

**ZOOLOGICAL GARDEN, ALIPORE**2, Alipore Road, Kolkata-27

No:-180/ZGA/E-tender/2025

Date : 30.01.2025

Notice inviting e-Tender No.e-Tender No. 2/ZGA/works/e-tender/2025, invites e-tender for the work detailed in the table below.

(Submission of Bid through **online**)List of Schemes:-

Sl. No	Name of the work (1)	Earnest Money (Rs.) (3) 2%	Period of Completion (4)	Name of the Concerned Officer (5)	Eligibility of Contractor (6)
1.	Supply and installation of CCTV system for surveillance of Animal Enclosures at Zoological Garden Alipore	Rs. 18,000.00	15 (Fifteen) days from the date of commencement.	Director Zoological Garden, Alipore	1) valid Trade License 2) Professional Tax Regn. No. & Current challan 3) Income Tax Pan No. & I.T. Return 4) GSTIN Regn. No. with current challan. 5) OEM criteria guidelines should be follow. 6) Others details see in page-7

In the event of e-filling, intending bidder may download the tender documents from the website <https://wbtenders.gov.in> (the web portal of West Bengal Zoo Authority) directly with the help of Digital Signature Certificate. Earnest Money may be remitted through Demand Draft / Pay Order issued from any bank in favour of the "Zoological Garden, Alipore" payable at KOLKATA and also to be documented through e-filling. Earnest Money Deposit (EMD) or documents in support should be submitted physically in the Office of Director, Zoological Garden under sealed covers said date and time.

1) Both **Technical Bid** and **Financial Bid** are to be submitted concurrently duly digitally signed in the website <https://wbtenders.gov.in> Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per Time Schedule stated in Sl. No.03.

2) 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, ZGA. The decision of the 'Tender Evaluation Committee' will be final and absolute in this respect. The list of Qualified Bidders will be displayed in the website.

The prospective bidders or any of their constituent partner shall neither have abandoned any work nor any of their contract have been rescinded during the last 3 (three) years. 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.)**

Registered Partnership Deed for Partnership Firm only along with Power of Attorney is to be submitted. The company shall furnish the Article of Association and Memorandum. **Joint Ventures will not be allowed.**

A prospective bidder shall be allowed to participate in the instant job either in the capacity of individual or as a partner of a firm. Running payment for work may be made to the executing agency as per availability of fund. The executing agency may not get a running payment unless the gross amount of running bill is 05 (five) lakh or 20% of the tendered amount whichever is less.

**No mobilization advance and secured advance will be allowed.**

**Security Deposit:** Retention money towards performance Security amounting to 10% (*ten percent*) of the value of the work shall be deducted from the running account bill of the tenderer as per prevailing order. **No interest will be paid on Security Deposit.**

All materials required for the proposed work shall be of specified grade in conformity with relevant code of practice (latest revision) accordingly and shall be procured and supplied by the agency at their own cost including all taxes. *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% (*onepercent*) of cost of construction will be deducted from every Bill of the executing agency as per norms.

**There shall be no provision of Arbitration.**

Bid shall remain valid for a period of 120 (*one hundred twenty*) days from the last date of submission of Financial Bid / Sealed Bid. 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.

**3) Date and Time Schedule:**

Sl. No.	Particulars	Date & Time
1	<b>Date of uploading of N.I.T. &amp; other Documents (online) (Publishing Date)</b>	31.01.2025 AT 10.00 HRS
2	<b>Documents download/sell/submission start date Online)</b>	31.01.2025 AT 10.00 HRS
3	<b>Bid Submission closing (On line)</b>	07.02.2025 AT 17.00 HRS
4	<b>Last Date of submission of original copies of Tender Documents and Earnest Money Deposit (Demand Draft) Off line &amp; hard copy of Tender documents</b>	07.02.2025 AT 17.30 HRS
5	<b>Bid opening date : Technical Bid</b>	10.02.2025 AT 12.00 HRS

4) The Prospective Bidder shall have to execute the work in such a manner so that appropriate service level of the work is maintained during progress of work. If any defect / damage is found during the period of 6(six) months after the completion of work, the contractor shall restore the damage/defect at his own cost to the specification at par with instant project work. On failure to do so, penal action against the contractor will be imposed by the garden authority as deemed fit. The contractor may quote his rate considering the above aspect and after visit. Refund of Security Deposit will only be made after successful maintaining of appropriate service level of the work as mentioned above after 12 ( twelve ) months from the date of completion of the work.

5) Site of work and necessary drawings may be handed over to the agency phase wise. No claim in this regards will be entertained.

6) Earnest Money: The amount of Earnest Money @ 20,000(*Twenty thousand*) in the shape of Bank Draft / Pay **Order of any bank drawn in favour of the ,“Zoological Garden,Alipore”payable at Kolkata**against the work as per the NIT.The said amount will be adjusted with the security money of the successful bidder.

7)The Bidder, at his own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all informationthat may be necessary for preparing the 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 shall be at his own expense.

8)The intending Bidders shall clearly understand that whatever may be the out come of the present invitation of Bids, no cost of Bidding shall be reimbursable by the gardenauthority.The tender accepting authority of Zoological Garden reserves the right to accept or reject any offer without assigning any reason thereof whatsoever and is not liable for any cost that might have been incurred by any Tenderer at the stage of Bidding.

9) Refund of EMD: The Earnest Money of all the unsuccessful tenderers deposited in favour of Zoological Garden,Alipore will be refunded by the Director,ZoologicalGarden,Aliporeon receipt of application from tenderers .

10) Prospective applicants are advised to note carefully the minimum qualification criteria as mentioned in '**Instructions to Bidders**' stated in Section – 'A' before tendering the bids.

**11) Conditional / Incomplete tenders will not be accepted under any circumstances.**

**12) The intending tenderers are required to quote the rate *online*.**

13)Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970 (b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 of the notification thereof or any other laws relating there to and the rules made and order issued there under from time to time.

14) During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.

15) The Director,ZoologicalGarden,Alipore reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

16) If there be any objection regarding prequalifying the Agency that should be lodged on line to the Chairman of Tender Evaluation Committee **within 2 (two) days** from the date of publication of list of qualified agencies and beyond that time schedule, no objection will be entertained by the Tender Evaluation Committee.

17) Before issuance of EACH WORK ORDER, the tender inviting authority may verify the credential and other documents of the lowest tenderer, if found necessary. After verification if it is found that the documents submitted by the lowest tenderer is either manufactured or false in that case work order will not be issued in favour of the said Tenderer under any circumstances without any reference to the lowest tenderer.

The work will be commenced after the fund is available with the authority.

18) 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:

- 4) N.I.T.
- 5) Special Terms & Conditions
- 6) Technical Bid
- 7) Financial Bid

19) **Qualification criteria:**

The tender inviting and Accepting Authority through a "Tender Evaluation Committee" will determine the **eligibility of each bidder**. **The bidders shall have to meet all the minimum criteria regarding:**

- a) Financial Capacity
- b) Technical Capability and Eligibility as required in Column no. 6 in the table.
- c) Experience / Credential

**The eligibility of a bidder will be ascertained on the basis of the document(s) in support of the minimum criteria as mentioned in Column no. 6.** If any document submitted by a bidder is either manufactured or false, in such cases the eligibility of the bidder / tenderer will be rejected at any stage without any notice.

20. **Escalation of Price** on any ground and consequent cost overrun **shall not be entertained** under any circumstances. Rates should be quoted accordingly.

21. Quantity of tender item may be changed during work.

  
Director

Zoological Garden, Alipore

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## SECTION - A

### INSTRUCTION TO BIDDERS

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#### **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 (the web portal of ZGA 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 Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated in Clause A.1. above. 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 mentioned in Clause A.1. using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

iv. Submission of Tenders:

Tenders are to be submitted through online to the website stated in Clause A.1. in two folders at a time for 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 one covers (folders).

**Statutory Cover Containing the following documents:**

**a) TENDERS FEES, EMD AND OTHER DOCUMENTS:**

- Demand Draft towards cost of tender documents as prescribed in the N.I.T. against the work in favour of the Zoological Garden, Alipore.
- Demand Draft towards Earnest Money (EMD) as prescribed in the N.I.T. against the work in favour of the Zoological Garden, Alipore.
- **Eligibility of Contractor**
  - 1) All intending firms shall have to visit this office premises and conduct proper site inspection/survey to get themselves acquainted with the existing operative CCTV Surveillance systems area before submission of their quotations. After bidding, no further request of site-survey from any intending firm will be entertained. The selected vendor should supply and install the new CCTV Surveillance system keeping in mind the model/brand and technical specification of existing systems so that both the existing and upcoming CCTV systems can be integrated technically. Interested bidder may obtain further information from office
  - 2) Intending firm should furnish the layout of the upcoming CCTV surveillance in respect of their bidding.
  - 3) The bidder(s) qualified for Technical Bid may have to appear before the committee of this office and if required, demonstration may also have to be presented. Subject to satisfactory performance before the committee along with other criteria; the bidder(s) will be qualified for the Financial Bid.
  - 4) Visit for prevention/checking/correction of the supplied CCTV system of the office by the selected bidder as a remedial measure must be conducted at least twice a week and a certificate against each such visit regarding the current status of the system mentioning the period of CCTV footage retention will have to be produced to this office.
  - 5) Bidder shall undertake to train the staff nominated by this office for familiar's action of operation and functioning of the new CCTV system.
  - 6) The tender specific OEM certificate for the offered items should have to be furnished.
  - 7) The Bidder should have the presence of a local branch office within the city. This is essential such that the local service team is readily available for any emergencies. The bidder should have a direct presence in the city and not via any third party.
- 8) Neither prospective Tendered nor any of the constituent partners had been debarred to participate in any Tender by the State/ Central Government, State /Central Government undertaking, Statutory/ Autonomous bodies constituted under the Central/ State statute 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 in non-judicial stamp paper, must be uploaded with both sides of Stamp Paper - Affidavit-Y).

9) An affidavit mentioning the name of technical staff.

10) Bidders are required to have Trade License, P-Tax Registration and GST Registration with Government of West Bengal.

11) Up to date p-tax challan,

12) Bidders shall be in similar business for more than 3 years.

13) Bidders are required to submit income tax return acknowledgement, audited balance sheet and p & I accounts for last 3 years.

14) Agencies are required to give a detail work programmer in the form of a bar chart/work flow chart along with tender

15) All affidavits are required to be submitted with stamp paper both side scanned. Without both side scanned stamp paper participation of bidder will be disqualified during technical evaluation

16) Where an individual person submitting tender on behalf of a 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

17) OEM criteria guidelines should be follow .

**b) N.I.T.**

*(NIT & Tender Document downloaded properly and upload the same Digitally Signed). The rate will be quoted in the B.O.Q. Quoted rate will be encrypted in the B.O.Q. under Financial Bid.*

N.B.: Failure of submission of any of the above mentioned documents as stated in Sl. No. A.5.(a). and Sl. No. A.5.(b). will render the tenderer liable to be rejected.

Tender Evaluation Committee (TEC)



Evaluation Committee constituted by the Director, Zoological Garden, Alipore will function as Head of Evaluation Committee for selection of technically qualified contractors.

**Opening & evaluation of tender:**

If any contractor is exempted from payment of EMD, copy of relevant Government Order needs to be furnished.

**Opening of Technical Bid:**

Technical proposals will be opened by the Concerned Tender Inviting Authority or his authorized representative electronically from the website using their Digital Signature Certificate (DSC).

Intending tenderers may remain present if they so desire.

Cover (folder) for Statutory Documents Ref. Sl. No. A.5.(a)&(b.) will be opened first. If there is any deficiency in the Statutory Documents the tender will summarily be rejected.

Decrypted (transformed into readable formats) documents of the non-statutory cover will be downloaded & handed over to the Tender Evaluation Committee.

Summary list of technically qualified tenderers will be uploaded online.

Pursuant to scrutiny & decision of the Tender Evaluation Committee the summary list of eligible tenderers & the serial number of work for which their proposal will be considered will be uploaded in the web portals.

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.

i. **Financial Bid**

The financial bid should contain the following documents in one cover (folder) i.e. Bill of Quantities (BOQ). The contractor is to quote the rate online through computer in the space marked for quoting rate in the BOQ.

Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor.

Financial capacity of a bidder will be judged on the basis of information furnished in Section - B.

**Penalty for suppression / distortion of facts:**

If any tenderer fails to produce the original hard copies of the documents like Completion Certificates and 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, it may be treated as submission of false documents by the tenderer and action may be referred to the appropriate authority for prosecution as per relevant Act.

**Rejection of Bid:**

Tendering authority reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Tendering authority's action.

**Award of Contract**

The Bidder whose Bid has been accepted will be notified by the Tender Inviting Authority through acceptance letter / Letter of Acceptance.

The notification of award will constitute the formation of the Contract.

The Agreement in Form No. 2911(ii) will incorporate all agreements between the Tender Inviting Authority and the successful bidder. All the tender documents including N.I.T. & B.O.Q. will be the part of the contract documents. After receipt of Letter of Acceptance, the successful bidder shall have to submit requisite copies of contract documents downloading from the website stated in Sl. No. 1 of N.I.T. along with requisite cost through Demand Draft / Pay Order issued from any nationalized bank in favour of the Zoological Garden, Alipore within time limit to be set in the letter of acceptance.

## Section -B

**ZOOLOGICAL GARDEN, ALIPORE**  
**Special Terms, Conditions and Specifications.**

**1) General:**

Unless otherwise stipulated all the works are to be done as per general conditions and general specifications as mentioned either in—

**OEM Criteria**

Sl. No.	General Conditions
	<b>To Pre-qualify all the CCTV OEM should satisfy the Eligibility Criteria mentioned below.</b>
1	All systems and components must be in compliance with CE/ FCC/ UL/ BIS certifications.
2	In case the OEM is not participating directly, bidder should be an authorized reseller or channel partner of the OEM. An authorization letter from the OEM need to be submitted in original.
3	OEM should have own online-dedicated CCTV support centre available during working hours and a fully equipped repair and maintenance office in Kolkata .
4	CCTV OEM should have direct presence in India with a service center and toll free number.
5	BIS certificate should be on name of quoted OEM and OEM should have its <b>own</b> factory in INDIA.
6	OEM should have registered under MSME if startup category and should have certificate. <u>Otherwise OEM should have 10 years of existence in India not through any Distributor...</u>
7	If Hard disc get crash then Hard disc OEM should recover the data with replacement of Hard disc in warranty period.
8	OEM should have ISO 9001 : 9015, ISO 14001, in the name of Quoted OEM
11	Quoted CCTV OEM or its Parent company or Its brand should be full / Affiliate / Contributing member of ONVIF and same will cross check online in ONVIF website. OEM should give the declaration about full membership.
12	The tender specific OEM certificate for the offered items should have to be furnished.

GOODS AND SERVICE TAX (GST) will be applicable as per Notification No.5050-F(Y) dt. 16.08.2017 of Finance Department, Audit Branch, Govt. of West Bengal.

Constructional Labour Welfare Cess shall be @1% of the bill value .GST, Royalty & all other Statutory levy/ Cess will have to be borne by the selected contractor..

GST (Goods & Service Tax) in tender online e-Procurement System of Govt. of West Bengal or wherever shall be applicable as per rules .

**2) Definition of Engineer-in-Charge and commencement of work:**

The word “Engineer-in-Charge” means the concerned Chief Engineer. The word “Department” appearing anywhere in the tender documents means WBZA, who have jurisdiction, administrative or executive, over part or whole of the works forming the subject matter of the tender or contract. The word “approved” appearing anywhere in the documents means approved by the Engineer-in-Charge. In case, the work is transferred to any other Chief Engineer under whom the work will be executed should be treated as the Engineer-in-Charge. The work shall have to be taken up within seven days of the receipt of the work order or otherwise mentioned therein. Failure to do so will constitute a violation of the contract stipulation as regards of proportionate progress and timely completion of work and the contractor will thereby make himself liable to pay compensation or other penal action as per stipulation of the printed tender form.

**3) Transportation arrangement:**

The contractor shall arrange for all means of transport required for carriage and supply of materials and also the materials required for the construction work. The contractor must consider this aspect while quoting rate.

**4) Contractor’s Site Office:**

The contractor shall have an office adjacent to the work as may be approved by the Engineer-in-Charge where all directions and notice of any kind whatsoever, which the Engineer-in-Charge or his representative may desire to give to the contractor in connection with the contract, may be left or sent by post to such office or delivered to the contractor’s authorized agent or representative. For such intimation to the contractor’s site office, it shall be deemed to be sufficient enough to be served upon the contractor..

**8) Electrical Supervisor :-**

The Contractor shall engage one Electrical supervisor for supervision of electrical works having valid supervisory competency Certificate issued by the Directorate of electricity .

**9) Eligibility criteria for participation in tender :-**

- All intending firms shall have to visit this office premises and conduct proper site inspection/survey to get themselves acquainted with the existing operative CCTV Surveillance systems area before submission of their quotations. After bidding, no further request of site-survey from any intending firm will be entertained. The selected vendor should supply and install the new CCTV Surveillance system keeping in mind the model/brand and technical specification of existing systems so that both the existing and upcoming CCTV systems can be integrated technically. Interested bidder may obtain further information from office
- Intending firm should furnish the layout of the upcoming CCTV surveillance in respect of their bidding.
- The bidder(s) qualified for Technical Bid may have to appear before the committee of this office and if required, demonstration may also have to be present ed. Subject to satisfactory performance before the committee along with other criteria; the bidder(s) will be qualified for the Financial Bid.
- Visit for prevention/checking/correction of the supplied CCTV system of the of fice by the selected bidder as a remedial measure must be conducted at least twice a week and a certificate against each such visit regarding the current stat us of the system mentioning the period of CCTV footage retention will have to be produced to this office.
- Bidder shall undertake to train the staff nominated by this office for familiar's action of operation and functioning of the new CCTV system.
- The tender specific OEM certificate for the offered items should have to be furnished.
- The Bidder should have the presence of a local branch office within the city. This is essential such that the local service team is readily available for any emergencies. The bidder should have a direct presence in the city and not via any third party.
  
- Neither prospective Tendered nor any of the constituent partners had been debarred to participate in any Tender by the State/ Central Government, State /Central Government undertaking, Statutory/ Autonomous bodies constituted under the Central/ State statute 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 in non-judicial stamp paper, must be uploaded with both sides of Stamp Paper - Affidavit-Y).
- An affidavit mentioning the name of technical staff.
- Bidders are required to have Trade License, P-Tax Registration and GST Registration with Government of West Bengal.
- Up to date p-tax challan,
- Bidders shall be in similar business for more than 3 years.

- Bidders are required to submit income tax return acknowledgement, audited balance sheet and p & I accounts for last 3 years.
- Agencies are required to give a detail work programmer in the form of a bar chart/work flow chart along with tender
- All affidavits are required to be submitted with stamp paper both side scanned. Without both side scanned stamp paper participation of bidder will be disqualified during technical evaluation
- Where an individual person submitting tender on behalf of a 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
  
- The intending Tenderers should produce credentials of a similar nature works of
  - i) completed 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 the tender notice or 2(two) similar nature of completed work, each of the minimum value 30% of the estimated amount put to tender during 5(five) years prior to the date of issue of the tender notice.

**10) Additional Conditions:**

A few additional conditions under special terms and conditions:

**11)** Rate quoted shall be inclusive of clearing site as per direction of the Director.

**12)** Rate quoted shall be inclusive of West Bengal Sales Tax, Income Tax, Octroi and all other duties, if any.

- 13) Display board (Informatory) of size 150 cm X 90 cm is to be provided at the work-site with aluminum plate hoisted on steel tubular pipe / angle post to a height of 1.5 Metre at the cost of the contractor including fitting, fixing, painting, lettering, etc. complete as per direction of Engineer-in-Charge.
- 14) The Contractor is to display caution board at his own cost as per direction of Director.
- 15) Deep excavation of trenches and left out for days shall be avoided.
- 16) Labour welfare CESS will be deducted @ 1% (*one percent*) of gross bill value as per rule.
- 17) The whole work will have to be executed as per departmental drawings available in this connection at the tender rate.
- 18) Income Tax will be deducted from each bill of the contractor as per applicable rate and rules in force.
- 19) In accordance with the West Bengal Taxation Laws (amendment) Ordinance, 1993 amending the West Bengal Finance (Sales Tax) Act, 1994 necessary LWS will be deducted as per rate in force from the bill in addition to other deduction as per extent rules.

**17) For Electrical works** the Contractor shall have one Electrical Diploma Engineer/ One Supervisor in its pay roll having expertise in electrical works with valid Supervisory Certificate of Competency issued by the Directorate of Electricity, Govt. of West Bengal .

The Agency shall have the following measuring instruments :

- i. Insulation Tester (500V) Megger
- ii. Digital Multi-meter
- iii. Tong Tester .

The electrical work shall be progressed with the progress of civil work. No claim of the contractor shall be entertained by the Department for the idle labour.

The conduit shall be laid in the RCC works in general well before their concreting and in walls well before their plastering and in polythene pipes as per instruction of Engineer-in-Charge for electrical work.

Samples of electrical materials are to be approved by the concerned SAE ,Electrical Wing before use. If I.S.I marked material is not available it should be conforming to BIS specification amended upto date.

The contractor shall submit the completion certificates and completion Plans for Electrical work as per General Specification.



**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 firm 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 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 authorized officer of the firm.

Title of the officer  
Name of the Firm with

Seal Date:

### 64 Channel Network Video Recorder (NVR) with 8-HDD slot

SI No	Feature	Specification	Compliance (Yes/No)	Deviations (if any)
1	Operating system	Embedded Linux		
2	IP video input	64-channel IP Video input		
3	Two-way audio	should support		
4	Incoming bandwidth	Min. 320 Mbps		
5	Outgoing bandwidth	Min. 256 Mbps		
6	Display interface	2 x HDMI , 2 x VGA		
7	HDMI-1	4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz		
8	HDMI-2	1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz		
9	VGA Output	2-ch, 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz		
10	Audio output	2-ch, RCA (2.0 Vp-p , 1 KΩ)		
11	Split-Screen display	it should support multi split-screen live view on connected monitor.		
12	Recording resolution	12 MP/ 8 MP/ 6MP / 5MP / 4MP / 3MP/ 1080p / UXGA / 720p / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF		
13	Decoding format	H.265/H.265+/H.264+/H.264/MPEG4		
14	Synchronous playback	16-channel		
15	Smart Search option	Yes		
16	Motion Detection	Video analysis for human and vehicle recognition to reduce false alarm (minimum 4ch or better)		
17	IVS features	Facial recognition , perimeter protection, motion detection, VCA, Face picture comparison min. 4-channel or higher / 1-ch facial recognition for video stream		
18	RAID function	RAID0, RAID1, RAID5, RAID6, RAID10		
19	SATA interface for HDD	should support 8 x SATA interfaces		
20	HDD Capacity	10 TB capacity for each HDD or better		
21	eSATA	1 eSATA interface		
22	Network interface	2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interfaces		
23	USB interface	atleast 2 × USB 2.0; 1 × USB 3.0		
24	Serial interface	RS-485 (full-duplex), RS-232, Keyboard		
25	Alarm in/out	atleast 16 input / 8 output		
26	Power supply	100 to 240 VAC, 50 to 60 Hz ( Redundant Power )		
27	Consumption (without hard disk)	≤30 W		
28	Working temperature	-10 to +55°C (14 to 131°F)		
29	Working humidity	10 to 90 %		
30	Certification	CE, FCC, BIS/UL		
Camera & NVR should be from same OEM for smooth integration.				

Sl. No.	Description of Items
1	<p><b><u>PTZ 4-inch 2 MP 15X Powered by DarkFighter IR Network Speed Dome</u></b>  Image Sensor: 1/2.8" progressive scan CMOS  Max. Resolution: 1920 × 1080  Optical Zoom: 16X  IR Distance: 100 m  Pan Range: 360° endless  Tilt Range: From -15° to 90° (auto-flip)  Weather Resistance: IP66- rated for outdoor use  Power Supply: 12V DC 2A  Compatibility: ONMIF-compliant</p>
2	<p><b><u>PTZ 7-inch 2 MP 25X Powered by DarkFighter IR Network Speed Dome</u></b>  Image Sensor: 1/2.8" progressive scan CMOS  Max. Resolution: 1920 × 1080  Optical Zoom: 25X  IR Distance: Up to 200 m  Pan Range: 360° endless  Tilt Range: From -15° to 90° (auto-flip)  Weather Resistance: IP66- rated for outdoor use  Power Supply: 12V DC 2A  Compatibility: ONMIF-compliant</p>
3	<p><b><u>4 MP Fixed Bullet Network Camera</u></b>  Image Sensor: 1/3" progressive scan CMOS  Max. Resolution: 2560 × 1440  IR Distance: 50 m  Angel: 60°  Focal length: 8 mm  Weather Resistance: IP66- rated for outdoor use  Power Supply: 12V DC 0.5A</p>
4	<p><b><u>2 MP Smart Hybrid Light Fixed Dome Audio Turret Network Camera</u></b>  Image Sensor: 1/3" progressive scan CMOS  Max. Resolution: 1920x1080  Focal length: 2.88 mm  Power Supply: 12V DC 0.5A  Audio : Built-in microphone  IR Distance: up to 30 m</p>
5	<p><b><u>2 MP Smart Hybrid Light Fixed Bullet AudioTurret Network Camera</u></b>  Image Sensor: 1/3" progressive scan CMOS  Max. Resolution: 1920x1080  Focal length: 2.88 mm  Weather Resistance: IP66- rated for outdoor use  Power Supply: 12V DC 0.5A  Audio : Built-in microphone  IR Distance: up to 30 m</p>

# Surveillance Hard Disk - 6 TB

## Key Advantages

Specifications	6TB
SkyHawk™ Health Management Included	Yes
Interface	SATA 6Gb/s
<b>Features and Performance</b>	
Drive Bays Supported	Up to 16
Cameras Supported	Up to 64
RV Sensors	Yes
Max. Sustained Transfer Rate OD (MB/s)	195MB/s
Cache (MB)	256
<b>Reliability/Data Integrity</b>	
Tarnish Resistant	Yes
Load/Unload Cycles	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15
Power-On Hours per Year (24x7)	8760
Workload Rate Limit (WRL) <sup>2</sup>	180
MTBF	1,000,000hr
Warranty, Limited (years) <sup>3</sup>	3
<b>Power Management</b>	
Startup Current, Typical (12V, A)	2
Average Operating Power (W)	9W
Idle Average (W)	7.2W
Standby Mode/Sleep Mode, Typical (W)	0.6/0.6
Voltage Tolerance (5V)	±5%
Voltage Tolerance (12V)	±10%
<b>Environmental/Temperature</b>	
Operating (ambient, min °C)	5
Operating (drive case, max °C) <sup>4</sup>	70
Nonoperating (ambient, min °C)	-40
<b>Physical</b>	
Height (mm/in, max)	26.11mm/1.028in
Width (mm/in, max)	101.85mm/4.01in
Depth (mm/in, max)	146.99mm/5.787in
Weight (g/lb)	705g/1.55lb
Carton Unit Quantity	20
Cartons per Pallet/Cartons per Layer	40/8

**ImagePerfect™ firmware** is designed to ensure seamless video footage capture in 24x7 surveillance workloads<sup>1</sup> that record video from 64 HD cameras.

**SkyHawk Health Management** actively helps protect your surveillance storage by focusing on prevention, intervention, and recovery options.<sup>2</sup> Included is RAID RapidRebuild™, which provides 3x faster volume rebuilds over traditional RAID rebuilds.

**RV sensors built in** allow drives to maintain performance in multi-bay systems, giving customers the flexibility to scale their systems when more storage is needed.

**ATA streaming support** enables recordings from up to 64 HD cameras for smooth, uninterrupted footage.

**1M hours MTBF, 3-year limited warranty<sup>3</sup>** represents an improved total cost of ownership (TCO) with reduced maintenance costs.

**Lower power consumption** means a reduction in heat emissions, which improves reliability in surveillance solutions. Tarnish-resistant components help protect drive from environmental elements, increasing field reliability.

**Unparalleled data protection** with an optional 2-year Rescue Data Recovery Services plan, providing access to Seagate's secure labs with industry-leading data recovery success rates.

### Best-Fit Applications

- Network video recorders (NVR)
- Surveillance DVRs

## Smart Managed 16-Port Gigabit PoE Switch

Model	To be mentioned by the Bidder .....
OEM	To be mentioned by the Bidder .....
Port Number	16 × gigabit PoE port, and 2 × gigabit fiber optical port
PoE Port	16 × gigabit PoE port
PoE standard	IEEE 802.3af, IEEE 802.3at
UP Link port	2 × gigabit fiber optical port
Network protocol	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, and IEEE 802.3z
Switching Capacity	36 Gbps
Forwarding Rate	26 Mpps
Forwarding Mode	Store-and-forward
MAC Address Table	8 K MAC address entries
Software Function	VLAN , STP , Port Isolation , SNMP , LLDP , QoS , Port Mirroring
PoE Power Output	225 W
SFP module	supported
Power Supply	100-240V AC, 50/60Hz
Power Consumption	250 W
Working Temperature	-.10°C to 55°C (14°F to 131°F)

## 8-Port Gigabit Unmanaged PoE Switch

PoE Port	8 × gigabit PoE ports, RJ45 port, full duplex, MDI/MDI-X adaptive
PoE standard	IEEE 802.3af, IEEE 802.3at
UP Link port	1 × gigabit RJ45 port, and 1 × gigabit SFP fiber optical port
Plug-&-Play	supports plug-and-play for easy installation
Network protocol	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, IEEE 802.3z
Switching Capacity	20 Gbps
Forwarding Rate	14.88 Mpps
Forwarding Mode	Store-and-forward
MAC Address Table	4K MAC address entries
PoE Power Budget	110 W
Power Supply	48 VDC, 2.5 A
Surge Protection	6 KV
Working Temperature	0°C-40°C , Humidity: 10%-90% (non-condensing)

## 12 Port Gigabit Fiber Ethernet Switch

- Size - • 11-inch standard rack-mount width • 1U height
- Interfaces - 10 1G SFP • 2 10/100/1000BASE-T
- Network Cables • UTP Cat. 5, Cat. 5e (100 m max.)
- Full/Half-Duplex • Full/half-duplex for 10/100 Mbps speeds  
• Full-duplex for 1000 Mbps speeds
- Media Interface Exchange • Auto MDI/MDIX adjustment for all twisted-pair port

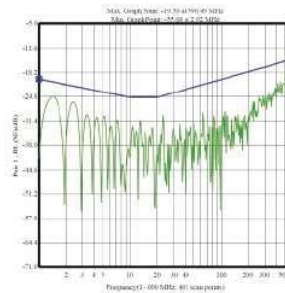
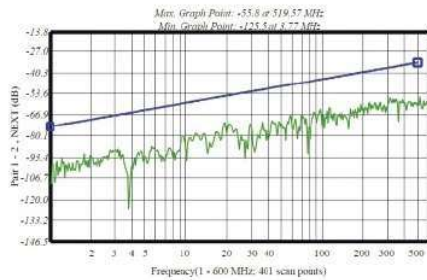
### Other Port Standards & Functions -

- IEEE 802.3i 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)
- IEEE 802.3az compliance
- Auto-negotiation
- IEEE 802.3x Flow Control
- IEEE 802.3ae 10 Gigabit Ethernet (for 28X/ME, 28XS/ME)
- IEEE 802.3u 100BASE-FX (for 28XS/ME)
- IEEE 802.3z 1000BASE-X Gigabit Fiber (for 28XS/ME, 12TS/ME)

# CCTV CABLE Cat 6 Cable

## ◆ TRANSMISSION CHARACTERISTICS PER 100M

Frequency MHz	Insertion Loss (dB/100m)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5
500	45.3	15.2	33.8	31.8	13.8	10.8	4.5	2.8
600	51	14.5	31.2	29.9	11.8	8.6	3.5	2.1



## ◆ MECHANICAL PROPERTIES

Bending Radius: < 25.4mm at -20°C ± 1°C

Pulling Force: 11.5 Kg

Operating Temperature Range: -20°C to +70°C

Storage Temperature Range: 0°C to +50°C

## ◆ CONNECTION SYSTEM

Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

## ◆ PACKING

Reels of guaranteed 305m Length

## ◆ ORDERING INFORMATION

Part Code	Description
NCB-C6UGRYR-305	CAT6 UTP 23AWG Solid: 305M



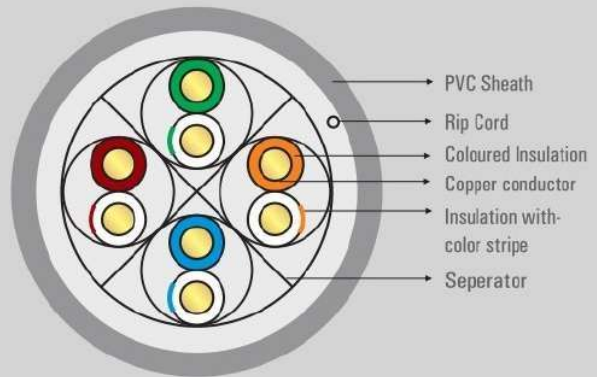
# CCTV CABLE Cat 6 Cable

## APPLICATION

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard. Performance verified up to 600 Mhz

**This cable well exceeds the requirements of ANSI/TIA-568-C.2 category6 ISO 11801 Class E**

Approval: UL Listed  & ETL Verified



## CONSTRUCTION

- Conductor: **23 AWG Solid bare Copper (4 pair)**
- Insulation: **High Density Polyethylene**
- Pairs: **2 Insulated conductors twisted together**
- Sheath: **FR-PVC**  
**Insulation thickness 0.2mm nominal**
- Cable Diameter: **6.1 mm nominal**
- Cable wt per Box: **13.6 Kgs nominal**
- Printing: **Each meter printed with sequential Length Counter**

## ✦ ELECTRICAL PROPERTIES

- Characteristic Impedance: **100 ± 15Ω**
- Conductor Resistance: **≤ 9.38 Ω /100m**
- Insulation Resistance: **100M Ω**
- Mutual Capacitance: **< 5.6nF/100m**
- Resistance Unbalance: **5% Max**
- Capacitance Unbalance: **330pF/100m**
- Delay Skew: **< 45nS**
- NVP (%): **69%**
- Operating Voltage: **72V**
- Dielectric Strength: **1.0KV dc or 0.75KV ac for 1min**

## ✦ COLOR CODE

PAIR NO	COLOR	PAIR NO	COLOR
1-2	White-Orange Stripe and Orange	3-6	White-Green Stripe and Green
4-5	White-Blue Stripe and Blue	7-8	White-Brown Stripe and Brown

## OEM Criteria

Sr. No.	General Conditions
	<b>To Pre-qualify all the CCTV OEM should satisfy the Eligibility Criteria mentioned below.</b>
1	All systems and components must be in compliance with CE/ FCC/ UL/ BIS certifications.
2	In case the OEM is not participating directly, bidder should be an authorized reseller or channel partner of the OEM. An authorization letter from the OEM need to be submitted in original.
3	OEM should have own online-dedicated CCTV support centre available during working hours and a fully equipped repair and maintenance office in Kolkata .
4	CCTV OEM should have direct presence in India with a service center and toll free number.
5	BIS certificate should be on name of quoted OEM and OEM should have its <b>own</b> factory in INDIA.
6	OEM should have registered under MSME if startup category and should have certificate. <u>Otherwise OEM should have 10 years of existence in India not through any Distributor...</u>
7	If Hard disc get crash then Hard disc OEM should recover the data with replacement of Hard disc in warranty period.
8	OEM should have ISO 9001 : 9015, ISO 14001, in the name of Quoted OEM
11	Quoted CCTV OEM or its Parent company or Its brand should be full / Affiliate / Contributing member of ONVIF and same will cross check online in ONVIF website. OEM should give the declaration about full membership.
12	The tender specific OEM certificate for the offered items should have to be furnished.

## Supply and installation of CCTV system for surveillance of Animal Enclosures at Zoological Garden Alipore

SL.No.	Description of Items	Qty
1	64 Channel Network Video Recorder (NVR) with 8-HDD slot (Make :HIKVISION, AXIS, BOSCH, PELCO)	1
2	6 TB Surveillance HDD (Make :SEAGATE, WD, TOSHIBA)	8
3	PTZ 4-inch 2 MP 15X Powered by DarkFighter IR Network Speed Dome (Make :HIKVISION, AXIS, BOSCH, PELCO)	2
4	PTZ 7-inch 2 MP 25X Powered by DarkFighter IR Network Speed Dome (Make :HIKVISION, AXIS, BOSCH, PELCO)	1
5	4 MP Fixed Bullet Network Camera (Make :HIKVISION, AXIS, BOSCH, PELCO)	5
6	2 MP Smart Hybrid Light Fixed Bullet AudioTurret Network Camera (Make :HIKVISION, AXIS, BOSCH, PELCO)	6
7	2 MP Smart Hybrid Light Fixed Dome AudioTurret Network Camera (Make :HIKVISION, AXIS, BOSCH, PELCO)	32
8	Poe Switch 16 Port10/100/ Mbps Switch with 2 SFP (Make ::HIKVISION,D-Link, Cisco, Allied Telesis )	1
9	Poe Switch 08 Port10/100/ Mbps Switch (Make ::HIKVISION,D-Link, Cisco, Allied Telesis )	6
10	Poe Switch 04 Port10/100/ Mbps Switch (Make ::HIKVISION,D-Link, Cisco, Allied Telesis )	4
11	10 Port Fiber Switch with 2 Giga Lan Port (Make: D-Link, Cisco, Allied Telesis)	1
12	Lan Cable CAT 6 (Make :D-Link, Finolex, Commscope )	1665
13	Power cable ( Make: Finolex, Mascab, Polycab,Super )	255
14	Cctv Cable Laying cable laying with use of PVC pipe/flexible pipe/socket/screw and other hardware	1920
15	Outdoor GI Junction Box Big with Power Board ( Make: D-Link, TATA, Netrack, Equivalent )	1
16	Outdoor GI Junction Box Medium with Power Board ( Make: D-Link, TATA, Netrack, Equivalent )	2
17	Splicing Charge	8
18	Extra Accessories RJ 45 connector,China Clip,Tie Belt,PVC Tape ,TBG Box Pital and other Hardware Materials	1
19	Giga SFP Module (Make : D-link, Cisco, Syrotech)	8
20	Optic Fiber Pigtail	8
21	Camera Outdoor Box	38
22	Extra Accessories	1
23	Installation Charge of Camera	38