

TENDER NO. IWAI/PTN/17(109)/ Hy. Vessel/VNS/2024-25

**TENDER
FOR
INSTALLATION OF FIRE FIGHTING/SPRINKLER SYSTEM
FOR SETTING UP OF HYDROGEN FILLING STATION AT
MMT VARANASI**



August 2024

**Address of Issuing Office: INLAND WATERWAYS AUTHORITY OF INDIA
Gaighat, Patna, Bihar- 800007**

E-mail address of Issuing Officer: iwaiptn@rediffmail.com

***Head Office: INLAND WATERWAYS AUTHORITY OF INDIA
(Ministry of Ports Shipping & Waterways, Govt. of India)
A – 13, Sector – 1, Noida-201 301 (U.P.)***

Web site: www.iwai.nic.in , <https://eprocure.gov.in/eprocure/app>.

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1. BID DATA SHEET FOR KEY DATES AND CHECK LIST

Particulars	Description
Employer	Chairman, Inland Waterways Authority of India (IWAI), Gaighat, Patna, Bihar.
Method of Selection	Least Cost System (LCS) selection method.
Name of the Work	Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.
a) Closing date for submission of Online Bid and b) Address for submission of hard copy of POA & payment instruments	Date : 05.09.2024 Time : 15:00 Hrs (IST) Submission : Online submission Inland Waterways Authority of India, Gaighat, Patna, Bihar- 800007
Estimated cost of this work	INR 32.36 lakhs (excl. GST @ 18%)
EMD	INR 64,731/- (i.e. 2% of estimated cost of work i.e INR 32,36,553/-) EMD for the above mentioned amount shall be deposited to Inland Waterways Authority of India through RTGS / NEFT in the following account However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the EMD, on submission of documents to the extent as per the Government of India notifications.
Tender Fee	INR 5,900/- (Rupees Five Thousand nine hundred Only) INR 5,000 + 18 % GST /- i.e. INR 5,000/- + 900/- = INR 5,900/ - However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the tender fee / cost of tender document, on submission of documents to the extent as per the Government of India notifications. Tender fee for the above mentioned amount shall be deposited to Inland Waterways Authority of India through RTGS / NEFT in the following account:
Bank Particulars for remittance of EMD & Tender Fee	Name of Bank Account : IWAI FUND Bank & Branch : Canara Bank, Main Branch, South Gandhi Maidan, Patna- 800001 Bank Account Number : 0352105000002 IFSC : CNRB0000352

Particulars	Description
	MICR Code : 800015002
Minimum Bank Solvency	INR 12,94,621/- (i.e. 40% of the estimated cost of INR 32,36,553.00/-) Bank Solvency certificate should not be older than six months from the Bid submission last date from a nationalized/scheduled bank in India
Bid Validity Period	120 days after last date of Bid Submission
Similar Works	“Similar Works” means Civil construction or maintenance work.
Authorized Representative	Name: Chief Engineer, IWAI, Patna
Contract Duration	01 month.
Bid Opening date	Date : 06.09.2024 Time : 15:30 hrs
Document required for technical bid Evaluation.	<ol style="list-style-type: none"> 1. Bidders Information Form as at Form-A (Page : 94) 2. Duly signed Self Declaration form as at Form-B (Page:95) 3. Scanned copy of UTR no of payment towards tender cost and EMD or exemption document proof. 4. Bank solvency with issuing bank authority for verification. 5. Tender acceptance letter on letter head with scanned tender document with seal and signature. 6. Copy of valid Registration certificate of the firm / contractor. 7. Audit report/balance sheet/Financial turn over/IT return for 3 years i.e. (2020-21, 2021-22 & 2022-23) with UDIN. 8. PAN and GST registration copy. 9. Prequalification work experience document (Work order & Completion Certificate). 10. Authorisation letter for bidding, negotiation, signing of agreement and execution work (as the case may be).
Location of Assignment	Multi Model Terminal, Ramnagar, Varanasi.
Price Preference	Since Splitting of scope / quantity of work is not feasible keeping in view the nature of work involved, price preference clause for MSME registered firms / bidders will not be applicable.
Performance Guarantee	A sum @ 5% of the awarded cost.
Security Deposit	A sum @ 5% of the total value of the work shall be deducted from the bill of the contractor contract value of the work. As per GFR, Manual for Procurement of Works 2019.

Particulars	Description
Time schedule	<ul style="list-style-type: none"> • Remittance of Performance security with 15 at days from date of issue of LOA • Signing of agreement with 15 days from date of issue of LOA • Work will be completed as per specifications within 25 days from the date of issue of Work order.
Make in India	As per policy of Govt. of India to encourage ‘Make in India’ and promote manufacturing and production of goods and services in India, the provisions vide order no. P-45021/2/2017-PP (B.E-II) dated 29.05.2019 on the subject “Public Procurement (Preference to Make in India), Order 2017 – Revision” shall be fully applicable.
Applicability of JV /Consortium	JV is not allowed in this Tender.

2. TENDER NOTICE

(for publication in News paper / authorized Websites)



**INLAND WATERWAYS AUTHORITY OF INDIA,
(Ministry of Ports, Shipping & Waterways),
Gaighat, P.o- Gulzabagh Patna, Bihar- 800007
Websites: www.iwai.nic.in and
<https://eprocure.gov.in/eprocure/app>**

NOTICE INVITING E-TENDER

(No: IWAI/PTN/17(109)/ Hy. Vessel/VNS/2024-25)

Online Bids are invited from experienced contractors for **“Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.”** Tender document can be download from 1855 hrs on 30.08.2024 and the Last date of submission is 05.09.2024 up to 1500 Hours. Date of opening is at 1530 hrs on 06.09.2024. The estimated cost is Rs. 32.36 lakhs (excl. GST). The Cost of Tender Fee is Rs. 5,900/- including GST at 18%. For details please visit to IWAI website www.iwai.nic.in and [www.eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app).

Chief Engineer



**INLAND WATERWAYS AUTHORITY OF INDIA,
(Ministry of Ports, Shipping & Waterways),
Gaighat, Patna, Bihar- 800007.**

Websites: www.iwai.nic.in and <https://eprocure.gov.in/eprocure/app>

3. NOTICE INVITING TENDER

Tender Notice No: IWAI/PTN/17(109)/ Hy. Vessel/VNS/2024-25

1. Name of Work: Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.
2. Inland Waterways Authority of India (IWAI) invites e-tenders in two cover system (Cover I - Technical bid and Cover II - Financial Bid) from experienced and resourceful Contractors for the work of “Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.
3. Estimated Cost of the work is as under:

Sl. No.	Name of the work	Estimated Cost (Rs. in Lakh)	EMD	Duration of work (in days)
1.	Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.	Rs. 32.36 (Exclusive of GST @ 18%)	Rs. 64,731/-	30 days

4. Download of tender document: from 1855 hrs on 30.08.2024 to 1500 hrs on 05.09.2024
5. Bid Submission start date & Time : 30.08.2024 at 1855 hrs
6. Bid Closing/Document Download End Date & Time: 1500 hrs on 05.09.2024
7. Bid Opening Date & Time: 06.09.2024 at 1530 hrs.

TERMS & CONDITIONS:-

The tender document can be downloaded from the IWAI's website www.iwai.nic.in and CPP Portal Website <https://eprocure.gov.in/eprocure/app>. Bidders participating e-tender process are required to furnish a non-refundable deposit of Rs. 5,900/- (Rupees Five Thousand nine hundred Only) inclusive of 18% GST (i.e. INR 5,000/- tender fee + INR 900/- GST @ 18%) & through RTGS in the following bank particulars and submitted the proof along with UTR No. towards the remittance of payment of tender cost and upload a copy of the same in Technical Bid, on or before the last date and time of submission of tender. However, Micro and Small

Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the Tender Fee / cost of Tender document, on submission of documents to the extent as per the Government of India notifications in this regard.

8. Tender fee shall be deposited to Inland Waterways Authority of India through RTGS / NEFT as mentioned in the Bid Data Sheet in the following account:

Name of Bank Account	:	IWAI FUND
Bank & Branch	:	Canara Bank, Main Branch, South Gandhi Maidan, Patna- 800001
Bank Account Number	:	0352105000002
IFSC	:	CNRB0000352
MICR Code	:	800015002

9. The Bids are to be submitted only online at <https://eprocure.gov.in/eprocure/app>.

10. The tenderer shall meet the following criteria:

- i. The tenderer shall be registered in appropriate class with CPWD, Railways, MES, State PWD / Irrigation Department, Port Trust etc., or shall have required experience in similar works such as civil construction works under any State / Central Government departments etc.
- ii. Tenderer shall have Permanent Account Number issued by Income Tax Dept. and must be an assessee.
- iii. Average annual financial turnover during last three years ending 31st March of the previous financial year should be at least 30% of the estimated cost. Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which this tender is invited should be either of following :
 - a. Three similar works costing not less than 40% of the estimated cost (i.e. INR 12,94,621/-); or
 - b. Two similar works costing not less than 60% of the estimated cost; (i.e. INR 19,41,932/-); or
 - c. One similar work completed not less than 80% of the estimated cost (i.e. INR 25,89,242/-)

AND

One completed work costing not less than the amount equal to 40% of the estimated cost put to tender with some Central Government Department/State Government Department/ Central Autonomous Body/ State Autonomous Body/ Central Public Sector Undertaking/ State Public Sector Undertaking/City Development Authority/ Municipal Corporation of City formed under any Act by Central/ State Government and published in Central/State Gazette.

Note: The successful completion of the similar work should be supported with a completion certificate issued by the department/ agency for whom the work has been executed.

- iv. Latest solvency certificate should not be older than six (06) month from the Bid submission last date from Nationalized / Scheduled Bank in India included in the Second Schedule of the RBI Act for not less than 40% of the estimated cost of the work as mentioned in the Bid Data Sheet.
 - v. Average annual financial turnover on contract works should be at least 30% of the estimated cost during the immediate last 3 consecutive financial years and should not have incurred any loss in more than two years during the last five years ending March of the previous financial year.
 - vi. The tenderer shall furnish the Tender Cost and Earnest Money Deposit through RTGS (in IWAI Account) before closing date and time of submission of tender. Any / all submissions made without the Earnest Money Deposit and without the Tender Cost and / or received after the closing date mentioned shall be rejected.
 - vii. Tender cost and EMD are exempted for SSI units or MSEs registered with Central Purchase Organization or the concerned Ministry or Department or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) & copies of same shall be uploaded to avail benefit of exemption.
11. IWAI reserves the right to accept or reject any or all tenders fully & split the work without assigning any reason and no correspondence shall be entertained in this regard.

Chief Engineer

PART – I

4. (i) Tender Acceptance Letter
(ii) Form of Tender
5. Instruction to Bidders for submission of bid

PART-I

4 (i) TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

To,

The Chief Engineer,
Inland Waterways Authority of India
Gaighat, Patna, Bihar- 800007.

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No. IWAI/PTN/17(109)/ Hy. Vessel/VNS/2024-25

Name of Tender/ Work: Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned Tender/ Work' from the web site(s) namely: www.iwai.nic.in OR <https://eprocure.gov.in/eprocure/app> as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / minutes of the pre-bid meeting/ corrigendum(s) in its totality / entirety.
4. In case any provisions of this tender are found violated, then your department/ organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

4 (ii). FORM OF TENDER

To,

The Chief Engineer,
Inland Waterways Authority of India
Gaighat, Patna, Bihar- 800007.

Name of Work: Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.

1. Having visited the site and examined the information and instruction for submission of tender, general conditions of contract, Special Condition of contract, Technical, General and Detailed specification, Schedules and Bill of Quantities, agreement and bank guarantee forms, etc. for the above named works, I/ We hereby tender for execution of the work referred to in the tender document in conformity with the said Conditions of Contract, Specifications, Schedule of quantities for the sum as stated in Bill of quantities of this tender Document or such other sum as may be ascertained in accordance with the said conditions of contract.
2. I/ We undertake to complete and Deliver the whole of the works comprised in the Contract within the time as stated in the tender and also in accordance in all respects with the specifications, designs, drawings and instructions as mentioned in the tender documents.
3. We are registered SSI units / MSEs registered with Central Purchase Organization / the concerned Ministry / Department / Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) and Tender fees is exempted for submission of tender cost and EMD. Copies of same are also uploaded to avail benefit of exemption.

OR

I am tendering for the work mentioned in the table below duly furnishing Earnest Money Deposit (EMD) of INR 64,731/- (i.e. 2% of estimated cost of work) through RTGS in the following bank particulars.

Name of Bank Account : IWAI FUND
Bank Name and Address : Canara Bank, Main Branch, South Gandhi Maidan,
Patna- 800001
Bank Account Number : 0352105000002
IFSC : CNRB0000352
MICR Code : 800015002

Sl. No.	Name of the work	Details of EMD amount remitted (Rs. in lakhs)	Particulars of RTGS transfer along with UTR No. / BG Details	Name of the Bank
1	Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.			

4. I/ We agree to abide by this tender. I/ We agree to keep the tender open for a period of 120 days from the last date of submission of bid or extension thereto as required by the IWAI and not to make any modifications in its term and conditions.
5. I/ We agree, if I/ we fail to keep the validity of the tender open as aforesaid or I/ we make any modifications in the terms and conditions of my/ our tender if I/ We fail to commence the execution of the works as above, I/ We shall become liable for forfeiture of my/ our Earnest money, as aforesaid and IWAI shall without any prejudice to any other right or remedy, be at the liberty to forfeit the said Earnest Money absolutely otherwise the said earnest money shall be retained by IWAI towards part of security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered. Should this tender be accepted, I/ We agree to abide by and fulfil all the terms and conditions and provisions of this tender. No interest is payable on earnest money deposit and/ or security deposit.
6. I/ We have independently considered the amount of Liquidated Damages shown in the tender hereto and agree that it represents a fair estimate of the loss likely to be suffered by IWAI in the event of works not being completed in time.
7. If this tender is accepted, I/ We undertake to enter into execute at my/ our cost when called upon by the employer to do so, a contract agreement in the prescribed form. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereto shall constitute a binding contract.
8. If my/ our tender is accepted, I/We am/are to be jointly and severally responsible for the due performance of the Contract. I/We also declare that the firm has not been banned or blacklisted by any Govt. or its department or any Quasi Govt. agency or Public Sector Undertaking or Multilateral or International Aid Agency/Development Bank.
9. I/ We understand that you are not bound to accept the lowest or any tender you may receive and may reject all or any tender without assigning any reason.
10. I/ We certify that the tender submitted by me, us is strictly in accordance with the terms, conditions, specifications etc. as contained in the tender document, and it is further certified that it does not contain any deviation to the aforesaid documents.

Date

Signature

Name

Designation

duly authorized to sign & submit tender for an on behalf of
(Name and address of firm)

M/s

Telephone nos.....FAX No.....

Witness :

Signature.....

Name :

Occupation

AddressTelephone nos.

5. INSTRUCTIONS TO BIDDERS FOR SUBMISSION OF BID

- 1.0** All covering letters and information to be included in the bid shall be submitted along with the bid itself.
- 2.0** This tender schedule is only for the work of “Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.”
- 3.0** The total estimated cost of works is Rs. 32.36 lakhs exclusive of GST.
- 4.0** Tender should be submitted online at **<https://eprocure.gov.in/eprocure/app>** latest by 1500 hours on 05.09.2024 **in two bid systems i.e.,** Technical Bid and Price Bid. Technical Bid of the offer will be opened online at 1530 hours on 06.09.2024 at IWAI, Gaighat, Patna, Bihar- 800007.

4.1. Technical Bid

The technical bid shall be submitted online along with scanned copy of the following documents:

- a) Scanned copy of Bidders Information form as **Form – A** (Page : 94) to be submitted in the letter head of the registered firm.
- b) Scanned copy of the ‘Tender Acceptance Letter’ duly signed and stamped.
- c) Scanned copy of the ‘Form of Tender’ duly signed and stamped.
- d) Scanned copy of the Tender document duly signed and stamped.
- e) Scanned copy of Self Declaration in the form as **Form – B** (Page : 95) to be submitted in letter head of the registered firm.
- f) Scanned copy of Payment Receipt made through RTGS (along with UTR No.) towards cost of the bidding documents must be uploaded. A certified copy of Payment Receipt is to be deposited in the office before the bid submission closing date & time.

Tender fee is exempted for SSI units or MSEs registered with Central Purchase Organization or the concerned Ministry or Department or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT). Copies of the applicable credential shall be submitted to avail benefit of exemption.

- g) Scanned copy of Payment Receipt made through RTGS (along with UTR No.) towards remittance of Earnest Money Deposit must be uploaded. A certified copy of Payment Receipt is to be deposited in the office before the bid submission closing date & time.

Earnest Money Deposit is exempted for SSI units or MSEs registered with Central Purchase organization or the concerned Ministry or Department or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT). Copies of the applicable credential shall be submitted to avail benefit of exemption.

- h) Details of experience in the form at **Form – C** (Page : 96 - please read foot note also) and copies of experience certificate. (Experience certificate for the works of similar nature with satisfactory performance).
- i) Latest Solvency certificate for not less than INR 12,94,621/- issued by Nationalised / Scheduled Bank, which should not be older than six (06) month from the last date of bid submission. The Solvency Certificate should have full address of banker for confirmation.
- j) Registration / incorporation certificate of the firm / company from the concerned Authorities as specified in NIT/Udyog Aadhaar.
- k) Letter of Authority for signing and negotiation of tender (as the case may be).
- l) Duly signed Integrity Pact (given in Part-II, General conditions)
- m) Permanent Account Number (PAN) issued by Income Tax Department.
- n) Audited balance sheets of profit and loss account / copies of Annual Turnover for the 3 years i.e. ending March 2020-2021, 2021-2022 and 2022-2023 along with statement of Annual Turn overs with UDIN as per **Form – D** (Page : 97).
- o) Goods & Services Tax Registration number including copy of registration certificate.
- p) Bank Account details along with a cancelled cheque for transaction through e-payment.

The technical bid shall not contain any reference on price bid or quoted price of the bidder offer. Such bids will be treated as technically disqualified and their price will not be opened.

4.2. Price Bid

The price bid shall be submitted online for

- (i) Schedule of Prices duly filled in the specified form.
- (ii) This part shall not contain any terms & conditions. Any condition given in the price bid will be a sufficient cause for rejection of bid.
- (iii) GST extra (as applicable).

5.0 Bidders are advised to submit their offer strictly based upon technical specification, terms and conditions contained in documents and not to stipulate any deviations. Any change in this may lead to rejection of bid.

6.0 Earnest Money Deposit for the tendered work in the Notice inviting tender should be submitted in the following manner:

INR 64,731/- (i.e. 2% of estimated cost of work excl. GST) deposited through RTGS / NEFT in the A/c. of Inland Waterways Authority of India as mentioned in Section-I, Bid Data Sheet

A certified copy of Payment Receipts towards Tender Cost and Earnest Money Deposit shall be submitted in the office of IWAI, Gaighat, Patna, Bihar- 800007 on or before the closing date & time of submission of bid. In case the EMD & Tender fee does not credited in the specified Account No. of IWAI due to any reasons, the bid is liable for rejection.

The Earnest Money of the Successful Bidder submitted through RTGS mode will be retained as Security Deposit.

The Bid Security / Earnest Money will be forfeited if the Bidder withdraws the Bid after its submission during the period of Bid Validity or in the case of a Successful Bidder, if the Bidder fails within the specified time limit to sign the Agreement; and/or to furnish the required Performance Security.

- 6.1 All Bidders shall furnish EMD of the amount as mentioned in the Bid Data Sheet. However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the EMD on submission of documents to the extent as per the Government of India notifications in this regard.

Bids not accompanied by EMD shall be rejected as non-responsive.

No interest shall be payable by the Employer for the sum deposited as EMD.

The EMD of those Bidders whose Financial Bids have been opened but are not selected as “Successful Bidder” would be returned within seven (7) days of issuance of LoA to the successful Bidder.

The EMD of Bidders who have not qualified for opening of Price Bids would be returned within seven (7) days of opening of Price bid.

The EMD shall be forfeited by the Employer in the following events:

- i. If Bid is withdrawn during the bid validity period including any extension agreed to by the Bidder thereof.
- ii. If the Bidder tries to influence the evaluation process.
- iii. If the lowest Bidder raises any fresh issue and / or T&C during negotiations, it will be construed as withdrawal of the original bid and in that case EMD is liable to be forfeited.
- iv. In case the Bidder, submits false certificate in terms of any documents supported to this Tender.
- v. If the Bidder fails to sign the contract in accordance with Conditions of Contract on receipt of LoA.
- vi. In case the Bidder is found to indulge in corrupt or fraudulent practices at any stage of the execution of the contract.
- vii. If the Bidder fails to furnish the Performance Bank Guarantee in accordance with Conditions of Contract.
- viii. In case of a Bidder revoking or withdrawing his Tender or varying any terms of the Bid without the consent of the Employer in writing.
- ix. In case of forfeiture of EMD, as prescribed from (i) to (viii) above, the Bidder shall not be allowed to participate in the retendering process of the work.

6.2 **Cost of Tender Document / Tender Fee**

All Bidders are required to pay the cost of Tender Document as mentioned in **Section I, Bid Data Sheet**, through RTGS / NEFT. However, Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Start-ups as recognized by Department for Promotion of Industrial and Internal Trade (DPIIT) are exempt from submitting the Tender fee on submission of documents to the extent as per the Government of India notifications in this regard. The cost of Tender Document is Non-Refundable.

6.3 **Bank Solvency**

All Bidders shall submit Bank Solvency certificate from a nationalized / scheduled bank in India for a minimum amount as mentioned in Bid Data Sheet, The bank solvency certificate submitted by the Bidders shall not be older than six (06) months from the Bid Submission Last Date. **In case Bidder does not adhere to this criterion, his bids shall be considered non-responsive and shall not be considered for further evaluation process.**

6.4 **Taxes**

The Bidders shall fully familiarize themselves with the applicability of all types of taxes and all such taxes, as prevailing on date of submission of the bid, must be included by the Bidder in the Financial Proposal along with the conditions mentioned therein, except for GST which will be claimed separately along with the RA Bills. It may be noted that the Bidder shall have to be registered with GST and shall submit the proof of the same at the time of bid submission. The GST and all other relevant taxes shall be paid as per existing rules and regulations at the time of payment. **The bidders to be given undertaking for Input Tax Credit in GST as per Annexure 13 as mentioned in Clause -4, General Condition of Contract (GCC)**

6.5 **Currency**

Bidders shall express the price of their Assignment / job in Indian Rupees.

6.6 **Language**

The Bid as well as all related correspondence exchanged between the Bidders and the Employer shall be in English language and shall be strictly as per the formats attached in this Tender. The Employer will evaluate only those Bids that are received in the specified formats and are complete in all respects. Any supporting documents submitted by the Bidder with its Bid or subsequently, in response to any query / clarification from the Employer shall be in English and in case any of these documents is in another language, it must be accompanied by an accurate translation of all the relevant passages in English, and in such case, for all purposes of interpretation of the Bid, the translation in English shall prevail.

6.7 Number of Bids

A bidder can submit one bid only either as a single entity ~~or in the form of a JV / consortium~~. Bidders' participation shall be substantiated in Form 4A: Form of Tender. In case a bidder submits or participates in more than one bid, the application of the bidder shall be rejected summarily.

- 7.0** Any annotations or accompanying documentation in the bid shall be in Hindi or English language only and in metric system. Tenders filled in any other language will be summarily rejected.
- 8.0** Bidders shall sign their proposal with the exact name of the firm to whom the bid document has been issued / downloaded. The bid shall be duly signed and sealed by an authorized person of the bidder's organization as following:
- 8 (a) If the Tender is submitted by an individual, it shall be signed by the proprietor above his full name and full name of his firm with its current business address.
- 8 (b) If the Tender is submitted by the proprietary firm, it shall be signed by the proprietor above his full name and full name of his firm with its name and current business address.
- 8 (c) If the Tender is submitted by a firm in partnership, it shall be signed by all the partners of the firm above, their full names and current business address, or by a partner holding the power of attorney for the firm for signing the Tender in which cases a certified copy of the power of attorney shall accompany the Tender. A certified copy of the partnership deed and current business address of all the partners of the firm shall also accompany the Tender.
- 8 (d) If the Tender is submitted by a limited company, or a limited Corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the Tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded. 'Satisfactory evidence' means the certificate of incorporation of the limited company or corporation under Indian Companies Act, 1956.
- 8 (e) All witnesses and sureties shall be persons of status and their full names, occupations and addresses shall be stated below their signatures. All signatures affixed in each page in the tender will be dated.
- 9.0** Bidders shall clearly indicate their legal constitution and the person signing the tender shall state his capacity and also the source of his ability to bind the bidder. The power of attorney or authorization or any other document constituting adequate proof of the ability of the signatory to bind the bidder shall be annexed to the bid. The Owner may reject outright any bid unsupported by adequate proof of the signatory's authority.
- 10.0** The bid document shall be completed in all respects and shall be submitted together with the requisite information and appendices. They shall be complete and free from ambiguity, change or inter-lineation. In case IWAI requires any information/ clarification(s) from the Bidder in respect of the bid documents, the bidder shall be required to furnish the same in

writing, to IWAI at the earliest where no time is specified by IWAI to furnish the same. A failure to furnish the same shall entitle IWAI to cancel/ reject the bid.

- 11.0 If the space in the bid form or in the Appendices thereto is insufficient, additional pages shall be separately added. These pages shall be consecutively page numbered and shall also be signed by the Bidder.
- 12.0 Bidders should indicate at the time of quoting against this bid their full postal addresses, telephone numbers and other communication details enabling IWAI to contact the bidder in case the need so arise.
- 13.0 IWAI shall have an unqualified option under the said bid bond to claim the amount there under in the event of the Bidder failing to keep the bid valid up to the date specified or refusing to accept work or carry it out in accordance with the bid if the IWAI decides to award the Work to the Bidder.
- 14.0 The EMD shall be retained with the IWAI until finalization of tenders. Further, security deposit as per the Clause of Security shall be payable by the successful bidder. If the tenderer fails to furnish the security deposit in accordance with tender conditions EMD shall be forfeited. **In the event of the Bidder becoming the successful Contractor, the amount of EMD would be adjusted against the Security deposit.**
- 15.1 The earnest money deposit (EMD) submitted by all the bidders expect the lowest bidder shall be refunded immediately latest within a week from the date of approval of the award of the contract to the lowest bidder (s)/decision to re-tender or otherwise closure of the proposal as the case may be, by the competent authority. No interest shall be payable on EMD by IWAI.
- 15.2 In case, where the Office-In-Charge considers that an item of EMD instead of being refunded, be carried to the credit of the IWAI-Fund, then the fact required to be recorded on the Deposit Receipt with the Officers initial records, and request the Accounts / Finance Wing to effect necessary adjustment in Accounts. Accordingly, the concerned bidders shall be communicated this fact within the period specified for EMD refund.
- 16.0 The Tender Evaluation Committee (TEC) shall open the tenders in the presence of the intending tenderers who may be present at the date and time of opening informed in the bid document or subsequently. If any of the tenderer or his agent is not present at the time of opening of tender, the TEC shall, on opening of tenders of the absentee tenderer, prepare a statement of the attested and unattested corrections in the tender over their signature. Such a list shall then be binding on the absentee tenderer.
- 17.0 The successful tenderers shall be required to execute a contract agreement in the given format. In case of any refusal/ failure on the part of such successful tenderer to execute such a contract shall be deemed to be a failure on the part of such successful bidder to comply with the terms contained herein.
- 18.0 **Qualification of the Bidder**

18.1 This invitation for online bids is open to all reputed and resourceful contractors fulfilling the criteria given under Terms and Conditions in the Tender Notice and as regards the size / value of experience in execution of similar works during past seven years, the factor specified below shall be used to bring the value of such completed works at the level of current financial year i.e. FY 2023-24.

Year Before	Multiplying Factor
One	1.07
Two	1.14
Three	1.21
Four	1.28
Five	1.35
Six	1.42
Seven	1.49

18.2 Qualification criteria for Average annual turnover for 3 financial years i.e. 2020-21, 2021-22, 2022-23.

At least 30% of the estimated cost of this work,

19.0 Each Bidder shall submit only one online Bid for the work. A Bidder who submits more than one Bid will cause proposals with the Bidder's participation to be disqualified.

20.0 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Owner will, in no case, be responsible or liable for those costs regardless of the conduct or outcome of the bidding process.

21.0 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, terms, specifications, forms and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 33 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

22.0 Clarification of Bidding Documents

22.1 A prospective Bidder requiring any clarification of the bidding documents may notify the Tender Inviting Authority in writing, by facsimile or email at the address indicated in the Tender Notice / Notice Inviting Tender. The tender inviting authority will respond to any request for clarification received earlier than 7 days prior to the deadline for submission of bids. Copies of the response will be forwarded to all purchasers of the bidding documents / will be uploaded to the web sites, including a description of the inquiry, but without identifying its source.

23.0 Amendment of Bidding Documents:

Before the deadline for online submission of bids, the Owner may modify/amend/make addition in the bidding documents for any reason, whether at its own initiative or in response to clarification requested by a prospective bidder by issuing addenda/corrigendum. Any

addendum/corrigendum/ minutes of pre bid meeting uploaded on website shall be part of the bidding documents. Corrigendum / Addendum/ Minutes of pre bid meeting will be available on website. The modification /amendment/ additions in the bidding document shall be binding on the prospective bidders. To give prospective bidders reasonable time in which to take a corrigendum / addendum / minutes of pre bid meeting into account in preparing their bids, the Owner may extend, as necessary, the deadline for submission of bids.

24.0 Bid Prices:

The Contract shall be for the whole Works, as described, based on the cost schedule submitted by the Bidder. The bidder shall quote rates and prices for all items of the Works described in the cost schedule. The prices shall include all the taxes, levies, cess, royalty, terminal tax, or any other local, State or Central taxes as applicable / charged by Central or State Government or Local authorities on all materials that the contractor has to purchase for the performance of the contract and services and the Authority will not entertain any claim for compensation whatsoever in this regard. The rates quoted by the bidder shall be deemed to be inclusive of all such taxes, duties, cess, levies, etc. including 1% Labour Welfare Cess except for GST which shall be indicated and claimed separately. Labour Welfare Cess @ 1% of the value of the contract shall be deducted from the RA bills of the Contractor and deposited by IWAI as per norms of Govt. of India.

Bidders are to download BOQ through <https://eprocure.gov.in/eprocure/app> and cannot modify BOQ, they can enter only in the Blue Coloured portion of BOQ. The Bidder shall quote rate for Per item Basic price, inclusive of Freight, Insurance, Transportation, packing, Inspection if applicable etc. The GST has to be mentioned separately

Prices quoted by the Bidder shall remain firm and fixed and valid till the validity time. The prices quoted shall be for destination of the consignees.

Form No. 'C' or 'D' & 31/32 will not be issued by the "Authority". Road permit, way bill etc. are to be arranged by the Bidder.

The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment. The prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

25.0 Bid Validity: Bids shall remain valid for a period of 120 days after the last date for bid submission. A bid valid for a shorter period will be treated as non-responsive and shall be rejected.

In exceptional circumstances, prior to expiry of the original time limit, the IWAI may request the bidder to extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his bid security.

- 26.0** Bidder shall submit offers that fully comply with the requirement of the bidding document including conditions of contract. Conditional offer or alternate offer will not be considered in the process of tender evaluation.
- 27.0** The Bidder shall submit online bid and the Bid shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the Bid shall be signed by the person or persons signing the Bid. The Bid shall contain no overwriting, alterations or additions, except those to comply with instructions issued by the Tender Inviting Authority.
- 28.0** **Submission of Bids:** The Bidder shall submit online bids. Complete online Bids (including Technical and Financial) must be received by the bid submission closing date and time. The Tender inviting Authority may extend the deadline for submission of bids by issuing an amendment, in which case all rights and obligations of the Owner and the bidders previously subject to the original deadline will then be subject to the new deadline.
- 29.0** **Modification and Withdrawal of Bids:** Bidders may modify or withdraw their bids online before the deadline prescribed. Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified or as extended shall result in the forfeiture of the Bid security.
- 30.0** **Bid Opening and Evaluation**
- 30.1 Online Bid opening shall be carried out in two stages. Firstly, 'Technical Bid' of all the online bids received shall be opened on the date and time mentioned in the Bid Data Sheet. 'Financial Bid' of those bidders whose technical bid has been determined to be responsive and on evaluation fulfils the criteria shall be opened on a subsequent date, which will be notified to such bidders.
- 30.2 The Owner will open the online "Technical Bid" of all the bids received in the presence of the bidders/bidders' representatives who choose to attend at the time, date and place specified. In the event of the specified date for the submission of bids being declared a holiday for the Owner, the Bids will be opened at next immediate convenient time & date which will be notified through the web site.
- 30.3 Bidder's names and such other details like EMD furnished, as the Owner may consider appropriate will be announced by the Owner after the opening.
- 30.4 After the opening of the technical bids, their evaluation will be taken up with respect to bid security, qualification and other information furnished in Technical bid. Thereafter, on fulfilling the criteria laid down in Bid Evaluation, a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.
- 30.5 The Owner shall inform the bidders, whose technical bids are found responsive, of the date, time and place of opening of the financial bids. The bidders so informed, or their representative, may attend the online opening of financial bids.

30.6 At the time of the online opening of the ‘Financial Bid’, the names of the bidders whose bids were found responsive and the Bid prices, the total amount of each bid and such other details as the Owner may consider appropriate will be announced by the Owner.

31.0 Process to be Confidential

Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the Owner’s processing of bids or award decisions may result in the rejection of his Bid.

32.0. Clarification of Bids and Contacting the Owner

32.1 During the evaluation of the bids, the owner may, at its discretion, ask the bidder to provide any additional information/clarification in relation to its bids as may be deemed fit by the owner. The bidder shall in all cases where such request has been made by the owner, submit such information/clarification within such period and in such manner as may be specified by the owner in the request so made. In the event of failure of the bidder to furnish such additional information as may be requested by the owner, the owner may, in its sole discretion, deem such bid as non-responsive. The bidder shall not have any right to challenge the same or any claims arising from such bid being deemed non-responsive by the owner.

32.2 No bidder shall contact the owner on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. Any attempt by the bidder to influence the Owner’s bid evaluation, bid comparison or contract award decision may result in the rejection of his bid.

33.0 Examination of Bids and Determination of Responsiveness

During the detailed evaluation of “Technical Bids”, the Owner will first determine whether each Bid (a) meets the eligibility criteria (b) has been properly signed; (c) is accompanied by the required securities; and (d) is responsive to the requirements of the bidding documents.

After the above process is completed, the technical specification/offer of the responsive bidders will be examined with respect to technical specifications provided in the tender document. Clarifications, if any, at this stage in respect of the technical parameters offered by the bidder will be sought from the bidders. Thereafter, the bids, which conform, to the terms, conditions, and specifications of the bidding documents, without material deviation or reservation will be considered as responsive for evaluation.

34.0 Evaluation of Bids

34.1 Selection of the bidder for the tendered work will be based on technical and financial evaluation.

34.2 Technical evaluation shall be based on the bidder satisfying the eligibility criteria stated in **clause 11 of Terms and Conditions** under the Tender Notice AND the bidder furnishing all

documents / certificates / undertakings as specified in clause 4.1 under INSTRUCTIONS FOR SUBMISSION OF BID.

- 34.3 Verification of the facts furnished by the bidders may be made prior to finalizing the technical evaluation.
- 34.4 If the bidder does not fulfil the above criteria his bid shall be technically disqualified and his financial bid shall not be opened.
- 34.5 The evaluation of the financial bid will be based on the lowest financial offer received for the work.

35.0 Award of Contract

- 35.1. Subject to Clause 36, the Owner will award the Contract to the Bidder after evaluation as per Clause 34.
- 35.2. Owner has the right to accept any Bid and to reject any or all Bids and split the work or Increase and Decrease work. Notwithstanding Clause 35.1, the Owner also reserves the right to cancel the bidding process 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 grounds for the Owner's action.
- 35.3 Award of work under "Make in India" policy: As per the policy of Government of India to promote Make in India the provisions vide order No. o-45021/2/2017-B.E.II dated 15.06.2017 of Ministry of Commerce and Industry on the subject "public procurement (preference to Make in India) shall be applicable to the extent possible.

36.0 Notification of Award and Signing of Agreement.

- 36.1 The bidder whose Bid has been accepted will be notified of the award by the Owner prior to expiration of the Bid validity period and this letter will be called "Letter of Acceptance" or "Work order" which will state the sum that the Owner will pay to the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price") and also the time period for completion of the works.
- 36.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 37.
- 36.3 The Agreement will incorporate all agreements between the Owner and the successful Bidder. It will be signed in the proforma given at **Annexure.1** by the Owner and the successful Bidder after the performance security is furnished and within 15 days of issuance of Letter of Acceptance.
- 36.4 Upon the furnishing of the Performance Security by the successful Bidder, the other Bidders will be informed that their Bids have been unsuccessful.

37.0 Performance Security

- 37.1 Within 15 (fifteen) days of issue of the Letter of Acceptance, the successful Bidder shall deliver to the Owner a Performance Security equivalent to 5% of the contract price in the form of irrevocable Bank Guarantee from nationalized / scheduled bank of India.
- 37.2 The Contractor shall be required to deposit an amount equivalent to 5% of the contract value of the work as Performance Security in the form of an irrevocable bank guarantee bond of any nationalized / scheduled bank of India in accordance with the form prescribed **Annexure-2** or shall be deposited to IWAI account through NEFT / RTGS as mentioned in the Bid Data Sheet within 15 days of the issue of the LoA.
- 37.3 Failure of the successful bidder to comply with the requirement of sub-clause 37.1 shall constitute sufficient ground for cancellation of the award and forfeiture of the bid security.

38.0 Corrupt or Fraudulent Practices

The Owner will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with Inland Waterways Authority of India and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.

The Owner requires the bidders/Contractors to strictly observe the laws against fraud and corruption enforced in India, namely, Prevention of Corruption Act, 1988.

39.0 Instructions to the Bidders for the submission of bids online through the e-Procurement Portal <https://eprocure.gov.in/eprocure/app>

- 39.1 Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the consultants/bidders on the e-procurement/e-tender portal is a prerequisite for e-tendering.
- 39.2 Bidder should do the enrollment in the e-Procurement site using the <https://eprocure.gov.in/eprocure/app> option available "Enroll Here" on the home page. Portal. Enrollment is free of charge. During enrollment/registration, the bidders should provide the correct/true information including valid email-id. All the correspondence shall be made directly with the contractors/bidders through email-id provided.
- 39.3 Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
- 39.4 Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/ nCode/ eMudra or any Certifying Authority recognized by CCA India on eToken / Smart Card, should be registered.
- 39.5 The DSC that is registered only, should be used by the bidder and should ensure safety of the same.
- 39.6 Contractor/Bidder may go through the tenders published on the site and download the required tender documents/schedules for the tenders he/she is interested.
- 39.7 After downloading / getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as asked.

- 39.8 If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account of the corrigendum published before submitting the bids online.
- 39.9 Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the eToken/ Smart Card to access DSC.
- 39.10 Bidder selects the tender which he/she is interested in by using the search option and then moves it to the 'my favourites' folder.
- 39.11 From the favourites folder, he selects the tender to view all the details indicated.
- 39.12 It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the bid will be rejected.
- 39.13 Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in general PDF/xls/rar/jpg formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, if permitted.
- 39.14 If there are any clarifications, this may be obtained through the site, or during the pre-bid meeting if any. Bidder should take into account the corrigendum published from time to time before submitting the online.
- 39.15 The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- 39.16 Bidder should submit the Tender Fee/ EMD as specified in the Bid Data Sheet. The original payment instruments should be posted/ couriered/ given in person to the Tender Inviting Authority within the due date as mentioned in this tender document. Scanned copy of the instrument should be uploaded as part of the offer, if asked for.
- 39.17 While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- 39.18 The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the instruments.
- 39.19 The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.
- 39.20 The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.

- 39.21 The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid will be rejected.
- 39.22 If the price bid format is provided in a spread sheet file like BoQ_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Price Bid/BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- 39.23 The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- 39.24 After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.
- 39.25 The bidder should ensure/see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is likely /liable to be rejected.
- 39.26 The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- 39.27 All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.
- 39.28 Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 39.29 The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 39.30 The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 39.31 Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 39.32 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

PART – II

6. GENERAL CONDITIONS.

- (i) Integrity Pact**
- (ii) Schedules**
- (iii) General Conditions of Contract.**

PART – II

To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IWAI.

(i) INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of 20.....

BETWEEN

Chief Engineer, Inland Waterways Authority of India represented through Inland Waterways Authority of India, Gaighat, Patna, Bihar- 800007.

(Hereinafter referred as the ‘Principal/Owner’, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
(Name and Address of the Individual/firm/Company)

through(Hereinafter referred to as the
(Details of duly authorized signatory)

“Bidder/Contractor” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal/ Owner has floated the Tender No.
(hereinafter referred to as “Tender/Bid”) and intends to award, under laid down organizational procedure, contract for “Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filling Station at MMT, Varanasi.”

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “Integrity Pact” or “Pact”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the

Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

- (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

1. It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the IWAI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
2. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the tender process or execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly,

Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
3. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
4. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
5. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the bidder/contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

1. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
2. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal / Owner has disqualified the Bidder(s) from the tender process prior to the award of the contract or terminated/determined the contract or has accrued the right to terminate/determine the contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.

3. Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a bidder or Contractor, or of an employee or a representative or an associate of a bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/ sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority of IWAI.

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.

- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8: LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
 (For and on behalf of Principal/Owner)

.....
 (For and on behalf of Bidder/Contractor)

WITNESSES:

1.....
 (signature, name and address)

2.....
 (Signature, name and address)

Place:.....

Date:

(ii) SCHEDULES

SCHEDULE 'A': Salient Features of the work.

- (i) **Name of Work** : **Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.**
- (ii) **Estimated cost** : **Rs. 32.36 lakhs excluding GST.**
- (iii) **Earnest Money** : **Rs. 64,731/-.**
- (iv) **Performance Guarantee** : **5% of Contract price.**
A sum equivalent to 5% of the contract price shall be remitted through NEFT / RTGS
- (v) **Security Deposit** : **5% of contract price.**
A sum @ 10% of the gross amount of the bill shall be deducted from the bill of the contractor equivalent to 5% of the contract value of the work.

As per GFR, Manual for procurement of works 2019.

SCHEDULE 'B': General Rules & Directions with reference to General Conditions of Contract: -

- (i) **Officer inviting tender** : **Chief Engineer, IWAI, Patna**
- (ii) **Tender Accepting Authority** : **Chief Engineer, IWAI, Patna**
- (iii) (a) **Time allowed for submission of Performance Guarantee as per clause 3.1 of GCC from the date of issue of letter of acceptance** } : **15 days**
- (b) **Maximum allowable extension beyond the period provided in (iii) (a) above** } : **7 days.**
- (iv) **Percentage on Cost of Materials and Labour to cover all overheads & profits** } : **included in the estimate**
- (v) **Standard Schedule of Rates** : **Not applicable**
- (vi) **Specifications to be followed** : **Not applicable**

(vii) Deviation Limit beyond which clause 16.3, 16.4, 16.5 & 16.6 } : 20% with approval of the Competent Authority

(viii) Competent Authority for grant extension of time under clause 35:-

- (a) Regional Director (Field), IWAI (if the amount of contract is upto 50 lakhs).
- (b) Member (Technical), IWAI (if the amount of contract is upto 100 lakhs).
- (c) Vice-Chairman / Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).
- (d) Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(ix) Competent Authority to levy liquidated damages for delay under clause 36:-

- (a) Regional Director (Field), IWAI (if the amount of contract is upto 50 lakhs).
- (b) Member (Technical), IWAI (if the amount of contract is upto 100 lakhs).
- (c) Vice-Chairman / Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).
- (d) Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(x) Competent Authority to determine the contract as per clause 37:-

- (a) Regional Director (Field), IWAI (if the amount of contract is upto 50 lakhs).
- (b) Regional Director/Engineer-in-Charge with the prior approval of:
 - i. Member (Technical), IWAI (if the amount of contract is upto 100 lakhs).
 - ii. Vice-Chairman / Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).
 - iii. Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(xi) Milestones as per table given below:-

(Clause 35.5 & 35.6 shall be applicable only when the amount of the contract is more than 10 Crores).

Sl. No.	Milestone	Time Allowed (from date of start) in months	Amount to be withheld in case of non-achievement of mile stone
	Not applicable being less than Rs. 10 Crores.		

(xii) Competent authority to reschedule the milestones as per clause 34.5 } : The Chairman, IWAI, Noida.

(xiii) Competent authority for foreclosure of contract in full or in part due to abandonment or reduction in scope of work as per Clause – 31:

- (A) Regional Director (Field), IWAI (if the amount of contract is upto 50 lakhs).
- (B) Regional Director/Engineer-in-Charge with the prior approval of;
 - (a) Member (Technical), IWAI (if the amount of contract is upto 100 lakhs).
 - (b) Vice-Chairman / Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).
 - (c) Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(xiv) Incentive for early completion : Not applicable

(iii) GENERAL CONDITION OF CONTRACT

C O N T E N T S

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GENERAL CONDITIONS OF CONTRACT

CLAUSE - 1: DEFINITIONS

In the contract, the following words & expression shall, unless context otherwise requires, have the meaning thereby respectively assigned to them:

- (i) **Contract:** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the Chairman, Inland Waterways Authority of India and the contractor, together within the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-charge and all these documents taken together shall be deemed to form one contract and shall be complementary to one another
- (ii) **Contract sum;** means the amount arrived at by multiplying the quantities shown in the schedule of quantities and price by the respective item rates as allowed.
- (iii) **Contractor:** means the successful tenderer who is awarded the contract to perform the work covered under this tender document and shall be deemed to include the contractor's successors, executors, representatives or assign approved by the Engineer-in-charge.
- (iv) **Employer** means the Chairman, Inland Waterways Authority of India and his successors.
- (v) **IWAI/ Authority/ Department/ Owner** shall mean the Inland Waterways Authority of India, which invites tenders on behalf of the Chairman, IWAI and includes therein-legal representatives, successors and assigns.
- (vi) **Engineer-In-Charge (EIC)** means the Engineer officer authorised to direct, supervise and be In-charge of the works for the purpose of this contract who shall supervise and be in charge of the work.
- (vii) **Engineer-in-charge representative** shall mean any officer of the Authority nominated by the Engineer-in-charge for day to day supervision, checking, taking measurement, checking bills, ensuring quality control, inspecting works and other related works for completion of the project.
- (viii) **Chairman:** means Chairman of Inland Waterways Authority of India.
- (ix) **Vice Chairman:** means the Vice Chairman of the Authority
- (x) **Director :** means the Director of the Authority.
- (xi) **Chief Engineer:** means the Chief Engineer of the Authority, as the case may be.
- (xii) **Deputy Director:** means the Deputy Director of the Authority, as the case may be.
- (xiii) **Assistant Director:** means the Assistant Director of the Authority, as the case may be.
- (xiv) **Assistant Hydrographic Surveyor** means the Assistant Hydrographic Surveyor of the Authority, as the case may be
- (xv) **Work Order** means a letter from the Authority conveying the acceptance of the tender/offer subject to such reservations as may have been stated therein.
- (xvi) **Day :** means a calendar day beginning and ending at mid-night.

- (xvii) **Week** : means seven consecutive calendar days
- (xviii) **Month** : means the one Calendar month.
- (xix) **Site** means the waterway and / or other places through which the works are to be executed.
- (xx) **Vessel** : Any inland vessel / dredger operating in the National Waterway including the dredging units of IWAI for carrying out the work.
- (xxi) **Drawings** : means the drawings referred to in the specifications and / or appended with the tender document, any modifications of such drawing approved in writing by the Engineer-in-Charge and shall also include drawings/ charts issued for actual execution of the work time to time by the Engineer-in-Charge.
- (xxii) **Urgent Works**: means any urgent nature which in the opinion of the Engineer-In-Charge become necessary at the time of execution and / or during the progress of work to obviate any risk or accident or failure or to obviate any risk of damage to the vessel structure, or required to accelerate the progress of work or which becomes necessary for security or for any other reason the Engineer-in-Charge may deem expedient.
- (xxiii) **Work / works**: means work / works to be executed in accordance with the contract.
- (xxiv) Schedules referred to in these conditions shall mean the relevant schedules annexed to the tender papers.
- (xxv) District specifications means the specifications followed by the State Government in the area where the work is to be executed.
- (xxvi) Tendered value means the value of the entire work as stipulated in the letter of award.

CLAUSE – 2: INTERPRETATIONS

- 2.1 Where the contract so requires, words imparting the singular only shall also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- 2.2 Heading and marginal notes in these General Conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation of construction thereof of the contract.

CLAUSE – 3: PERFORMANCE GUARANTEE

- 3.1 The Contractor shall be required to deposit an amount equivalent to 5% of the contract value shall be deposited to IWAI account through NEFT / RTGS as mentioned in the Bid Data Sheet within 15 days of the issue of the work order.
- 3.2 After recording of the completion certificate for the work by the competent authority, and completion of defects liability period, the performance guarantee shall be returned to the contractor without any interest.
- 3.3 In the event of contract being determined under the provision of any of the clauses/ conditions of agreement, the performance guarantee shall be forfeited in full and shall be absolutely at the disposal of the authority.

CLAUSE – 4: SECURITY DEPOSIT

4.1 A sum @ 10% of the gross amount of the bill shall be deducted from the bill of the contractor till that sum reaches 5% of the contract value of the work.

As per GFR, Manual for Procurement of Works.

4.2 The total security deposit shall remain with IWAI till the completion of the contract and handing over of the site back to IWAI and the defect liability period is over or the payment of the final bill payable in accordance with agreement conditions whichever is later, provided the Engineer-in-Charge is satisfied that there is no demand outstanding against the contractor.

4.3 No interest will be paid on security deposit.

4.4 If the contractor neglects to observe or fails to perform any of his obligations under the contract, it shall be lawful for the Employer/ EIC to forfeit either in whole or in part, the security deposit furnished by the contractor. However, if the contractor duly performs and completes the contract in all respects and presents in absolute "NO DEMAND CERTIFICATE" in the prescribed form, the IWAI shall refund the security deposit to the contractor after deduction of cost and expenses that the Authority may have incurred and other money including all losses and damages which the Authority is entitled to recover from the Contractor.

4.5 In case of delay in the progress of work, the Engineer- in-Charge shall issue to the contractor a memo in writing pointing out the delay in progress and calling upon the contractor to explain the causes for the delay within 3 days of receipt of the memo and 10 days from issuance of memo whichever is earlier. If the Engineer-in-Charge is not satisfied with the explanations offered, he may forfeit the security deposit and / or withhold payment of pending bills in whole or in part and/ or get the measures of rectification of progress of work accelerated to the pre-defined level at the risk and cost of the contractor.

4.6 All compensation or other sums of money payable by the contractor under the terms of the contract or any other contract or on any other account whatsoever, may be deducted from or paid by the sale of a sufficient part of his security or from the interest arising there from or from any sums which may be due or may become due to the contractor by the Authority on any account whatsoever. Also in the event of the contractor's security deposit being reduced by reasons of such deductions or sale, as aforesaid the contractor shall, within 14 days of receipt of notice of demand from the Engineer-in-Charge make good the deficit in his security deposit.

4.7 In case the contractor fails to commence the works or when the contractor has defaulted for more than thirty days or when any amount is to be recovered from the contractor as penalty or deduction and the contractor fails to remit such amount even after due notice is given to him in this regard, IWAI at its own discretion may recover the sum from his security deposit.

CLAUSE – 5: SUFFICIENCY OF TENDER

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates quoted in the schedule of Quantities and Prices which shall (except as otherwise provided in the contract) cover all his obligations under the contract and all matters and things necessary for the proper execution and completion of the works in accordance with the provisions of the contract and its operation during execution of work.

CLAUSE – 6: CONTRACT DOCUMENTS

- 6.1 The language in which the contract documents shall be drawn up shall be English and if the said documents are written in more than one languages, the language according to which the contract is to be constructed and interpreted shall be English.
- 6.2 The Contractor shall be furnished free of charge certified true copy of the contract document.
- 6.3 A copy of the Contract Documents furnished to the Contractor as aforesaid shall be kept by the Contractor on the Site in good condition and the same shall at all reasonable time be available for inspection and use by the Engineer-in-Charge, his representatives or by other Inspecting officers of the Authority.
- 6.4 None of these Documents shall be used by the Contractor for any purpose other than that of this contract.

CLAUSE – 7: DISCREPANCIES AND ADJUSTMENT OF ERRORS

- 7.1 Detailed drawings shall be followed in preference to small-scale drawings and figured dimensions in preference to scaled dimensions. The case of discrepancy between the Schedule of Quantities and prices, the Specifications and/ or the drawings, the following order of precedence shall be observed : -
 - (a) Description in the Schedule of Quantities and Prices.
 - (b) Relevant Specifications and Special Conditions, if any.
 - (c) Drawings.
 - (d) Indian Standards Specifications of BIS.
- 7.2 The contractor shall study and compare the drawings, specifications and other relevant information given to him by the Engineer-in-Charge and shall report in writing to the Engineer-in-Charge any discrepancy and inconsistency which he notes. The decision of the Engineer-in-Charge regarding the correct intent and meaning of the drawings and specifications shall be final and binding.
- 7.3 Any error in description, quantity or price in Schedule of Quantities and Prices or any omission there-from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the work(s) comprised therein according to drawings and specifications or from any of his obligations under the contract.
- 7.4 If on check there is difference in the amount worked out by contractor in the schedule of quantities and prices and General summary the same shall be adjusted in accordance with the following rules:
 - (a) In the event of error/discrepancy occurring in the rates written in figures and words, then the rate which corresponds with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figures or in words, then the rate quoted by the contractor in words shall be taken as correct. When the rate quoted by the contractor in figures and words tally, but the amount is not worked out correctly, the rate quoted by the contractor will, unless or otherwise proved, be taken as correct.
 - (b) All errors in totaling in the amount column and in carrying forward totals shall be corrected.

- (c) The totals of various sections of schedule of quantities and price amended shall be carried over to the General Summary and the tendered sum amended accordingly. The tendered sum so altered shall, for the purpose of tender, be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer. Any rounding off of quantities or in sections of schedule of quantities and prices or in General summary by the tenderer shall be ignored.

CLAUSE-8: DUTIES AND POWERS OF THE ENGINEER-IN-CHARGE REPRESENTATIVE

- 8.1 The duties of the representative of the Engineer-in-Charge are to watch and supervise the works and to test and examine any materials/ parts to be used or workmanship achieved in connection with the works.
- 8.2 The Engineer-in-Charge may, from time to time in writing, delegate to his representative any of the powers and authorities, vested in the Engineer-in- Charge and shall furnish to the contractor a copy of all such written delegation of powers and authorities. Any written instruction or written approval given by the representative of the Engineer-in-Charge to the contractor within the terms of such delegation shall bind the contractor and the Authority as though it has been given by the Engineer-in-Charge.
- 8.3 Failure of the representative of the Engineer-in-Charge to disapprove any work or materials shall be without prejudice to the power of the Engineer-in-Charge thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof. The contractor shall, at his own expense, again carry out such works as directed by the Engineer-in-Charge.
- 8.4 If the Contractor is dissatisfied with any decision of the representative of the Engineer-in-Charge, he will be entitled to refer the matter to the Engineer-in- Charge who shall thereupon confirm, reverse or vary such decision and the decision of the Engineer-in- Charge in this regard shall be final and binding on the contractor.

CLAUSE – 9: ASSIGNMENT AND SUB-LETTING

The Contractor shall not sub-let, transfer or assign the whole or any part of the work under the contract. Provided that the Engineer-in-Charge may at his discretion, approve and authorize the Contractor to sub-let any part of the work, which in his opinion, is not substantial, after the contractor submits to him in writing the details of the part of the work(s) or trade proposed to be sublet, the name of the sub-contractor thereof together with his past experience in the said work/trade and the form of the proposed sub-contract. Nevertheless any such approval or authorization by the Engineer-in-Charge shall not relieve the contractor from his any or all liabilities, obligations, duties and responsibilities under the contract. The contractor shall also be fully responsible to the Authority for all the acts and omissions of the sub-contractor, his employees and agents or persons directly employed by the contractor. However, the employment of piece rate works shall not be construed as sub-letting.

CLAUSE – 10: FACILITIES TO OTHER CONTRACTORS

The contractors shall, in accordance with the requirements of the work as decided by the Engineer-in- Charge, afford all reasonable facilities to other contractors engaged contemporaneously on separate contracts and for departmental labour and labour of any other agency properly authorised by Authority or any statutory body which may be

employed at the site for execution of any work not included in the contract which the Authority may enter into in connection with or ancillary to the works. In all matters of conflict of interest, the Engineer-in-Charge shall direct what compromise should be made and his decision shall be final and binding on the parties.

CLAUSE – 11: CHANGE IN THE CONSTITUTION OF THE FIRM TO BE INTIMATED

Where the contractor is a partnership firm, prior approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu Undivided Family business concern, such approval, as aforesaid, shall like-wise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If prior approval as aforesaid is not obtained the contractor shall be deemed to have been assigned in contravention to Clause 36 hereof and the same action will be taken and the same consequences shall ensure as provided for in the said clause-36.

CLAUSE – 12: COMMENCEMENT OF WORK

The contractor shall commence the work at the respective sites within 15 days of the issue of Letter of Award. If the contractor commits default in mobilization of resources, and equipment as aforesaid, the Engineer-in-Charge shall without prejudice to any other right or remedy be at liberty to cancel the contract and forfeit the earnest money/security deposit.

CLAUSE–13: WORKS TO BE CARRIED OUT IN ACCORDANCE WITH SPECIFICATION DRAWINGS AND ORDERS ETC.

- 13.1 The contractor shall execute the whole and every part of the work in the most substantial and workman like manner in strict conformity with the specifications laid down in the contract document or as may be laid down by the Engineer-in-Charge under the terms of the contract. The contractor shall also conform exactly, fully and faithfully to the designs, drawings specifications and instructions in writing in respect of the work, duly signed by the Engineer-in-Charge as may be issued from time to time.
- 13.2 The contractor shall be entitled to receive, on demand, in addition to the contract documents, in accordance with the provisions of contract, the documents set forth herein in respect of the work on commencement or during the performance of the contract:
 - (a) Specifications or revisions thereof other than standard printed specifications and charts/drawings issued to the contractor from time to time
 - (b) Explanations, instructions etc.

Such further drawings, explanation, modifications and instruction, as the Engineer-in-Charge may issue to the contractor from time to time in respect of the work shall be deemed to form integral part of the contract and the contractor shall be bound to carry out the work accordingly.

- 13.3 In the case of any class of work for which there is no specifications, such work shall be carried out in accordance with the Bureau of Indian Standards specifications. In case there are no such specifications in the BIS, work shall be carried out as per manufacturer's

specifications, if manufacturer's specifications are also not available then as per District specifications. In case there are no such specifications as required, above the work shall be carried out in all respect in accordance with the instructions and requirements of the Engineer-in-Charge.

- 13.4 All instructions and orders in respect of the work shall be given by the Engineer-in-Charge in writing. However, any verbal instructions or order shall be confirmed by the Engineer-in-Charge as soon as practicable without loss of time and only such written instruction shall be deemed to be valid.

CLAUSE – 14: SETTING OUT THE WORKS

The contractor shall provide all assistance and adhere to the instruction of E.I.C during the course of surveying, inspection, etc.

CLAUSE – 15: URGENT WORKS

If any urgent work (in respect of which the decision of the Engineer-in-Charge shall be final and binding) becomes necessary, the contractor shall execute the same as may be directed by Engineer-in-Charge, provided the directions are in accordance and confirmatory with provisions in Clause – 8.

CLAUSE – 16: DEVIATIONS, VARIATIONS, EXTENT AND PRICING

- 16.1 The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.
- 16.2 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:
- (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
 - (ii) 20% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge after approval of the Competent Authority.
- 16.3 In the case of extra item(s) (items that are completely new, and are in addition to the items contained in the contract), the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Engineer-in-Charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor,

determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

- 16.4 In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para.
- (a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
 - (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- 16.5 In the case of contract items, substituted items, contract cum substituted items, which exceed the deviation limits laid down in Schedule 'B', the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
- 16.6 The provisions of the paragraph 16.4 above shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule 'B', and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.
- 16.7 Under the circumstances, the contractor shall at any stage not suspend the work on account of non-settlement of rates of such Deviated/Extra/Substituted items.

CLAUSE - 17: CONTRACTOR'S SUPERVISION

- 17.1 The contractor shall either himself supervise the execution of the works or shall appoint at his own expense, a qualified and experienced Engineer as his accredited agent approved by the Engineer-in-Charge, if contractor has himself not sufficient knowledge or experience to be capable of receiving instruction or cannot give his full attention to the works. The contractor or his agent shall be present at the site(s) and shall supervise the execution of the works with such additional assistance in each trade, as the work involved shall require and considered essential by the Engineer-in-Charge. Further the directions/instructions given by the Engineer-in-Charge to the contractor's agent shall be considered to have the same force as if these had been given to the contractor himself.
- 17.2 If the contractor fails to appoint a suitable agent as directed by the Engineer-in-Charge, the Engineer-in-Charge shall have full powers to suspend the execution of the works until such date as a suitable agent is appointed by the contractor and takes over the charge of

supervision of the work. For any such suspension, the contractor shall be held responsible for delay so caused to the work.

CLAUSE - 18: INSTRUCTIONS AND NOTICE

- 18.1 Except as otherwise provided in this contract, all notices to be given on behalf of the Authority and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge.
- 18.2 All instructions, notices and communications etc. under the contract shall be given in writing and any such oral orders / instructions given shall be confirmed in writing and no such communication which is not given or confirmed in writing shall be valid.
- 18.3 All instructions, notices and communications shall be deemed to have been duly given or sent to the contractor, if delivered to the contractor, his authorized agent, or left at, or posted to the address given by the contractor or his authorized agent or to the last known place of abode or business of the contractor or his agent of services by post shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him and in other cases on the day on which the same were so delivered or left.
- 18.4 The Engineer-in-Charge shall communicate or confirm the instructions to the contractor in respect of the execution of work through a "Site Order Book" maintained in the office of the Engineer-in-Charge and the contractor or his authorized representative shall confirm receipt of such instructions by signing the relevant entries in this book. If required by the Contractor, he shall be furnished a certified true copy of such instruction(s). The pro-forma for Site Order Book to be maintained at site is given in **Annexure – 2**.
- 18.5 The "Hindrance Register" shall be maintained at the site of work, where any hindrance which comes to the notice of the representative of the Engineer-in-Charge shall be recorded and immediately a report will be made to the Engineer-in-Charge within a week. The Engineer-in-Charge shall review the Hindrance Register at least once in a month. The pro-forma on which the Hindrance Register shall be maintained is given in **Annexure – 3**.

CLAUSE -19: PLANT AND EQUIPMENT

- 19.1 The plants and equipments required for the execution of dredging works and all additional necessary plant, equipment and machinery required for the execution of the work under the contract shall be brought to the site by the Contractor at his cost and shall use such methods and appliances for the purpose of all the operations connected with the work covered by the contract, which shall ensure the completion of work(s) within the specified time.
- 19.2 The contractor shall operate, maintain, repair and safeguard the plants and equipments during the tenancy of the contract in accordance with terms and conditions, specifications of the contract and instructions of the Engineer in Charge.
- 19.3 Subject to the availability of any item(s), plant, equipment and machinery, the Authority at the written request of the contractor, may issue to the contractor on hire for being deployed on the work contracted for, at pre- determined rates, terms and conditions at the sole discretion of the Engineer-in-Charge.

CLAUSE – 20: PATENT RIGHTS

The contractor shall indemnify the Authority, its representatives or its employees against any action, claim or proceeding relating to infringement or use of any

patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part thereof included in the contract. In the event of any claim being made or action being brought against the Authority or any agent, servant or employee of the Authority in respect of any such materials as aforesaid the contractor shall immediately be notified thereof. Provided that such indemnification shall not apply when such infringement has taken place in complying with the specific directions issued by the Authority but the contractor shall pay any royalties or other charges payable in respect of any such use, the amount so paid being reimbursement to the contractor only if the use was the result of any drawings and or specifications issued after submission of the tender.

CLAUSE – 21: MATERIALS

- 21.1 The contractor shall at his own expenses provide / arrange all materials required for the bona-fide use on work under the contract.
- 21.2 All materials/parts to be provided by the contractor shall be in conformity with the specifications laid down in the contract and the contractor shall furnish from time to time proof and samples, at his own cost, the materials/parts as may be specified by the Engineer-in-Charge. Further the Engineer-in-Charge shall also have powers to have such tests, in addition to those specified in the contract, as may be required and the contractor shall provide all facilities to carry out the same. The cost of materials/parts consumed in such tests and also the expenses incurred thereon including the cost of the testing charges, shall be borne by the contractor in all cases and also where such tests which are in addition to those provided in the contract disclose that the materials are in conformity with the provisions of the contract.
- 21.3 The Engineer-in-Charge or his representative shall be entitled at any time to inspect and examine any plants, materials/parts intended to be used in the works, either on the site or at factory or workshop or other place(s) where such materials are assembled, fabricated, manufactured or any place where these are lying or from where these are being obtained. For this, purpose, the contractor shall afford such facilities as may be required for such inspection and examination.

CLAUSE - 22: LAWS GOVERNING THE CONTRACT

The Courts at **Noida** only shall have the jurisdiction for filing the award of the arbitration and for any other judicial proceedings.

CLAUSE - 23: WATCH & WARD AND LIGHTING

The Contractor shall provide and maintain at his expense all lights, guards, fencing and watch & ward when and where necessary or as required by the Engineer-in-Charge for the protection of the works or for the safety and convenience of those employed on the works or the public.

CLAUSE - 24: WORK DURING NIGHT OR ON SUNDAYS AND HOLIDAYS

- 24.1 Subject to any provisions to the contrary contained in the contract, none of the works shall be carried out during Sundays and national holidays without the permission in writing of the Engineer-in-Charge. However, when work is unavoidable or necessary for safety of life,

property or works, contractor shall take necessary action immediately and advise the Engineer-in-Charge accordingly.

- 24.2 The Engineer-in-Charge at its discretion may, however, direct the contractor that the work may be carried out on holidays, Sundays and/or in extra shifts to ensure completion of works under the contract as scheduled.

CLAUSE - 25: LABOUR

- 25.1 (a) The contractor shall employ labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-Charge. The Contractor shall not employ in connection with the works any person who has not completed eighteen years of age the minimum age specified in Indian Labour Law.
- (b) If any foreigner is employed by the contractor on the work within the site the later shall ensure that such foreigner possesses the necessary special permit issued by the Civil Authorities in writing and also comply with the instructions issued there-from from time to time. In the event of any lapse in this regard on the part of such foreigner the contractor shall be personally held responsible for the lapse & Authority shall not be liable in any event.
- (c) The Contract is liable for cancellation if either the contractor himself or any of his employee is found to be a person who has held Class-I post under the Authority immediately before retirement and has within two years of such retirement accepted without obtaining the previous permission of the Authority or of the Chairman as the case may be and employment as contractor for, or in connection with the execution of the public works, or as an employee of such contractor. If the contract is terminated on account of the failure of the contractor to comply with the above clause, the Authority shall be entitled to recover from him such damages as may be determined by the Engineer-in-Charge with due regard to the inconvenience caused to the Authority on account of such termination without prejudice to the Authority's right to proceed against such officer.
- 25.2 The contractor shall furnish and deliver fortnightly to the Engineer-in-Charge, a distribution return of the number and description by trades of the works of people employed on the works. The contractor shall also submit on the 4th and 19th of every month for the period of second half of the preceding month and first half of the current month respectively to the Engineer-in-Charge, a true statement in respect of the following.
- i) Any accident if occurred during the said fortnight showing the circumstances under which it happened and the extent of damage and injury caused by it and.
 - ii) The number of female workers who have been allowed maternity benefit as provided in the Maternity Benefit Act 1961 or Rules made there-under and the amount paid to them.
- 25.3 The Contractor shall pay to labourer employed by him either directly or through sub-contractors wages not less than wages as defined in Minimum Wages Act 1948 and Contract Labour (Regulation and Abolition) Act 1970 amended from time to time and rules framed there-under and other labour laws affecting contract labour that may be brought in force from time to time.

25.4 The Contractor shall also comply with the provisions of all Acts, Laws, any Regulation or Bye Laws of any Local or other Statutory Authority applicable in relation to the execution of works such as:

- i) Payment of Wages Act, 1936 (Amended)
- ii) Minimum Wages Act, 1948 (Amended).
- iii) The Contract Labour (Regulation & Abolition) Act, 1970 with Rules framed there under as amended.
- iv) Workmen Compensation Act, 1923 as amended by Amendment Act no.65 of 1976.
- v) Employer's Liability Act 1938 (Amended)
- vi) Maternity Benefit Act. 1961 (Amended)
- vii) The Industrial Employment (Standing orders) Act 1946 (Amended).
- viii) The Industrial Disputes Act. 1947 (Amended)
- ix) Payment of Bonus Act.1965 and Amended Act No. 43 of 1977 and No. 48 of 1978 and any amended thereof:
- x) The Personal Injuries (Compensation Insurance) Act 1963 and any modifications thereof and rules made there-under from time to time. The Contractor shall take into account all the above and financial liabilities in his quoted rates and nothing extra, whatsoever, shall be payable to him on this account.

The list is indicative only, otherwise the contractor should be aware of all the Acts/Labour Laws and should follow diligently on the work. The contractor shall be fully and personally responsible for the violation of any Act/Labour Law

25.5 The Contractor shall be liable to pay his contribution and the employees contribution to the State Insurance Scheme in respect of all labour employed by him for the execution of the contract, in accordance with the provision of "the Employees State insurance Act 1948" as amended from time to time. In case the Contractor fails to submit full details of his account of labour employed and the contribution payable, the Engineer-in- Charge shall recover from the running bills the contribution amount as assessed by him. The amount so recovered shall be adjusted against the actual contribution payable for Employees State Insurance.

25.6 The Engineer-in-Charge shall on a report having been made by an inspecting officer as defined in the Contract Labour (Regulation and Abolition) Act and Rules or on his own in his capacity as Principal Employer, have the power to deduct from the amount due to the contractor any sum required for making good the loss suffered by worker(s) by reason of non-fulfillment of the conditions of the Contract for the benefit of Workers, nonpayment of wages or on account of deduction made from the wages of the workers which are not justified by the terms of the contract or non- observance of the said Act and Rules framed there under with amendments made from time to time.

25.7 The Contractor shall indemnify the Authority against any payments to be made under and for observance of the Regulation Laws, Rules as stipulated in Clause-25.4 above without prejudice to his right to claim indemnity from his sub-contractors. In the event of the contractor's failure to comply with the provisions of all the Acts/Laws stipulated in Clause-25.4 or in the event of decree or award or order against the contractor having been received from the competent authority on account of any default or breach or in connection with any of the provisions of the Acts/Laws/Rules mentioned in Sub-Clause 25.4 above, the Engineer-

in-Charge without prejudice to any other right or remedy under the contract shall be empowered to deduct such sum or sums from the Bill of the contractor or from his security deposit or from other payment due under this contract or any other contract to satisfy within a reasonable time the provisions of the various Acts/Laws/Rules/Codes as mentioned under Sub-Clause 25.4 above, on the part of the contractor under the contract on behalf of and at the expenses of the contractor and make payment and /or provide amenities/facilities/services accordingly. In this regard, the decision of the Engineer-in-Charge shall be conclusive and binding on the contractor.

- 25.8 In the event or the Contractor committing a default or breach of any of the provisions of the aforesaid Contract's Labour (Regulation and Abolition) Act and Rules as amended from time to time or furnishing any information or submitting or filling any form/Register/Slip under the provisions of these Regulations which is materially incorrect then on the report of the Inspecting officer as defined in the relevant Acts and Rules as referred in Clause 25.4 above, the Contractor shall without prejudice to any other liability pay to the Authority a sum not exceeding Rs.50/- (Rs. Fifty only) as liquidated damages for every default, breach or furnishing, making, submitting, filling materially incorrect statement as may be fixed by the Engineer-in-Charge. The decision of the Engineer-in-Charge in this respect shall be final & binding.
- 25.9 The Contractor shall at his own expenses comply with or cause to be complied with the Provisions/ Rules provided for welfare and health of Contract Labour in the Contract Labour (Regulation and Abolition) Act and other relevant Acts and Rules framed there under or any other instructions issued by the Authority in this regard for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works. In case the contractor fails to make arrangements as aforesaid, the Engineer-in-Charge shall be entitled to do so and recover the cost thereof from the contractor.
- 25.10 The Contractor shall at his own expense arrange for the safety or as required by the Engineer-in-Charge, in respect of all labour directly or indirectly employed for performance of the Works and shall provide all facilities in connection therewith. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid, the Engineer-in-Charge shall be entitled to do so and recover the cost thereof from the Contractor. But this will not absolve the contractor of his responsibility or otherwise thereof.
- 25.11 Failure to comply with "Provisions/Rules made for Welfare and Health of Contract Labour" Safety Manual, or the provisions relating to report on accidents and grant of maternity benefits to female workers and the relevant Acts/Rules referred in clause 25.4 above shall make the contractor liable to pay to the Authority as liquidated damages an amount not exceeding Rs. 50/- for each default or materially incorrect statement. The decision of the Engineer-in-Charge in such matters based on reports from the inspecting Officers as defined in the relevant Acts and Rules as referred in clause 25.4 above shall be final and binding and deductions for recovery of such liquidated damages may be made from any amount payable to the contractor. In the event of any injury, disability or death of any workmen in or about the work employed by the contractor either directly or through his sub-contractor, contractor shall at all time indemnify and save harmless the Authority against all claims, damages and compensation under the Workmen Compensation Act. 1923 as amended from time to time or in other Law for the time being in force and Rules there-under from time to time and also against all costs, charges and expenses of any smooth action by proceedings arising out of such accidents or injury, disability or death of a workmen and against all sum or sums which

may with the consent of the contractor be paid to compromise or compound any claim in this regard. If any award, decree or order is passed against the contractor for recovery of any compensation under the Workmen Compensation Act, 1923, for any injury, disability or death of a workman by any competent court, the said sum or sums shall be deducted by the Engineer-in-Charge from any sum then due or that may become due to the contractor or from his security deposit or sale thereof in full or part under the contract or any other contract with the Authority towards fulfillment of the said decree, award or orders.

- 25.12 Provided always that the contractor shall have no right to claim payments/claims whatsoever on account of his compliance with his obligations under this clause and Labour Regulations.
- 25.13 The contractor shall not otherwise than in accordance with the statutes ordinance and Government Regulations or orders for the time being in force import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs to permit or suffer any such import, sale, gift, barter or disposal by his sub-contractor, agent or employees.
- 25.14 The contractor shall not give, barter or otherwise dispose of to any person or persons any arms or ammunition of any kind or permit to suffer the same as aforesaid.
- 25.15 The Contractor shall employ for the execution of the works only such persons as are skilled and experienced in their respective trades and Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any persons employed by the Contractor for the execution of the works who, in the opinion of the Engineer-in-Charge, misconduct himself or is incompetent or negligent in the proper performance of his duties. The contractor shall forthwith comply with such requisition and such person shall not be again employed upon the works without permission of the Engineer-in-Charge.
- 25.16 Release of Security deposit after labour clearance: Security deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually completed, the contractor shall apply for clearance certificate to the Labour Officer under intimation to Engineer-in-Charge. The Engineer-in-Charge on the receipt of such communication shall write to Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending on record till after three months after completion of work and/or no communication is received from Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the security deposit will be released if otherwise due.

CLAUSE-26: MATERIALS OBTAINED FROM EXCAVATION SUCH AS COINS, FOSSILS, ETC.

- 26.1 Materials of any kind obtained from excavation on the site shall remain the property of the Authority and shall be disposed off as directed by the Engineer-in-Charge.
- 26.2 However if any of the materials thus obtained from excavation on the site is such as can be used in the execution of the work under the contract, the contractor will be allowed to use the same free of cost (except that any amount of royalty paid for in this regard by the Authority shall be recoverable from the contractor) for the aforesaid purpose provided the same is found suitable and is approved by the Engineer-in-Charge.
- 26.3 Fossils, coins, articles of value, structures and other remains or things of geological or archeological interest discovered on the site shall be the absolute property of the Authority.

The contractor shall take reasonable precautions to prevent his labour or any other person from removing or damaging any such article or thing and shall acquaint the Engineer-in-Charge with such discovery and carryout the Engineer-in-Charge's directions as to the disposal of the same at the expense of the Authority.

~~CLAUSE – 27: SUSTAINABILITY OF JV~~

~~In case JV / Consortium is not sustained due any reasons or discrepancies arising amongst the JV / Consortium members, un-sustainability of JV / Consortium shall be determined by the Engineer in Charge/Employer during the monitoring in the contract period based on the failure of the deliveries/missing of the targets and other deliverables. The same shall be dealt in the following manner:~~

- ~~(a) If JV / Consortium becomes unsustainable after being selected as L1 EMD of the defaulting JV / Consortium shall be forfeited.~~
- ~~(b) If JV / Consortium become unsustainable after the award of contract, the employer has complete authority to nominate another contractor to complete the balance work on risk and cost of the defaulting contractor. Contractor will be notified of the decision to stop the work and get the measurements done to ascertain the value of work completed till date. No payment shall be released immediately, however, after completion of entire work on risk and cost, the differential cost would be recovered from all held up amount (BG, EMD, Security deposit and unpaid amount for the work done) of the defaulting contractor and if any balance amount is still available, that shall be released to the defaulting contractor.~~

CLAUSE – 28: FORCE MAJEURE

- 28.1 The term Force Majeure shall herein mean Riots (other than among the contractor's employees), Civil Commotion (to the extent no insurable), war (whether declared or not), invasion, act of foreign enemies, hesitation, civil war, rebellion, revolution, insurrection, military or usurped power, damage from aircraft, nuclear fission, acts of God, such as earthquake (above 7 magnitude on Richter Scale), lightning, unprecedented floods, fires not caused by contractor's negligence and other such causes over which the contractor has no control and are accepted as such by the Engineer-in-Charge, whose decision shall be final and binding. In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by them under this contract, the relative obligation of the party affected by such Force Majeure shall be treated as suspended for the period during which such Force Majeure cause lasts, provided the party allowing that it has been rendered unable as aforesaid, thereby shall notify within 15 days of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of such cause.
- 28.2 For delays arising out of Force Majeure, the bidder shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither the Authority nor the bidder shall be liable to pay extra costs provided it is mutually established that Force Majeure conditions did actually exist.

- 28.3 If any of the Force Majeure conditions exists in the places of operation of the bidder even at the time of submission bid, he shall categorically specify in his bid and state whether they have been taken into consideration in their quotations.

CLAUSE - 29: LIABILITY FOR DAMAGE, DEFECTS OR IMPERFECTIONS AND RECTIFICATION THEREOF

- 29.1 If the contractor or his labour or his sub-contractor, injure, destroy or damage, battery, solar panel, lighting system, road, fence, enclosures, water pipe, cables, buildings, drains, electricity or telephone posts, wires, trees, grass line, cultivated land in the area in which they may be working or in the area contiguous to the premises on which the work or any part of it is being executed or if any damage is caused to any item belonging to IWAI or to any person during the progress of work, the Contractor shall upon receipt of a notice in writing in that behalf from the Engineer-in-Charge, make good the same at his cost.
- 29.2 If it appears to the Engineer-in-Charge or his representative at any time during the progress of work or prior to the expiration of the Defects Liability period that any work has been executed with unsound, imperfect or unskilled workmanship or that any materials or articles provided by the Contractor for execution of the work are unsound or of a quality inferior to that contracted for, or otherwise not in accordance with the Contract, or that any defect, shrinkage or other faults found in the work arising out of defective design or defective/improper materials or workmanship, the Contractor shall, upon receipt of a notice in writing in that behalf from the Engineer-in-Charge forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may be, and/or remove the materials/articles so specified and provide other proper and suitable materials at his expense.
- 29.3 All damages caused by accidents or carelessness of the contractor or any of his employees or any property belonging to the Authority is wasted or is misused by the contractor or any of his employees shall be to the account of the contractor, who shall make good the loss.
- 29.4 Defects liability period for the civil works like bank protection, jetty, culvert etc. shall be 25 days from the date of completion of all works under the contract. Dredging / excavation will not have a defects liability period once the required lines & levels are achieved and the same measured and jointly recorded in post dredging survey charts and the chart approved by the E-I-C.

CLAUSE – 30: CONTRACTOR'S LIABILITY AND INSURANCE

- 30.1 From commencement to completion of the work(s) as a whole, the Contractor shall take full responsibility for the care thereof and for taking precautions to prevent loss or damage. He shall be liable for any damage or loss that may happen to the works or any part thereof and to the Authority's Plant, Equipment and Material (hired or issued to the Contractor) shall be in good order and condition and in conformity in every respect with the requirements of the Contract and instructions of the Engineer-in-Charge.
- 30.2 i) Neither party to the contract shall be liable to the other in respect of any loss or damage which may occur or arise out of "Force Majeure" to the works or any part thereof on to any material or article at site but not incorporated in the works or to any person or anything or material whatsoever or either party provided such a loss or damage could not have been foreseen or avoided by a prudent person and the either party shall bear losses and damages in respect of their respective men and materials.

As such liability of either party shall include claims/ compensations of the third party also.

- ii) Provided, however, in an eventuality as mentioned in sub-clause - 30.2 (i) above, the following provisions shall also have effect:
 - (a) The Contractor shall, as may be directed in writing by the Engineer-in-Charge proceed with the completion of the works under and in accordance with the provisions and conditions of the contract, and
 - (b) The Contractor shall, as may be directed in writing by the Engineer-in-charge, re-execute the works lost or damaged, remove from the site any debris and so much of the works as shall have been damaged and carry the Authority's T & P, Plant and Equipment, Material etc. to the Authority's store. The cost of such re-execution of the works, removal of damaged works and carrying of Authority's store shall be ascertained in the same manner as for deviations and this shall be ascertained in the same manner as for deviations and this shall be added to the contract sum. Provided always that the Contractor shall, at his own cost, repair and make good so much of the loss or damage as has been occasioned by any failure on his part to perform his obligations under the contract or not taking precautions to prevent loss or damage or minimise the amount of such loss or damage, Final assessment of loss or damage shall be decided by the Engineer-in-Charge and his decision shall be final and binding.

30.3 The contractor shall take special precautions to see that public places and roads adjacent to contractor's yard are not blocked at anytime either by his material or by his workmen. The roads are to be kept always clear and no equipment/materials shall be stacked.

30.29 The navigable waterways shall not be blocked by Contractor's vessels. The anchors dropped in the waterways shall be properly marked and removed after done with.

30.30 The contractor shall indemnify and keep indemnified the Authority against all losses and claims for death, injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the construction and maintenance, of works during the contract period and also against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto, and such liabilities shall include claims/compensations of the third party.

30.6 (a) Before commencing execution of the work, the Contractor shall without in any way limiting his obligations and responsibilities under this condition, insure against any damage, loss or injury which may occur to any property (excluding that of the Authority but including the Authority building rented to the contractor wholly or in part and any part of which is used in part and any part of which is used by him for storing combustible materials) public liability by arising out of the carrying out of the contract. For this purpose the contractor shall take out, pay all costs and maintain throughout the period of his contract public liability with the following coverage.

- i) Public liability limits for bodily injury or death not less than Rs. 1,00,000 for one person and Rs. 2,00,000 for each accident.
- ii) Property liability limits for each accident not less than Rs. 1,00,000 ;

- iii) The Contractor shall prove to the Engineer-in Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period.
- (b) The Contractor shall ensure that similar insurance policies are taken out by his sub-contractor (if any) and shall be responsible for any claims or losses to the Authority resulting from their failure to obtain adequate insurance protection in connection thereof. The Contractor shall produce or cause to be produced by his sub-contractors (if any) as the case may be, relevant, policy or policies and premium receipt as and when required by the Engineer-in-Charge.
- (c) If the contractor and/or his sub- contractor (if any) shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the term of the Contract then and in any such case the Authority may, without being bound to effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the Authority from any moneys due or which may become due to the contractor or recover the same as a debt due from the contractor.
- (d) The contractor shall at his own expense arrange for the safety provisions as required in respect of the works covered under this contract as per the instruction of Engineer-in-charge. In case, the contractor fails to comply with the provisions of the safety the Engineer- in-Charge shall be entitled to and make the necessary arrangements at the risk and cost of the contractor. This will, however, not absolve the Contractor of his overall responsibility to execute the works under the contract.

CLAUSE – 31: SUSPENSION OF WORKS

- 31.1 The contractor shall on the receipt of order of the Engineer-in-Charge (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer-in-Charge may consider necessary.
- 31.2 The suspension of the work can be done by Engineer-in-Charge for any of the following reasons:
 - (a) On account of any default on the part of the contractor or
 - (b) for proper execution of the works or part thereof for the reasons other than the default of the contractor or
 - (c) for the safety of the works or part thereof.
- 31.3 The contractor shall during the suspension period, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.
- 31.4 If the suspension is ordered for the reasons under the Clause 31.2(b) and (c) above, the contractor shall be entitled to the extension of time equal to the period of every such suspension Plus 25% for the completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which suspended work forms a part.

CLAUSE – 32: FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

If at any time after acceptance of the tender the Authority decides to abandon or reduce the scope of the works for reason whatsoever and hence does not require the whole or any part of the works to be carried out, the Engineer-in-Charge (with the prior approval of competent authority mentioned in **Schedule 'B'**) shall give notice in writing to that effect to the contractor and the Contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he could not derive in consequence of the fore closure of the whole or part of the works.

CLAUSE – 33: TERMINATION OF CONTRACT ON DEATH

If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies, or if the Contractor is a partnership concern and one of the partners dies, then, unless the Engineer-in-Charge is satisfied that the legal representatives of the individual contractor or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners are capable of carrying out and completing the contract, the Engineer-in-Charge shall be entitled to terminate the Contract as to its incomplete part without the Authority being in anyway liable to payment of any compensation whatsoever on any account to the estate of the deceased Contractor and/or to the surviving partners of the Contractor's firm on account of termination of the Contract. The decision of the Engineer-in-Charge that the legal representatives of the deceased contractor or the surviving partners of the Contractor's firm cannot carry out and complete the works under the contract shall be final and binding on the parties. In the event of such termination, the Authority shall not hold the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable for damages for not completing the contract. Provided that the power of the Engineer-in-Charge of such termination of contract shall be without prejudice to any other right or remedy which shall have accrued or shall accrue to him under the contract.

CLAUSE– 34: CARRYING OUT PART OF WORK AT THE RISK AND COST OF THE CONTRACTOR

34.1 If the contractor

- (i) At any time makes default during the currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; **or**
- (ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; **or**
- (iii) Fails to complete the work (s) or items of work with individual dates of completion, on or before the date (s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.

34.2 The Engineer-in-Charge without invoking action under clause 36 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to IWAI, by a notice in writing to take the part work/ part incomplete work of any item (s) out of his hands and shall have powers to:

- (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/ or
- (b) Carry out the part work/ part incomplete work of any items (s) by any means at the risk and cost of the contractor.

- 34.3 The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item (s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by IWAI because of action under this clause shall not exceed 10% of the tendered value of the work.
- 34.4 In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same number and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the IWAI are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.
- 34.5 Any excess expenditure incurred or to be incurred by IWAI in completing the part work/ part incomplete work of any item (s) or the excess loss of damages suffered or may be suffered by IWAI as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to IWAI in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.
- 34.6 If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.
- 34.7 In the event of the above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

CLAUSE - 35: COMPLETION TIME AND EXTENSIONS

- 35.1 The Engineer-in-Charge will make available to the contractor the site to enable the contractor to commence & proceed with the execution of the work in accordance with agreed programme. If there is any delay in making available any area of the work or the delays mentioned in Para 34.4, the competent authority as specified in schedule 'B' on the recommendations of the Engineer-in-Charge shall grant reasonable extension of time for completion of work. But the contractor shall not claim any compensation whatsoever on this account.
- 35.2 If after the award of the work the contractor commits defaults in commencing the execution of work as aforesaid, Govt. shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.
- 35.3 As soon as possible after the Contract is concluded, the Contractor shall submit a Time and Progress Chart get it approved by the Department. The Chart shall be prepared in direct

relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work.

- 35.4 However, if the work (s) be delayed by:-
- (i) Force majeure as per clause 28, or
 - (ii) Abnormally bad weather, or
 - (iii) Serious loss or damage by fire, or
 - (iv) Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
 - (v) Delay on the part of other contractors or tradesman engaged by Engineer-in-Charge in executing work not forming part of the contract, or
 - (vi) Non-availability of stores, which are the responsibility of Government to supply or
 - (vii) Non-availability of breakdown of Tools and Plant to be supplied or supplied by Government or
 - (viii) Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control.

Then immediately upon the happening of any such events as aforesaid, the contractor shall inform the Engineer-in-Charge accordingly, but the contractor shall nevertheless use constantly his best endeavours to prevent and/or make good the delay and shall do all that may be required in this regard. The Contractor shall also request, in writing, for extension of time, to which he may consider himself eligible under the contract, within fourteen days of the date of happening of any such events as indicated above.

- 35.5 In case the cost of the work is more than 10 crores, then the total scope of work will be divided into milestones. The contractor shall submit a Time & Progress chart for each milestone and get it approved by the competent authority.
- 35.6 Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form to the competent authority as indicated in Schedule 'B'. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.
- 35.7 In any such case as may have arisen due to any of the events, as aforesaid, and which may have been brought out by the contractor in writing, the Competent Authority mentioned in Scheduled 'B' may give a fair and reasonable extension of time, after taking into consideration the nature of the work delayed and practicability of its execution during the period of extension.
- 35.8 Such extensions shall be communicated to the contractor by the Engineer-in-Charge in writing. The contractor shall not be entitled to claim any compensation or over run charges whatsoever for any extension granted.

CLAUSE – 36: LIQUIDATED DAMAGES FOR DELAY

- 36.1 If the contractor fails to maintain the required progress in terms of clause 35 or to complete the work and clear the site on or before the date of completion as per the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the authority on account of such breach, pay as agreed liquidated damages the amount calculated at the rates stipulated below.

- (i) Liquidated Damages @ 0.5 % per week of delay
for delay of work to be computed on per day basis

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the Tendered Value of work.

The competent authority mentioned in Schedule 'B' (whose decision in writing shall be final & binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause 34 or that the work remains incomplete.

The amount of liquidated damages may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the authority.

- 36.2 In case of contracts having tendered amount more than 10 Crores, if the contractor does not achieve a particular milestone mentioned in Schedule 'B', or the re-scheduled milestone(s) in terms of Clause 35.6, the amount shown against that milestone shall be withheld, to be adjusted against the liquidated damages levied at the final decision on Extension of Time. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.
- 36.3 In case of contracts having tendered amount less than 10 Crores, if the work remains incomplete after the stipulated date of completion, the Engineer-in-charge may withhold 10% of the tendered value of the work from the running payments of the contractor pending final decision of the competent authority mentioned in schedule 'B' on the extension of time case. If the competent authority decides to grant extension of time without levy of liquidated damages or levy part of the total liquidated damages specified above then the balance withheld amount after adjusting the amount of the liquidated damages levied by the competent authority will be refunded to the contractor.

CLAUSE – 37: WHEN THE CONTRACT CAN BE DETERMINED

- 37.1 Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:
- (i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.

- (iii) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- (iv) If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- (v) If the contractor shall offer or give or agree to give to any person in IWAI service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of contract.
- (vi) If the contractor shall enter into a contract with IWAI in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.
- (vii) If the contractor shall obtain a contract with IWAI as a result of wrong tendering or other non-bona-fide methods of competitive tendering or commits breach of integrity pact.
- (viii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- (ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of accredit or shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the IWAI with the approval of the competent authority mentioned in schedule 'B' shall have powers:

- (a) To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and

Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the IWAI.

- (b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE – 38: INSPECTION AND APPROVAL

- 38.1 All works involving more than one process shall be subject to examination and approval at each stage thereof and the contractor shall give due notice to the Engineer-in-Charge on his authorized representative, when each stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof and the decision of the Engineer-in-Charge in this regard shall be final and binding.
- 38.2 No work shall be put out of view without the approval of the Engineer-in-Charge or his authorized representative and the Contractor shall afford full opportunity for examination. The contractor shall give due notice to the Engineer-in-Charge or his authorized representative whenever any such work is ready for examination and the Engineer-in-Charge or his representative shall, without unreasonable delay, unless he considers it necessary and advise the contractor accordingly, examine and measure such work. In the event of the failure or the contractor to give such notice, he shall if required by the Engineer-in-Charge, uncover such work at the contractor's expenses.
- 38.3 Periodic inspection will be carried out by the EIC or his representative by their vessels. The contractor can have the inspection schedules finalized with the Engineer-in-Charge. Generally all attempts should be made to have joint inspection and number of inspections be not less than three in a calendar month.

CLAUSE – 39: COMPLETION CERTIFICATE AND COMPLETION PLANS

- 39.1 The work shall be completed to the entire satisfaction of the Engineer-in-Charge and within the specified time limit and under the terms and conditions of the contract. As soon as the work under the contractor is completed as a whole the contractor shall give notice of such completion to the Engineer-in-Charge. The Engineer-in-Charge shall inspect the work and shall satisfy himself that the work(s) has been completed in accordance with the provisions of the contract and then issue to the Contractor a certificate of completion indicating the date of completion. Should the Engineer-in-Charge notice that there are defects in the works or the works are not considered to be complete, he shall issue a notice in writing to the Contractor to rectify / replace the defective work or any part thereof or complete the work, as

the case may be within such time as may be notified and after the contractor has complied with as aforesaid and gives notice of completion the Engineer-in-Charge shall inspect the work and issue the completion certificate in the same manner as aforesaid.

- 39.2.1 No certificate of completion shall be issued as stipulated above and no work be considered to be completed unless the contractor shall have removed from the work site and / or premises all his belongings / temporary arrangements brought / made by him for the site and / or premises in all respects and made the whole of the site and / or premises fit for immediate occupation / use to the satisfaction of the Engineer- in-Charge. If the contractor fails to comply with the above mentioned requirements on or before the date of completion of the work, the Engineer-in-Charge, may as he thinks fit and at the risk at cost of the contractor, fulfill such requirements and remove / dispose of the contractor's belongings / temporary arrangements, as aforesaid, and the contractor shall have no claim in this respect except for any sum realised by the sale of Contractor's belongings / temporary arrangements less the cost of fulfilling the said requirements and any other amount that may be due from the contractor. Should the expenditure on the aforesaid account exceed the amount realised by sale of such contractor's belongings / temporary arrangements then the contractor shall on demand pay the amount of such excess expenditure.
- 39.2.2 The contractor shall submit the completion plans of the work wherever required within 30 days of the completion of work. In case the contractor fails to submit completion plans as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs. 15000/- (Rupees fifteen thousand only) as may be fixed by Engineer-in-Charge concerned and in this respect the decision of the Engineer-in-Charge shall be final and binding on the contractor.

CLAUSE - 40: MEASUREMENTS

- 40.1 The Engineer-in-charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.
- 40.2 Notwithstanding any provision in the relevant standard method of measurement or any general or local custom, measurement of work done under the contract shall be taken in accordance with the procedure set forth in the Technical Specifications or Schedule of Quantities under the contract. In case of items of work which are not covered by the Technical Specifications or Schedule of Quantities measurement shall be taken in accordance with the relevant standard methods of measurement laid down by the Bureau of Indian Standard.
- 40.3 All items having a financial value shall be entered in daily log book/ measurement book prescribed by the Authority so that the complete work performed under the contract is duly accounted.
- 40.4 Measurement shall be taken jointly by the Engineer-in-Charge or his authorised representative and by the contractor or his authorised representative.
- 40.5 Before taking measurements of any works, the Engineer-in-Charge or representative deputed by him for the purpose, shall give a reasonable notice to the Contractor. If the Contractor fails to attend or send an authorised representative for measurement after such notice or fails to countersign or to record the objection within a week from the date of taking the measurements, in such eventuality the measurements taken by the Engineer-in-Charge shall be taken to be correct and final measurements of such works.

- 40.6 The contractor shall, without extra charge, provide assistance with every appliance, labour and other things necessary for measurement.
- 40.7 Measurements shall be signed and dated by both parties each day on the Site on completion of measurement. If the contractor objects to any of the measurement recorded by the representative of the Engineer-in- Charge a note to the effect shall be made in the item objected to and such note shall be signed and dated by both parties engaged in taking the measurement. The decision of the Engineer-in-Charge on any such dispute or difference or interpretation shall be final and binding on the contractor in respect of all contract items, substituted items, extra items and deviations.

CLAUSE – 41: PAYMENT ON ACCOUNT

- 41.1 Interim bills shall be submitted by the contractor monthly on or before the date fixed by the Engineer-in- Charge for the items of work completed. The Engineer-in-Charge shall then arrange to have the bills verified with reference to the actual measurements recorded / pre or post dredging survey charts and quantity calculations in the measurement book(s).
- 41.2 Payment on account for amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment for the work executed, after deducting there from the amount already paid, the security deposit and such other amounts as may be withheld, deductible or recoverable in terms of the contract.
- 41.3 Payment of the contractor's bills shall be made by the Authority only in Indian Rupees within 30 days from the date of submission of the bill subject to the acceptance of the Engineer-in- Charge.
- 41.4 Payments due to the contractor shall be made by crossed cheque by the Engineer-in-Charge or his authorised representative. Such cheques shall be issued direct to the contractor on furnishing a stamped receipt for the amount of the cheque or to his constituted attorney duly authorised to receive such payments from the EIC. Alternatively payment, due to the contractor shall be made by electronic bank transfer / RTGS
- 41.5 Any interim certificate given relating to work done or materials delivered may be modified or corrected by any subsequent interim certificate or by the final certificate. No certificate(s) of the Engineer-in- Charge supporting an interim payment shall itself be conclusive evidence that any work or materials to which it relates is / are in accordance with the same.
- 41.6 Should there be a request for extension of date of completion, pending its consideration interim payments shall continue to be made as provided herein.
- 41.7 Income Tax / TDS at the applicable rates shall be deducted at source from any payment made to the contractor against this contract.

CLAUSE – 42: TAXES, DUTIES AND LEVIES ETC.

The rates quoted by the bidder shall be deemed to be inclusive of all taxes, duties, cess, levies, etc. and also including 1% Labour Welfare Cess except for GST which shall be indicated and claimed separately. Labour Welfare Cess @ 1% of the value of the contract shall be deducted from the RA bills of the Contractor and deposited by IWAI as per norms of Govt. of India.

The bidders to be given undertaking for Input Tax Credit in GST as per the norms.

CLAUSE-43: TAX DEDUCTION AT SOURCE

- 43.1 TDS at the applicable rate as per Income Tax Act/Rules shall be deducted from all the payment/advances made against the contract.

CLAUSE – 44: PAYMENT OF FINAL BILL

The final bill shall be submitted by the contractor within one month from the date of completion of the work or of the date the certificate of completion furnished by the Engineer-in-Charge. No further claim in this regard unless as specified herein under shall be entertained. Payment of final bill shall be made within three months if the amount of the contract is up to Rs. 15 lakhs and six months if the value of the work exceeds Rs. 15 lakhs. If there shall be any dispute about any item or items of the work then the undisputed item or items only shall be paid within the said period of three months or six months, as the case may be. The contractor shall submit a list of the disputed items within thirty days from the disallowance thereof and if he fails to do so, his claim shall be deemed to have been fully waived and absolutely extinguished.

CLAUSE - 45: OVER PAYMENTS AND UNDER PAYMENTS

- 45.1 Whenever any claim whatsoever for the payments of a sum of money to the Authority arises out of or under this contract against the contractor, the same may be deducted by the Authority from any sum then due or which at anytime thereafter may become due to the contractor under this contract and failing that under any other contract with the Authority or from any other sum whatsoever due to the contractor from the Authority or from his security deposit, or he shall pay the claim on demand.
- 45.2 The Authority reserves the right to carry out post- payment audit and technical examination of the final bill including all supporting vouchers, abstracts, etc. The authority further reserves the right to enforce recovery of any over payment when detected notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an arbitrator appointed under clause 48 of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.
- 45.3 If as a result of such audit and technical examination any over payment is discovered in respect of any work done by the contractor or alleged to have been done by him under contract, it shall be recovered by the Authority from the contractor by any of all of the methods prescribed above, and if any under payment is discovered, the amount shall be duly paid to the contractor by the Authority.
- 45.4 Provided that the aforesaid right of the Authority to adjust over-payment against amount due to the contractor under any other contract with the Authority shall not extend beyond the period of two years from the date of payment of the final bill or in case the final bill is a MINUS bill, from the date the amount payable by the Contractor under the MINUS final bill is communicated to the contractor.
- 45.5 Any sum of money due and payable to the Contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or Authority against any claim of the Authority or such other person or persons in respect of payment of a sum of money arising out of or under any other contract

made by the contractor with the Engineer-in-Charge or Authority or with such other person or persons. The sum of money so withheld or retained under this clause by the Engineer-in-Charge or Authority will be kept withheld or retained as such by the Engineer-in-Charge or Authority or till his claim arising out of in the same contract or any other contract is either mutually settled or determined by the arbitrator, if the contract is governed by the arbitration clause under the clause 48 or by the competent court hereinafter provided, as the case may be, and the contractor shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause.

CLAUSE – 46: FINALITY CLAUSE

It shall be accepted as an inseparable part of the contract that in matters regarding design, materials, workmanship, removal of improper work, interpretation of the contract drawings and contract specifications, mode of procedure and the carryout of the work the decision of the Engineer-in-Charge which shall be given in writing shall be final and binding on the contractor.

CLAUSE – 47 : SUM PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED IS REASONABLE WITHOUT PREFERENCE TO ACTUAL LOSS

All sum payable by way of compensation to the Authority under any of these conditions shall be considered as reasonable compensation without reference to the actual loss or damage sustained and whether or not damage shall have been sustained.

CLAUSE - 48: SETTLEMENT OF DISPUTES & ARBITRATION.

- 48.1 Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in-before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, design, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:
- (i) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days of the receipt of decision from the Engineer-in-Charge request the Chief Engineer in writing through the Engineer-in-Charge for written instruction or decision. Thereupon, the Chief Engineer shall give his written instructions of the decision within a period of one month from the receipt of the contractor's letter. However, this will not be reason for the stoppage of work.
 - (ii) If the Chief Engineer fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instruction or decision of the Chief Engineer, the contractor may, within 15 days of the receipt of Chief Engineer's decision, appeal to the Chairman, IWAI who shall afford an opportunity to the contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Chairman, IWAI

shall give his decision within 30 days of receipt of contractor's appeal. If the contractor is still dissatisfied with his decision, the contractor shall within a period of 30 days from receipt of the decision, give notice to the Chairman, IWAI for appointment of arbitrator on prescribed proforma as per Annexure-4, failing which the said decision shall be final binding and conclusive and not referable to adjudication by the arbitrator.

- 48.2 Except where the decision has become final, binding and conclusive in terms of Sub Para 48.1 above, disputes or differences shall be referred for adjudication through arbitration by a sole arbitrator appointed by Chairman, IWAI.
- 48.3 Further, within thirty (30) days of receipt of such notice from either party, the Engineer-in-Charge of work at the time of such dispute shall send to the Contractor a panel of three persons preferably but not necessarily from the approved panel of arbitrators being maintained by Indian Council of Arbitration (ICA) and thereafter the Contractor within fifteen (15) days of receipt of such panel communicate to the Engineer-in-charge the name of one of the persons from such panel and such a person shall then be appointed as sole arbitrator by the Chairman, IWAI. However, the arbitrator so appointed shall not be an officer or the employee of Inland Waterways Authority of India.

Provided that if the Contractor fails to communicate the selection of a name out of the panel so forwarded to him by the Engineer-in-charge then after the expiry of the aforesaid stipulated period the Chairman, shall without delay select one person from the aforesaid panel and appoint him as the sole arbitrator.

- 48.4 The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, then the Chairman IWAI shall appoint another person to act as sole arbitrator, such person shall be entitled to proceed with the reference from the stage at which it was left by the predecessor.
- 48.5 The award of the Arbitrator shall be final and binding. The Arbitrator shall decide in what proportion the Arbitrator's fees, as well as the cost of Arbitration proceeding shall be borne by either party.
- 48.6 The Arbitrator with the consent of the parties can enlarge the time, from, time-to-time to make and publish his award.
- 48.7 A notice of the existence in question, dispute or difference in connection with the contract unless served by either party within 30 days of the expiry of the defects liability period, failing which all rights and claim under this contract shall be deemed to have been waived and thus forfeited and absolutely barred.
- 48.8 The Arbitrator shall give reasons for the award if the amount of claim in dispute is Rs. 1,00,000/- and above.
- 48.9 The work under this Contract shall continue during Arbitration proceedings and no payments due from or payment by the Authority shall be withheld on account of such proceedings except to the extent which may be in dispute.
- 48.10 The Arbitration and Conciliation Act 1996 with any statutory modifications or re-enactment thereof and the rules made there under and being in force shall apply to the Arbitration proceedings under this clause.

48.11 The parties to the agreement hereby undertake to have recourse only to arbitration proceedings under for Arbitration Act 1996 and the venue of the arbitration proceeding shall be Noida/ New Delhi and the parties will not have recourse to Civil Court to settle any of their disputes arising out of this agreement except through arbitration.

NOTE: In case of contract with another Public Sector Undertaking, following Arbitration Clause shall apply: "Except as otherwise provided, in case of a contract with a public Sector Undertaking if at any time any question dispute or difference whatsoever arises between the parties upon or in relation to, or in connection with this agreement, the same shall be settled in terms of the Ministry of Industry, Department of Public Enterprises O.M No. 3/5/93-PMA dt. 30.06.93 or any modifications / amendments thereof. "The arbitrator shall have the power to enlarge the term to publish the award with the consent of the parties provided always that the commencement or continuation of the arbitration proceeding shall not result in cessation or suspension of any of other rights and obligations of the parties of any payments due to them hereunder.

CLAUSE - 49: CLAIMS

- 49.1 The contractor shall send to the Engineer-in-Charge once in every month on account giving particulars, as full and detailed as possible of all claims for any additional payment to which the contractor may consider himself entitled and of all extra work or additional work ordered in writing and which has been executed during proceeding month.
- 49.2 No claim for payment of any extra work or expenses will be considered which has not been included in such particulars. The Engineer-in-Charge may consider payment for any such work or expense, where admissible under the terms of the Contract.
- 49.3 Any claim which is not notified in two consecutive monthly statements for the two consecutive months shall be deemed to have been waived & extinguished.

CLAUSE – 50 : INTEREST

No interest shall be payable on account due to the contractor against final bills or any other payment due under the contract.

PART – III

7. TECHNICAL SPECIFICATIONS AND SPECIAL CONDITIONS OF CONTRACT

TECHNICAL SPECIFICATION AND SPECIAL CONDITIONS OF CONTRACT

FIRE FIGHTING SYSTEM

Contents

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SECTION – I : FIRE FIGHTING SYSTEM

1.0 GENERAL INSTRUCTIONS

1.1 Fire suppression works specified in the tender have to be executed in accordance with:

- i) The rules and regulations of Local Fire Authority as per the statutory regulations applicable for obtaining the occupation/No objection certificate from the Local Development / Fire Authority.
- ii) Applicable norms laid down by the relevant sections of latest editions of National Building Code 2016 (NBC 2016) and all relevant codes of Bureau of Indian Standards (B.I.S.) and CPWD general specifications for electrical works Part – 5 (Wet riser and sprinkler system) shall be followed as applicable.
- iii) The codes of the National Fire Protection Association of USA (N.F.P.A.) shall used as a general guide for good engineering practice, design and workmanship norms.

1.2 All materials used in the works shall have Bureau of Indian Standards valid certification stamped, marked or cast on the material in an acceptable and approved manner, as specified hereinafter.

1.3 It is the contractor's responsibility to ensure the competence of design to meet the above requirements.

1.4 Drawings issued with the tenders are schematic and indicate the concept. Contractor shall make his shop drawings on basis of Architectural and Interior design drawings issued by the Engineer-in- Charge. Work will be executed only as per approved shop drawings.

1.5 Contractors shall furnish detailed shop drawings, design calculations for submission and approval of the Local Fire Authority and for Insurance Companies as may be required by the Client.

2.0 SCOPE

2.1 Work under this sub-head consists of furnishing all Labour, Materials, equipment, and accessories necessary and required to completely install the Fire Fighting equipment etc.

2.2 Without restricting to the generality of the foregoing the work of Fire Fighting System shall include the followings:

- a) Providing MS black steel pressure pipe line main including Valves, Fire Hydrants, Excavation for Pipes, Laying of pipes, Painting of pipe and Making Connection to supply system.
- b) GI Pipe, Mains Laterals, Branches, Valves Hangers and Appurtenances.
- c) Hose Reels, Rubberized fabric lined hose pipes, Hose cabinets & Landing Valves.
- d) Portable Fire Extinguishers.
- e) Fire Fighting Pumps.

3.0 APPLICABLE CODES

IS: 1239/3589 (Part 1 & 2) -- M.S. Pipe Heavy duty

IS: 14846 -- Sluice valves for water works purposes (50 to 300 mm. size)

IS: 6392-1971 -- Steel Pipe Flanges

IS: 554 -- Pipe threads where pressure tight joints are

Required IS: 909 -- U/G fire hydrants, sluice valve type

IS: 5312 (P-1) -- NRV
Gunmetal full way valves with wheel tested to
IS: 778 -- 20kg/cm² class II

They shall be of specified quality conforming to IS:13095

Butterfly valves - Internal hydrant shall comprise "Single Headed Single Outlet

- IS:529 -- GM Landing Valve" conforming to Type "A".

IS:12585 -- Hose tubing (Thermoplastic)

IS:854 -- Hose tubing, Globe valve, Stop cock & Nozzle
Hose pipes rubber lined woven jacketed (RRL) &

IS:636 --
IS:903 --

63mm dia,
conforming to
type "A"

The couplings shall be of instantaneous [Branch pipe,
nozzle, spring
lock type Coupling etc]

IS:15683 -- Portable fire extinguishers

IS:5 -- Painting works

4.0 APPROVAL BY LOCAL FIRE SERVICE

It shall be the responsibility of the contractor to get the approval in stages including provisional Fire NOC from the Local fire Service as required. This shall be without any extra liability / cost to Client and the cost shall be considered in the tender offer.

On successful completion of work, the contractor shall prepare as built drawings which have been so approved by the Fire Service incorporating all changes that might have been effected during execution of the work.

The contractor shall also bring to the notice of the Engineer-in-charge any deviations from Local Fire Service/Building Bye Laws Norms and requirements in the systems that he shall install as well as architectural features that will affect approval from the Fire Service. No extra charges shall be paid on account of interaction with the Fire Service.

5.0 COORDINATION

The Contractor shall be required to co-ordinate his activities with all other services such as Air Conditioning, Electrical and Civil (Interiors) etc.

6.0 FIRE FIGHTING PUMPS

6.1 This section covers the general requirement of water pumps for main fire pump (Sprinkle and Hydrant), Jockey (pressurization) pump and Terrace pump.

CAPACITY: The discharge and head of the pumps shall be as mentioned in Bill of Quantities.

6.2 Type

The pump shall be centrifugal type direct driven with a 3 phase, 415 V $\pm 10\%$, 50 Hz, A.C. Motor. The standby fire pump shall be driven by diesel engine. The pumps may be either of horizontal split casing (HSC) type with operating speed not exceeding 1500 rpm, or solid casing with operating speed not exceeding 3000 rpm, as specified in the tender documents.

6.3 Rating

The main fire pump and terrace pump shall be suitable for continuous operation in the system. The jockey pump shall be suitable for intermittent operation to built up pressure in the system on account of leakage. The head and discharge requirements shall be as specified in the Tender documents. The head shall be

suitable for the system and shall take into consideration the pressure drops across the various components in the water circuit as well as the frictional losses.

6.4 Material And Construction

- i. The Centrifugal pumps shall conform to IS 1520.
- ii. The Pump casing shall be of heavy section close grained cast iron and designed to withstand 1.5 times the working pressure. The casing shall be provided with shaft seal arrangement as well as flanges for suction and delivery pipe connections as required.
- iii. The pumps shall be directly coupled with motor /diesel engine shaft through a flexible coupling protected by a coupling guard.
- iv. The pump and motor / diesel engine shall be mounted on a common base plate fabricated from mild steel section. The base plate shall have rigid, flat and true surfaces to receive the pump and motor/diesel engine mounting feet. The Pump will be perfectly aligned with motor/engine so as to avoid any vibration during operation.

6.5 Accessories

Each pump shall be provided with the all necessary accessories to meet the requirement as per specifications.

6.6 Installation

- (i) The pump and motor/engine assembly shall be mounted and arranged for ease of maintenance and to prevent transmission of vibration and noise to the building structure or to the pipe work.
- (ii) The pump and motor / engine assembly shall be installed on suitable RCC foundation. The Length and Width of the foundation shall be such that 100 mm. space is left all around the base frame. The height of foundation shall be so decided that the total weight of foundation block is 1.5 times the operating weight of the pump assembly. The foundation shall be isolated from the floor by vibration isolating pads. Angle iron frame of size 35 mm x 35 mm x 3 mm shall be provided on the top edges of the foundation.
- (iii) More than one pump and motor assembly shall not be installed on a single base or cement concrete block.
- (iv) The suction / discharge pipes shall be independently supported and their weight shall not be transferred to the pump. It should be possible to disconnect any pump for repairs without disturbing the connecting pipe line.

- (v) A minimum clearance of 1 m. around the main pumps shall be provided. For jockey pump- clearance of 75 cm. shall be adequate.
- (vi) Sufficient space is to be left in front for the radiator of diesel engine for free discharge of hot air. Arrangement of discharging hot air to outside the pump house shall be provided so that hot air does not stagnate in the pump house.

6.7 Air Vessel For Fire Pumps

Air vessel shall be provided with the all-necessary accessories to meet the requirement as per specifications.

The fire pumps shall operate on drop pressure in the mains automatically or manually.

(The ratings will be adjusted finally at the time of commissioning as per site requirement and final setting shall be kept as per approval of Engineer-in-Charge).

6.8 Operating Conditions For The Fire Pumps

Fire Service Pump	Nos.	Cut in Pressure	Cut Out Pressure	Remarks
Jockey pump (N.A)	As per BOQ	Automatic	Automatic	To auto start and auto stop on pressure switch on air vessel to stop.
Main pump (Hydrant) (N.A)	As per BOQ	Automatic	Push button manual	To auto start on pressure switch on air vessel and manual off.
Diesel Fire Pump (N.A)	As per BOQ	Automatic	Push button manual	To auto start on pressure switch on air vessel and manual off.
Sprinkler Pump (N.A)	As per BOQ	Automatic	Push button manual	To auto start on pressure switch on air vessel and manual off.

7.0 DIESEL FIRE PUMP

7.1 Scope

This section covers the details of requirements of the standby fire pump, operated by a diesel engine.

7.2 General

The diesel pump set shall be suitable for automatic and manual operation complete with necessary automatic starting gear, for starting on wet battery system and shall be complete with all accessories. Both engine and pump shall be assembled on a common bed plate, fabricated from mild steel channel.

7.3 Drive

The pump shall be only direct driven by means of a hollow set coupling. Coupling guard shall also be provided.

The speed shall be 1500 RPM.

7.4 Diesel Engine

7.4.1 Environmental conditions: -

The engine shall be suitable to operate under the conditions of environment at site.

7.4.2 Engine Rating:

The engine shall be multi cylinder/vertical 4 stroke cycle, water cooled, developing suitable HP at the opening speed specified to drive the fire pump. Continuous capacity available for the load shall be exclusive of the power requirement of auxiliaries of the diesel engine, and after correction of altitude, ambient temperature and humidity for specified environment conditions. The engine rating shall be suitable to drive the pump at 150 percent of its rated discharge with at least 65 percent of rated head. The engine shall have 10% overload capacity for one hour in any period of 12 Hours continuous run.

The engine shall be suitable for cold starting for which suitable headers shall be provided in lubricating oil.

The engine shall develop full load within 15 seconds from the receipt of signal to start. The diesel engine shall conform to BS 649/IS 1601/IS 10002, amended up to date.

7.4.3 Engine Accessories

The engine shall be complete with the all necessary accessories to meet the requirement as per specifications.

7.4.4 Cooling System-

The Engine shall be radiator water cooled. The radiator assembly shall be mounted on the engine. The radiator fan shall be driven by the engine as its auxiliary with multiple fan belts. When half the belts are broken, the remaining belts shall be capable of driving the fan. Cooling water shall be circulated by means of an auxiliary pump of suitable capacity driven by the engine in a closed circuit.

7.4.5 Fuel System:

The fuel shall be gravity fed from the engine fuel storage tank to the engine driven fuel pump. The engine fuel storage tank shall be mounted either adjacent to the engine itself suitably wall mounted on bracket. The fuel filter shall be suitable located to permit easy services.

All fuel tubing in the engine shall be with copper and fuel piping from day oil tank to engine shall be MS C Class pipe with Reinforced flexible hose connection. Plastic tubing shall not be permitted.

The fuel tank shall be welded Steel Construction (3mm Thick) and of suitable capacity or of capacity sufficient to allow the engine to run on full load for at least 8 hours. The tank shall be complete with necessary supports, level indicator inlet, outlet, overflow connection and drain plug and piping to the engine fuel tank. The outlet shall be so located as to avoid entry of any sediment into the fuel line to the engine.

7.4.6 Lubricating Oil System-

Forced feed Lub. Oil system shall be employed for positive lubrication. Necessary Lub. oil filters shall be provided, located suitably for convenient servicing.

7.4.7 Starting system

The starting system shall comprise necessary batteries 12V / 24V volts starter motor of adequate capacity and axle type gear to match with the toothed ring on the flywheel. By metallic relay protection to protect starting motor from excessively long cranking runs suitably integrated with engine protection system shall be included within the scope of the work.

The battery capacity shall be suitable for meeting the needs of the starting system but shall not be less than 180AH. The battery capacity shall be adequate for 10 consecutive starts without recharging with cold engine under full compression.

Three attempt starting facility shall be provided if engine fails to start after third attempt, the engine shall be locked out and suitable audio visual alarm shall be given to indicate engine failure.

The scope shall cover all cabling, terminals, initial charging etc.

7.4.8 Exhaust system

The exhaust system shall be complete with suitable type silencer as required for outdoor installation, and silencer piping including bends and accessories needed as per statutory requirement.. The total backpressure shall not exceed the engine manufacturer's recommendation. The exhaust piping shall be suitably insulated

7.4.9 Engine shut down mechanism –

This shall be manually operated and shall return automatically to the starting position after use.

7.4.10 Governing System –

The engine shall be provided with an adjustable governor to control the engine speed The governor shall be set to maintain rated pump speed at maximum pump load.

An over speed shutdown device to shutdown the engine at a speed approximately 20% above rated engine speed with manual reset, so that the automatic engine controller will indicate an over speed signal until the device is manually reset to normal operating position.

7.4.11 Engine Instrumentation & Engine Protection Devices

Engine instrumentation & Engine Protection Devices shall be & Engine Protection Devices

7.4.12 Pipe work

All pipe lines with fittings and accessories required shall be provided for fuel oil, lub. oil and exhaust systems. The fuel tubing to the engine shall be MS C – class pipe with flexible hose connections wherever required.

7.4.13 Anti Vibration Mounting –

Suitable anti-vibration mounting duly approved by Engineer-in-charge shall be employed for mounting the unit so as to minimize transmission of vibration to the structure. The isolation efficiency achievable shall be clearly indicated.

7.4.14 Battery Charger

Necessary float and boost charger shall be incorporated in the control section of the power and control panel, to keep the battery under trim condition. Voltmeter to indicate the state of charge of the batteries shall be provided.

8.0 PIPING WORK

8.1 Pipes shall be of the following materials.

- a) Pipes upto 150 mm dia shall be GI (C class) conforming to IS: 1239 for sizes up to 150 mm.
- b) Pipes above 150 mm shall be Electric Resistance Welded black steel pipe (GI), Class 2 conforming to IS: 3589 for sizes greater than 150 mm. These pipes shall be factory rolled and fabricated from MS Sheet of thickness mentioned in the IS code. Cadmium plated steel nuts / bolts / washers shall be used.

8.2 Pipe Joints

- i) Electric welding joints shall be provided in the GI pipe works. Flanged joints shall be provided for connection to valves, pumps, air vessels etc. and also on straight lengths at suitable points to facilitate erection and subsequent maintenance.
- ii) MS Flange shall be in accordance with Table 17 of IS: 6392 i.e. Plate flanges for welding and Flange

Thickness shall be as under. Gasket thickness shall not be less than 3 m.

Pipe Dia	Flanged Thickness
250 & 200 mm	24 mm
150 mm	22 mm
100 mm	20 mm
180 mm	20 mm
65 mm and 50 mm	18 mm
40 mm and below	16 mm

All hardware items such as Nuts, Bolts, and Washers shall be of appropriate size. Washers shall be used on both side of the Bolt.

8.3 Installation Of Pipes

- 1) The installation work shall be carried out in accordance with the detailed drawings prepared by the contractor and approved by the Engineer-In-Charge.
- 2) In Pipe above Ground level expansion loops or joints shall be provided to take care of expansion / contraction of pipes.
- 3) Tee of connections shall be through equal and reducing tees, otherwise ferrules welded to the main pipe shall be used. Drilling and Tapping of the walls of the main pipe shall not be resort to.
- 4) Open end of piping shall be blocked as soon as the pipe is installed to avoid the entrance of foreign matter.
- 5) Piping installation shall be supported on or suspended from structure adequately. The contractor shall provide clamps, hangers etc. as per detailed given below: -
 - Split pipe support clamps with rubber lining for vertical, horizontal and roof hanging.
 - Clevis hangers for horizontal support to adjust wiring height.
 - Sprinkler hangers for horizontal supports for pipes from 15-150 mm dia.
 - Fasteners and fully threaded rods shall be used for installing the pipe supports. The size of the pipe support and installation shall be in accordance with manufacturers recommendations.
 - For pipes of size 100 mm and above with the prior approval of the Engineer-in- charge, U clamps with dash fasteners may be used for supporting horizontal pipe from ceiling.
 - All the pipe support material shall be GI of approved branded make.
- 6) Pipe supports in Pump house shall be floor mounted and of G.I. Spacing of pipe support shall not be more than that specified below: -

Pipe Size (mm)	Spacing (M)
20 to 25	2.00
32 to 125	2.50
150 and above	3.00

Extra support shall be provided at the bends and heavy fittings like valves to avoid undue stress on the pipes.

- 7) Anti-vibration pads, Springs and Liners of resilient and non-deteriorating material shall be provided at each support so as to prevent transmission of vibration through the supports.
- 8) Pipe sleeves of diameters larger than the pipes by least 50 mm shall be provided wherever pipes pass through walls and annular spaces shall be filled with felt and finished with retaining rings.
- 9)
 - a) Vertical riser shall be parallel to walls in column lines and shall be straight and in Plumb. Riser passing from floor to floor shall be supported at each floor by clamps etc. as per the para 5.
 - b) The space in the floor cutouts around the pipe works shall be closed using cement concrete 1:2:4 or steel sheet from the fire safety considerations, taking care to see that a small annular space is left around the pipes to prevent transmission of vibration to the structure.
 - c) Riser shall have suitable support at the lowest point.
- 10) Where mild steel/GI pipes are to be buried under ground the same shall be treated with anticorrosive protection before laying. The top of the pipes shall be not less than 100 cms. Below the ground level. Where this is not practicable, permission of the Engineer-In- Charge shall be obtained for buying the pipes at lesser depth. Masonry or C.C. blocks shall be provided for supporting the pipes at interval as per detail given above. After the pipes have been laid, the trench shall be refilled with excavated soil in layers of 20 cm and rammed and any extra soil shall be removed from the site of work by the contractor.
- 11) Underground pipe shall be laid at least 2 m away from the face of the building preferably along with roads and foot paths. As far as possible laying of pipes under road, pavement and large open spaces shall be avoided. Pipes shall not be laid under building and where unavoidable, these shall be laid in masonry trenches with removable covers.
- 12) For laying of external pipes, excavation up to a depth of 1.25 m or more is to be carried out. This may cause hindrance in execution of other building works. External pipes shall therefore be laid in a phased manner in coordination with other agencies. The pipes shall be tested, and earth filled back before excavation for next phase is taken up.' Equipment for testing etc should be available in advance before start of underground pipe laying work.
- 13) To facilitate detection of leak and isolation of defective portion of pipe, valves shall be provided in underground pipe at suitable locations. As far

as possible such valves shall be provided over ground. If the valves shall be to be provided below ground, suitable masonry chamber with cover plate shall be provided. Locations where vehicles can pass shall be avoided for provision of valves below ground.

- 14) Pipe over ground shall be painted in red colour shade no. 536 of IS: 5. Suitable identification shall be provided to indicate the run of underground wherever the route of underground pipe cannot be ascertained from the location of yard hydrant / isolating valves.
- 15) It shall be made sure that proper noiseless circulation is achieved in the system if proper circulation is not achieved due to air bound connections, the contractor shall rectify the defective connections. He shall bear all the expenses for carrying out the above rectification including the tarring - up and re - finishing of floors, walls etc. as required.
- 16) Wherever pipes pass through the brick or masonry/slab openings, the gaps shall be sealed with fire sealant such as fire barrier caulks.

8.4 Pressure Testing

- a) All piping shall be tested to hydrostatic test pressure of at least one and half times of maximum operating pressure, but not less than 10 kg/cm² for a period of not less than 24 hours. All leaks and defects in joints revealed during the testing shall be rectified to the satisfaction of the Engineer-in-charge.
- b) Piping repaired subsequent to the above pressure test shall be re-tested in the same manner.
- c) System may be tested in sections and such sections shall be securely capped.
- d) Pressure gauges may be capped off during pressure testing of the installation. Complete Flushing out Test of Sprinklers installation shall be carried out to clean the sprinkler pipes for foreign materials before fixing the sprinkler heads to avoid obstruction in the sprinklers

The Contractor shall provide all materials, tools, equipment, instruments, services and labour required to perform the test, and shall ensure that the plant room and other areas are cleaned up and spill over water is removed.

The Engineer-in-charge shall be notified well in advance by the contractor of his intention to test a section of piping and all testing shall be witnessed by the Engineer-in-charge or his authorized representative.

8.5 Anti-Corrosive Protection On Under Ground Pipe

Corrosion protection tape shall be wrapped on M.S./GI Pipes to be buried in ground. This corrosion protection tape shall comprise of coal tar/asphalt component supported on fabric of organic or inorganic fibre and minimum 4 mm. thick and conform to requirement of IS:10221 - code of practice for coating and wrapping of underground mild steel pipe line. Before application of corrosion protection tape all foreign matter on pipe shall be removed with the help of wire brush and suitable primer shall be applied over the pipe thereafter. The primer shall be allowed to dry until the solvent evaporates and the surface becomes tacky. Both primer and tape shall be furnished by the same manufacturer. Corrosion protection tape shall then be wound around the

pipe in spiral fashion and bounded completely to the pipe. There shall be no air pocket or bubble beneath the tape. The overlaps shall be 15 mm and 250 mm shall be left uncoated on either end of pipe to permit installation and welding. This area shall be coated insitu after the pipe line is installed. The tape shall be wrapped in accordance with the manufacturer's recommendations. If application is done in cold weather, the surface of the pipe shall be pre-heated until it is warm to touch and traces of moisture are removed and then primer shall be applied and allowed to dry.

8.6 Pipe Measurement

Measurements of plumbing work shall be on following basis:-

- a) Piping shall be measured along the centre line of installed pipes including all pipe fittings and accessories but excluding valves and other items for which quantities are specifically indicated in the schedule of work. No separate payment shall be made for fittings and accessories.
- b) The rate for piping work shall include all wastage allowances, flanges pipe supports, hangers, excavation, refilling, testing, nuts, vibration isolators, and suspension where specified or required, and any other item required to complete the piping installation. None of these items will be separately measured and paid.

9.0 VALVES & ACCESSORIES

9.1 Sluice Valves

Sluice valve conforming to IS: 14846 shall be provided. Valves shall be suitable to with- stand the pressure in the system and rating shall be PN 20. Valves shall be right-handed (i.e. handle or key shall be rotated clock wise to close the valve), the direction of opening and closing shall be marked and an open/shunt indicator fitted.

The material of valves shall be as under:

Body : Cast iron

Disc: Stainless

steel Seat: Nitrile

rubber O-ring:

Nitrile

9.2 Butterfly Valves with and without Tamper Proof Switch

Butterfly valve conforming to IS: 13095 shall be provided. Butterfly valve shall be suitable to with- stand the pressure in the system and rating shall be PN 20. Valves shall be right-handed (i.e. handle or key shall be rotated clock wise to close the valve), the direction of opening and closing shall be marked and an open/shunt indicator fitted.

The material of valves shall be as under:

Body: Cast iron

Disc:Stainless Steel

Seat: Nitrile rubber

O-ring: Nitrile

Tamper Proof Switch has 100 percent synchronization which activates the alarm panel even when the valve is closed upto 50% and in bidirectional way. In addition, the switch is designed to operate in temperatures ranging from -40°C to 49°C (-40°F to 120°F). The Switch is equipped with tamper resistant cover screws to prevent unauthorized entry. Inside, two sets of SPDT (Form C) synchronized switches are enclosed in a durable terminal block to assure reliable performance.

9.3 Non-Return Valve

Non-return valves shall be swing check type in horizontal run and lift check type in vertical run of pipes. They shall conform to IS 5312. They shall be suitable to with-stand the pressure in the system and rating shall be PN 20.

The material of valves shall be as under:

Body: Cast iron Disc:

Stainless steel Seat: Nitrile

rubber O-ring: Nitrile

AIR RELEASE VALVE

Air release valves shall be provided at all high points in the piping system for venting. Valves shall be of the double float type, with G.M. body, vulcanite balls, rubber sealing, etc. Air valves shall be of the sizes specified and shall be associated with an equal size forged ball valve.

9.4 Full Way Ball Valve

- 9.4.1 The Ball Valve shall be made from forged brass. The valve shall be internally threaded to receive pipe connections.
- 9.4.2 The Ball shall be made from brass and machined to perfect round shape and subsequently chrome plated. The seat of the valve body bonnet gasket and gland packing shall be of Teflon.
- 9.4.3 The handle shall be of chrome plated steel with PVC jacket. The handle shall also indicate the direction of 'open' and 'closed' situations. The gap between the ball and the teflon packing shall be sealed to prevent water seeping.
- 9.4.4 The handle shall also be provided with a lug to keep the movement of the ball valve within 90 degree.

9.5 Strainer

Strainers shall be preferably of the approved type with fabricated steel bodies. Strainers shall be fabricated by minimum 1 mm thick stainless-steel sheet with 3 mm dia. perforation holes. Strainers shall be provided with

flanges or threaded sockets as required. They shall be designed so as to enable blowing out accumulated dirt and facilitate removal and replacement of screen without disconnection of the main pipe.

9.6 Pressure Gauges

Pressure gauges shall be of 150mm dia. dial and of appropriate range and be complete with shut off gauge valve etc.

duly calibrated before installation. Care shall be taken to protect pressure gauges during pressure testing.

9.7 Flexible Connection For Pumps

All suction and delivery lines shall be provided with double flanged reinforced neoprene flexible pipe connectors. Connectors should be suitable for a working pressure of each pump. Length of the connector shall be as per manufacturer's details.

10.0 EXTERNAL YARD HYDRANTS (N.A)

10.1 For fighting fire from outside the building, yard hydrants are provided around the building. For connecting yard hydrants, a ring of pipe shall be laid underground around the building at a minimum distance of 2 m. from the face of the building.

Yard hydrants shall be located at a minimum distance of 2 m but not more than 15 m from the building face. The yard hydrants shall be accessible and should normally be provided near boundary wall/along road. While locating yard hydrants it should be ensured that same don't become hindrance in vehicular movement or entrance to the building. Yard hydrants should be located around the building in such a way that it should be possible to fight fire on any face of the building from the nearest hydrant. A distance of 45 m from hydrant to hydrant will be adequate.

Yard hydrant will include with the all-standard accessories to meet the requirement as per specifications as per direction of EIC.

All the components shall be housed in a 750x600x250 mm size MS Cabinet made from 2 mm thick MS sheet with glass door of thickness 6 mm. The cabinet shall be painted with red color shade no. 536 as per IS: 5.

A brick pedestal with brick wall with plaster shall also be constructed for supporting the FHC box. All surfaces shall be plastered with 1:4 ratio (1 cement: 4 fine sand) mortar.

11.0 INTERNAL HYDRANTS (LANDING VALVE)

Landing valves are provided in the system for connection of hose pipes for discharging water for firefighting by fire brigade or trained personnel with the all-necessary accessories to meet the requirement as per specifications.

11.1 The Landing valve shall be as per IS: 5290

11.2 The Landing valve are of Double head outlet types

11.4 The water discharge shall be not less than 900 LPM for single head valves at 3.5 Kg/cm² pressure.

11.5 Installation

The landing valve shall be fitted to a T connection of the riser at the landing in such a way that the valve is in the centre of the internal hydrant opening and at a height of 1 m. from floor level.

The valve base shall be vertical and the valve facing outside. There should be no hindrance in the operation of the handle.

All above components shall be housed in a 2100x900x700 mm size 14 Gauge MS Cabinet made from 2 mm thick sheet with glass door of thickness 6 mm.

12.0 FIRST-AID HOSE REEL EQUIPMENT

12.1 First Aid hose reel is meant for delivering small quantity of water in early stage of fire and can be operated even by untrained personnel, and thus provides a most effective firefighting facility. It consists of length of 20 mm (nominal internal) diameter hose tubing warped around a reel with water inlet pipe, stop valve and shut off nozzle. The

entire assembly is mounted on a wall bracket and can swing 180 degrees. The water inlet is connected to the riser pipe by means of 40 mm socket and valve. The hose tube can be pulled out easily for the purpose of discharge of water on fire.

First aid hose reel shall be provided with the all necessary accessories to meet the requirement as per specifications as per scope of the work.

13.0 FIRE HOSE DELIVERY COUPLING, BRANCH PIPE AND NOZZLES (N.A)

13.1 *These are important accessories used for fire fighting operation and provided with the all necessary accessories to meet the requirement as per specifications.*

13.2 Branch pipe and Nozzle

13.2.1 Branch pipes with nozzle are mounted and the end of hose pipe. Branch pipe is properly finished and free from sharp edges. During operation a fire man has to hold the branch pipe. One end of branch pipe is fixed with hose coupling and the other end is threaded to fit the nozzle.

- 13.2.2 Nozzle is tapered pipe with one end threaded internally which is fixed on branch pipe. The size of other end i.e. Nozzle shall be 20 mm (or as per the specification)

14.0 FIRE SERVICE INLET AND FIRE SERVICE CONNECTION

- a) These are provided for connection of fire service hose pipes for either directly pressurizing the system with their pumps or filling water in the tank from a distance. In the first case non return valve with butterfly valve shall be provided for holding water pressure. Fire service inlet shall be provided with each wet riser/ down comer and the ring main. The arrangement has been shown in Fig. 5. These are fixed to 150 mm dia pipe and located in MS Box made of 2 mm thick mild steel sheet with open able glass cover.
- b) These shall be as per IS: 904.
- c) Material of construction: Gunmetal / CI

15.0 HOSE PIPES

- a) Hose pipes shall be rubber lined woven jacketed and 63 mm in diameter. They shall conform to Type A (Re-inforced rubber lined) of IS: 636. They shall be flexible and capable of being rolled. Length of hose pipe will be 15 m.
- b) The hose pipe shall be complete with male and female coupling at the ends as per detailed given in 13.3.
- c) Besides keeping hose pipe with internal hydrant and yard hydrant, spare hose pipes along with branch pipe shall be kept in fire control room / pump room.

16.0 ORIFICE PLATE (N.A)

- 16.1** The pressure in a Fire Fighting system varies from point to point. The pressure will be maximum in the pump house and minimum at the farthest hydrant at TOP level. To reduce pressure to operating pressure at every internal /external hydrant, orifice plates are provided before connection of landing valve between the flanges of landing valve and pipe flange. These shall be as per the standard and specification

17.0 PORTABLE FIRE EXTINGUISHER

Portable fire extinguishers shall be provided as per Bill of Quantities and as per the scope of work: -

18.0 SPRINKLER SYSTEM

18.1 System Design

- 18.1.1 Automatic sprinkler system shall be provided for all areas as per requirement with permitted exceptions e.g. electrical switch rooms, power transformers and D.G. rooms, Panel rooms, Electrical rooms, CNS Equipment rooms, UPS and Battery rooms as identified and as shown in drawings.
- 18.1.2 Sprinkler heads shall be provided at appropriate spacing to cover max 12 sqm per Sprinkler head or as per specific requirements to meet the approval of the authority having jurisdiction. The spacing shall also be in conformity with the drawings and properly coordinated with Electrical Fixtures, Ventilation Ducts and Grills and other services along the ceiling.
- 18.1.3 Types of sprinklers to be used shall be as given in specifications, BOQ and approved by the Engineer-in-charge.

18.5 Inspection Test Valves

Inspection and testing of the sprinkler system shall be done by providing an assembly consisting of gunmetal valves, gunmetal sight glass, bye-pass valve.

18.6 Flow Switches with Retard (0-60 seconds)

The Flow Switches with Retard (0-60 seconds) are to be provided on the Sprinkler System pipes for each zone, complete with all necessary wiring up to monitor modules as per instructions of the engineer in charge.

18.7 pressure switches

Pressure switches shall be differential type for operation of all pumps and for the various duties and settings required. Pressure switches shall be for heavy duty operation and of approved make. All pressure switches shall be factory calibrated.

18.8 Annunciation Panel

Electrically operated alarm shall be provided for indication of operation of sprinkler in an area. Water flow switches shall be installed in main distribution pipes which shall be wired to sprinkler annunciation panel. In the event of operation of a sprinkler, the flow switch will operate and give signal to the annunciation panel to

indicate operation of sprinkler in the area. This will initiate an electrically operated alarm. The system shall be independent of fire alarm system.

Construction details

The Panel shall be fabricated out of not less than 1.6 mm thick MS sheet and powder coated after 7 tank treatment process and shall be totally enclosed dust damp and vermin proof. Suitable knockout shall be provided for entry of cables. The panel shall be

designed such that the equipment for power supply battery charging is housed in independent compartments. Sealed maintenance free batteries shall also be accommodated inside the panel.

Indicating lamps control switches, buttons and fuses shall be suitably located in the front and properly labeled.

The indicating lamps shall be LED type of following colors. The flow switch operation conditions shall be indicated by twin lamps.

- a) Red to indicate flow switch operation.
- b) Amber to indicate fault condition.
- c) Green to indicate healthy conditions.

The test buttons to test the indication lamps shall be provided.

The panel shall be solid state type or microprocessor type as indicated in the tender.

The primary function of the panel shall be to respond automatically to the operation of one or more flow switches to give alarm and to indicate area/areas where the device has activated. The operation of one or more flow switches shall result in simultaneous alarm given by the following: -

- a) External alarm hooter (s)
- b) A visible indication on panel.
- c) Audible alarm on panel itself (common for all zones)

The panel shall indicate the fault within the system and immediate fault warning shall be given by an audible and visible signal on the panel in case of open circuit, short circuit and earth fault in cable between flow switch and annunciation panel.

The panel shall be complete with mimic diagram for the areas covered by different flow switches. The layout of mimic diagram shall be got approved by the Engineer-In-Charge.

Battery back up with trickle cum boost charger shall be provided for operation of the system. Indication of mains failure and low battery voltage shall be provided. The batteries shall be sealed maintenance free. The capacity of the battery shall be 12 Volt 2 Nos 24 AH each. All standard accessories shall be provided.

18.9 Installation Of Sprinkler System

- a) The installation shall be carried out as per the specification following the standard norms

19.0 TESTING

19.1 Initial Testing

19.1.1 During laying of pipes, the same shall be subjected to 10 kg/cm² hydraulic pressure for a period of 24 hours, in sections.

19.1.2 After completion of the work all valves/ fittings shall be installed in position and entire system shall be tested for 24 hours at a pressure of 10 kg/ cm². The drop of pressure up to 0.5 kg/cm² shall be accepted.

19.1.2 Final Testing

19.1.2.1 After completion, all operation checks as per Para 2.4.1.14 shall be carried out for automatic operation of the systems. For this purpose, landing valves may be opened at different locations. The exercise shall be repeated couple of times to ensure trouble free operation of the system. Flow Test: - The design flow of pumps shall be checked. The pump shall be operated after opening a number of landing valves at different locations. Design pressure is to be maintained in the pump house. Water discharge is to be measured by drop in level in UG tank for a certain period. All pumps shall be tested one by one. The flow rate shall be not less than as specified while maintaining the design pressure in pump house.

19.2 Inspection By Local Fire Officer

After completion of the work and testing to the entire satisfaction of Engineer-in Charge, the installation shall be offered for inspection by Chief Fire Officer or his representative. Testing as desired by the Fire Officer shall be carried out. The contractor will extend all help including manpower during testing. The observation of Chief Fire Officer which are a part of agreement shall be attended by the contractor. Nothing extra is to be paid for testing as above.

20.0 COMMISSIONING

- a) Flushing the System: - Before commissioning, the entire system shall be flushed to ensure that any earth/ foreign matters which might have entered during installation are taken out. For this, pump may be operated and valves opened at different locations.
- b) As soon as the work is complete, the system shall be commissioned and made available for use. Requirement of fire fighting installations is equally important during occupation of the building. If the building is to be occupied in part, fire fighting system of building completed shall be commissioned by isolating the system of under construction portion of the building.
- c) The fire fighting system shall be maintained and manned from the very first day of its commissioning.
- d) Any defects noticed during the warranty period shall be promptly attended by the contractor and availability of the system at all time is to be ensured.

PART - IV

7. STANDARD FORMS, DRAWINGS AND ANNEXURES.

1. Bidders Information Form	Form – A
2. Format for Declaration by the Bidders	Form – B
3. Details of Past Experience of Contractor	Form – C
4. Average Annual Turn Over of the Bidder	Form – D
5. Agreement Format	Annexure – 1
6. Sample Form for Site Orders Book	Annexure – 2
7. Proforma for Hindrance Register	Annexure – 3
8. Notice for Appointment of Arbitrator	Annexure – 4

Form – A

BIDDERS INFORMATION FORM

Bidder name: <i>[insert full name]</i>	
Bidder's Party name: <i>[insert full name]</i>	
Bidder's Party country of registration: <i>[indicate country of registration]</i>	
Bidder's year of constitution: <i>[indicate year of constitution]</i>	
Bidder's legal address in country of constitution: <i>[insert street/ number/ town or city/ country]</i>	
Bidder's authorized representative information Name <i>[insert full name]</i> Address <i>[insert street/ number/ town or city/ country]</i> Telephone/Fax numbers <i>[insert telephone/fax numbers, including country and city codes]</i> E-mail address <i>[indicate e-mail address]</i>	
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above <input type="checkbox"/> In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.	

Note: This Form shall be supplied with Identity proof of the authorized representative

Form – B

DECLARATION BY THE BIDDERS
(To be submitted on the letter head of the Bidder)

To,

Date:.....

The Chief Engineer,
Inland Waterways Authority of India
Gaighat, Patna, Bihar- 800007.

Sub: Declaration from the Bidder

Tender Reference No: IWAI/PTN/17(109)/ Hy. Vessel/VNS/2024-25

Dear Sir,

This is with reference to the above mentioned Tender document.

We hereby make the following declarations:

1.	<input type="checkbox"/>	No alteration has been made in any form in the Tender document downloaded from the website of IWAI and e-procurement portal.
2.	<input type="checkbox"/>	I / We have not been debarred / blacklisted during the last three years
3.	<input type="checkbox"/>	I / We accept the payment terms of Terms of Reference.
4.	<input type="checkbox"/>	I / We provide our acceptance to all the Terms and Conditions of this tender document.
5.	<input type="checkbox"/>	I / We agree to disqualify us for any wrong declaration with respect to the submissions made by us for this tender and reject my/our tender summarily
6.	<input type="checkbox"/>	I / We agree to disqualify us from this tender and black list us for tendering in IWAI projects in future, if it comes to the notice of IWAI that the documents/submissions made by me/us are not genuine
7.	<input type="checkbox"/>	I / We confirm that I/we have noted / updated ourselves of all amendments / corrigendum / response to pre-submission queries etc. and bid is submitted incorporating the same.
8.	<input type="checkbox"/>	I / We have visited the site and familiar with the site conditions as well as proposed works.

Note: Please Tick the appropriate box in the above table.

Yours Faithfully

(Signature of the Bidder, with Official Seal)

Form – C

Details of past experience of contractor on similar works

DETAILS OF PAST EXPERIENCE OF CONTRACTOR FOR SIMILAR WORKS

(Bidder has to submit duly filled form in accordance with clause 4.1. (h) of instructions for submission of bid (page no.10)

Sl. No.	Name & Location of Project	Value of Work (in lakhs)	Particulars of Client	Duration of Contract			Details of Work
				Date of Commencement	Scheduled Completion Date	Actual Completion Date	

Note:

Bidders to enclose copies of work orders with respective completion certificates issued by the owner in chronological order within a period of last 7 years.

(ii) If the table is not found spacious, bidder may kindly re-type form and submitted online.

(iii) Incomplete work / Ongoing project will not be considered hence the same may not be included.

Form – D

AVERAGE ANNUAL TURNOVER OF BIDDER

Sl. No.	Financial Years	Average Annual Turnover of Bidder (in INR)
1.	2020-21	
2.	2021-22	
3.	2022-23	
Average Annual Turnover <i>[indicate sum of the above figures divided by 3]</i>		

Certificate from the Statutory Auditor

This is to certify that[Name of the Firm] [Registered Address] has received the payments shown above against the respective years.

Name of Authorized Signatory

Designation:

Name of Firm:

(Signature of the Statutory Auditor Seal of the Firm with UDIN)

UDIN

Note:

- In case the Consultant does not have a statutory auditor, it may provide the certificate from a practicing chartered accountant with UDIN.
- This Form shall be submitted on the letter head of the CA / Statutory Auditor

AGREEMENT FORMAT

This agreement made on day year between the Inland Waterways Authority of India (hereinafter called the 'IWAI' which expression shall unless excluded by or repugnant, to the context, be deemed to include heir, successors in office) on one part and M/s. (hereinafter called the 'CONTRACTOR' which expression, shall unless excluded by repugnant to the context be deemed to include his heirs, executors, Administrators, representatives and assigns of successors in office) on the other part.

WHEREAS THE IWAI IS desirous of undertaking the works of Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.

WHEREAS the contractor has offered to execute and complete such works and WHEREAS IWAI has accepted the tender of the contractor and WHEREAS the contractor has furnished as Performance Security for the due fulfilment for all the conditions of this contract.

NOW IN THIS AGREEMENT WITNESSTH AS FOLLOWS

In this agreement words and expression shall have the same meaning as are respectively as assigned to them in the conditions of contract hereinafter referred to:

The following documents shall be deemed to form and be read and construed as part of this agreement Viz.,

- i) E-tender submitted by the Contractor including,
 - (a) Notice Inviting Tenders
 - (b) Tender form
 - (c) Information & instruction for Tenders
 - (d) Schedule : Bill of Quantity
 - (e) Drawings & Annexures
 - (f) General Conditions of Contract and Technical specifications & Special Conditions of Contract
- ii) Correspondences between IWAI and the Contractor dated,
- iii) Work order No.....dated.....
- iv) Any other / all other documents relevant for the Contract Agreement

The contract agreement has been compiled by the IWAI from the original tender documents and all the correspondences from the tendering stage till acceptance. In the event of any difference arising from the completion of the contract, the original tender documents, contractor's offer, minutes of meetings and correspondence between the parties ended vide letter No. may be referred to by either party. These documents shall take precedence over the compiled documents.

The contractor hereby covenants with the IWAI to complete and maintain the “Works” in conformity in all respect, with the provisions of the agreement.

The IWAI hereby covenants to pay the contractor in consideration of such completion of works, the contract price at the time and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties hereunto have set their hands and seals on the day year first written.

For and on behalf of

(Inland Waterways Authority of India)

For and on behalf of

Contractor

Signature _____

Signature _____

Name & Designation _____

Name & Designation _____

Stamp

Stamp

Witness:

Witness:

1) Signature _____

1) Signature _____

2) Name & Designation _____

2) Name & Designation _____

SAMPLE FORM FOR SITE ORDERS BOOK
(Reference Clause No. 18.4)

Name of work Date of commencement/ period for completion.....

Sl. No.	Date	Remarks of the Inspecting Officer or Contractor	Action taken and by whom	Remarks
1	2	3	4	5

PROFORMA FOR HINDRANCE REGISTER
(Reference Clause No. 18.5)

Sl. No	Nature of hindrance	Items of work that could not be due executed to this hindrance	Date of start of hindrance	Signature of Representative of EIC	Date of removal of hindrance	Overlapping period, if any	Net hindrance in days	Weightage of this hindrance	Net effective days of hindrance	Remarks of Engineer-in-Charge
1	2	3	4	5	6	7	8	9	10	11

Notice for appointment of Arbitrator
(Refer Clause 47)

To,

The Chairman, IWAI

.....

.....

Dear Sir,

In terms of Clause 47 of the Agreement, particulars of which are given below, I/we hereby give notice to you to appoint an arbitrator for settlement of disputed mentioned below:

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm/Partnership Firm/Ltd. Co.
3. Full address of the applicant
4. Name of the work and contract number in which arbitration sought
5. Name of the Division which entered into contract
6. Contract amount in the work
7. Date of contract
8. Date of imitation of work
9. Stipulated date of completion of work
10. Actual date of completion of work (if completed)
11. Total number of claims made
12. Total amount claimed
13. Date of intimation of final bill (if work is completed)
14. Date of payment of final bill (if work is completed)
15. Amount of final bill (if work is completed)
16. Date of request made to Chief Engineer for decision
17. Date of receipt of Chief Engineer's decision
18. Date of appeal made to Chairman, IWAI
19. Date of receipt of the decision of Chairman, IWAI

Specimen signatures of the applicant
(only the person/authority who
signed the contract should sign)

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose following documents.

1. Statement of claims with amount of claims
- 2.
- 3.

Yours faithfully
(Signatures)

Copy in duplicate to:

1. The Regional Chief Engineer, IWAI

PART – V

SCHEDULE OF QUANTITIES / FINANCIAL BID

Item Wise BoQ

Tender Inviting Authority: Inland Waterways Authority of India

Name of Work: Installation of Fire Fighting/Sprinkler System for setting up of Hydrogen Filing Station at MMT, Varanasi.

Contract No: IWAI/PTN/17(109)/ Hy. Vessel/VNS/2024-25

Name of the Bidder/ Bidding Firm / Company :						
PRICE SCHEDULE						
(DOMESTIC TENDERS - RATES ARE TO GIVEN IN RUPEES (INR) ONLY)						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)						
NO #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Unit	RATE (excl. GST) Rs. P	AMOUNT in Rs. P	AMOUNT (in Words)
1	2	3	4	5	6	7
1	PUMPS & PANELS (Electric driven Main Fire Pump)					
1.1	Supplying, Installation, Testing and Commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required.	1	set	To be submitted through online		INR ... Only
2	PUMPS & PANELS (Diesel Engine driven main fire pump)					
2.1	Supplying, Installation, Testing and Commissioning of Diesel Engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respect as required. (Diesel Driven Pump)	1	set	To be submitted through online		INR ... Only
3	PUMPS & PANELS (Electric driven Pressurisation pump)					
3.1	Supplying, Installation, Testing and Commissioning of Electric driven Pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required. (Jockey Pump)	1	set	To be submitted through online		INR ... Only
4	SYSTEM CONTROLLER					
4.1	Designing, Supply, Installation, Testing and Commissioning of system controller to control operation of Main Electric Fire Pump, Diesel Pump, Pressurization Pump, Terrace Pump in sequence as per specification consisting of relays, timers, sensors, annunciation window for fault indication, complete as per specification.	1	set	To be submitted through online		INR ... Only
5	PLUMBING					

	Providing, Laying, Testing & Commissioning of 'C' class heavy duty MS pipe conforming to IS 1239 / 3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/ asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.				
5.1	150 mm dia	125	Mtr	To be submitted through online	INR ... Only
5.2	100 mm dia	75	Mtr	To be submitted through online	INR ... Only
6	Providing, Laying, Testing & Commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 / IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp / support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required.				
6.1	200 mm dia (wall thickness 6.3 mm) (For Pump Suction and Suction Common Header)	12	Mtr	To be submitted through online	INR ... Only
6.2	100 mm dia	6	Mtr	To be submitted through online	INR ... Only
6.3	80 mm dia	6	Mtr	To be submitted through online	INR ... Only
6.4	50 mm dia	6	Mtr	To be submitted through online	INR ... Only
6.5	25 mm dia	12	Mtr	To be submitted through online	INR ... Only
7	Providing, Installation, Testing & Commissioning of Stainless Steel Y-Strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.				
7.1	200 mm dia	2	Each	To be submitted through online	INR ... Only
8	Supplying and Fixing Orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm² complete as required.	6	Each	To be submitted through online	INR ... Only

9	Supplying, Fixing, Testing & Commissioning of Butterfly valve PN 1.6 rating with bronze / gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets, confirming to IS 13095 of following sizes as required.				
9.1	200 mm dia	2	Set	To be submitted through online	INR ... Only
9.2	150 mm dia	2	Set	To be submitted through online	INR ... Only
9.3	100 mm dia	1	Set	To be submitted through online	INR ... Only
9.4	80 mm dia	4	Set	To be submitted through online	INR ... Only
10	Providing, Installation, Testing & Commissioning of Non- Return Valve of following sizes conforming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
10.1	150 mm dia	2	Set	To be submitted through online	INR ... Only
10.2	80 mm dia	1	Set	To be submitted through online	INR ... Only
11	HYDRANT, FIRE HOSE REEL, VALVES ETC.				
	Supplying and Fixing of Two headed external yard hydrant				
11.1	Two Way Hydrant post	3	Set	To be submitted through online	INR ... Only
12	Providing & Fixing of Hose cabinet of size 750 mm x 600 mm x 500 mm made of 2 mm thick MS sheet with 6 mm thick glazed glass doors i/c necessary locking arrangement suitable to accommodate external hydrant with butterfly valve, 2 Nos. 15 mtr. long hose pipe, 1 No. branch pipe, mounted on wall or raised brick platform and duly painted with post office red externally and while internally with synthetic enamel paint complete in all respect, for external hydrant, as required.	3	Each	To be submitted through online	INR ... Only
13	Providing and fixing resilient rubber neoprene lined single arch vibration eliminators suitable for raw water up to 70 deg.C temperature working pressure 8 Kg per square cetimetre.				
	a) 100 mm dia	4	Nos	To be submitted through online	INR ... Only

	b) 80 mm dia	2	Nos	To be submitted through online		INR ... Only
14	Providing and fixing of installation valve assembly of approved make complete with turbine type automatic alarm valve, control valve, test and drain valve and hydraulic alarm with motor and gong including interconnectig piping all complete as per specification and of approved make. (UL Listed)					
14.1	a) 150 mm dia	1	Nos	To be submitted through online		INR ... Only
15	Supplying and Fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS: 636 (Type -3) as required.					
15.1	Stainless steel	6	Set	To be submitted through online		INR ... Only
16	Supplying & Fixing 63 mm dia SS short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS: 903 suitable for instantaneous connection to interconnect hose pipe coupling as required.					
16.1	Stainless steel	3	Set	To be submitted through online		INR ... Only
17	Supplying and Fixing of Fire Brigade Connection of cast iron body with Gun Metal male instantaneous inlet couplings complete with cap and chain as required for suitable dia MS Pipe connection conforming to IS 904 as required.					
17.1	4 way - 150 mm dia M.S. Pipe	1	Set	To be submitted through online		INR ... Only
18	Supplying and Fixing Single headed external yard hydrant Water Monitor 75mm dia to be operated in pressure line with 7- 12 Kg/cm2, Inlet Flange NB 100 mm. Flow of 2580lpm with throw range of up to 62Mtrs at angle of 30°c.					
18.1	Water Monitor	1	Set	To be submitted through online		INR ... Only
19	Supplying and Fixing Air Vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia Gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade	1	Set	To be submitted through online		INR ... Only

	as required.					
20	Providing and Fixing diaphragm type pressure gauge alongwith accessories complete etc. as required.	5	Each	To be submitted through online		INR ... Only
21	Providing and Fixing pressure switch in the MS pipe line including connection etc. as required.	3	Each	To be submitted through online		INR ... Only
22	Providing, fixing, testing and commissioning of 20 mm dia Pendent Sprinkler K-115 including all fitting and accessories (installation shall be as per NFPA recommendation)					
22.1	Pendent Sprinkler	4	Each	To be submitted through online		INR ... Only
	CABLING					
23	Supplying and Fixing of Copper conductor one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade confirming to IS:7098 (Part 1) 1988 of following size including testing, commissioning complete etc as required.					
23.1	3 x 6 Sq. mm. (From Panel to Pumps)	25	Mtr	To be submitted through online		INR ... Only
23.2	3 x 16 Sq. mm. (From Panel to Pumps)	25	Mtr	To be submitted through online		INR ... Only
24	Supplying and laying control wiring with multicore copper stranded conductor of following sizes PVC insulated, PVC sheathed armoured underground cable between various sensors and system controller/ starter etc. in pump house and outside on surface/existing cable tray complete with connections at both end with glands etc. as required.					
24.1	8 x 2.5 sq. mm	20	Mtr	To be submitted through online		INR ... Only
24.2	2 x 2.5 sq. mm	60	Mtr	To be submitted through online		INR ... Only
25	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.					

25.1	100 mm width x 50 mm depth x 1.6 mm thickness	10	Mtr	To be submitted through online		INR ... Only
25.2	150 mm width x 50 mm depth x 1.6 mm thickness	5	Mtr	To be submitted through online		INR ... Only
	EARTHING					
26	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/coke and salt as required.	2	Set	To be submitted through online		INR ... Only
27	Providing and fixing 25 mm x 5 mm G.I strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	25	Mtr	To be submitted through online		INR ... Only
28	Providing and fixing 25 mm x 5 mm G.I. strip on surface or in recess for connections etc, as required.	25	Mtr	To be submitted through online		INR ... Only
29	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	60	Mtr	To be submitted through online		INR ... Only
30	LAYING PVC PIPE					
30.1	Cutting of existing road for laying pvc pipe 150x150mm depth of cutting 200mm or as per required and complete.	360	Rmt	To be submitted through online		INR ... Only
30.2	Providing and laying of 100mm thck. P.v.c. pipe complete work.	600	Rmt	To be submitted through online		INR ... Only
33.3	Providing and fixing 2 nos connecting chamber all complete work.	1200	Nos	To be submitted through online		INR ... Only
33.4	Providing and Recunstruction of bitumen road all complete work.	720	Rmt	To be submitted through online		INR ... Only
Total Amount in Figures						INR ... Only
Quoted Rate in Words :						Only

Signature:

Name & Address of the Bidder: