E-TENDER DOCUMENT

FOR

MONTHLY LONGITUDINAL THALWEG SURVEY BETWEEN VIJAYAWADA AND MUKTYALA STRETCH OF NATIONAL WATERWAY-4, ANDHRAPRADESH



March, 2022

E-TENDER NO: IWAI/VJA/NW-4/73/Thalweg Survey/2022/06

Issuing office: Inland Waterways Authority of India

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E-TENDER DOCUMENT FOR CONDUCTING MONTHLY LONGITUDINAL THALWEG SURVEY BETWEEN VIJAYAWADA AND MUKTYALA STRETCH, PHASE-I OF NW-4, ANDHRA PRADESH

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MONTHLY LONGITUDINAL THALWEG SURVEY BETWEEN VIJAYAWADA AND MUKTYALA STRETCH OF NATIONAL WATERWAY-4, ANDHRA PRADESH

PART - I TECHNICAL BID NOTICE INVITING TENDER (NIT)

NOTICE INVITING TENDER (NIT)

(For publication in Newspaper)





INLAND WATERWAYS AUTHORITY OF INDIA (Ministry of Ports, Shipping and Waterways, Govt. of India)

Irrigation Circle Office Complex, Governorpet, Vijayawada – 520 002, Krishna Dist., Andhra Pradesh. E-mail: dirvijayawada.iwai@nic.in

NOTICE INVITING TENDER

E-TENDER No. IWAI/VJA/NW-4/73/Thalweg survey/ 2022/06

Online bids are invited from the reputed contractors for conducting Monthly Longitudinal Thalweg Survey between Vijayawada and Muktyala stretch of National Waterway - 4, Andhra Pradesh. The Details of NIT: - E.M.D Rs. 80,398.00, date for uploading tender document on website on 11.03.2022, last date of submission is up to 15:00 hrs on 22.03.2022, date of bid opening is 23.03.2022 at 15:30 hrs, cost of Tender document is Rs. 5,900/- (Rs. 5,000 + 18% GST). For other terms & conditions, **IWAI** website www.iwai.nic.in please refer to and https://eprocure.gov.in/eprocure/app.

Sd/-**Director**

INLAND WATERWAYS AUTHORITY OF INDIA

Irrigation Circle Office Complex, Governorpet, Vijayawada – 520 002, Krishna Dist., Andhra Pradesh.

E Mail: dirvijayawada.iwai@nic.in; iwainw4@gmail.com. Web Site: - www.iwai.nic.in , https://eprocure.gov.in/eprocure/app

NOTICE INVITING TENDER (NIT)

E-Tender No. IWAI/VJA/NW-4/73/Thalweg survey/2022/06

Online tenders in two bid system ("Technical Bid" and "Financial Bid") are invited from experienced and resourceful Contractors for conducting Monthly Longitudinal Thalweg Survey between Vijayawada and Muktyala stretch (82 km) of National Waterway – 4, Andhra Pradesh (Phase-I) for 3 consecutive years. Estimated Cost of the work and other details are as under:

Term and Conditions:

- 1. The Bids will be placed online at https://eprocure.gov.in/eprocure/app
- 2. Estimated cost of work: Rs. 40,19,907/- (Excluding GST) for a period of 3 years.
- **3.** Date of uploading of tender document in website from 11/03/2022 onwards.
- **4.** Bid Submission start date: 11/03/2022 at 15:00 hrs.
- **5.** Bid Document download end date & time is 22/03/2022 at 15:00 hrs.
- **6.** Bid Submission end date & time: 22/03/2022 at 15:00 hrs.
- **7.** Bid Opening date & time: 23/03/2022 at 15:30 hrs.
- 8. Cost of Tender Document (Tender Fee): Rs. 5,900/- (Rs. 5,000 + 18% GST) (Rupees Five thousand Nine Hundred only). The tender document can be downloaded from IWAI website at www.iwai.nic.in and CPP Portal Website https://eprocure.gov.in/eprocure/app. The cost of tender document should be submitted before closing date and time of submission of bid through RTGS in the following account and branch in favour of

Name of Bank Account	IWAI FUND EMD AND SD
Bank Name and Address	State Bank of India, Suryaraopet branch, Vijayawada
Bank Account Number	39373870652
IFSC	SBIN0011098

Bid without tender cost will be treated as non-responsive / rejected.

9. Earnest Money Deposit (EMD) for an amount of **Rs. 80,398/-** (2% of the estimated cost) needs to be deposited in full **through RTGS** except Micro and Small Enterprises (MSEs) as defined in MSR Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or Department or Start-ups as recognized by Department of Industrial Policy & Promotion (DIPP) on submission of a valid registration certificate as per the Government of India

rules. Documentary proof of EMD deposition / exemption certificate needs to be scanned and uploaded by the intending bidder. The RTGS for EMD should be deposited to the following account:

Name of Bank Account:	IWAI FUND EMD AND SD		
Bank Name and Address	State Bank of India, Suryaraopet branch, Vijayawada		
Bank Account Number	39373870652		
IFSC	SBIN0011098		

- **10.** The scanned documentary proof of RTGS made toward Earnest Money Deposit mentioned above should be uploaded before the closing date and time of submission in the CPP Portal along with bid. In case the bidder fails to upload the above documents before the closing date and time of submission of bid, then the bid may be treated as non-responsive / rejected.
- 11. Tenderer shall agree to the terms & conditions of the tender and submit the tender online duly signed in each page for agreeing the same. A signed declaration stating that no alteration has been made in any form in the downloaded tender document is to be enclosed with the tender by the bidder.
- **12.** The tenderer shall meet the following pre-qualification criteria:
 - i. The tendering firms must have at least three years of experience in carrying out Hydrographic / Bathymetric surveys in rivers using Automated Hydrographic Survey System (AHSS), post processing, preparation of charts and submission of reports as stipulated independently.
 - **ii.** The tenderer shall be registered in appropriate class with CPWD, Railways, MES, State PWD / Irrigation Department, Port Trust etc. or should be conversant with the similar works and should submit credential for similar works carried out by them.
 - **iii.** Tenderer shall have to submit the Permanent Account Number issued by Income Tax Dept. and must be an assesses.
 - **iv.** Average annual financial turnover during last 03 years ending 31st March of the previous financial year, should be at least 100% of the estimated cost. Experience of having successfully completed similar works during the last 03 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 completed not less than 40% of the estimated cost; or
 - b) Two similar works completed not less than 50% of the estimated cost; or
 - c) One similar work completed not less than 80% of the estimated cost; and
 - d) 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.

- v. Latest certificate of Solvency from nationalized / scheduled Bank included in the second schedule of the RBI Act for not less than 40% (i.e., Rs. 16.08 lakhs) of the estimated cost of the work shall be submitted along with the bid.
- **13.** The completed bid documents should be uploaded online by 22/03/2022 at 15:00 hrs and will be opened online on 23/03/2022 at 15:30 hrs.
- **14.** Time for completion: The Survey period including submission of report etc. shall be completed every month within 20 days from the date of commencing survey.
- **15.** IWAI reserves the right to accept or reject any or all tenders without assigning any reason and no correspondence shall be entertained in this regard.
- **16.** Other terms and conditions are as per tender document.

-sd-

Director

1. TENDER FORM

Dated:	

To

The Director Inland Waterways Authority of India, Vijayawada

Sub: Tender document for Monthly Longitudinal Thalweg Survey from Vijayawada to Muktyala Stretch (Phase-I, 82 Kms) of NW-4, Andhra Pradesh.

Sir,

- i. Having visited the site and examined the information and instructions for submission of tender, general conditions of contract, Special Condition of contracts, 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 works referred to in the tender documents 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.
- ii. 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/Charts and instructions as mentioned in the tender documents.
- iii. I am tendering for the works mentioned in the table below and submitting the EMD through RTGS as mentioned in NIT as per the details given therein:

Sl.	Description of Works	RTGS No. & Date	Amount (Rs.)
	Monthly Longitudinal Thalweg Survey between Vijayawada to . Muktyala stretch (Phase-I, 82 Kms) of National Waterway-4, Andhra Pradesh.		80,398/- (EMD)
1.			5,900/- (Tender Cost)

- iv. I / We agree to abide by this tender. I / We agree to keep the tender open for a period of 60 days from the date of opening of price bids or extension thereto as required by the IWAI and not to make any modifications in its terms and conditions.
- v. 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 another 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.
- vi. I / We have independently considered an 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.
- vii. 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.
- viii. If my / our tender is accepted, I / We am/are to be jointly and severely 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.
- ix. 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.
- x. 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.
- xi. I / We certify that I / we am / are familiar with all general and special laws, Acts, Ordinance, Rules & Regulation of the Municipalities, District, State and Central Government that may affect the work, its performance or personnel employed therein or environment.
- xii. It is certified that all information given in the tender is true and nothing has been concealed / distorted. If at any time, it is found to have concealed / distorted any material as mentioned above I / we am / are agreeable for summarily termination of contract by IWAI.

Date	Signature
	Name
	Designation
Duly authorized to sign	a & submit tender for and on behalf of (Name and address of firm with Seal)
Witness: Signature	
Name:	
Occupation	
Address	
Telephone No	

2. INSTRUCTIONS TO THE TENDERER / BIDDER

<u>Instructions to the Tenderer / Bidder for e-submission of the bids online through</u> the Central Public Procurement Portal for e-Procurement:

- 1. Possession of valid Digital Signature Certificate (DSC) and enrolment / registration of the Tenderer / Bidder on the e-procurement / e-tender portal are a prerequisite for e-tendering.
- **2.** Bidder should do the enrolment in the e-Procurement site using the https://eprocure.gov.in/eprocure/app option available "Enrol" Here on the home page Portal. Enrolment is free of charge. During enrolment / registration, the bidders should provide the correct / true information including valid e-mail ID. All the correspondence shall be made directly with the Employers / bidders through e-mail ID provided.
- **3.** Bidder need to login to the site through their user ID / password chosen during enrolment / registration.
- **4.** Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY / TCS / n-Code / e-Mudra or any Certifying Authority recognized by CCA India on e-Token / Smart Card, should be registered.
- **5.** The DSC that is registered only should be used by the bidder and should ensure safety of the same.
- **6.** Tenderer / Bidder may go through the tenders published on the site and download the required tender documents / schedules for the tenders he / she is interested.
- **7.** After downloading / getting the tender document / schedules, the Bidder should go through them carefully and then submit the documents as asked.
- **8.** Bidder then logs into 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 e-Token / Smart Card to access DSC.
- **9.** Bidder selects the tender which he / she is interested in by using the search option & then moves it to the "My Favourites" folder.
- **10.** From the "my favourites" folder, he / she selects the tender to view all the details indicated.
- 11. 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.
- 12. 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 / .xlsx / .rar / .zip / .jpeg 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 02 MB. If any document is more than 02 MB, it can be reduced through .zip / .rar and the same can be uploaded, if permitted.
- **13.** If there are any clarifications, this may be obtained through the site (or) through the contract details (or) during the pre-bid meeting, if any. Bidder should take into account the Corrigendum published from time to time before submitting the online

bids.

- **14.** 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.
- **15.** Bidder should submit the Tender Fee & EMD as specified in the tender. The copy of the RTGS payment made 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 RTGS payment made should be uploaded as part of the offer.
- **16.** While submitting the bids online, the bidder should read the terms & conditions and accept the same to proceed further to submit the bid packets.
- **17.** The details of the RTGS 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.
- **18.** 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 requirement of the tender requirements.
- **19.** 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.
- **20.** 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.
- 21. 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.
- **22.** After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record or 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.
- **23.** 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.
- **24.** 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.
- 25. All the data being entered by the bidders would be encrypted using Public

- Key Infrastructure (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.
- **26.** 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 openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- **27.** 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.
- **28.** 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.
- **29.** 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 contract person indicated in the tender.
- **30.** 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.**
- **31.** The details of work to be carried out and its scope are given in this tender document, which also indicate brief descriptions of the work to be executed. The tenderers are advised to study the same carefully before tendering and they shall be deemed to have fully acquainted themselves with the same.
- 32. The tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, in respect of the site conditions including but not restricting to the following which may influence or affect the work or cost thereof under the contract:
 - a) Site conditions including access to the site, existing and required roads & other means of transport / communication for use by him in connection with the work.
 - **b)** Requirement and availability of land and other facilities for his enabling works, colonies, stores & workshop etc.
 - **c)** Ground conditions including those bearing upon transportation, disposal, handling and storage of materials required for the work or obtained there from.
 - **d)** Source of extent of availability of suitable materials including Water and Labour (Technical, Skilled and Unskilled) etc., required for work and Laws and Regulations governing their use and employment.
 - **e)** Geological, meteorological, topographical, hydrological, morphological and other general features of the site and its surroundings as are pertaining to and needed for the performance of the work.
 - **f)** The type of equipment and facilities needed, preliminary to / for and in the performance of the work and;

- **g)** All other information pertaining to and needed for the work including information as to the risks, contingencies and other circumstances which may influence or affect the work or the cost thereof under this contract.
- **33.** The tenderers shall note that information, if any in regard to the work site and local conditions as contained in these tender documents except for the material agreed to be supplied by the Authority, has been given merely to assist the tenderer and is not warranted to be complete.
- **34.** The tenderers shall note and bear in mind that the Authority (IWAI) shall bear no responsibility for the lack of acquaintance with site condition, system etc. or any information relating thereto, on their part. The consequence of the lack of any knowledge aforesaid, on the part of the tenderers shall be at their risk and cost and no charges or claims whatsoever consequent upon the lack of any information, knowledge or understanding shall be entertained or payable by the Authority.
- **35.** Immediately upon download of the Tender documents from website, the tenderers are urged to submit a written request at least one day prior to the date fixed for pre-bid meeting to the Engineer-in-Charge issuing the tender, on matters where clarifications or additional information is desired, if needed. This clause however will be applicable only in the case, if pre-bid conference is stipulated.
- **36.** 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.
- **37.** 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.
- **38.** IWAI shall, however, arrange to release the EMD in respect of unsuccessful bidders within 30 (thirty) days of placement of order to successful bidder. No interest shall be payable on EMD by IWAI.
- **39.** Late bids, delayed bids received after the stipulated last date and time for receipt of bids, due to any reasons whatsoever will not be considered.
- **40.** 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 open the tenders of the absentee tenderer and same shall be binding on the absentee tenderer.
- **41.** 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.
- **42.** All the drawings, documents, reports etc. which would be required to be prepared by the Tenderer during the course of the assignment.

- **43.** 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.
- **44.** 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.
- **45.** 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.
- **46.** 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.
- **47.** If the Tender is submitted by a group of firms, the sponsoring firm shall be submit complete information pertaining to each firm in the group and state along with the bid as to which of the firm shall have the responsibility for tendering and for completion of the contract document and furnish evidence admissible in law in respect of the authority assigned to such firm on behalf of the group of firms for tendering and for completion of the contract document. The full information and satisfactory evidence pertaining to the participation of each member of the group of firm in the firm in the Tender shall be furnished along with the Tender.
- **48.** 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.
- **49.** 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.
- **50.** Bid containing qualifying expressions such as "subject to minimum acceptance" or "subject to availability of material / equipment" etc. is liable to be rejected.
- **51.** IWAI reserves the right to reject any or all bids without assigning any reasons.

3. SUBMISSION OF TENDER

The Bidder is required to submit their tender in two parts as given below:

3.1 Part A - Technical bid

The bidder shall submit the technical bid keeping in view the scope of work listed in the TOR and indicate the bidder's approach for completing the work in time giving the details such as work programme, deployment of technical personal and staff with their qualification, status etc. be used for the survey work. The technical proposal would cover, inter-alia, the following:

- a) Scanned copy of Full profile of the Company with details such as composition / ownership / shareholding pattern, details of top management (Board members), key officials with documentary evidence, background of the organization with respect to similar experience and brief description of projects undertaken (for the past 7 years) in the relevant field including scope of work and nature of consultancy services offered. The details of work carried out may be furnished in Proforma V. Copies of work completion certificate in case of completed Hydrographic / Bathymetric survey works and copies of work order / agreement in case of ongoing Hydrographic / Bathymetric survey work shall be submitted as proof of work experience.
- **b)** Copy of Proof of eligibility or substantial completion in the past three years;
 - i. Three similar works completed not less than 40% of the estimated cost; or
 - ii. Two similar works completed not less than 50% of the estimated cost; or
 - iii.One similar work completed not less than 80% of the estimated cost.
 - iv. 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.
- c) Tender Fee and EMD as specified in NIT.
- **d)** A short write up on methodology to be adopted for the present work giving schematic plan, tentative diagrams & drawings and proposed approach and program to carry out in this assignment. (Submit with the help of Bar chart).
- **e)** Details of the organizational set up for carrying out the subject work and the individual expertise.
- **f)** List of key experts (as per <u>Proforma IX</u>) with complete CVs who would be associated with the present assignment with their specific scope of work. This should be supported by letters from those associates.
- g) A signed declaration stating that the tenderer / bidder has not made any addition / deletion / change to any of the tender Sections and it is exactly as per the document available at IWAI web site (or) e-procure NIC website www.iwai.nic.in or https://eprocure.gov.in/eprocure/app.

- **h)** Copy of the Annual Report / Audited balance sheets, for the last 03 years.
- i) Solvency certificate issued from the Bank for an amount, not less than Rs. 16.08 lakhs (not older than three months).
- **j)** Copy of PAN card.
- **k)** Copy of Bank Account details for transaction through e-payment.
- 1) Copy of any other details which bidder may feel relevant.
- m) Copy of GST registration certificate.
- n) Copy of registration with PF and ESI authorities.
- o) Details of Survey vessels / FRP Boat proposed to be deployed.
- **p)** Details of Survey equipment proposed to be deployed.
- **q)** The details of the surveyor who is going to carry out the survey.
- **r)** Procedure to be adopted for Position control, Sounding Measurement & Chart Datum fixing etc.
- **s)** Any other details which tenderer may feel relevant to carry out the present assignment.
- **t)** Letter of Authority for signing and negotiation of tender (as the case may be).
- **u)** The Bid documents shall be signed by the bidder on each page before uploading.

It may please be noted that the technical proposal shall not contain any reference to the financial bid.

3.2 Part B - Financial Bid

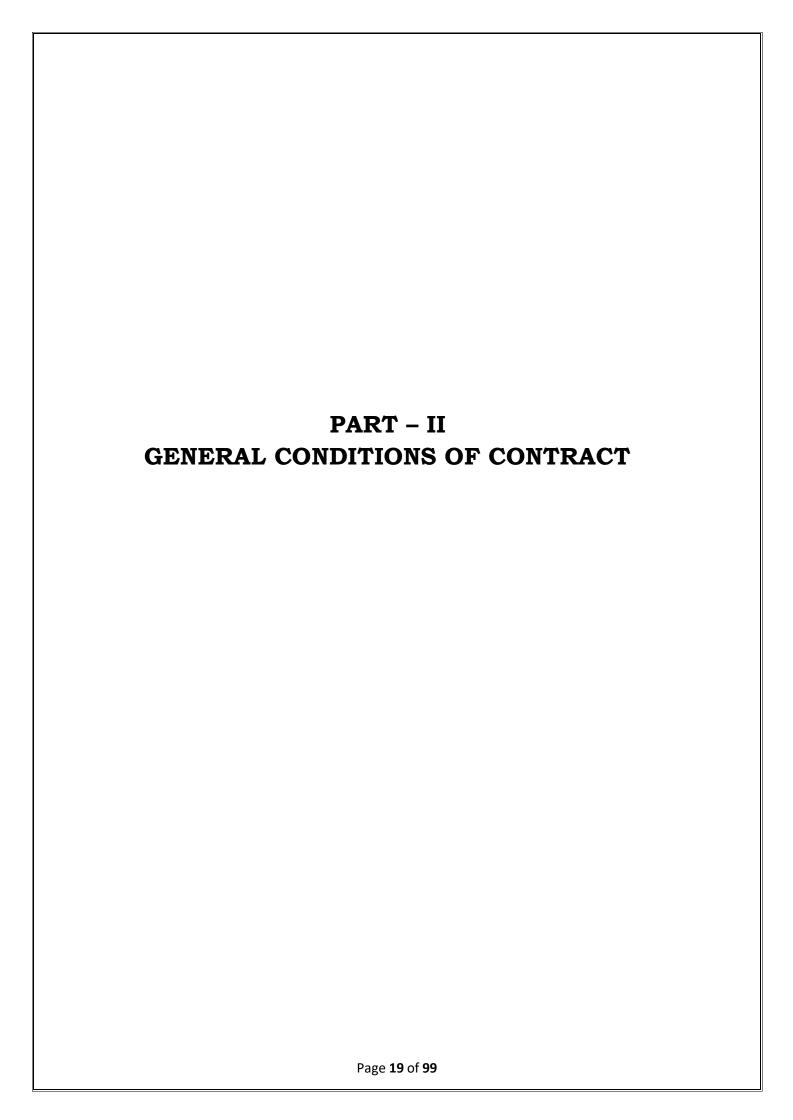
Price Bid in excel format (BOQ_xxxx.xls) provided along with this tender shall be used for quoting prices / offer only in Financial Bid (Online). It may please be noted that this part shall not contain any terms & conditions. Any condition given in the price bid will be a sufficient cause for rejection of bid.

- (i) This will contain total amount to be charged for completing the work. The total amount shall be quoted as a lump-sum amount as under:
- (ii) While working out total cost, following points should be noted.
 - a) The Tenderer will have to make their own arrangements for the transport / accommodation / TA/DA of their personnel assigned to this project for their site works, visiting various offices and other places for meetings, presentations and discussions.
 - **b)** Bidders are advised to submit quotation strictly based upon technical specification, terms and conditions contained in technical specifications, terms and conditions contained in documents and not to stipulate any deviations. Any change in this may lead to rejection of bid.
 - **c)** The amount quoted would deem to have included all the incidental cost including cost of Bid containing qualifying expressions such as "subject to minimum acceptance" or "subject to availability of material / equipment" etc. is liable to be rejected.

4. BID EVALUATION

- (i) Selection of the bidder for the Survey work shall be based on Technical Bid and Financial Bid evaluation.
- (ii) Financial bid (Price bids) will be evaluated and compared based on Lowest prices quoted (L-1). No weightage carries over on technical bid evaluation at the time of financial bid evaluation.
- (iii) From the time, the proposals are opened to the time the Contract is awarded, the Tenderer should not contact the Employer on any matter related to its Technical and / or Financial Proposal. Any effort by Tenderer to influence the Employer in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Tenderer Proposal.
- **(iv)** The tender shall be evaluated by the Tender Evaluation Committee (TEC) constituted by the employer.
- (v) The employer shall consider the financial proposal only after analysing and evaluating the Technical Proposals and finding the bidder fit / qualified for considering his financial proposal.
- (vi) The tender committee shall evaluate the Technical Proposals on the basis of the merit of the bidder, their experience and exposure in the respective field, their responsiveness to the Terms of Reference and the schematic plan, tentative diagrams and drawings as submitted by the bidder. Proposal may be rejected if it is found deficient as per the requirement indicated in the tender document. Only responsive proposals shall be further taken up for evaluation. Evaluation of the technical proposal will start first and at this stage the financial bid (proposal) will remain unopened. The IWAI may request any / all bidders for furnishing clarifications on its technical proposal during the evaluation process. Such requests will be communicated in writing and the clarifications to be furnished thereon shall not lead to any changes in the financial offer.
- (vii) Financial proposals of only those firms who are technically qualified shall be opened on a subsequent date with due prior intimation in the presence of the Tenderer representatives who choose to attend. If any of the tenderer or his agent is not present at the time of opening of tender, the TEC shall open the tenders of the absentee tenderer and same shall then be binding on the absentee tenderer.
- (viii) The name of the Tenderer, their technical qualification and their financial proposal shall be read out. The TEC will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures, the former will prevail. The Employer will keep a register of representatives attending the meeting.
- (ix) 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.
- (x) IWAI shall, however, arrange to release the EMD in respect of unsuccessful bidders within 30 (thirty) days of placement of order to successful bidder. No interest shall be payable on EMD by IWAI.
- (xi) Late bids, delayed bids received after the stipulated last date and time for receipt of bids, due to any reasons whatsoever will not be considered.
- (xii) 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.
- (xiii) None of these documents shall be used by the successful Tenderer for any purpose other than of this contract.
- (xiv) IWAI reserves the right to reject any or all bids without assigning any reasons.



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CLAUSE - 1: DEFINITIONS

In the contract, the following words & expressions 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 these tender documents 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 authorized 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 Vice Chairman of Inland Waterways Authority of India.
 - **X. Member (Technical):** means Member (Technical) of Inland Waterways Authority of India.
 - **XI. Member (Traffic):** means Member (Traffic) of Inland Waterways Authority of India.
- **XII. Member (Finance):** means Member (Finance) of Inland Waterways Authority of India.
- XIII. Secretary: means Secretary of Inland Waterways Authority of India.
- **XIV. Chief Engineer:** means the Chief Engineer of the Authority, as the case may be.

- **XV. Hydrographic Chief:** means the Hydrographic Chief of the Authority, as the case may be.
- **XVI. Director:** means the Director of the Authority, as the case may be.
- **XVII. Deputy Director:** means the Deputy Director of the Authority, as the case may be.
- **XVIII. Deputy Director (Project):** means the Deputy Director (Project) of the Authority, as the case may be.
 - **XIX. Senior Hydrographic Surveyor:** means the Senior Hydrographic Surveyor of the Authority, as the case may be.
 - **XX. Assistant Director:** means the Assistant Director of the Authority, as the case may be.
 - **XXI. Assistant Hydrographic Surveyor:** means the Assistant Hydrographic Surveyor of the Authority, as the case may be.
- **XXII. Technical Assistant:** means the Technical Assistant of the Authority, as the case may be.
- **XXIII. Junior Hydrographic Surveyor:** means the Junior Hydrographic Surveyor of the Authority, as the case may be.
- **XXIV. 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.
- **XXV. Day:** means a calendar day beginning and ending at mid-night.
- **XXVI. Week:** means seven consecutive calendar days.
- **XXVII.** Month: means the one Calendar month.
- **XXVIII. Site:** means the waterway and / or other places through which the works are to be executed.
- **XXIX.** Vessel: means the vessel / craft belonging to the Contractor for carrying out the work.
- **XXX. Drawings:** means the drawings referred to in the specifications and / or appended with the tender document, any modifications of such drawings approved in writing by the Engineer-in-Charge and shall also include drawings issued for actual execution of the work time to time by the Engineer-in-Charge.
- **XXXI. 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.
- **XXXII. Work / works:** means work / works to be executed in accordance with the contract.
- **XXXIII. Schedules:** referred to in these conditions shall mean the relevant schedules annexed to the tender papers or the standard schedule of rates of the Govt.

mentioned with the amendments thereto issued up to the date of receipt of the tender.

- **XXXIV. District Specifications:** mean the specifications followed by the State Government in the area where the work is to be executed.
- **XXXV. Tendered Value:** means the value of the entire work as stipulated in the letter of award.

CLAUSE - 2: INTERPRETATIONS

Words imparting the singular only shall also include the plural; he includes she and vice-versa unless this is repugnant to the context. 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 & SECURITY DEPOSIT

3.1 PERFORMANCE GUARANTEE

The contractor shall be required to deposit an amount equal to **5%** (**Five percent**) of the tendered value of the work as **Performance Guarantee** in the form of either **RTGS** payable at any nationalized / schedule bank **OR** an irrevocable **Bank Guarantee** bond of any scheduled bank or State Bank of India in accordance with the form prescribed within 15 days of the issue of the work order. The Bank Guarantee shall be valid till expiry of 90 days after the end of "Period of liability" defined in the contract document.

3.2 SECURITY DEPOSIT

Security Deposit including EMD already submitted will be **5%** (**Five percent**) of the contract value of the work. The EMD received from successful Tenderer will be converted as Security Deposit on signing of the Agreement. The balance Security Deposit (i.e., Total 5% SD deducting EMD submitted with technical bid) shall be deducted @10% of the gross amount of each RA bill. Bank Guarantee will not be accepted as security deposit.

- **3.3** The contractor whose tender is accepted has to enter into an Agreement with IWAI for the due fulfillment of the contract. The security amount will be accepted in form of **RTGS** infavour of "**IWAI Fund EMD AND SD**" only payable at **Vijayawada.**
- **3.4** The total Performance Guarantee & Security Deposit shall remain with IWAI till defect liability period after satisfactory completion of work.
- **3.5** Interest will not be paid on Security Deposit or Performance Guarantee.
- **3.6** If the contractor having been called upon by the Engineer-in-Charge to furnish the security deposit fails to do so within the specified period, the EMD submitted by the contractor shall be forfeited. It shall be lawful for the Employer:
 - i) To recover the amount of balance security deposit by deducting the amount from the pending bills of the contractor under this contract or any other contract with the Authority, OR

- ii) To cancel the contract or any part thereof and to carry out the work or authorize to carry out the work / works at the risk and cost of the contractor.
- **3.7** No claim shall lie against the authority either in respect of interest or any depreciation in value of any security deposit.
- 3.8 The Contractor shall guarantee the execution of the terms of the Contract within stipulated period of time from the date of acceptance of the bid and in order to execute the work uniformly the contractor will ensure deployment of adequate survey boat with manpower and equipment throughout the contract period. Any damage or defect that may arise or lie undiscovered at the time of the final payment connected in anyway with the work done by him or in the workmanship, shall be rectified by the contractor at his own expenses as deemed necessary by the engineer or in default, the engineer may cause the same to be made good by other agencies and deduct expenses (of which the certificate of the Engineer shall be final) from any sums that may be then or at any time thereafter, become due to the contractor under the Contract or from the amount released by encasing the contract performance guarantee or recover otherwise from the contractor.
- **3.9** If the Contractor feels that any variation in work or in quantity of survey work be beneficial or necessary to fulfill the guarantees called for, he shall bring to this notice of the Engineer in charge in writing, at appropriate time but prior to the execution of the work and take written acceptance of same from the engineer before proceedings with the works.
- **3.10** From the commencement to completion of work, contractor shall take full responsibility for the care of work including all temporary works, or to any part thereof or to any temporary works from any cause whatsoever, shall at his own cost repair and make good the same so that at completion, work shall be in good order and in conformity, in every respect, with the requirements of contract and Engineer's instruction.
- 3.11 If the contractor neglects to observe or fails to perform any of his obligations under the contract / under Clause 33, it shall be lawful for the Employer / EIC to forfeit either in whole or in part, the Security Deposit & Performance Guarantee 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/release the security deposit/performance Guarantee 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.
- 3.12 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 03 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.
- **3.13** 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 deposit 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.

CLAUSE - 4: REFUND OF SECURITY DEPOSIT

The Security Deposit less any amount due shall, on demand, be returned to the contractor on the expiry of defects liability period or on payment of the amount of the final bill payable in accordance with the agreement conditions, whichever is later, provided the Engineer-in-Charge is satisfied that there is no demand outstanding against the contractor.

CLAUSE - 5 : SUFFICIENCY OF TENDER

- 5.1 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.
- **5.2** The Contractor is deemed to have independently obtained all necessary information for the purpose of preparing the bid and his bid as accepted shall be deemed to have taken into consideration all contingencies as may arise due to such information or lack of the same.
- 5.3 The Contractor shall be deemed to have examined, visited and acquainted himself with the site and the surroundings to have satisfied himself to the nature of contract and the stretch to be surveyed in all weather conditions and as to the nature and conditions of means of transport and communication, whether by land, or by sea, to have made local independent inquires as to the soil / sub soil conditions variations thereof, storms, prevailing winds, oceanographic, bathymetric, climatic conditions and all other matter effecting the work.
- 5.4 Any neglect or omission or failure on the part of the contractor in obtaining necessary and reliable information upon the forgoing or any other matter affecting the contract shall not relieve the Contractor, of his responsibility / any risk / liability for completion of the work in strict accordance with the terms of the Contract.

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 language, the language according to which the contract is to be constructed and interpreted shall be English and designated as the "Ruling Language".
- **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 order 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/LKM 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) General Specifications.
- 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 true intent and meaning of the drawings and specifications shall be final and binding.
- **7.3** Any error in description, quantity / LKM or price in Schedule of Quantities and Prices or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the Works 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 occurring in the amount column of schedule of quantities and prices as result of wrong multiplication of unit price and quantity / LKM, the unit price shall be regarded, as firm and multiplication shall be amended on the basis of the quoted unit price.
 - **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.

<u>CLAUSE - 8 : DUTIES AND POWERS OF THE ENGINEER-IN-CHARGE</u> 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 employed 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 subject, to 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 authorized 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 CONSTITUTION

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 firms, 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 firm which would have the right to carryout the work undertaken by contractor. If prior approval as aforesaid is not obtained the contractor shall be deemed to have been assigned in contravention to Clause 32 hereof and the same action will be taken and the same consequences shall ensure as provided for in the said clause-33.

CLAUSE - 12 : COMMENCEMENT OF WORK

The contractor shall commence the survey work at the respective site **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/performance Guarantee.

<u>CLAUSE - 13: WORKS TO BE CARRIED OUT IN ACCORDANCE WITH</u> 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 and both as regards material and otherwise in every respect in strict conformity with the specification laid down 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.
 - **b)** Explanations, instructions etc.
- **13.3** 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.

- **13.4** 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.
- 13.5 The Contractor shall not be entitled to any right or claim whatsoever by reason of any representation / explanation / statement / directions / instructions or alleged representations / explanation / statement / directions / instructions, promises or guarantees given or alleged to have been given to him by any person other than what has been stated in the contract in his personal capacity.

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 where the decision of the Engineer-in-Charge shall be final and binding) becomes necessary, the contractor shall execute the same as may be directed, provided the directions are in accordance and confirmatory with provisions in Clause – 8.

CLAUSE - 16: DEVIATIONS

- 16.1 The Engineer-in-Charge shall have powers to make any deviations in the original specifications of the works or any part thereof that are in his opinion, necessary at the time of or during the course of execution of the works for the aforesaid purpose or for any other reason, if it shall, in the opinion of the Engineer-in-Charge, be desirable, he shall also have the powers to make Deviations, such as (i) Variations (ii) Extra (iii) Additions / Omissions and (iv) Alterations or Substitutions of any kind. No such, Deviations in the specification or drawings or designs or Schedule of Quantities, as aforesaid, shall in any way vitiate or invalidate the contract and any such Deviations which the contractor may be directed to do shall form integral part of the contract as if originally provided therein and the contractor shall carry out the same on the same conditions in all respects on which he agreed to do the works under the contract.
- **16.2** Such items of work, as are required, to be executed at the rates already provided in the schedule of quantities, shall apply in respect of the same item(s) of work to be executed due to variation.
- 16.3 If requested by the contractor the time for completion of the work shall, in the event of any deviation resulting in additional cost over the contract sum be extended in the proportion which altered, additional or substituted work bears to the original contract sum plus such further additional time as may be considered reasonable by the Engineer-in-Charge whose decision shall be conclusive as to such provision.
- **16.4** Under the circumstances, the contractor shall at any stage not suspend the work on account of non-settlement of rates of such Deviated items.

CLAUSE - 17: CONTRACTORS SUPERVISION

- 17.1 The contractor shall either himself supervise the execution of the works or shall appoint at his own expense, an 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 superintend the execution of the works with such additional assistance in each trade, as the work involved shall require and considered reasonable by the Engineer-in-Charge, 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 supervision of the work. For any such suspension, the contractor shall be held responsible for delay so caused to the works.

CLAUSE - 18: INSTRUCTION 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 in a work 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 Proforma for Site Order book to be maintained at site is given in Proforma enclosed along with this tender.
- **18.5** The "Hindrance Register" shall be maintained at the site of the 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 Proforma on which, the

Hindrance Register shall be maintained is given in Proforma enclosed along with this tender.

CLAUSE - 19: PATENT RIGHTS

- 19.1 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 indemnity 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.
- 19.2 The contractor shall at his own cost and expense, defend all suits or proceedings that may be instituted for alleged infringement of any patents involved in the works and in case of an award of damages, the contractor shall pay for such award. In the event of any suit or proceedings instituted against the owner, the same shall be defended at the cost and expense of the contractor who shall also satisfy / comply any decree, order or award made against the owner.
- **19.3** Neither the contractor nor through any counsel engaged by the contractor shall defend himself in the name of the Authority in any suit or proceedings.
- **19.4** The Authority shall not be under any obligation to make the final payments to the contractor till any such suit or claim remains unsettled.

CLAUSE - 20 : PLANT AND EQUIPMENT

- **20.1** The Contractors shall provide and install all necessary plant; equipment and machinery required for the execution of the work under the contract, 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.
- **20.2** 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 - 21: MATERIALS

- **21.1** The contractor shall at his own expenses provide / arrange all materials required for the bonafide 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 cost, of the materials parts as may be specified by 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 expenses incurred thereon 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 materials parts intended to be used in or 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: WATCHING AND LIGHTING

The Contractor shall provide and maintain at his expense all lights, guards, fencing and watching 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 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 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 to 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 therefore 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 montly 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 every month respectively to the Engineer-in-Charge, a true statement in respect of the following:
 - i) Any accidents if occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them and.
 - **ii)** The number of female workers who have been allowed maternity benefit as provided in the Maternity Benefit Act 1961 or Rules made thereunder 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 and amendments made from time to time.
- **25.4** The Contractor shall in respect of labour employed by him either directly or through sub-contractor comply with or cause to be complied with the contract labour (Regulation and Abolition) Act 1970 and Rules framed thereunder in regard to all matters provided therein.
- **25.5** The Contractor shall comply with the provision of all the 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.
 - m) 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.
- 25.6 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. The contractor agrees to indemnify and hold the owner harmless from any liability or penalty which may be imposed by any central or state Authority and also of any claims, suits or proceedings that may be brought against the Authority arising under, growing out of or by reasons of work proved by this contract whether brought by employees of the Contractor, by third parties or by Central or State Authority or any political sub division thereof. 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 of the contribution an amount of contribution as assessed by him. The amount so recovered shall be adjusted against the actual contribution payable for Employees State Insurance.
- 25.7 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 on estimated to be required for making good the loss suffered by worker(s) by reason of nonfulfillment of the conditions of the Contract for the benefit of Workers, nonpayment of wages or of deduction made from him for wages 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.
- 25.8 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-25.5 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 Act / Laws stipulated in Clause-25.5 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 Act / Law / Rules mentioned in Sub-Clause 25.5 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 Act / Laws / Rules / Codes as mentioned under

Sub-Clause 25.5 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.

- 25.9 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 submit ting 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 25.5 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.
- **25.10** 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.
- **25.11** 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.
- 25.12 Failure to comply with Provisions / Rules made for Welfare and Health of Contract Labour's Safety Manual, or the provisions relating to report on accidents and grant of maternity benefits to female workers and the relevant Act / Rules referred in clause 25.5 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 25.5 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 contract 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.

25.13 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 Regulation.

25.14 ALCOHOLIC LIQUOR OR DRUGS

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 subcontractor, agent or employees.

25.15 ARMS AND AMMUNITION

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.

25.16 REMOVAL OF CONTRACTOR'S MEN

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 written permission of the Engineer-in-Charge. Any person so removed from the work shall be immediately replaced at the expense of the contractor by a qualified and competent substitute. Should the contractor be requested to repatriate any person removed from the work, he shall do so and shall bear all costs in connection herewith.

<u>CLAUSE - 26 : MATERIALS OBTAINED FROM EXCAVATION AND TREASURE TROVE, FOSSILS, ETC.</u>

26.1 Materials of any kind obtained from excavation on the site shall remain the property of the Authority and shall be disposed of 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 : FORCE MAJEURE

- 27.1 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, hostilities, 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.
- **27.2** 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.
- **27.3** 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.

<u>CLAUSE - 28 : LIABILITY FOR DAMAGE, DEFECTS, IMPERFECTIONS</u> <u>AND RECTIFICATION THEREOF</u>

28.1 If the contractor or his labour or 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 during the progress of work, the Contractor shall upon receipt of a notice in writing in that behalf from the Engineer-in-Charge, make the same good at his cost.
- 28.2 If it appears to the Engineer-in-Charge or his representative at any time during to 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 or 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.
- **28.3** 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 employee shall be to the account of the contractor, who shall make good the loss.

CLAUSE - 29: CONTRACTOR'S LIABILITY AND INSURANCE

- **29.1** 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.
- 29.2 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 29.2 (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 minimize 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.

- **29.3** The contractor shall take special precautions to see those public places and road adjacent to contractor's yard are not blocked at any time either by his material or by his workmen. The roads are to be kept always clear and no equipment / materials shall be stacked.
- **29.4** 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.
- 29.5 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 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 expensed whatsoever in respect of or in relation thereto, and such liabilities shall include claims / compensations of the third party.
- 29.6 i) 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:
 - **a)** 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.
 - **b)** Property liability limits for each accident not less than Rs. 1,00,000.
 - **c)** 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.

- **ii)** 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.
- **iii)** 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.
- **iv)** 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 - 30: SUSPENSION OF WORKS

The contractor shall on the order of the Engineer-in-Charge 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 and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer-in-Charge.

<u>CLAUSE - 31 : FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE</u> 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 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 - 32: 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.

<u>CLAUSE - 33 : CORRUPT PRACTICE & TERMINATION OF CONTRACT IN</u> FULL OR IN PART

- **33.1** If the Contractor does not commence the work in the manner described in the Contract document or if he shall at any time in the opinion of the engineer.
 - a) commits default in complying with or commits breach of any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it immediately and not later than 15 days in any case after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
 - **b)** fails to complete the work (s) or any item of work (s) within the time or any extended time under the contract and does not complete the work (s) or any item of works within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or
 - c) fails to carry on the work in conformity / accordance with the contract document or mobilize / supply suitable Survey boat, equipment, labour, materials or other equipment to the survey site as stipulated in the contract; or
 - **d)** fails to commence, carry and execute the work to the satisfaction of the EIC; or
 - e) abandon the work, or
 - f) if the contractor shall obtain a contract with IWAI as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of integrity pact; or
 - **g)** substantially suspend the work or the works for a minimum period of 30 days without any authority / prior permission of EIC; or
 - **h)** commit or suffer or permit any other breach of any of the provisions and terms of the Contract to be performed by him or it is observed that the said breach persists 15 days, after notifying to the Contractor in writing by the engineer requiring such breach to be remedied; or
 - i) the contractor becomes bankrupt, insolvent or goes into liquidation whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction which amalgamations

- or reconstruction would assume complete responsibility and liability of the work with the prior approval of the owner and would furnish all guarantees by new formation; or
- j) assigns, transfers, sublets (engagement of labourequipment on a piecework basis or of labour with materials not being incorporated in the work shall not be deemed to be subletting) or attempts to assign, transfer or sublet the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge. The Engineer-in-Charge shall have powers to terminate the contract in full or in part as aforesaid without prejudice to any other right or remedy which shall have accrued or shall accrue of which cancellation notice in writing to the Contractor under the hand of the Engineer-in-Charge shall be conclusive evidence. Then the Authority shall have the power to enter upon the work and take possession of all the equipment of the contractor thereon, and to remove the contractor's license to the same and to complete the work by his agents or other contractor or workmen or to relate the same upon any terms and conditions and so such other person, firm or corporation as the owner in his absolute discretion may think proper to employ and for the purpose of completion of the work specified in the contract, and without any payment / allowance to the contractor for the use or of the equipment or being liable for any loss or damage thereto the equipment. If the Authority shall by reason of its taking the possession of the works being completed by other contractors (due account being taken of such extra work or works which may be omitted) then the amount of such excess work or works which may be due for work done by the contractor under the contract and not paid for.
- **k)** In case of any deficiency to be paid to the Authority by the contractor, the contractor shall make or in case of any deficiency remaining unsettled then the Authority shall have the power to sell in such a manner and for such a price as it may think fit all or any of the equipment belonging to the contractor and to recoup and retain the said deficiency or any part thereof out of the sale proceeds.

33.2 CORRUPT PRACTICE

The Contractor shall not offer or to give to any person in the employment of the Authority or working under the orders of the Chairman 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 the contract or any other contract with the purchaser or for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the purchaser. Any breach of the aforesaid condition by the contract, or any one employed, by him or acting on his behalf (whether with or without the knowledge of the Contractor) or the commission of any offence by the Contractor or by any one employed by him or acting on his behalf under Chapter IX of the Indian Penal code 1860 or the Prevention of Corruption Act 1947 or any other Act enacted for the prevention of corruption by Public Servant shall entitle the Chairman to cancel the contract and all or any other contracts with the Contractor and to recover from the Contractor the amount of any loss arising from such cancellation in accordance with the provisions of General condition and Special conditions.

- **33.3** The Engineer-in-Charge shall, on such termination of the contract, have powers for:
 - **a)** forfeiture of the Earnest Money Deposit, Security Deposit already recovered and Performance guarantee under the contract and these amounts shall be absolutely at the disposal of the IWAI, and
 - **b)** taking possession of the site of work under the contract as well as the land / premises allotted to the contractor for his preliminary, enabling and ancillary works, and also, any materials, constructional plant, equipment, implements, stores, structures etc. thereon.
 - c) The Engineer-in-Charge shall also have powers to carry out the incomplete work by any means or through any other agency or by himself at the risk and cost of the contractor.
 - Additional expenses for these works will be as stipulated under sub-clause 33.5 hereunder.
- **33.4** On termination of the contract in full or part, the Engineer-in-Charge may direct that a part or whole of such plant, equipment, materials and structures to be removed from the site of the work as well as from the land / premises allotted to the contractor for his preliminary; enabling and ancillary works, within a stipulated period if the contractor shall fail to do so within the period specified in a notice in writing by the Engineer-in-Charge, the Engineer-in-Charge may cause then to be sold, holding the net proceeds of such sale to the credit of the contractor, which shall be released after completion of works and settlement of amounts under the contract.
- and completing the incomplete work or part of the same, as certified by the Engineer-in-Charge, are in excess of the value of the work credited / to be credited to the contractor, the difference shall be paid by the contractor to the Authority. If the contractor fails to pay such an amount as aforesaid, within thirty days of receipt of notice in writing from the Engineer-in-Charge, the Engineer-in-Charge shall be empowered to recover such amount from any sum due to the contractor on any account under this or any other contract or from his security deposit or otherwise.
- **33.6** Also, the Engineer-in-Charge shall have the right to sell any or all of the contractor's unused materials, constructional plant, equipment, implements, temporary building, structures etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there may be any balance outstanding from the contractor, the Engineer-in-Charge shall have powers to recover the same in accordance with the provisions of the contract.
- **33.7** The contractor shall not construct any structure even of a temporary nature for any other purpose on IWAI office premises & Engineer-in-Charge's representative's office or houseboat, or any such things except with the written permission of the EIC and any such construction so put up shall be removed by the contractor whenever the EIC or his representative calls upon the contractor to remove. Any dispute or difference in respect of either the

interpretation effect or application of the above conditions or of the amount recoverable there under by the purchaser from the Contractor, shall be decided by the Chairman. IWAI also reserves its right to determine / terminate the contract on following basis:

- **a)** Authority shall, at any time, be entitled to determine and terminate the contract, for any cause whatsoever. A notice in writing from the Owner to the Contractor shall be issued giving 15 (fifteen) days time for such determination and termination including the reason thereof.
- b) The contractor upon receipt of such notice, shall discontinue the work on the date and to the extent specified in the notice, make all reasonable efforts to obtain cancellation of all orders and contracts to the extent they are related to work terminated, and upon terms satisfactory to the Authority, stop all further sub-contracting or purchasing activity, related to the work terminated and assist the Authority in maintenance, protection and disposition of the works acquired under the contract by the Authority.
- c) Should the contract be determined under the sub-clause (a) of the said clause, the Contractor shall be paid compensation, equitable and reasonable dictated by the circumstances prevalent at the time of termination.

CLAUSE - 34 : COMPLETION TIME AND EXTENSIONS

- **34.1** Time allowed for execution of the work as specified or the extended time, if any, in accordance with these conditions shall be essence of the contract.
- **34.2** However, if the work is delayed on account of:
 - **a)** Increase in the quantity / LKM of work to be done under the contract as per clause 16; or
 - **b)** Suspension of work as per clause 30; or
 - c) Rebuilding of work as per clause 31; or
 - d) "Force Majeure" as per clause 27; or
 - e) Any other cause which, in 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 endeavors 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.
- **34.3** 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 Engineer-in-Charge 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. Provided in the event of non-receipt of a request for such extensions from the contractor for reasons whatsoever, the Engineer-in-Charge may, at his sole discretion and with due

regard to the event, grant fair and reasonable extension of time not more than 1/3rd of the total completion period without any financial implication. Such extensions, if admissible, shall be communicated to the contractor by the Engineer-in-Charge in writing within one month of the date of receipt of such request or within one month of the occurrence of the event, but in any case, before expiry of the contract period.

CLAUSE - 35: COMPENSATION FOR DELAY

If the contractor fails to complete all items of works in respect of any of the sub-group / group and / or work as a whole as the case may be and before the expiry of the period(s) of completion as stipulated in the aforesaid tender or any extended period (not due to the fault of the contractor) as may be allowed, he shall without prejudice to any other right or remedy of the Authority on account of such default, pay as ascertained / agreed compensation as per Clause No. 36.

CLAUSE - 36 : LIQUIDATED DAMAGES

- 36.1 If the contractor fails to complete all items of works within the period(s) of completion as stipulated in the aforesaid tender or any extended period (not due to the fault of the contractor) as may be agreed he shall without prejudice to any other right or remedy of the Authority on account of such default, pay compensation (not by way of penalty) at the rate of 0.5% (half percent) per week or part of week on the total value of the contract subject to a maximum of 10% of the total value of the contract.
- **36.2** Should however, the contractor achieve the completion of the entire works as a whole under the contract within the time or in the extended time (not due to reasons of default on the part of the contractor) as may be accorded, the Authority will refund to him the amount of compensation recovered from him, if any, in respect of delay in the non-completion of works(s) under the individual group / sub-group, as aforesaid in full, In this regard, the decision of the Engineer-in-Charge shall be final and binding.
- **36.3** The amount of compensation may be adjusted, withheld, deducted or set off against any sum due or payable to the contractor under this or any other contract with the Authority.
- **36.4** All sums payable by way of compensation under any of the conditions will be considered as reasonable compensation without reference to the actual loss or damage which will have been sustained.
- **36.5** Payment of such damages shall not relieve the contractor of his obligation to complete the work or from any other of his obligation or liabilities under the contract.

CLAUSE - 37: INSPECTION AND APPROVAL

37.1 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.

- 37.2 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.
- **37.3** Periodic inspection will be carried out by the E-I-C 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 - 38: COMPLETION CERTIFICATE

- 38.1 The work shall be completed to the entire satisfaction of the Engineer-in-Charge and within the specified time limit and 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.
- **38.2** 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 realized 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 realized by sale of such contractor's belongings / temporary arrangements then the contractor shall on demand pay the amount of such excess expenditure.

CLAUSE - 39: MEASUREMENTS

- **39.1** The Engineer-in-Charge shall expect as otherwise stated ascertain and determine by measurement the value of work done in accordance with the contract.
- **39.2** 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.
- **39.3** 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.
- **39.4** Measurement shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative.
- **39.5** 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 authorized 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, taken by the Engineer-in-Charge shall be taken to be correct and final measurements of such works.
- **39.6** The contractor shall, without extra charge, provide assistance with every appliance, labour and other things necessary for measurement.
- **39.7** 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 - 40: PAYMENT ON ACCOUNT

40.1 The Contractor shall receive, as payment for all works required for carrying out Monthly Longitudinal Thalweg Survey in the respective stretches and submission of data, charts and reports in the following installments:

S1.	Activity / Milestone on monthly basis	Payment per month
no.		
i)	On submission of monthly final survey data, survey charts and survey report.	Monthly line km (length of the river) surveyed
ii)	Tide gauge reading will be collected from concerned Irrigation Authorities and CWC.	multiplied by work order line km rate.

Note: i) The payment will be made on actual survey done i.e., line kilometre basis (LKM). Survey in shallow depth less than one meter or non-approachable area to be informed by contractor to EIC or his representative and same shall be considered /excluded as per joint inspection with EIC.

- **ii)** Surveyed length will be measured from the submitted soft digital data. Accordingly, on actual basis of survey length obtained payment will be considered.
- **iii)** As estimated cost of work is less than one crore and as per CVC guidelines, no mobilisation advance is allowed for works less than one crore.
- **40.2** Payment of the contractor's bills shall be made by the Authority only in Indian Rupees within 15 days from the date of submission of the bill along with the final reports/ charts subject to the acceptance of the Engineer-in-Charge.
- **40.3** Payments due to the contractor shall be made by e E payment mode by the Engineer-in-Charge or his authorized representative.
- **40.4** TDS at the applicable rates shall be deducted at source from any payment made to the contractor against this contract.

CLAUSE - 41: TAXES, DUTIES AND LEVIES ETC.

The prices shall include all the taxes, levies, cess, octroi, royalty, terminal tax, excise service tax or any other local or central taxes as applicable / charged by Central or State Government on all materials, including steel, wood, POL (and increase if any, on these during the currency of the contract) that the contractor has to purchase for the performance of the contract, shall be payable by the contractor and the Authority will not entertain any claim for compensation whatsoever in this regard. The rates quoted by the contractor shall be deemed to be inclusive of all such taxes, duties, levies, etc.

CLAUSE - 42: TAX DEDUCTION AT SOURCE

TDS at the applicable rate as per prevailing Acts / Rules shall be deducted from all the payment made against the contract.

CLAUSE – 43 : PAYMENT OF FINAL BILL

The final bill shall be submitted by the contractor within one month from the date of completion of the survey 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 shall be made within three months. 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 - 44: OVER PAYMENTS AND UNDER PAYMENTS

- **44.1** 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 any time 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 the Authority or from his security deposit, or he shall pay the claim on demand.
- **44.2** 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 not- withstanding 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.
- **44.3** 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.
- **44.4** 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.
- 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 - 45: CONTRACT MATTERS TO BE TREATED AS CONFIDENTIAL

- **45.1** All documents, correspondence, decisions and orders concerning the contract shall be considered as confidential and / or restricted in nature by the contractor and he shall not divulge or allow access to them by any unauthorized person.
- **45.2** The contractor shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noted that the Indian Official Secrets Act 1923 (XIX of 1923) applies to them and shall continue so to apply even after the execution of such under the contract.

CLAUSE - 46: FINALITY CLAUSE

It shall be accepted as an inseparable part of the contract that in matters regarding materials, workmanship, removal of improper work, interpretation of the contract drawings and contract specifications, mode of procedure and the carryout out 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: ARBITRATION

- **48.1** Except as otherwise provided herein before, all questions, disputes or difference in respect of which the decision has not been final and conclusive arising between the Contractor and the Authority in relating to or in connection with contract shall be referred for arbitration in the manner provided as under and to the sole arbitrator appointed as follows:
 - (i) Either of the parties may give to the other notices in writing of the existence of such question dispute or difference.
 - (ii) 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 panel of three persons and there after 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 arbitration so appointed shall not be an officer or the employee of Inland Waterways Authority of India.
 - (iii) 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.

- **48.2** 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 Hydrographic Chief 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.
- **48.3** 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.
- **48.4** The Arbitrator with the consent of the parties can enlarge the time, from, time-to-time to make and publish his award.
- **48.5** 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 defect's liability period, failing which all rights and claim under this contract shall be deemed to have been waived and thus forfeited and absolutely barred.
- **48.6** The Arbitrator shall give reasons for the award if the amount of claim in dispute is Rs. 75,000/- and above.
- **48.7** 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.
- **48.8** 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.

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 dated 30.06.1993 or any modifications / amendments thereof."

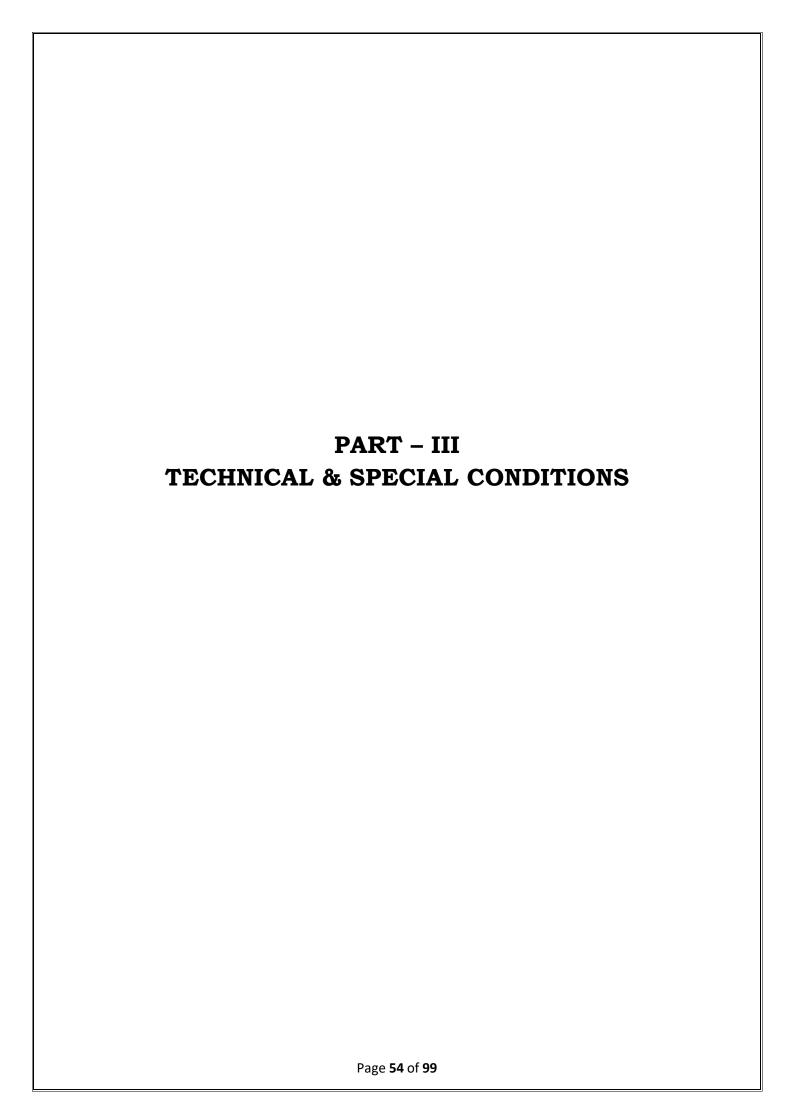
The arbitrator shall have the power to enlarge the term to rate the award with the consent of the parties provided always that the commencement or continuation of the arbitration proceeding shall not result in cessation or suspension of any of other rights and obligations of the parties of any payments due to them hereunder.

48.9 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.

CLAUSE - 49 : VALIDITY OF TERMS & CONDITIONS

The parties agree that if any term or provision of this contract is declared by a Court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected and the right and obligations of the parties shall be construed and enforced as if this contract did not contain the particular term or provision held to be invalid.

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TECHNICAL CONDITIONS:

1. Brief about Project

IWAI intends to explore the navigability of National Waterway-4 from Vijayawada to Muktyala stretch (82 km) Phase–I of NW–4, Andhra Pradesh by assessment of river training works, and collection of water level data in the stretch.

The 82 Km. long National Waterway–4 includes Vijayawada to Muktyala with the following limits, namely:

i) Vijayawada (Prakasam Barrage – Ch: 0 Km) to Muktyala (Ch: 82 Km).

OBJECTIVE:

The objective of the contract is to conduct Monthly Longitudinal Thalweg Survey between Vijayawada and Muktyala stretch (82 km), Phase-I of National Waterway–4 with collection of water level data, mapping of existing and new operations and activities along the waterway including recording tide gauge readings and discharge at identified locations and validating the X-Y-Z coordinates of existing TBMs for planning sustainable and safe navigation.

2. Detailed Scope of Work

Scope of Work under the Contract shall include but shall not be limited to following:

- **2.1.** The Scope of work shall cover all technical aspects of hydrographic survey at par with International Standards including the following for development of the river / canal for inland navigation:
 - i) Monthly Longitudinal Thalweg Survey is to be conducted by using Automated Hydrographic Survey System (using digital Echo sounder for depth measurement, DGPS Beacons Receivers / latest equipment for position fixing and Hy pack max or equivalent software for data logging. The soundings are to be reduced to Chart Datum (CD) / Sounding Datum (SD) to assess the navigability of the waterway.
 - **ii)** The horizontal control is to be made from either one of the following methods:
 - Transfer of positions from GTS Bench Marks or position established at bridges, barrages, railway stations etc.
 - Using RTK GPS with minimum 24 hours observations at some permanent platform / base.
 - DGPS receiving direct Satellite corrections or receiving DGPS corrections from Beacons.
 - **iii)** The vertical control is to be established with respect to the chart datum / sounding datum from the following methods:
 - Chart datum / sounding datum already established by Port Authorities, Central Water Commission / State Irrigation Department and at their gauge stations along the river / canal / bridges / dams.

- Standard method shall be adopted for transfer of datum in rivers / canals. For tidal reaches standard transfer of datum as per Admiralty Manual shall be adopted.
- IWAI is already having temporary bench marks and those can be revalidated and used for fixing of datums.

2.2. Bench Mark Pillars

- i) The existing TBMs established along the waterway are to be verified with respect to the MSL / CD from GTS Bench Marks by the help of Authorised Agency like Survey of India and Geological Survey of India.
- **ii)** Each BM Pillar should have XY Coordinate with sub-meter accuracy. Reduced Level (Z Coordinate) on top of the BM Pillar should have value with respect to Chart Datum / Sounding Datum and also to be connected with MSL value.
- **iii)** The detailed description of each Bench Mark in separate sheet as per standard procedure along with its position and value are to be given in the report for reference. The current details of existing TBMs established by IWAI is enclosed at the last page of the Tender document.
- **2.3.** Standard method shall be adopted for transfer of Datum in rivers. For tidal reaches standard transfer of Datum as per Admiralty Manual shall be adopted.
- **2.4.** Longitudinal profile from **Vijayawada to Muktyala** (82 Km) consisting of River bed, Lowest Water Level (Chart Datum / Sounding Datum), Highest Water / Flood / Tide Level w.r.t. MSL shall be prepared similar to the sample drawing enclosed at last to the Tender document.
- **2.5.** In addition to the above 82 Kms the contractor has to conduct bank to bank Thalweg survey for Ro-Ro routes as and when instructed by E-I-C as mentioned below:
 - 1) Ibrahimpatnam to Lingayapalem / Harishchandrapuram
 - 2) Chamarru to Kasarabad
 - 3) Muktyala to Madipadu
 - 4) Guntupali to Thalayyapalem

If any other proposed Ro-Ro routes in future, required to carry out thalweg/detailed survey as per the instructions given by the E-I-C. Accordingly, for those additional LKM payment will be made separately.

- **2.6.** Manual tide gauges / water level gauges are to be connected to the existing Bench Mark Pillars.
- **2.7.** At the manual tide gauge locations, readings are to be recorded in a proper register by the agency and to be provided to IWAI with the monthly survey report along with discharge at these locations.
- **2.8.** Current velocity and discharge are also to be measured / collected at 10 km along the waterway in Phase-I of NW-4.
- 2.9. Permanent structures located within the waterway are required to be indicated.

2.10. The existing condition of both the banks (Protected / Unprotected), length & type of bank protection, any new development including existing features are to be indicated in the report.

3. Area of Work

Monthly Longitudinal Thalweg Survey is to be conducted between Vijayawada and Muktyala stretch (82 km), Phase-I of National Waterway–4 in Krishna and Guntur districts of Andhra Pradesh.

4. Terms of Reference (ToR)

The Monthly Longitudinal Thalweg Survey is to be carried out by using Automated Hydrographic Survey System (using digital Echo sounder for depth measurement, GPS / DGPS / latest equipment for position fixing and Hy pack or equivalent Hydrographic survey software for data logging). The Horizontal control is to be made from the charts generated from Satellite imageries duly registered with the corresponding Topographic sheets. The chart shall also be suitably updated with prominent land features from the Topo sheets / site condition. The Vertical control is to be established with respect to the Chart Datum / Sounding Datum already established by Central Water Commission / State Water Resources Department gauge stations along the river / canal (or) suitable CD / SD are to be established by the Contractor. The Datum values are to be given w.r.t. Mean Sea Level (MSL).

Other Terms of Reference for the survey work shall be as given below:

a) Water Level Gauges

- i) Record Water level gauges for carrying out water level / tide level at 01-hour interval for 12 hours (06 AM to 06 PM) during period of survey (from the starting date to till the completion of Thalweg Survey), and on thrice daily basis during rest of the period of the month at 6.00 AM, 12.00 noon and 6.00 PM.
- **ii)** The Zero of the gauges is to be connected to a top level of the nearest Bench Mark by levelling. The Zero of the Gauge shall be kept at the Zero level of the CD / SD. The CD / SD value shall be connected with respect to MSL.
- **iii)** Soundings are to be reduced for datum of a gauge applying it to half of the length between adjacent gauges of the canal / river on both side of a gauge or as directed by E-I-C.

b) Bathymetric and Topographical Survey

- Continuous soundings are to be taken by running the sounding boat at constant speed on the cross-section so as to get smooth contours. Intermediate line is to be run at bends, if the line spacing is more than the specified above.
- ii) Dry area / very shallow depth area within the river channel, which could not be surveyed by using boat, are to be surveyed by spot levels using Total Station / equivalent levelling instruments with the same interval of Hydrographic survey soundings and their levels are to be reduced to Datum, so that the entire cross sections will have soundings reduced to

Datum.

- **iii)** Necessary bar check on depth & position are to be conducted daily at the starting & ending day of survey work and same shall be made available for checking by the E-I-C (or) his representative during their site visit.
- **iv)** The soundings are to be reduced to the Chart Datum / Sounding Datum established at every gauge station.
- **v)** Wherever required, Thalweg (longitudinal) route is to be identified / established by linking deepest soundings on the cross-sections.
- vi) Shallow patches / shoal and submerged sandchur having less than 02m depth, rocky outcrops, rapids and other navigational impediments are to be indicated on the charts.
- **vii)** Cross section sounding lines are to be run from bank to bank at 100 m interval for the river portion and at 50 m interval for the canal portion to identify the navigable channel or for any other purpose, whenever required as directed by E-I-C.

c) Current Velocity and Discharge Measurement

- i) The Current velocity (at Surface level, half of the depth & above river bed), Float observation (right side, centre & left side of the river) and Discharge at every 10 km interval are to be measured only once at different depths while carrying out survey in that region.
- ii) The positions and values of current velocity measurement and discharge measurement are to be plotted on the chart and details are to be mentioned in the report.
- **iii)** Measurements at different depths may be taken by single equipment over three different time spans.
- **iv)** Measurement of current velocity at different depth is to be measured for at least 05 minutes or as per listed calibration period of the equipment, under use for this project.
- **v)** Current velocity and discharge can also be measured with the help of ADCP during survey, at every 10 km interval.
- **vi)** Measuring positions & value are to be plotted on the chart and details are to be mentioned in the report.
- d) Cross structures such as Roads, Railways, Intake structures, HT / LT power lines, Telephone lines, Cables etc, which are all built across the river are to be identified. The inner-to-inner clear horizontal span between piers / towers is to be measured. The bottom of the deck slab of bridges / power line w.r.t. Navigational High Flood Level (NHFL) is also to be measured and indicated in the report. The clear distance from waterway edge to structures near bank side also to be measured.
- **e)** The existing condition of both the banks between Vijayawada and Muktyala, whether protected or unprotected are to be collected and

- indicated in the report for each km wise. Further, the proposed protection needed for the unprotected banks is also to be suggested by the contractor in the report.
- f) Photographs of the prominent shore features, cross structures, bank protection works, survey works, bench Mark pillars, tide gauges, levelling works, bar checks, outcrop / rocky outcrop visible exposure of bedrock within river etc. are to be taken and included in the report.

g) Data Submission

- All raw data and processed data of Automatic Hydrographic Survey System are required to be submitted along with bills and reports.
- There should not be any data gap. If there is any data loss due to replacement of GPS, batteries or any other reason, vessel / boat should be slowed down and turned around. Data logging to be resumed from the last recorded location.
- All position data of ground features, waterway structures are to be submitted in both hard copies and soft copies.
- The survey chart is to be prepared on a scale of 1:10,000 (for width more than 500 m) & 1:5,000 (for width less than 500 m) for the river portion and 1:1,000 for the canal portion. Contours of 01 m, 02 m, 05 m and 10 m are to be indicated on the charts.
- Two hard copies of the draft Survey Chart (A1 size) and two hard copies of Report containing the Thalweg survey route + Soft copies shall be submitted within 10 days period of completion of field survey work.
- All prominent shore features, berthing place, existing jetty, ferry ghats, approach roads and other conspicuous objects are to be fixed and indicated on the chart. A brief writes up on condition of the shore features are to be included in the report.
- It is required submit LAD/River notice report for every 10 km interval of the entire stretch.

NOTE:

- The contractor shall forward the survey program (tentative date) in advance (at least one week before commencing), so that representative of IWAI may also make programme accordingly for inspection.
- Inspection procedure for IWAI personnel will be issued separately.
- Format of monthly survey report is to be submitted by the Contractor for review and finalisation by IWAI.
- If survey is required to be suspended during heavy wind / rain / storm, Contractor will inform E-I-C within 07 days (via e-mail / courier) of such suspension, with proper proof (such as local newspaper cutting) and E-I-C will decide to give further extension in

time on such conditions and thus, will be part of Force Majeure.

•

5. <u>Inspection, Measurement and Acceptance</u>

- a) Periodic inspection will be carried out by the EIC or his representative by suitable means. 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 or 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.
- b) As specified in the tender clauses, measurement shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the Contractor or his authorised representative. The Contractor shall, without extra charge, provide assistance with every appliance, labour and other things necessary for measurement.
- c) In case, if the quantity /LKM exceeds the awarded quantity / LKM, the Contractor shall inform to the Engineer-in-Charge or his authorized representative before completion of the awarded quantity and seek prior approval before undertaking such extra work. The Engineer-in-Charge or his authorized representative will examine such work as per agreement clauses.

6. Survey Equipment:

- a) Suitable survey boat with minimum draft.
- **b)** Single / dual / multi frequency Echo sounders having analogue printing with digital output should be used for conducting Bathymetric survey.
- c) For conducting Bathymetric survey, DGPS / RTK / equivalent Position fixing equipment with digital output having sub-meter accuracy suitable for interfacing with Automated Hydrographic Survey System (AHSS) shall be used.
- **d)** For conducting **Land survey** / Spot levels, survey instruments such as Total Station, Levelling instrument, GPS / DGPS / equivalent Position fixing equipment having decimetre level accuracy better than 10 cm suitable for establishing proper ground control levels shall be used.
- e) All survey equipment is to be tested for their accuracy before deployment in the survey area. Accuracy of survey equipment will be checked daily in the field to ensure that all data collected meets standard procedure.
- f) Computer (Laptop) compatible & loaded with suitable licensed Automated Hydrographic Survey Software like HYPACK or equivalent Software shall be used. The Automatic Hydrographic Survey System should have on line & offline processing / recording facilities.

- g) Suitable Current meters for current observations.
- **h)** Suitable Float observation equipment.
- i) Qualified team of Surveyors and other supporting staff.

Specifications

6.1 Vessels

- **a)** The vessels proposed is a river craft with shallow draft and should be capable of cruising in waterway by recording echo sounding profiles.
- **b)** The boat should have good steering control & with OBM engine, proper fuel enough to move at regular speed up to 04 Knots against river tidal currents.
- **c)** The vessel should be registered under IV Act and should have valid certificate for this contract period.

6.2 Echo Sounder

- **a)** Can be a single / dual / multi frequency type, standard dry / thermal paper recording and digital output system with a range up to 30 m having sufficient resolution.
- **b)** If any repair/ problem occur with equipment during the survey the contractor has to arrange alternative equipment on his own.
- **c)** The contractor should have adequate backup power, spares and recording papers and other consumables for uninterrupted survey operations.

6.3 Shore / Land Survey Equipment

Land survey party should be equipped with land survey equipment like Total Station, Levelling instrument, GPS / DGPS / equivalent position fixing equipment having decimetre level accuracy suitable for establishing proper ground control points / levels with required accuracy standard for carrying out land survey.

6.4 Position Fixing

- a) For conducting Bathymetric survey DGPS / RTK / equivalent Position fixing equipment with digital output having sub-meter accuracy suitable for interfacing with Automated Hydrographic Survey System (AHSS) shall be used.
- b) For conducting Land survey / Spot levels survey instruments such as Total Station, Levelling instrument, GPS / DGPS / equivalent Position fixing equipment having decimeter level accuracy better than 10 cm suitable for establishing proper ground control levels shall be used.

6.5 Current Meter

The Current meter reading shall be collected by any approved system, which should have necessary Calibration certificate issued by CWPRS, Pune / from any approved Govt. (or) any recognized institute. Measurement should be taken at 04 positions i.e. at surface, at 0.5 d, at 0.3 d and d (d-measured depth of water).

6.6 Computer and Hydrography Survey Software

Suitable computer compatible & loaded with the Automatic Hydrographic Survey Software like HYPACK / QINSy / Hydro Pro (or) equivalent software is to be

used for the Bathymetric survey purpose. All other computer Peripherals like Printers, colour Plotter etc. are to be used for generating out puts.

7. Time Schedule

The time schedule for execution of the entire assignment will be as follows:

- a) Zero date of this project will be taken as 10th day after issue of Work Order.
 (0 days)
- **b)** The Contractor should mobilize Equipment's, Man power etc. complete and start the Field works within 10 days from zero date. (10 days)
- c) The actual river survey work should commence within 15 days of zero date. (15 days)
- **d)** The Draft Report along with draft charts of surveyed area should be made available within 15 days after completion of field works.

8. Progress of Works

Monthly progress report is required to be submitted before 5th calendar day of every month clearly indicating the following:

- a) General site location map.
- **b)** Bathymetric survey area covered and details of activities carried out.
- c) Topography survey area covered and details of activities carried out.
- **d)** Details of Survey instruments / Survey vessel used.
- **e)** Details of Bar check (Depth & Position) done for conducting Bathymetric survey / Topographic survey with its accuracy obtained.
- f) Details of **Tide gauges erected**, levelling done, transfer of Datum etc.
- **g)** Longitudinal profile from Vijayawada to Muktyala indicating the Chainage, River bed, Low Water Level (CD), High Water Level w.r.t. MSL.
- **h)** Details of Tide gauge readings collected.
- i) Co-ordinates & descriptions of control points used for the surveys.
- **j)** Reference Bench Marks used for the survey (enclosed at the last page of the Tender document).
- **k)** Details of Current meter readings, Float observation, Soil & Water sample collection etc.
- 1) Details of bridges / cross structures / HT & LT lines collected.
- **m)** Brief descriptions of waterways indicating status of minimum depth available and width of clear channel.
- **n)** Well focused Photographs to be taken during field activities. Resolution of Images should not to be less than 1025×768 .
- **o)** Any other information relevant for waterway development for navigation.

9. Monthly Reports

- a) Two hard copies of the Survey Chart (A1 size) and two hard copies of Report + Digital form containing all Raw / processed data copied in CDs / DVDs (Survey chart in .pdf & .dwg AutoCAD format and Report in .pdf & .doc / .xls / .xlsx MS Office format) shall be submitted within 10 days period of completion of field survey work. The Contractor should obtain IWAI's views / comments and same is to be incorporated in the Report / Charts.
- **b)** All drawing & charts shall be made in good quality of chart paper in A1 size and submitted each set in good folders.
- c) All Raw data, edited data / processed data, sorted out data, final plotting charts etc. of Automated Hydrographic Survey system are required to be submitted along with final charts in soft copy.

A. SPECIAL CONDITIONS:

- 1. The contractor will study the requirements of the survey operations as explained in earlier sections and will take total responsibility for mobilizing all the survey equipments, vessels and the requisite personnel and complete the surveys as required within the stipulated time.
- 2. In order to avoid serious time lag between field survey and submission of final survey charts / drawing, the contractor is expected to setup a base office at Vijayawada in Andhra Pradesh. This is also expected to help the contractor to fulfil the gaps in information before finalization.
- 3. The contractor will provide free access to the Engineer-in-Charge / EIC representatives who will inspect and verify the data during the Survey / plotting stage itself. Any correction pointed out should be carried out and information's as required should be provided without any undue delay. These contracts do not provide for any down time of equipment or boat; hence, the contractor should ensure that these are avoided if not kept at minimum.
- **4.** The contractor has to arrange transport vehicle, boat for EIC or EIC representatives during the monthly survey period/inspection of site.
- **5.** The contractor is only responsible for any controversy occur during the survey time with the fisherman's nets and public.
- 6. IWAI will not accept any liability towards loss damage of any equipment vessel / survey equipment during the course of execution of contract. The contractor shall be responsible for paying all berthing charges on jetty or other local charges etc.
- **7. (a)** The IWAI will make payment to the contractor after successful completion of the survey, analysis of raw data and submission of report. Payment of such amount of first bill will be due under separate certification by the Engineer-in-Charge or his representative after,
 - i) Execution of the form of Agreement by the parties within 15 days after issuing Work Order.
 - **ii)** Provision by the Contractor of the security in accordance with the Clause-3 of General condition of contract.
 - **(b)** The above payment will become payable only on satisfactory mobilization

of all equipment and personnel which will be subject to verification by the Engineer-in-Charge or his representative. It is presumed here that the successful mobilization means start of field Hydrographic surveys work. Hence the field Officer-in-charge will normally certify payment of mobilization advance only after the field Hydrographic surveys are commenced and after he is satisfied that all equipment and manpower are fully geared up for continuing operation in the field.

(c) Payment

Payment will be made as mentioned at Clause 40 of General conditions of contract.

(d) Certificate of Bills

- i) Monthly bills shall be submitted by the contractor after the completion of survey activity/mile stone mentioned in clause -40 of General Conditions of Contract.
- **ii)** Payment on account for amount admissible shall be made on the certification of Engineer-In-Charge representatives.
- **iii)** Payment of the contractor's bill shall be made by the Authority within 30 days from the date of submission of the bill subject to the acceptance.

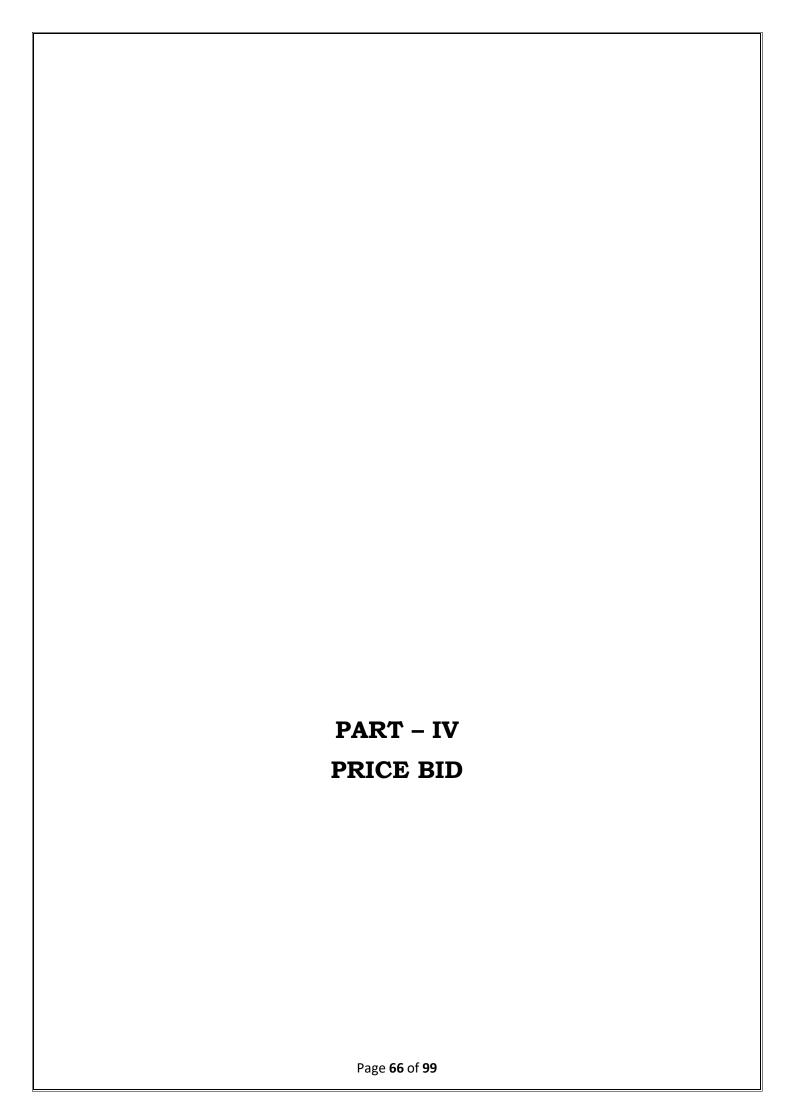
(e) Payment of Final Bill

- i) The EIC or his representative will inspect, co-ordinate and certify the work, he has the right to inspect at any time during the contract period for which contractor's authorised agent shall be available at site during such inspection.
- **ii)** The final bill shall be submitted by the contractor within one month of the date fixed for completion of survey or of the date the date the certificate of completion furnished by the field in charge of IWAI. No further claims in this regard unless as specify here in under shall be entertained.

B. OTHER CONDITIONS

- 1. The Engineer-in-Charge or his representative will inspect, co-ordinate, and certify the work. He has the right to inspect at any time during the contract period for which contractor's authorized agent shall be available at site during such inspection.
- 2. If the contractor's personnel or any outside labour employed to work during execution of contract, breaks or damages / destroys any building, road, kerb, water pipe, fence, bund, wires, trees, crop, fruit or cultivated ground during the period of agreement, the same shall be made good by the contractor at his own expenses or in default the IWAI may cause the same to be made good by other sources and deduct the expenses from any sums that may be then or at any time thereafter may become due to the contractor.
- **3.** The prices shall include all the taxes, **GST**, levies cess, octroi, excise, service tax, transportation, loading / unloading, accommodation or any other local or central taxes as applicable / charged by Central or State Government. No extra in this regard shall be paid.

- **4.** No forms regarding sales tax, trade tax or any other exemption, etc. will be supplied by IWAI. However, department would assist to the contractor for arranging these documents at contractors' cost by writing to the concerned authorities only. Supply or arrangement of these forms, if required, shall be responsibility of the contractor.
- 5. All arrangements for establishment, watch & ward of stores and security of sites, permits, license, appropriate vehicles for transportation, handling, etc. shall have to be made by the contractor at his own cost and nothing extra on this account shall be paid.
- **6.** The right to award split up work or to reject the offer without assigning any reason is reserved with the Authority.
- **7.** The rate shall be quoted only in Indian Rupees and payment shall be made in Indian Rupees only.
- **8.** In case of delay in work E-I-C may reduce the quantity of work without affecting the main objective of the project.
- **9.** The income tax as applicable will be deducted from the running bill and final bill and to that effect a certificate will be issued.
- 10. Work of monthly longitudinal thalweg survey will be awarded initially for a period of one year from the date of Agreement and shall be renewed at expiry, for a further period of one year each time and so on, depending upon the performance of the contractor. The contractor shall quote separately for extending years (Three years).



SCHEDULE OF QUANTITIES (BOQ) to be filled and submitted online only

"Monthly Longitudinal Thalweg Survey of Phase-I on National Waterway - 4"

Tender Inviting Authority: Inland Waterways Authority of India, (Ministry of Ports, Shipping and Waterways, Govt. of India), Governorpet, Vijayawada.

Name of Work: Monthly Longitudinal Thalweg Survey between Vijayawada and Muktyala stretch (82 km), Phase-I of National Waterway – 4, Andhra Pradesh.

Tender No.: IWAI/VJA/NW-4/73/Thalweg survey/2022/06

Bidder Firm Name:

(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 Firm Name and Amount only)

	Sl. no.	Description of item	Qty	Unit	Basic Price per LKM (Rs.)	GST @18% on Col. 5	Amount in Rs. (Col. 5 + Col. 6)	Total Amount including GST (Col. 7 * Col. 3)
	1	2	3	4	5	6	7	8
	1.	To carry out Monthly Longitudinal Thalweg survey between Vijayawada and Muktyala on National Waterway—4, which includes, bathymetric survey, topographic survey, traversing, current meter observation, float observation, erection of tide gauge, collection of water level reading for reduction in soundings, water discharge measurement, collection of tide gauge reading (Phase-I), mobilisation charges of survey units, equipment, hiring & running charges of vessels, insurance of personnel and equipment preparation of draft / final reports & charts etc. complete in all respect.	82	Line Km				
١		Quoted Amount in words:						

Note:

- **1.** Price bid shall be evaluated based on the amount quoted above.
- 2. Bidders are allowed to enter the Bidder Firm name and amounts only.
- **3.** Domestic tender Amount are to be given in Indian Rupees (INR) only).
- **4.** Bidder has to give the item-wise break-down cost of the quoted unit rate in the enclosed sheets.

SCHEDULE OF QUANTITIES (BOQ-1) to be filled and submitted offline only

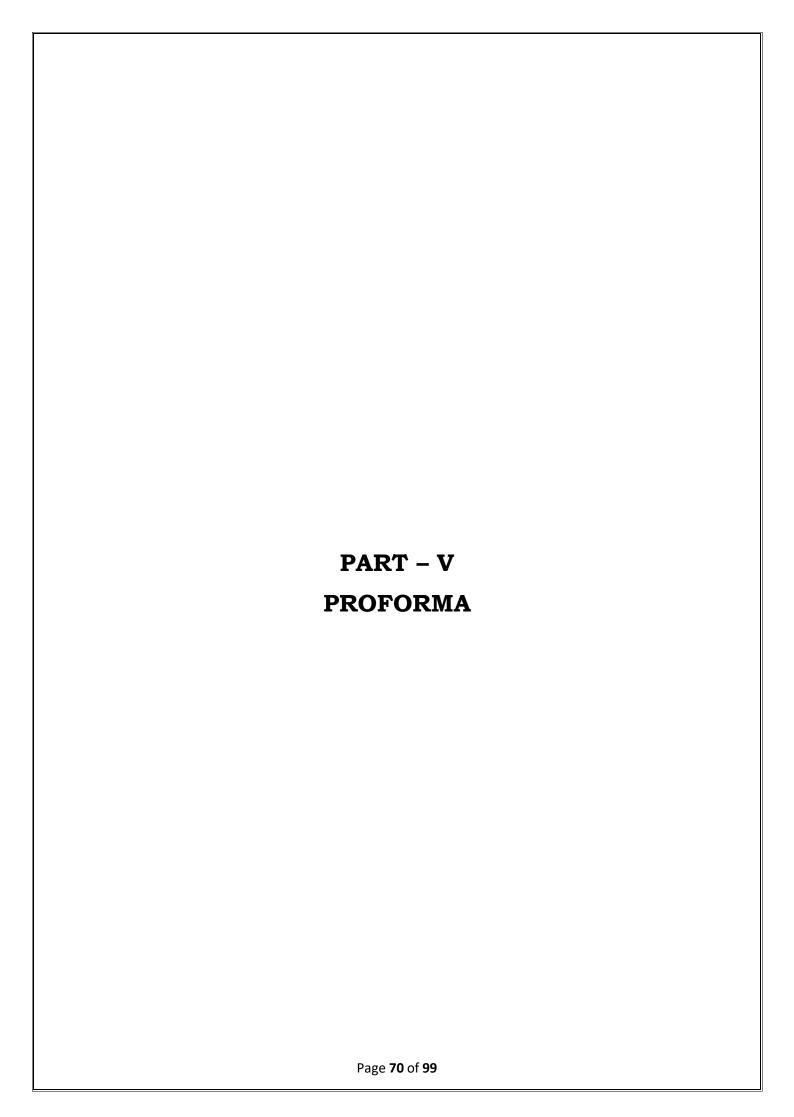
"Monthly Longitudinal Thalweg Survey of Phase-I on National Waterway - 4"

Sl. no.	Description of item	Qty	Unit	GST / Tax (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6
1.	Mobilisation & De-mobilisation Cost				
2.	Hiring of Equipment				
3.	Lodging, Boarding, Local transportation & Engagement of labour Cost				
4.	Engagement of Surveyors				
5.	Engagement of Assistants				
6.	Engagement of Gauge readers				
7.	Charting & Reporting Cost				
8.	Overhead expenditure & Contractor's Profit				
	Quoted Amount in Words :				

<u>Note</u>: Bidder has to give the item wise break-down cost of the quoted unit rate as per following in separate sheet.

SCHEDULE OF QUANTITIES (BOQ-2) to be filled and submitted offline only "Monthly Longitudinal Thalweg Survey of Phase-I on National Waterway - 4"

Sl.	Description of item	Unit Code	Qty	Unit	Basic Price (in Rs.)	GST / Tax (in Rs.)	Amount (in Rs.)
1	2	3	4	5	6	7	8
1.	To carry out Monthly Longitudinal Thalweg survey between Vijayawada and Muktyla on National Waterway-4, which includes, bathymetric survey,	After comple tion of 1st year	82	Line km			
2.	topographic survey, traversing, current meter observation, float observation, erection of tide gauge, collection of water level reading for reduction in soundings,	After comple tion of 2 nd year	82	Line km			
3.	water discharge measurement, collection of tide gauge reading (Phase-I), mobilisation charges of survey units, equipment, hiring & running charges of vessels, insurance of personnel and equipment preparation of draft / final reports & charts etc. complete in all respect.	After comple tion of 3 rd year	82	Line km			



Proforma - I

1. AGREEMENT FORMAT

This agreement made on	
unless excluded by or repugnant, to the context, be deemed to include heir, successors in office) on one part and M/s	This agreement made on day year Between the Inland
successors in office) on one part and M/s	Waterways Authority of India (hereinafter called the 'IWAI' which expression sha
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.	unless excluded by or repugnant, to the context, be deemed to include heir
the context be deemed to include his heirs, executors, Administrators, representatives and assigns of successors in office) on the other part.	successors in office) on one part and M/s (hereinafte
representatives and assigns of successors in office) on the other part.	called the CONTRACTOR which expression, shall unless excluded by repugnant t
	the context be deemed to include his heirs, executors, Administrators
WHEREAS THE IWAI Desirous of Undertaking the works	representatives and assigns of successors in office) on the other part.
	WHEREAS THE IWAI Desirous of Undertaking the work

WHEREAS THE IWAI Desirous of Undertaking the works

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 to be read and construed as part of the agreement i.e.

- a) Notice inviting Tender
- **b)** Form of Tender
- c) Condition of contact
- **d)** Schedule of the price bid
- **e)** Agreement form
- f) Technical Bid No. with Date.
- g) Addendum/Corrigendum
- **h)** Minutes of Pre-bid Meeting
- i) All Correspondence
- j)
- k)
- 1)
- m)

shall take precedence over the compiled documents.	
The contractor hereby covenants with the IWA "Works" in conformity in all respect, with the provisi	•
The IWAI hereby covenants to pay the contract price at the time a the contract.	
IN WITNESS WHEREOF the parties hereunto on the day and the year first above written.	have set their hands and seals
In WITNESS whereof the IWAI has caused S behalf to hereunto set his hand and the Consultantheir behalf to hereunto set his hand and the firm has affixed hereunto the day and year first above written	nt has caused Shri on as caused its common seal to be
SIGNED AND DELIVERED	SIGNED AND DELIVERED
For and on behalf of	For and on behalf of
INLAND WATERWAYS AUTHORITY	CONTRACTOR
OF INDIA (IWAI)	()
(Name)	(Name)
Designation	Designation
Designation	Designation(Seal)
(Seal)	(Seal)
(Seal) Witness:	(Seal) Witness:

......may be referred to by either party. These documents

2. BANK GUARANTEE FORM FOR PERFORMANCE SECURITY

To

The Chairman,
Inland waterways Authority of India,
(Ministry of Ports, Shipping and Waterways, Govt. of India)
A-13, Sector-1, Noida (U.P.), Pin-201301.

- **2.** We, **(Bank)** undertake to pay the Employer any money so demanded not withstanding any dispute or disputes raised by the **Contractor** in any suit or proceeding pending before any court or Tribunal relating thereto, liability under this present being absolute and unequivocal. The payment so made by us under this guarantee shall be valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.
- 3. We, (Bank) further agree that the guarantee herein contained shall remain in full force and effect till completion of project work to the complete satisfaction of the Employer in terms of conditions of contract and Letter of Award and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Agreement have been fulfilled and its claim satisfied or till the scheduled date of completion of Works as per the Agreement. We (Bank) shall consider that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor and accordingly discharge this Guarantee after 90 days from the date of completion of the said contract unless a demand or claim under this Guarantee is served by the Employer in writing on the bank but before the expiry of the said period in which case it shall be enforceable against the bank

- notwithstanding the fact that the same is enforced after the expiry of the said period or after the extended period as the case may be.
- **4.** We (Bank) further agree with the Employer that the Employer shall have fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time or performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for the provision, have effect of so relieving us.
- **5.** It shall not be necessary for the Employer to proceed against the Contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the bank notwithstanding any security which the Employer may have obtained or obtain from the Contractor at the time when proceedings are taken against the bank hereunder be outstanding or unrealized.
- **6.** Notwithstanding anything contained herein above our liability under the guarantee is restricted to Rs...... (Rupees.......... only) and shall remain in **force until**...... or otherwise until the extended date by the Employer. Unless a claim or suit under this guarantee is filed with us on or before or the extended date....... ALL OUR RIGHTS UNDER THE GUARNTEE SHALL BE FORFEITED and the bank shall be relieved and discharged from all liabilities therein.
- **7.** This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
- **8.** We, (Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Employer in writing.

Dated the of 2022
for
(Indicate the name of bank)
Signature
Name of the Officer
(In Block Capitals)
Designation
Code No
Name of the bank and Branch (SEAL)

TIME SCHEDULE

Subject: Monthly Longitudinal Thalweg Survey between Vijayawada to Muktyala Stretch (Phase – I) of National Waterway – 4, Andhra Pradesh.

Successful bidders shall deploy number of survey teams for completion of survey. The time schedule of execution of the entire assignment shall be furnished as per the proforma shown below:

S1.	Stretch	Zero Date	Mobilizatio	Commencement	Completion	Submission
no.			n Period	of Survey	of Field	of Draft /
					Survey Work	Final
						Report
1.	Vijayawada	Date of	days	days	days	days /
	to Muktyala	signing of	from the	from the zero	from the	days
	(Hydrograp	Agreement	zero date	date	zero date	from the
	hic Survey)	i.e. within				zero date
		15 days				
		after				
		issuance				
		of Work				
		Order				

Note: Time included for all seasons except Force Majeure tender clause.

- a) Two copies of the draft survey chart and report (hard & soft copies both) shall be submitted within 10 days period of completion of field survey work.
- b) Three copies of the final survey charts & reports (hard & soft copies both) shall be submitted within 10 days period after communicated modification / comments on draft report / charts, by IWAI.
- c) No LD clause will be applicable for completing the works within the time period mentioned in this tender document by IWAI. If there is any deviation in the time schedule proposed by the Contractor, LD clause will be applicable for completing the works.

<u>Proforma – IV</u>

LIST OF KEY PERSONNEL PROPOSED TO BE DEPLOYED BY CONTRACTOR ON THIS WORK

Name	Designation	Qualification and Experience
	Name	Name Designation

(Signature of Contractor)

QUESTIONNAIRE

<u>Detailed Information on Contractors Experience and Financial viability General</u> <u>:</u>

- 1. Name & Address of the firm:
- **2.** Status of the firm (with background): (Private / Govt. / PSU)
- **3.** Registered office address:

Та1 •	T3	Thurst 11 .
IEI:	Hay:	. Email :
101	1 421	. 17111CC11

- **4.** Director's / Owner's Name:
- **5.** No. of employees working in the office :
- **6.** Qualifications & experience of the Director and other key staff proposed to be engaged for the above survey.
- **7.** Authorized capital of the company (in Rs..... Lakhs only).
- **8.** Have you been registered with any Govt. / Public Sector Organization (Yes/No), if so, furnish the details

Technical:

Give details in a statement form of the work carried out by the firm during last 7 years.

- 1. Type of Work done with copies of Work completion certificate.
- **2.** Cost of each work done.
- **3.** Furnish details regarding target dates and actual dates of completion of works / surveys with names and address of clients.
- **4.** Please indicate the field of specialization of the firm / company in brief.

Relevant Experience:

- **1.** Details of hydrographic surveys.
- **2.** Details of personnel.
- **3.** Detailed bio data of Hydrographic Surveyors proposed to be deployed and state if they are presently employed in your firm.
- **4.** It is essential that senior Surveyors proposed to lead the survey units should have adequate river survey and navigation experience. Hence relevant information on this must be included.
- **5.** Furnish list of survey job on hand along with deployment schedule of survey personnel and equipment.

Financial:

- **1.** Details of company's corporate profiles from inception.
- 2. Firm's Bankers.

	and preceding two years.
<u>Eq</u> ı	nipment:
1.	Echo Sounder : Make : Frequency :
2.	Total Station : Make : Accuracy :
3.	Auto Level: Make:
4.	DGPS / Equivalent : Make : Accuracy :
5.	Tide Gauge (Manual / Automatic) : Make :
6.	Soil Sampling device:
7 .	Water Sampling device:
8.	Current meter device : Make :
9.	Float observation equipment :
10.	Details of Hydrographic Survey Software (Developer, Version etc) :
11.	Survey Boat : Make : Capacity :

3. Attested copies of income tax clearance certificates for the last assessment year

Proforma - VI

TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date: XX/YY/ZZZZ

To,

The Director

INLAND WATERWAYS AUTHORITY OF INDIA,

Vijayawada

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No:

Name of Tender / Work: [Project Name]

Dear Sir,

- 1. I / We have downloaded / obtained the Tender document(s) for the above mentioned 'Tender/Work' from the website(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.** The minutes of the pre-bid meeting (if any) and / or corrigendum(s) (if any) issued from time to time by your department / organization for this work too have also been taken into consideration, while submitting this acceptance letter.
- **4.** I / We hereby unconditionally accept the Tender conditions of above mentioned Tender document(s) / minutes of the Pre-bid Meeting (if any) / corrigendum(s) (if any) in its totality / entirety.
- **5.** In case any provisions of this Tender are found violated , then your department / organization 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)

PROCEDURE TO BE ADOPTED FOR HORIZONTAL & VERTICAL CONTROL MONTHLY LONGITUDINAL THALWEG SURVEY ON NW - 4

2. Vertical control:

1. Horizontal control:

Note:

- i) Details of GTS / Survey of India Bench Marks are available with IWAI (enclosed at the last page of the Tender document).
- **ii)** High precision RTK / DGPS / equivalent Position fixing equipment with digital output having sub-meter accuracy standards is acceptable for conducting Bathymetric survey.
- **iii)** High precision Leveling instrument, Total Station, DGPS / equivalent Position fixing equipment having decimeter level accuracy better than 10 cm suitable for establishing proper ground control levels are acceptable.
- iv) Levels can be transferred from CWC / Irrigation / Ports gauges / GTS Bench Marks.
- **v)** Introductory letter will be issued to the successful bidder for collection of related information's from State Departments.

(Signature of Bidder)

<u>Proforma - VIII</u>

DETAILS OF EQUIPMENT & SOFTWARE PROPOSED TO BE DEPLOYED

MONTHLY LONGITUDINAL THALWEG SURVEY FROM VIJAYAWADA TO MUKTYALA STRETCH (PHASE-I) OF NW – 4

Sl. No.	Details of equipment / Software	Equipment / Software	Proposed Usage

Note: Details of Hydrographic Survey Software, Hydrographic Survey equipment, Land Survey Equipment, Sample Collectors, Velocity / Discharge measurement equipment, Boat details etc. are to be provided.

(Signature of Bidder)

DETAILS OF MANPOWER PROPOSED TO BE DEPLOYED

MONTHLY LONGITUDINAL THALWEG SURVEY FROM VIJAYAWADA TO MUKTYALA STRETCH (PHASE-I) OF NW – 4

S1. No.	Name of the Surveyor	Qualification	Experience

(Signature of Bidder)

Proforma - X

DETAILS OF BANK ACCOUNT

FOR RELEASE OF PAYMENT THROUGH ELECTRONIC FUND TRANSFER SYSTEM (TO BE FURNISHED BY THE BIDDER ON ITS LETTER HEAD)

NAME OF THE PROJECT:	
payments by crediting our bank accoundetails given below. We hereby undertain particulars given below and will not h	the Bidder) hereby request you to give our not directly by E-payment mode as per account aske to intimate IWAI in case of any change in old IWAI responsible for any delay / default
due to any technical reasons beyond IV	
Bank Account Number	:
RTGS / NEFT / IFSC CODE	:
NAME OF THE BANK	:
ADDRESS OF THE BRANCH	:
OF THE BANK	
BRANCH CODE	:
ACCOUNT TYPE	
(SAVING / CURRENT / OTHERS)	:
·	ticulars given above are correct and complete. s not affected at all for reasons of incomplete
	Signature of Authorized Signatory Name & Designation
Date:	
Place:	

TO BE SIGNED BY THE BIDDER'S AND THE SAME IS TO BE SIGNED BY AUTHORIZED SIGNATORY / COMPETENT EMPLOYER ON BEHALF OF IWAI.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of 2022
BETWEEN
Chairman, Inland Waterways Authority of India represented through the Director , Inland Waterways Authority of India , Vijayawada .
IWAI, (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 Employer has floated the Tender (NIT No.: IWAI /)

(hereinafter referred to as "Tender / Bid") and intends to award, under laid down organizational procedure, contract for **[Project Name]**.

AND WHEREAS the Employer 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 Employer 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 Employer will, during the Tender process, treat all Bidder(s) with equity and reason. The Employer 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 Employer shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2. If the Employer 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 Employer 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) / Contract(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 Employer as part of the business relationship, regarding plans, technical Bids 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 participate 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 Employer under law or the Contract or its established policies and laid down procedures, the Employer 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 Employer 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 Employer 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 Employer 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 Employer 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 Employer has substantive suspicion in this regard, the Employer 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 Employer may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders / Contractors

- **1.** The Bidder / Contractor shall be responsible for any violation(s) of the principles laid down in this Agreement / Pact by any of its sub-vendors.
- **2.** The Employer will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- **3.** The Employer will disqualify Bidders, who do not submit, the duly signed Pact between the Employer 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

- **1.** This Pact begins when both the parties have legally signed it. It expires for the Contractor 12 months after the completion of work under the contract.
- **2.** 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 Employer.

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 Employer, 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 intensions.
- **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 Employer / 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 Employer)
(For and on behalf of Bidder / Contractor)
WITNESSES:
1
(signature, name and address)
2
(signature, name and address)

<u>Proforma – XII</u>

BANK CERTIFICATION

	It is	certifi	led tha	ıt			(benefici	iary) 1	nolds	a	B	ank Account
No.					with	our	branch	and	the	bank	particular	s mentioned
here	with	are c	orrect.	•								
											Authorizea	l Signatory
										•	1441101120	Digitatory
Date											Αι	ıthorization
No.												
Nam	1e:											
											Official S	eal / Stamp
											Official 5	cai / Stamp

<u>Proforma – XIII</u>

SAMPLE FORM FOR SITE ORDERS BOOK

Reference Clause No. 18.4

Name of work Date of comme	ement / period for completion
----------------------------	-------------------------------

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

<u>Proforma – XIV</u>

PROFORMA FOR HINDRANCE REGISTER

Reference Clause No. 18.5

S1. No.	Nature of Hindran ce	Items of Work that could not be due executed to this Hindrance	Date of Start of		of	Overlappi ng period		tnis	Net effective days of Hindranc e	Remarks of EIC
1	2	3	4	5	6	7	8	9	10	11

Notice for appointment of Arbitrator

[Refer Clause 48]

To

The Chairman, Inland Waterways Authority of India, A-13, Sector-1, NOIDA-201301, UP.

Dear Sir,

In terms of clause 41 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 Hydrographic Chief for decision
- 17. Date of receipt of Hydrographic Chief'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.												
4.	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠

3.

Yours faithfully,

(Signatures)

Map showing Phase-I of National Waterway - 4



DETAILS OF SURVEY TO BE UNDERTAKEN

STRET CH	S1. No	NAME OF THE BEAT (Chainage in Km)	Length of the longitudin al Survey (Km)	Length of the Cross- section Survey (Km)	Un- Surveye d length (Km)	Total Surveye d (Km)	Remarks / (Survey not carried out due to)
			A	В	С	A+B+C	
	1	Parkasham Barrage to Harichandrapura m (0 Km - 22 Km)	22				
Viinna	2	Harichandrapura m to Amaravati (22 Km - 30 Km)	8				
Vijaya wada to Mukty	3	Amaravati to Achhampeta (30 Km - 37 Km)	7				
ala (82 Km)	4	Achhampeta to Chamarru (37 Km - 58 Km)	21				
	5	Chamarru to Vedadri (58 Km - 76 Km)	18				
	6	Vedadri to Muktyala/Madipa du (76 Km - 82 Km)	6				

Available Sounding Datum on NW-4:

Sounding Datum in Krishna River From Harischandrapr (Ch-21.9) to Chamarru (Ch-58.0)

Sounding Datum at vijayawada (Ch:0) - SD is **15.75**

At VW3 (Ch:20.618) - SD is **16.133**

At Ch: 57.97 - SD is **22.158**

S.No	Location	Chainage	SD	Remark
1	Harischandrapur	21.9	16.133	
2		22	16.150	
3		22.5	16.233	
4		23	16.317	
5		23.5	16.400	
6		24	16.484	
7		24.5	16.567	
8		25	16.651	
9		25.5	16.734	
10		26	16.818	
11		26.5	16.901	
12		27	16.985	
13		27.5	17.068	
14		28	17.152	
15		28.5	17.235	
16		29	17.319	
17		29.5	17.402	
18		30	17.486	
19		30.5	17.570	
20		31	17.653	
21		31.5	17.737	
22		32	17.820	
23		32.5	17.904	
24		33	17.987	
25		33.5	18.071	
26		34	18.154	
27		34.5	18.238	
28		35	18.321	
29		35.5	18.405	
30		36	18.488	
31		36.5	18.572	
32		37	18.655	
33		37.5	18.739	
34	Malladi	38	18.822	
35		38.5	18.906	
36		39	18.989	
37		39.5	19.073	

39 40.5 19.240 40 41 19.323 41 41.5 19.407 42 42 19.490 43 42.5 19.574 44 43 19.657 45 43.5 19.741 46 44 19.825 47 44.5 19.908 48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328	20		10	10.156	
40	38		40	19.156	
41 41.5 19.407 42 19.490 43 42.5 19.574 44 43 19.657 45 43.5 19.741 46 44 19.825 47 44.5 19.908 48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495					
42 19.490 43 42.5 19.574 44 43 19.657 45 43.5 19.741 46 44 19.825 47 44.5 19.908 48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578					
43 42.5 19.574 44 43 19.657 45 43.5 19.741 46 44 19.825 47 44.5 19.908 48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662			41.5	19.407	
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45	43		42.5	19.574	
46 44 19.825 47 44.5 19.908 48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912	44		43	19.657	
47 44.5 19.908 48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996	45		43.5	19.741	
48 45 19.992 49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	46		44	19.825	
49 45.5 20.075 50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	47		44.5	19.908	
50 46 20.159 51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55.5 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	48		45	19.992	
51 46.5 20.242 52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	49		45.5	20.075	
52 47 20.326 53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	50		46	20.159	
53 47.5 20.409 54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	51		46.5	20.242	
54 48 20.493 55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56.5 21.912 72 57 21.996 73 57.5 22.079	52		47	20.326	
55 48.5 20.576 56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	53		47.5	20.409	
56 Konuru 49 20.660 57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	54		48	20.493	
57 49.5 20.743 58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	55		48.5	20.576	
58 50 20.827 59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	56	Konuru	49	20.660	
59 50.5 20.910 60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	57		49.5	20.743	
60 51 20.994 61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	58		50	20.827	
61 51.5 21.077 62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	59		50.5	20.910	
62 52 21.161 63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	60		51	20.994	
63 52.5 21.244 64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	61		51.5	21.077	
64 53 21.328 65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	62		52	21.161	
65 53.5 21.411 66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	63		52.5	21.244	
66 54 21.495 67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	64		53	21.328	
67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	65		53.5	21.411	
67 54.5 21.578 68 55 21.662 69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	66		54	21.495	
69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079			54.5		
69 55.5 21.745 70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	68				
70 56 21.829 71 56.5 21.912 72 57 21.996 73 57.5 22.079	69				
71 56.5 21.912 72 57 21.996 73 57.5 22.079			i		
72 57 21.996 73 57.5 22.079	71				
73 57.5 22.079			i		
	74	Achampet		22.158	

Sounding Datum in Krishna River From Chamarru (Ch-58.0) to Pulichintala D/S (Ch-86.2)

At Ch: 57.97 - SD is **22.158**

At Pulichintala D/s Ch:86.20 - SD is $\bf 24.488$

S.No	Location	Chainage	SD	Remark
1	Achampet	57.97	22.158	
2	<u> </u>	58.5	22.202	
3		59	22.243	
4		59.5	22.284	
5		60	22.326	
6		60.5	22.367	
7		61	22.408	
8		61.5	22.449	
9		62	22.491	
10		62.5	22.532	
11		63	22.573	
12		63.5	22.614	
13		64	22.656	
14		64.5	22.697	
15		65	22.738	
16		65.5	22.779	
17		66	22.821	
18		66.5	22.862	
19		67	22.903	
20		67.5	22.945	
21		68	22.986	
22	Taduvai	68.5	23.027	
23		69	23.068	
24		69.5	23.110	
25		70	23.151	
26		70.5	23.192	
27		71	23.233	
28		71.5	23.275	
29		72	23.316	
30		72.5	23.357	
31		73	23.399	
32		73.5	23.440	
33		74	23.481	
34		74.5	23.522	
35		75	23.564	
36		75.5	23.605	
37		76	23.646	
38		76.5	23.687	
39		77	23.729	
40		77.5	23.770	

41		78	23.811	
42	Madipadu Seri	78.5	23.852	
43		79	23.894	
44		79.5	23.935	
45		80	23.976	
46		80.5	24.018	
47		81	24.059	
48		81.5	24.100	
49		82	24.141	
50		82.5	24.183	
51		83	24.224	
52		83.5	24.265	
53		84	24.306	
54		84.5	24.348	
55		85	24.389	
56		85.5	24.430	
57		86	24.471	
58	Pulichintal Dam D/S	86.2	24.488	Pulichintala Dam D/S

Details of existing TBMs on NW-4 route

(Vijayawada to Muktyala – 82 Kms, Phase - 1)

S. No	Bench mark	Chain age	Village	Latitude			Sounding Datum (m)
1	VW-1	0	Prakasam Barrage	16° 30' 43.04118" N	80° 36' 23.18668" E	19.097	17.38
2	VW-2	07-08 Suraya 16° 32' 80° 32' Palem 26.83575" N 13.86640" E		18.636	18.02		
3	VW-3	20-21	Harischand rapuram	16° 34' 19.56279" N	80° 26' 24.66632" E	24.013	19.76
4	VW-4	30	Amaravati	16° 34' 19.50516" N	80° 21' 39.64572" E	26.661	19.843
5	VW-5	40	Malladi	16° 35' 15.40862" N	80° 16' 13.78610" E	29.174	20.689
6	VW-6	48-50	Konuru	16° 36' 29.16882" N	80° 11' 48.06495" E	26.264	21.423
7	VW-7	58-59	Near Chamarru	16° 39' 36.16882" N	80° 07' 38.51021" E	26.708	22.224
8	VW-8	68-69 Km	Tadvai	16° 44' 52.17818" N	80° 08' 08.84776" E	36.586	23.049
9	VW-9	78	Madipadu suri	16° 49' 11.00904" N	80° 06' 29.02094" E	41.581	23.84
10	VW-10 88		Pulichintala Dam	16° 46' 05.87360" N	80° 03' 28.56847" E	54.186	36.407
Note:	GTS	-	Sub- Collector, Vijayawada	16° 30' 25.36737" N	80° 37' 43.2532" E	19.097	
