Ventures will not be allowed.

(i).A prospective Tenderer shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm. If the prospective Tenderer is found to have applied severally in a single job, all his applications will be rejected for that job.

(j).No conditional / Incomplete Tender will be accepted under any circumstances.

(k). The bidder should have a minimum average turnover of at least Rs. 10 Lacks in the last three preceding years.

**(l)**Completion Certificate (s) submitted by the bidder should indicate the gross value of the 100% completed work only. Completion certificates should clearly contain the Name, Designation, Address and contact no of the Officer issuing the credential.

(m)The bidder should have successfully completed at least one or three similar type of work during last three years for a single contract of value not less than 25% of the project cost for each project. In case any bidder wants to apply for more than one project, then the requisite amount will increase proportionately.

(n). The bidder should also have made profits after taxes for each of these last 3 financial years.

**(o)** Tender issuing authority may relax stipulations contained in clauses above in exceptional cases, in the interest of culminating / maturing tender process at the first call, subject to satisfaction of that authority on the competency of the bidder(s) for which such relaxation has been made, upon recording reasons of such relaxation.

(p) The tenderer should have at least one staff on the roll, with a Engineering degree, having experience of minimum 5(five) years or Diploma holder, having experience of minimum 8(eight) years at work site for the proper supervision, checking of works, quality control etc. and liasoning with office of the Director, North Bengal Wild Animals Park, Siliguri.

#### **4. Opening of Technical Proposal**

Technical proposals will be opened by the authorized representatives electronically from the website stated in Clause 2.1, using their Digital Signature Certificate. Intending tenderers may remain present, if they so desire. Cover (Folder) for Statutory Documents should be opened first, if found in order, Cover (Folder) for Non-statutory Documents will be opened. If there is any deficiency in the Documents, the tender will summarily be rejected.

Decrypted (transformed into readable formats) documents of the Non statutory Cover will be downloaded, and handed over to the Tender Evaluation Committee (constituted for evaluation of tenders).

#### **5. Uploading of summary list of technically qualified tenderers (1st round)**

Pursuant to scrutiny and decision of the Tender Evaluation Committee (TEC), the summary list of eligible tenderers with the serial number of work(s) for which their Financial Proposals will be considered will be uploaded in the web portals.

While evaluation, the Committee may summon the tenderers and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these cannot be produced within the stipulated time frame, their proposals will be liable for rejection.

#### **6. Final publication of summary list of technically qualified tenderers**

Date of opening of financial bid will to be intimated in the final summary list.

## **7. Opening and Evaluation of Financial Proposal**

Financial proposals of the tenderers declared technically eligible by the Tender Evaluation Committee will be opened electronically from the web portal stated on the prescribed date, normally after 2(two) working days of date of publication of final summary list of the tenderers. The encrypted copies will be decrypted and the rates will be read out to the contractors remaining present at that time. After evaluation of Financial Proposal, by the appropriate Authority, may upload the final summary result containing inter-alia, name of contractors and the rates quoted by them against each work provided Tender evaluation committee is satisfied that the rate obtained is fair and reasonable and there is no scope of further lowering down of rate.

Technical proposals will be opened by the Director, North Bengal Wild Animals Park or his authorised representative.

Financial proposals of the tenderers declared technically eligible by the Tender Accepting Authority will be opened on the prescribed date.

The Tender Accepting Authority, if required, may ask any of the tenderers to submit rate analysis to justify the rate quoted by that tenderer.

Financial proposals of the tenderers declared technically eligible by the Tender Evaluation Committee.

The encrypted copies will be decrypted and the rates will be read out to the contractors remaining present at that time.

After evaluation of Financial Proposal, by the appropriate Authority of Director, North Bengal Wild Animals Park, name of contractors and the rates quoted by them against each work provided Tender evaluation committee is satisfied that the rate obtained is fair and reasonable and there is no scope of further lowering down of rate.

## **8. Procedures to be followed when one / two technically qualified tenderers participated in any tender:**

Financial bid of technically qualified single / two tenderers may not be opened immediately. 2<sup>nd</sup> call may be invited immediately after technical evaluation. If such bidder(s) technically qualified in the 1<sup>st</sup> call intend(s) to change their rates quoted in the 1<sup>st</sup> call, they are to purchase tender paper afresh. In case of non purchase, the rates quoted in the 1<sup>st</sup> call would remain valid. After selection of technically qualified tenderers for 2<sup>nd</sup> call (in case new tenderer other than the existing tenderer of the 1<sup>st</sup> call), financial bid of both 1<sup>st</sup> and 2<sup>nd</sup> call would be opened. Financial evaluation would be made in a combined way considering both 1<sup>st</sup> and 2<sup>nd</sup> call. However, in case tenderer(s) of 1<sup>st</sup> call submit(s) fresh tender in 2<sup>nd</sup> call, rates of 2<sup>nd</sup> call should be considered in the process of evaluation.

## **9. Acceptance of Tender (Technically eligible/qualified)**

Lowest valid rate should normally be accepted. However, the Tender Accepting Authority does not bind himself to do so and reserves the right to reject any or all the tenders, for valid reasons and also reserves the right to distribute the work amongst more than one tenderer at the accepted rate after formal consultation with L1 (accepted rate) bidder and taking consent of L1 bidder for smooth & quick completion of the work.

## **10. Penalty for suppression / distortion of facts**

If any tender fails to produce the original hard copies of the documents (especially completion certificates and audited balance sheets), or any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies or if there is any suppression, the tenderer will be suspended from participating in the tenders on Tender platform for a period of 3 (Three) years. In addition, his user ID will be deactivated and Earnest Money Deposit will stand forfeited. Besides, the Director, North Bengal Wild Animals Park may take appropriate legal action against such defaulting tenderer.

## **11. Brief details on the nature of work:**

a)	Name of the project	:	Consultancy services for third party quality control, quality assurance work of different projects of civil/ electrical/others works undertaken in Director, North Bengal Wild Animals Park, Siliguri
b)	Nature of Work	:	Consultancy services for third party quality control, quality assurance work of different projects of civil/ electrical/others works undertaken in Director, North Bengal Wild Animals Park, Siliguri.
c)	Contractors eligible to submit the tender	:	As per mentioned in the tender notice

## **11. EARNEST MONEY DEPOSIT AND TENDER DOCUMENT COST.**

### **Payment procedure:**

#### **Payment by Net Banking (any listed bank) through ICICI Bank Payment Gateway:**

On selection of net banking as the payment mode, the bidder will be directed to ICICI Bank Payment Gateway webpage (along with a string containing a Unique ID) where he will select the Bank through which he wants to do the transaction. Bidder will make the payment after entering his Unique ID and password of the bank to process the transaction.

Bidder will receive a confirmation message regarding success/failure of the transaction. If the transaction is successful, the amount paid by the bidder will get credited in the respective Pooling account of the State Government /PSU/Autonomous Body/Local Body/PRIs, etc maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road, Kolkata for collection of EMD/Tender Fees.

If the transaction is failure, the bidder will again try for payment by going back to the first step.

#### **Payment through RTGS/NEFT:**

(i) On selection of RTGS/NEFT as the payment mode, the e-Procurement portal will show a pre-filled challan having the details to process RTGS/NEFT transaction.

(ii) The bidder will print the challan and use the pre-filled information to make RTGS/NEFT payment using his Bank account.

Once payment is made, the bidder will come back to the e-Procurement portal after expiry of a reasonable time to enable the NEFT/RTGS process to complete, in order to verify the payment made and continue the bidding process.

(iii) If verification is successful, the fund will get credited to the respective Pooling account of the State Government/PSU/ Autonomous Body/Local Body/PRIs, etc maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road, Kolkata for collection of EMD/Tender Fees.

(iv) Hereafter, the bidder will go to e-Procurement portal for submission of his bid. But if the payment verification is unsuccessful, the amount will be returned to the bidder's account.

## **12. Refund/Settlement Process:**

- I. After opening of the bids and technical evaluation of the same by the tender inviting authority through electronic processing in the e-Procurement portal of the State Government, the tender inviting authority will declare the status of the bids as successful or unsuccessful which will be made available, along with the details of the unsuccessful bidders, to ICICI Bank by the e-Procurement portal through web services.
- II. On receipt of the information from the e-Procurement portal, the Bank will refund, through an automated process, the EMD of the bidders disqualified at the technical evaluation to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of bid is uploaded to the e-Procurement portal by the tender inviting authority.

- III. Once the financial bid evaluation is electronically processed in the e-Procurement portal, EMD of the technically qualified bidders other than that of the L1 and L2 bidders will be refunded, through an automated process, to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of financial bid is uploaded to the e-Procurement portal by the tender inviting authority. However, the L2 bidder should not be rejected till the LOI process is successful.
- IV. If the L1 bidder accepts the LOI and the same is processed electronically in the e-Procurement portal, EMD of the L2 bidder will be refunded through an automated process, to his bank account from which he made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on Award of Contract (AOC) to the L1 bidder is uploaded to the e-Procurement portal by the tender inviting authority.
- V. As soon as the L1 bidder is awarded the contract (AOC) and the same is processed electronically in the e-Procurement portal EMD of the L1 bidder for tenders of State Government offices will automatically get transferred from the pooling account to the State Government deposit head "8443-00-103-001-07" through GRIPS along with the bank particulars of the L1 bidder.  
EMD of the L1 bidder for tenders of the State PSUs/Autonomous Bodies/Local Bodies/PRIs, etc will automatically get transferred from the pooling account to their respective linked bank accounts along with the bank particulars of the L1 bidder. In both the above cases, such transfer will take place within T+1 Bank Working Days where T will mean the date on which the Award of Contract (AOC) is issued.

The Bank will share the details of the GRN No. generated on successful entry in GRIPS with the E-Procurement portal for updation.

Once the EMD of the L1 bidder is transferred in the manner mentioned above, Tender fees, if any, deposited by the bidders will be transferred electronically from the pooling account to the Government revenue receipt head "0070-60-800-013-27" through GRIPS for Government tenders and to the respective linked bank accounts for State PSU/Autonomous Body/Local Body/PRIs, etc tenders.

All refunds will be made mandatorily to the Bank A/c from which the payment of EMD & Tender Fees (if any) were initiated.

There is no exemption of any kind for any of the eligible contractors towards cost of tender document fee or EMD

13. Both technical Bid and Financial Bid should be submitted duly digitally signed by the Tenderer through the website <http://wbtenders.gov.in> as per the 'Date & Time Schedule' stated in this NIT (Details of which has been narrated in 'Instruction to Bidders') In case of partnership firm(s), the pledged instrument (s) must reflect the name(s) of the firm as well as the name(s) and address(es) of the partner/partners who is/are authorized to pledge the same as per valid partnership deed (s).
  - a) Intending Tenderers should download the Tender Documents from the website [www.wbtenders.gov.in](http://www.wbtenders.gov.in) directly with the help of Digital Signature Certificate.
  - b) In case of partnership firm(s), the pledged instrument(s) must reflect the name(s) of the firm as well as the name(s) and address (es) of the partner / partners who is/are authorized to pledge the same as per valid partnership deed(s).
  - c) Both Technical Bid and Financial Bid should be submitted duly digitally signed by the Tenderer through the website [www.wbtenders.gov.in](http://www.wbtenders.gov.in) as per the 'Date & Time Schedule' stated in the N.I.T.

#### 14. Opening of Tender:

- (a) The Technical Bid shall be publicly opened by the authority receiving tender or by his authorized representative, as per the Date & time Schedule mentioned in NIT.
- (b) Prospective Tenderers or their authorized representatives may be present during the opening process.

- (c) Financial Bids of only those tenderers who would qualify in the Technical Bid evaluation will be opened.
- (d) The intending Tenderers shall clearly understand that whatever may be the outcome of the present Invitation of e-Tender, no cost of e-Tendering shall be reimbursable by the Government. The Director, North Bengal Wild Animals Park, Siliguri reserves the right to reject any e-Tender or all Tenders without assigning any reason whatsoever and is not liable for any cost that might have incurred by any e-Tenderer at any stage of e-Tendering.
- (e) The acceptance of the tender rests with the Director, North Bengal Wild Animals Park, Siliguri, W.B. who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reason thereof. Intending Tenderers are encouraged to inspect the site of work and get themselves thoroughly acquainted with the local condition and all factors which may affect their rates. Prior to the site.

### 15. Scope of Works

The Director, North Bengal Wild Animals Park, Siliguri invites Tenders for the following works as detailed in the table given below

Brief Description of the Works	<u>Financial Proposal</u>	Period of Completion
<p>Third party quality control and quality assurance of different project works of NBWAP, Siliguri.</p> <p><u>Services for Construction works:</u> The detailed scope of work for the above mentioned work is as follows and will be carried out in stages:</p> <ol style="list-style-type: none"> <li>1. Review of Design Details: Thorough study of the Design Report and drawing details provided by Director, North Bengal Wild Animals Park, Siliguri and based on that submission of a Review Report.</li> <li>2. Inspection and Examination of Act of Contractors—As an overall supervisor of the Project and o/o the Director, North Bengal Wild Animals Park, engineer, monitoring the activities of the contractor at every stage of their operation so that the project will be completed within the specific time limit and at the contracted quality level. At various stages of the construction process, inspection and examination of the contractor including the construction methodology, type of workmanship, quality of material, performance of equipment, safety measures etc. in compliance with good construction practices. Any type of discrepancies, disparities observed during the time of inspection, both the contractor and Director, North Bengal Wild Animals Park, Siliguri would be informed at the earliest and assistance to resolve the problem. Helping the contractor to overcome the problems or bottlenecks during the construction process.</li> <li>3. Monthly/Fortnightly Progress Report—Preparation of detailed Monthly/fortnightly Progress Reports verified by its multi-disciplinary team members. In this report all deviations from the projected schedule in terms of time and cost will be pointed out. Necessary clarification and measures to mitigate such deviation(s) will also be mentioned in the monthly report.</li> </ol>	<p>1-1 of project cost up to maximum 10 Lacks</p>	<p>Till the end of the project</p>

<ol style="list-style-type: none"> <li>4. Certification of Bills—Verification of all running account bills and final bill of the contractor considering the terms and conditions of the Contract Agreement. Bill of quantity will be verified through physical inspection and critical evaluation of the construction quality. Thereafter all these bills will be certified for payment along with its recommendations. Monitoring the overall cost of the project at every stage and the o/o the Director, North Bengal Wild Animals Park, Siliguri will be informed and advised accordingly.</li> <li>5. Expenditure Control—Expenditure control will be one of the important aspects for successful implementation of a project. Closely monitoring the project cost at every level of operation. If it is necessary for overall cost reduction, the best suitable alternative available at lower cost should be suggested. During Project implementation, pointing out the avoidable cost(s) of the project and suggest the o/o the Director, North Bengal Wild Animals Park, Siliguri the necessary amendments in the time schedule of construction, alternative construction methodology, revised design features, resource planning etc.</li> <li>6. Visits during Defect Liability Period - Minimum two visit during the Defect Liability Period of the Contractor after completion of construction, Submission of Site visit Reports and subsequent remedy of the defects found during the site visits and certification of the repaired defects</li> <li>7. To ensure the quality of works along with workman ship in conforming to technical specifications, contract documents, designs/drawings, relevant Indian Standards.</li> <li>8. To ensure sound construction and installation procedures using the appropriate equipment and standardized implementation procedures.</li> <li>9. To undertake monitoring of the site selection, all the work is carried out as per agreed design and specifications, and quality of output at various stages of construction as per bid specifications.</li> <li>10. To carry out the field test required for assuring the quality in the presence of the competent authority.</li> <li>11. To make survey and lay-out and benchmark fixation before commencement of the work.</li> <li>12. To supervise technically as par specification of approved plan and estimate of the scheme on behalf of the Directorate of Forest, Govt. of West Bengal.</li> <li>13. To prepare Work Measurement Note Book from time to time as par rules in vogue.</li> </ol>		
---	--	--

<p>14. To check volume of work in the field with the bill and estimate as and when submitted by the contractor.</p> <p>15. To appraise Director, NBWAP about progress and quality of work from time to time.</p> <p>16. To ensure the quality of works along with workman ship in conforming to technical specifications, contract documents, designs/drawings, relevant Indian Standards.</p> <p>17. To ensure sound construction and installation procedures using the appropriate equipment and standardized implementation procedures.</p> <p>18. To undertake monitoring of the site selection, all the work is carried out as per agreed design and specifications, and quality of output at various stages of construction as per bid specifications.</p> <p>19. To carry out the field test required for assuring the quality in the presence of the competent authority**</p> <p>20. To recommend appropriate corrective actions even suspension of works where the quality of work is likely to be of poor quality or would risk early breakdown.</p> <p><u>Location Details:</u>  <b>1. At the premises of North Bengal Wild Animals Park, Siliguri</b></p>		
--	--	--

\*\* Test includes as par following table:

Materials	Laboratory Tests	Field Tests
<b>SOIL</b>	Grain size distribution	Field Moisture Content
	Liquid Limit & Plastic Limit	Field Density by Core Cutter method
	Standard Proctor Test	-
<b>CONCRETE</b>	Sieve analysis of aggregates	Slump test
	AIV test of aggregate	In situ cube test
	Water absorption	

**16.** The selected Contractor must arrange to procure all materials required for the proper completion of the work (as per the Technical Specifications of the tender document). The Employer will not on any account be responsible for procuring the same.

**17.** The selected contractor shall apply to the Director, North Bengal Wild Animals Park, Siliguri, West Bengal for seeking permission for utilization of land at the close proximity of the site for arranging required plant & machineries, store of materials, labour shed, laboratory etc. at his own cost and responsibility. All such temporary shed etc. shall have to dismantled and all debris etc. cleared from site post completion of the work or as directed by the Director, North Bengal Wild Animals Park, Siliguri. Once an order to the effect is issued from the Director, North Bengal Wild Animals Park, Siliguri, West Bengal in this regard, it shall be brought to effect by the contractor without contest.

**18. Validity of Bids:**

Bid shall remain valid for a period not less than 365 days after the dead line date for Financial Bid/Sealed Bid

Submission. Bid validity for a shorter period shall be rejected by Tender Accepting Authority as non-responsive. If any Tenderer withdraws his offer before Bid validity period without giving any satisfactory explanation for such withdrawals, he may be disqualified for submitted tender to this Office for a minimum period of 1 (one) year and legal action will be taken against him.

**19. Verification of credentials/onsite projects:**

Before issuance of the work order, the Tender Accepting Authority may verify the credential and other documents of the lowest Tenderer if found necessary. After verification, if it is found that such documents submitted by the lowest Tenderer is either manufactured or false in that case, work order will not be issued in favour of the Tenderer under any circumstances and legal action will be taken against him.

**20. Cancellation of Tender:**

The Director, North Bengal Wild Animals Park, Siliguri, W.B. reserves the right to cancel this N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

**21. Security Deposit:**

8. a) Security Deposit - EMD submitted by successful bidder shall be converted as part of the security deposit. Remaining part of the Security Deposit of the accepted tender value will be adjusted from the bill of the contractor. No interest will be paid on Security Deposit (SD) by the authority.

b) If the accepted bid value is 80% or less of the Estimate put to tender the Additional Performance Security @10% of the tendered amount as the G.O.NO.4608-F(Y), dt.18/07.2018 which shall have to be submitted by the successful bidder in the form of Bank Guarantee from any Scheduled Bank before issuance of the Work Order. If the bidder fails to submit the Additional Performance Security within seven (7) working days from the date of issuance of Letter of Acceptance, his Earnest Money will be forfeited and other necessary actions like blacklisting of the contractor, etc, may be taken. The Bank Guarantee shall have to be valid upto end of the Contract Period and shall be renewed accordingly, if required.

c) The Bank Guarantee shall be returned after successful completion of the Contract and payment of bills. If the bidder fails to complete the work successfully, the Additional Performance Security shall be forfeited at any time during the pendency of the contract period

**22. TECHNICAL ELIGIBILITY**

The bidder should have the following technical experts having following minimum experiences in its company completion of the works:

I) Team Leader should be minimum B.E. (or B. Tech) Civil having (5) five years' experience of the similar nature of jobs. The main responsibility will be to co-ordinate in between site work and Director, North Bengal Wild Animals Park, Siliguri.

II) Site Engineer – He should be minimum Diploma Engineer in Civil having (8) eight years of experience the similar nature of jobs. The main responsibility will be to monitor progress and activities of works at site.

(NOTE: Documentary Evidence in Support of the above should be submitted. The successful bidder will have to engage at least 1 site engineer is ever site on daily basis to monitor the progress of work and 1 team leader for every two site to co-ordinate with Director, North Bengal Wild Animals Park, Siliguri.)

**23. Deduction of Taxes Etc.:**

Deduction of Income Tax from the Contractor's Bill will be made as per Govt. rules. Labour Welfare Cess @ 1 % (one percent) of the cost of works will be deducted from every Bill of the selected agency. GST, Royalty & all other statutory levy/ Cess will have to be borne by the contractor as per Govt. Rules and the rate in the B.O.Q. is inclusive of all the taxes & cess stated above. Deduction of Tax shall be made as per provision of the W.B. GST Act, 2017 with up to date amendments.

**24. Maintenance Period:**

The Contractor will be liable to maintain the work at the appropriate service level to the satisfaction of the **Director, North Bengal Wild Animals Park, Siliguri, W.B.** at his own cost for a period of Security Period/Maintenance period, as stipulated in the BoQ. If any defect/damage is found during the period as mentioned above, the Agency shall make the same good at his own cost. Failure to do so, penal action against the Agency will be imposed by the Government as deemed fit. The Agency will have to quote his rate considering the above aspect. Also the Prospective Tenderers shall have to execute the work in such a manner so that appropriate service level of the work is kept during progress of work and the period of maintenance.

**25. Removal of Discrepancy:**

If any discrepancy arises between two similar clauses on different notification, the clause as stated in later notification will supersede former one in following sequence :-

- a. Form of Agreement
- b. Tender Form
- c. Technical Specifications
- d. General Terms and Conditions
- e. Relevant PWD(W.B.) Schedule of Rates
- f. Instructions to Bidders
- g. N.I.T.

**26. MOBILISATION ADVANCE/ COST OVER RUN:**

No Mobilisation Advance and Secured Advance will be allowed. Time / cost overrun and consequent cost of escalation for any materials, labour, P.O.L. etc. will not be allowed.

**27.** Canvassing in connection with the tender is strictly prohibited.

**28.** Site of work and necessary drawings may be handed over to the successful Tenderer along with the work order or in a phase wise manner as deemed fit by the **Director, North Bengal Wild Animals Park, Siliguri, W.B.** No claim in this regard will be entertained.

**29.** The successful Tenderer will have to start the work as per the work order to commence the work.

**30.** The Successful Tenderer will be required to obtain valid registration certificate & labour licence from respective offices where work by them are proposed to be carried out under the Contract Labour (Regulation & Abolition) Act, 1970 and the same should be submitted to the **Director, North Bengal Wild Animals Park, Siliguri, W.B.**

**31.** The successful tenderer shall have to comply with the provision of (a) the Contract Labour (Regulation & Abolition) Act, 1970 and (b) the Minimum Wages Act, 1948 and the Notifications thereof or other laws relating thereto and the rules made and orders issued there under from time to time, failure to do so will be treated as breach of contract and the **Director, North Bengal Wild Animals Park, Siliguri, W.B.** may in his discretion cancel the contract. The contractor shall also be liable for any liability arising on account of any violation by him of the provisions of the Act and Rules made there under time to time.

**32.** The contractor shall not be entitled for any compensation for any loss suffered by him due to delay arising out for modification of the work, due to non-delivery of the possession of site and / or modification of work plan etc.

**33.** Prevailing safety norms has to be followed by the successful Tenderer during execution of the work so that LTI (Loss of time due to injury) is zero.

34. Guiding schedule of works should be followed as per existing norms, patterns, lying in the working division.

35. No tender shall be deemed to be fit for consideration unless the tender documents are fully and completely filled in. All information that may be asked from the Tenderer must be unequivocally furnished. The eligibility of a Tenderer will be ascertained on the basis of the documents submitted by a Tenderer in support of eligibility criteria. If any document submitted by a Tenderer is found to be incomplete/incorrect/ manufactured / fabricated or false, his Tender will be out rightly rejected at any stage and legal action will be taken against him.

36. A Tenderer is to quote in figures as well as in words, his rates in the following forms as applicable in his cases against the estimated value put to tender of the tender Paper.

37. In the event of a tender being submitted by a firm, it must be signed by a member or members of the firm having legal authority to do so and if called for, legal documentations in support thereon must be produced for inspection and in the case of a firm carried out by one member or a joint family it must disclose that the firm is duly registered under the Indian Partnership Act.

38. The Tenderer must sign at the bottom of each page of the tender documents as a proof of acceptance of terms and conditions of the Tender. Overwriting shall not be allowed. All corrections, alternations etc. must be duly signed.

39. It must be clearly understood that the quantities of the various items indicated in the schedule or probable items are approximate only and may be appreciably increased or decreased during actual execution. The contractor shall remain effected by alteration.

40. The estimated cost is inclusive of all statutory taxes & Cess as applicable. The detail brake up GST and Cess as applicable should be provided in the R.A Bill/Final Bill as per prevalent order of the Finance Department Govt. of West Bengal in this respect.

40. No child labour should be engaged.

41. The successful agency/supplier/Tenderer will have to make an agreement on terms and conditions of the contract on a Rs. 100/- non judicial stamp paper, the cost of which will be borne by the contracting agency/firm/company. In the event of failure to execute formal tender agreement within the allotted time the Agency/Supplier/Tenderer will be liable for punishment and deposited Earnest Money will be forfeited & he will be debarred from participating in any Tender Works by the Director, NBWAP.

42. Refund of Security Deposit will only be released after successful maintaining of appropriate service level of the work at least for **06 (six) months** from the date of completion of the work to the entire satisfaction of the Engineer-in-Charge is mandatory.

Rates are firm for the period of the project. In Case any abnormal deviation is observed during the course the Tender Accepting Authority may refer to the appropriate higher authority of Directorate of Forests, Govt. of West Bengal in deciding on the rate revisions (If needed).

**Director**  
**North Bengal Wild Animals Park**

APPENDIX—A —OTHER REQUIREMENTS:

1. In addition Consultants shall have all the minor testing equipment such as but not limited to: sieves and weight, moisture meter, soil density meter, temperature recorder, surface finish recording instruments such as straight edges, measuring tapes, calipers, etc. for on spot field testing of material and workmanship.
2. The site team will be under the direct administrative control of their respective team leader. However they have to keep the Director, North Bengal Wild Animals Park, Siliguri and the Authority as approved by the Member Secretary, West Bengal Zoo Authority of any adverse observation.
3. Consultant will cover their respective area of work within the sites by contracting the various implementing agencies and according to their and contractors work schedule.
4. In addition in case of a specific quality testing required by Authority as approved by Member Secretary, West Bengal Zoo Authority for any work within the site, it shall be carried out and report shall be furnished with a reasonable time.
5. The team inspection report shall be furnished to concerned Engineer/ Site Engineer and a copy of the correspondence should also be passed to the Authority as approved by the Member Secretary, West Bengal Zoo Authority.
6. The Periodical report shall be furnished to the Authority as approved by the Member Secretary, West Bengal Zoo Authority as detailed in Annexure II.
7. It is proposed that the field visits shall be carried out totally/ fully randomly without advance information to contractors but within the knowledge of Authority as approved by the Member Secretary, West Bengal Zoo Authority whenever considered necessary. A programme of inspections will be developed with the Director, North Bengal Wild Animals Park, Siliguri to ensure that any workmanship of apprehensive quality is targeted. Consultants are empowered to issue site instructions through the Director, North Bengal Wild Animals Park, Siliguri.
8. The Contract Documents are the basis of all works to be undertaken. These are standard documents which will be made available to the Consultant. All documents refer to the standard specifications as prevalent in India and as specified by relevant agency such as Indian Road Congress, Ministry of Shipping and Road Transport, State Electricity Board, Central Public Health Engineering Organization, Bureau of Indian Standards etc. In cases, where specific specifications are not available or provided in the contract documents, general good engineering practices shall be followed.
9. In addition, the Contract Documents also refer to Special Specifications which are specific to individual Contracts. This information will be made available to the Consultant.
10. The consultant shall use their professional judgement and only materials that appear suspect are to be sent for testing by the Consultant as the Contractors are obliged to provide materials complying with Indian Standards and Contract Documents. The test report copies shall be furnished to the Engineer for review and compliances. Engineers may also identify what they consider are defective materials in consultation with the Consultant who will also use his own judgement during inspections.
11. The Consultant will submit the names of the laboratories at which he intends to undertake tests for prior approval of the Authority as approved by the Member Secretary, West Bengal Zoo Authority while submitting the same relevant documents in support of accreditation of the Lab/Institute would be enclosed for reference.
12. Workmanship shall cover all aspects of the work including but not limited to foundations, concrete structures including renovation/ construction of buildings, water supply pipelines, sewerage, surface water drainage channels, etc. and other specialist activities.
13. Annexure 1: Contains a list of quality checks on materials, equipment and appurtenances that should not be considered as limiting. The required standards of workmanship are described in various contract documents and are generally the established Indian Standards. The Consultant shall review

the lists contained in the appendix and comment upon the contents.

14. The Consultant shall make un-scheduled visits to ensure random surprise checks from time to time to the various works under construction subject to a minimum of **10 (Ten)** visits during the period of engagement. During these visits he will spend time observing the Contractor's working practices also. He will prepare a report on his visits directly on completion and on the same day as the visit take place. This report will be submitted electronically without delay and in no case later than the following day to the Director, North Bengal Wild Animals Park, Siliguri and the Authority as approved by Member Secretary, West Bengal Zoo Authority. These points shall be checked for compliance in subsequent visits and reported.

15. The Consultant shall make further visits as necessary to follow up particular areas of concern.

16. One of the main objectives is to point out to the respective Contractor's how improvements can be made to the working practices and to resolve difficulties in an amicable manner. It should be remembered that time is of the essence and that considerable judgement is required regarding quality aspects of the work. If Contractor's fail to heed advise or undertake work that is suspect which requires rectification or replacement the matter is to be immediately reported to the Engineer so that appropriate action can be taken under the terms of the Contract.

#### OTHER ACTIVITIES OF THE CONSULTANT

17. Apart from the specific activities as described above the Consultants shall also inspect and advise the Authority as approved by Managing Director, West Bengal Forest Development Corporation Ltd. on the implementation and compliance of the: following of accepted environmentally sound practices of control of dust, noise, water, air and soil pollution due to construction activities, and General safety and security on the construction sites etc.

18. The consultant shall also,

- Inspect and recommend testing laboratories available in the region.
- Inspect, review and report the adequacy and competence of contractor's staff, labour and machinery.
- Review contractors work program and advice need on corrective measures in cases where such matters are referred by the Engineers/ Employers.
- Develop and prepare all the reporting formats including transmittal methodology and follow the same for the entire period of services.

ANNEXURE: 1

#### **INDICATIVE: TEST REQUIREMENTS**

An indicative list of tests on material and workmanship is listed here, which is to provide guidance to the Consultant. This list is not exhaustive all the necessary and required tests on materials in accordance with contract documents, relevant specifications and good engineering practices will need to be carried out to ensure the objective of quality inspection which is to ensure that the works are carried out in conformity with required standards and specifications

##### **A. Civil Works**

The main materials to be inspected are as follows:

Valves, pipe appurtenances and associated water supply, sewerage and drainageworks

- ◆ Reinforced concrete
- ◆ Building works
- ◆ Road materials
- ◆ Building service appurtenances and associated works

##### **1. Valves, pipe appurtenances and associated water supply, sewerage and drainageworks**

##### **Components**

Test requirements shall include but not be limited to the following:

Test for valves and other pipe appurtenances

VAL.VS

1. Visual and dimensional checks
2. Review of material test certificate for valve body

And internals

3. Optional smoothness
4. Witnessing Hydraulic test /leakage test as per applicable codes.

Manhole covers and other covers

1. Witnessing Load test as per relevant IS codes.

2. Reinforced concrete

The relevant tests are included in the standard specifications; they shall include but not be limited to the following:

TEST FOR CEMENT AND AGGREGATES

Cement

1. Consistency test
2. Initial and final setting time test
3. Compressive strength test.
4. Soundness test
5. Fineness test
1. Sieve analysis test

Coarse aggregate

2. Bulk density test
  3. Flakiness index test
  4. Elongation index test
  5. Water absorption test
  6. Aggregate impact value test
  7. Abrasion resistance test.
  8. Crushing value test
  9. Specific gravity
-

## 10. Aggregate crushing value

---

### **Fine Aggregate**

1. Sieve analysis test
2. Silt content test
3. Specific gravity
4. Uniformity co-efficient
5. Effective size percentage of impurities
6. Loss on ignition
7. Acid solubility

### **Test of water**

1. Suitability for use in concrete e.g. pH

### **Concrete**

1. Cube test
2. Slump test

### Test for reinforcement

Reinforcement steel

1. Tensile test- 0.2% proof test
2. Bend test ultimate strength and % of elongation
3. Re bend test.

### Tests for Reinforced Concrete Members:

---

1. Ultrasonic pulse velocity test
2. Rebound hammer test
3. Photometer studies

In certain cases extraction of cores shall be carried out.

### **3. Building works**

Structural Steel

1. Tensile test
2. Bend test
3. Thickness of galvanising

Bricks

1. Compressive strength test
2. Water absorption test
3. Efflorescence test
4. Dimensional tolerance

Blocks

1. Compressive strength test
2. Water absorption test
3. Density test.

Tiles

1. Water absorption test
2. Wet transverse strength test
3. Abrasion/wear resistance test

Ceramic tiles	1. Water absorption test 2. Wet transverse strength test 3. Abrasion/wear resistance test 4. Cracking test
Galvanised sheeting	1. Thickness of sheet 2. Thickness of galvanising
Water proofing compounds	1. Test for permeability and compatibility
Paints	1. Performance tests 2. Thickness
Plumbing and sanitary fixtures	1. Dimensional verification, physical Examination and relevant tests.

**B. Mechanical and electrical works:**

**List of mechanical and electrical items required to be inspected by third parties.**

**1. Mechanical**

0. Pumps by type

**2. Electrical**

Motors by type

0. Electrical starters

- ◆ Electrical panels
- ◆ Switchboards
- ◆ Motor control panels
- ◆ DC distribution panels
- ◆ Induction-cum-enunciation panels
- ◆ Bus ducts
- ◆ Battery chargers
- ◆ Transformers
- ◆ HV/ MV/ LV
- ◆ Power voltage
- ◆ Current
- ◆ Capacitors
- ◆ Level switches
- ◆ Electrical cables

**3. Miscellaneous**

- ◆ Earthing equipment
- ◆ Lightning arrestors and essential fittings
- ◆ Cable trays
- ◆ Any other items as specified in the contract documents

#### 4. Inspections:

The main headings for these works are as follows:

- ◆ Pumps
- ◆ Motors
- ◆ Electrical panels
- ◆ Transformers
- ◆ Capacitors
- ◆ Cables

#### 5. Pumps

Items for third party inspection and stages of inspection:

1. Pumps
  1. Review of material test certificate for pump casing, Bowls, shaft, impeller bearings, column pip etc.
  2. Review of heat treatment certificate if any.
  3. Review of dynamic balancing or rotating parts/impeller
  4. Examination of the shaft.
  5. Witnessing Hydro test of casing
  6. Witnessing performance test at 49 Hz and 50Hz Frequency including vibration measurement covering Following tests:
2. Motors
  1. Dynamic balancing of rotor and visual examination of Rotor assembly
  2. Visual inspection and testing of stator assembly
  3. Review of test certificate for conductor, starter coil, Shaft bearing etc.
  4. Witnessing routine test no load and load test vibration Measurement. As per IS.
  5. Verification of type report.
  6. Visual and dimensional check review/witnessing test On gear boxes worm/helical test as in relevant IS or Special specifications.
3. Transformer
  1. Visual inspection, dimensional check and verification of Bill of Materials.
  2. Review of iron losses and copper losses test at 90% of Rated Voltage, 100% rated voltage and 110% of the Rated voltage.
  3. Witnessing resistance voltage test at HV and LV side.
  4. Routine test as per IS: 2026.
  5. Verification of type results, temperature rise test Etc. Impulse test, insulating oil test etc. Witnessing all Routine and type test as per IS: 2834 such as sealing Test, test for output/capacitance, insulation resistance test Between terminals. Containers and loss angles Measurement, test for efficiency of discharge device, test For dielectric loss angle, thermal stability test, self- healing Test, voltage test between terminals.
  6. Visual and dimensional check.
  7. Witnessing routine test as per IS: 1554
  8. Witnessing insulating test, resistance test, current rating Test, star reactance test, star capacitance test, short Circuit current test, voltage drop test,

- |                            |   |
|----------------------------|---|
| 4. Pipe and specials       | <ol style="list-style-type: none"> <li>1. Visual and dimensional check</li> <li>2. Review of chemical and physical test certificates as per the relevant Indian Standard specifications.</li> <li>3. Witnessing hydrostatic pressure test as per the relevant Indian Standard specifications.</li> <li>4. Checking the integrity of epoxy lining for MS pipes at joints after laying and jointing pipes.</li> </ol> |
| 5. Valves.                 | <ol style="list-style-type: none"> <li>1. Visual and dimensional check.</li> <li>2. Review of material test certificates for valve body and internals.</li> <li>3. Operational smoothness.</li> <li>4. Witnessing hydrostatic test/ leakage test as per applicable code.</li> </ol>   |
| 6. Diesel generating sets. | <ol style="list-style-type: none"> <li>1. Review of tests as specified in relevant IS or Special Specifications.</li> </ol>   |

### 3. Quality Checks On Materials, Equipment and Appurtenances

These lists are not to be considered as prescriptive. The Consultant is to develop a more detailed approach before commencing work in the field.

#### **C. Overhead Water Tanks**

The quality monitoring/ auditing of various works shall be included but not be limited to the following:

1. Quality of materials.
2. Quality of construction of various construction works at various stages.
3. Witnessing the performance tests.
4. Performance of the various mechanical equipment in treatment plants.

#### **1. Quality of materials**

- ◆ Physical examination of materials brought to the site
- ◆ Perusal of test reports on materials furnished by the construction agency from time- to-time and also ensuring the frequency of such tests to be as per relevant standards
- ◆ Randomly selecting the samples at site and conducting necessary test for confirmation

#### **2. Quality monitoring during the construction stage**

- ◆ Examining the soil encountered at site with respect to soil test reports furnished and also checking the adequacy of type of foundation system proposed to be adopted with respect to site condition
- ◆ Randomly checking grid markings

Checking the fabrication of reinforcement and dimensions

Witnessing concreting of foundation systems and reviewing the reports of cube testing

#### **Superstructure**

- ◆ Checking the fabrication of reinforcement, formwork, cover, etc.
- ◆ Checking the facilities available for the concreting, curing, etc.
- ◆ Dimensional verification and alignment of reinforced concrete members
- ◆ Checking the various levels to ascertain whether they are in accordance with the drawings and from hydraulic considerations
- ◆ Witnessing the concrete works of major structures and witnessing the tests on fresh concrete .

#### **Miscellaneous items**

- ◆ Checking the quality of pipes and pipe appurtenance
- ◆ Quality of water proof plaster on the interior surface
- ◆ Galvanised items

### Tests on finished structure

- ◆ Conducting non-destructive tests at random to ascertain the quality/ strength
- ◆ Witnessing the hydraulic tests on water retaining structures

### **3. Mechanical and Electrical Works Clauses**

- ◆ Effectiveness of earthing systems clause
- ◆ Effectiveness of lightening arrestor system
- ◆ Evaluating the performance of various mechanical equipment installed in various units in relation to the specification requirements

### **D. Quality monitoring during construction of pipelines**

- ◆ Checking pipe work excavation levels, randomly
- ◆ Checking effectiveness of pipe joints
- ◆ Inspection of manholes, chambers and other structures
- ◆ Base levels and concrete thickness
- ◆ Walls
- ◆ Roof slabs and covers
- ◆ Checking sewers for water tightness

### **E. Quality monitoring of buildings works**

The total quality monitoring of various works will be included but not be limited to the following

1. Quality of materials
2. Quality of construction of various works during different stages of construction
3. Performance of mechanical and electrical equipment and systems

#### **1. Quality of materials**

The checking of quality of materials includes

- ◆ Physical examination
- ◆ Review of tests reports
- ◆ Collecting representative samples wherever possible and conducting necessary tests for confirmation
- ◆ Informing the concerned agencies regarding the acceptance of material or otherwise
- ◆ Witnessing the performance tests on machinery carried out by the manufacturer at his factory, before dispatching to site.

#### **2. Quality monitoring during construction**

During the course of construction, independent unannounced visits shall be made to check the quality of construction. The visits shall be made at the following stages:

#### Foundation stage

- ◆ Checking the foundation with respect to the soil reports and its suitability as bearing strata
- ◆ Dimensional verification of selected footings
- ◆ Checking the layout marking and centre lines, at random.
- ◆ Checking the reinforcement fabrication, at random
- ◆ Checking the concreting arrangements and witnessing concreting of a few footings at random.
- ◆

#### Plinth stage

- ◆ Checking the quality of stone masonry with emphasis to quality of stones, joints, joint materials, etc.
- ◆ Checking the reinforcement fabrication of plinth beams at random
- ◆ Checking the quality of concrete in plinth beams, at random
- ◆ Checking at adequacy and compaction of floor filling, at random

#### Lintel stage

- ◆ Checking the quality of stone masonry with emphasis to joints, joint mortar, curing, etc.
- ◆ Checking the quality of column concrete
- ◆ Checking the reinforcement fabrication of lintels, at random
- ◆ Checking the quality of concrete in lintels

#### Roof stage/ slab stage

- ◆ Checking the quality of shuttering and formwork, with emphasis on lines and levels, joints and safety considerations
- ◆ Checking the reinforcement fabrication of selected panels
- ◆ Checking the arrangements for concreting, vibration and curing
- ◆ Checking the concrete while concreting, with respect to mix proportion, w/c ration and compaction. Casting independent set of cubes for verification of strength
- ◆ Checking steel sheet fabrication for roof, roofing sheets and fencing and fixings.

#### **Finishing stage**

- ◆ Checking the quality of flooring with respect to levels and smoothness at random
- ◆ Checking the door and window opening locations
- ◆ Checking the quality of joinery with respect to workmanship and fixtures, at random
- ◆ Checking the plaster in walls and ceiling with regard to proportions, line and level and curing at random
- ◆ Checking the finishing works at random such as painting, doodling, fixing of ceramic tiles, fixing of sanitary fixtures, steel grill works, etc.

### **3. Mechanical and electrical works**

The standard and special specifications shall be referred, to determine the scope of the work to be undertaken. Test of earthing and lightning protection systems shall be included.

#### **F. Quality monitoring during construction of landfills**

- ◆ Checking the level of excavation, plan dimensions and side slopes
- ◆ Checking the type of soil available and its uniformity in the site
- ◆ Verifying the soil with respect to its suitability for mixing with bentonite in achieving required permeability
- ◆ Mixing of betonies and compaction of layers through testing on compacted layers
- ◆ Checking the thickness of mixed liner through physical measurement at representative locations
- ◆ Checking the thickness of HDPE liner
- ◆ Checking the efficiency of jointing through appropriate tests
- ◆ Checking the laying of HDPE liner

**Above all, the Consultant must ensure that energy-efficiency and environment- friendliness of all constructions and interventions are maintained and also ensure the same about the performance of the equipment procured.**

#### ANNEXURE II

#### **REPORTING REQUIREMENTS AND FIELD STUDIES /TESTS**

<b>Name of Report</b>	<b>Contents</b>	<b>Frequency</b>	<b>Transmitted to</b>
Field Quality Audit Report	Field/ Laboratory test report, observations, analysis and recommendations for further action etc.	Immediately upon completion of field visit/lab. Test.	Director, North Bengal Wild Animals Park, Siliguri.
Periodic Reports (as outlined in stages)	Abstract of Field Test Reports, General Contract Summary, Issues for follow up and compliance, special recommendations on any modification required.	Within one week of the completion of the stage	Director, North Bengal Wild Animals Park, Siliguri.
End of Project Report	Contract summary, brief description of services, special events, lessons learnt, recommendations for future Such projects etc.	One month before contract completion	Director, North Bengal Wild Animals Park, Siliguri.

**Director  
North Bengal Wild Animals Park**

**Memo No.787/NleT-28(TPQA)/NBWAP/2024-25**

**Dated, 05/08/2024**

Copy forwarded for information & necessary action to:-

1. The Member Secretary, WBZA, Kolkata.
2. The Assistant Director, NBWAP
3. Range Officer, NBWAP
4. Sub Assistant Engineer, NBWAP.
5. Office Copy

**Director  
North Bengal Wild Animals Park**