



TENDER DOCUMENT

FOR

ERECTION & MAINTENANCE OF BANDALLING AND DAY & NIGHT NAVIGATION SYSTEM DURING THE PERIOD JULY, 2017 TO MARCH, 2018 IN RAJMAHAL TO ALLAHABAD STRETCH OF NATIONAL WATERWAY NO. - 1 (RIVER GANGA)



TENDER No. : IWAI/PTN/17(41)/TENDER(RCW) /2017-2018

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

INLAND WATERWAYS AUTHORITY OF INDIA
(Ministry of Shipping, Govt. of India)
Gaighat, Gulzarbag, Patna-800007
Telephone Nos. 0612-2310026, 2310029,
Website: <http://iwai.gov.in>, <http://eprocure.gov.in/eprocure/app>
E-mail: iwaiptn@rediffmail.com



TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date:

To,

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender / Work: -

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

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 corrigendum(s) issued from time to time by your department/ organization too has 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) / corrigendum(s) in its totality / entirety.

5. In case any provisions of this tender are found violated , then your department/ organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully

(Signature of the Bidder, with Official Seal)

**ERECTION & MAINTENANCE OF
BANDALLING AND DAY & NIGHT
NAVIGATION SYSTEM DURING THE
PERIOD JULY, 2017 TO MARCH, 2018 IN
RAJMAHAL TO ALLAHABAD
STRETCH OF NATIONAL WATERWAY
NO. - 1 (RIVER GANGA)**

PART – A

TECHNICAL BID



INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Govt. of India)
Gaighat, Gulzarbag, Patna-800007

NIT FOR PUBLICATION IN NEWSPAPER

TENDER NO.IWAI/PTN/17(41)/TENDER(RCW)/2017-18

Inland Waterways Authority Of India (IWAI), Gaighat, Gulzarbagh Patna invites Online Tenders/ Bids from reputed and experienced contractors for erection & maintenance of bandalling and day & night navigation system during the period from July' 2017 to March' 2018 in Rajmahal - Allahabad stretch of National Waterway No. 1 (River Ganga)

1. Date of download the tender documents: From **20/06/2017 to 03.07/2017**
2. Last Date & time for submission of Online Bids/ tender : **03.07/2017** up to 1700 hrs.
3. Date & Time for online opening of Tender: **05.07/2017** at 1500 hrs.

For details visit our web site : - <http://iwai.nic.in> and <https://eprocure.gov.in/eprocure/app> but online submission will be through <https://eprocure.gov.in/eprocure/app>

**-sd-
Director**



INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Govt. of India)

Head Office: A-13, Sector – 1, Noida - 201 301, Distt.- Gautam Budh Nagar; (U.P.)

&

INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Govt. of India)

Gaighat, Gulzarbag, Patna-800007

Telephone Nos. 0612-2310026, 2310029

NOTICE INVITING TENDER No.: IWAI/PTN/17(41)/TENDER (RCW) /2017-2018

Name of Work: - Tender document for the work of erection & maintenance of bandalling and day & night navigation system during the period July' 2017 to March' 2018 in Rajmahal - Allahabad stretch of National Waterway No. 1 (River Ganga).

1. Inland Waterways Authority of India (IWAI) invites On line tenders in two cover system (Cover I - Technical bid and Cover II - Financial Bid) from reputed & experienced contractors for the work of erection & maintenance of bandalling and day & night navigation system during the period July 2017 to March 2018 in Rajmahal - Allahabad stretch of National Waterway No.1 (River Ganga). The Bids will placed online at <https://eprocure.gov.in/eprocure/app>. Tender document may be downloaded from the <https://eprocure.gov.in/eprocure/app>. as per the schedule as given in critical date sheet as under:-

Estimated Cost of the work, EMD requirement and Critical Dates are as under:-

Name of Works	Erection & maintenance of bandalling and day & night navigation system during the period July 2017 to March' 2018 in Rajmahal -Allahabad stretch of National Waterway No. 1 (River Ganga).
Date of Publishing	20.06.2017
Document Download Start Date & Time	20.06.2017 1200 Hrs
Bid Submission start Date & Time	20.06.2017 1300 Hrs
Bid Closing/Document Download End Date & Time	03.07.2017 1700 Hrs
Bid Opening Date & Time	05.07.2017 1500 Hrs

Estimated Cost of the work and EMD requirement are as under:

Sl. No	Stretch of NW 1	Estimated Cost (Rs. In Lakh)	EMD (Rs in Lakhs)
		2017-2018	
1.	Rajmahal –Munger	108.07	2.17
2.	Munger - Patna	141.89	2.84
3.	Patna – Ghazipur	120.84	2.42
4	Chunar - Allahabad	12.43	0.25

2. Bids shall be submitted online only at CPPP website <https://eprocure.gov.in/procure/app> Manual bids shall not be accepted and liable to be rejected.
3. The Hard Copy of original instruments in respect of cost of tender document, earnest money, other documents in original as asked in this **tender document must be delivered at the office of Director, IWAI, Gaighat, Patna-800007 on or before bid closing or opening date / time as mentioned in critical date sheet.** Bidder shall likely to be liable for legal action for non-submission of original payment instrument like DD, etc., against the submitted bid. Demand Draft attached/submitted for tender fee shall be non refundable.

TERMS & CONDITIONS:-

4. **The tenderer shall meet the following pre-qualification criteria:**
 - i. The tenderer shall be registered with Central Public Works Department, Railways, MES and State PWD/ Irrigation Department or non-registered contractors having experience of working with IWAI.
 - ii. Tenderer shall have Permanent Account Number issued by Income Tax Deptt., Service Tax number and GST
 - iii. Average annual financial turnover during last three years ending of the previous financial year, should be at least 30% of the cost. Experience of having successfully completed similar works i.e. river conservancy works or river training works or flood control or other riverine or similar nature of works during last seven years ending last day of month previous to the one in which this tender is invited should be either of following:
 - (a) Three similar works costing not less than 40% of the estimated cost; **or**
 - (b) Two similar works costing not less than 50% of the estimated cost; **or**

- (c) One similar work completed not less than 80% of the estimated cost
- iv. Latest certificate of solvency from nationalized / scheduled Bank included in the second schedule of the RBI Act for not less than the value indicated below:

Sl.No	Stretch	Bank solvency required (Rs. In Lakhs)
1.	Rajmahal –Munger	33.00
2.	Munger - Patna	43.00
3.	Patna – Ghazipur	37.00
4.	Chunar- Allahabad	4.00

- v. The tenderer shall agree to the terms & conditions of the tender and return the tender duly signed in each page for agreeing the same.
- vi. The tenderer shall submit required Earnest Money Deposit in the form of demand draft. Any/all submissions made without the earnest money and/or after the date mentioned hereinafter in clause 6 shall be deemed to be rejected.

Parties fulfilling the above indicative eligibility criteria can download tender document from the “<https://eprocure.gov.in/eprocure/app>” and IWAI’s website “www.iwai.nic.in”. Bidders submitting the downloaded version of tender document is required to submit 10000/- (Rupees Ten thousand only) i.e. an amount equal to the cost of tender document along with tender in the form of demand draft made in favour of ‘IWAI fund’ payable at Patna at any nationalized/ schedule bank.

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 for downloaded tenders. Site can be inspected on all the working days during office hours. IWAI reserves the right to reject any or all the tender without assigning any reason thereof.

5. The firm may quote for work of indicated above and completed bids as per terms & Conditions mentioned in the tender document should be online submission at <https://eprocure.gov.in/eprocure/app> by 1700 hrs on 03.07.2017 and it will be opened on 05.07.2017 at 15:00 hrs.
6. **For special attention**
- **All tenderers are cautioned that tenders containing any deviation whatsoever from the terms and conditions, specifications as contained in the tender documents are liable to be rejected as non-responsive.**

The tender shall have to be submitted bid online in two bid format, the first part i.e.” Technical bid” should contain the scanned copy of entire tender document duly signed in all places, details of machineries, technical manpower, work schedule, and earnest money deposit only but not the price bid. Second part i.e.” Financial bid” shall contain only the rates of the item of work as in schedule A, B, C & D these price bid (BOQ of erection & maintenance of bandalling and day & night navigation system during the period from July’ 2017 to March’ 2018in Rajmahal - Allahabad stretch of National Waterway No. 1 (River Ganga)) as per format provided along with this tender. Bid shall be submitted online separate covers super scribing as “technical bid” and “financial bid”.

7. Earnest Money Deposit (EMD) and tender cost must accompany each tender and tender not accompanied by the EMD & tender cost shall be rejected as NON-RESPONSIVE. The EMD & tender cost for an amount as specified above shall be submitted in the technical bid.

8. Opening Of Tenders & Evaluation

- (a) Tenders will be opened online by the tender evaluation committee at IWAI, Gaighat, Gulzarbagh, Patna-7 at **15:00 hrs on 05.07.2017** in the presence of representative of the tenders who choose to remain present.
- (b) After the online opening of the tenders, the first part i.e. Technical bid will be evaluated by the Tender Evaluation Committee as constituted by the Authority. The second part i.e. Price bid will be opened online by the same T.E.C. only for those tenderers who become technically qualified after the evaluation of technical on a suitable date.

9. TENDER VALIDITY PERIOD

The tender shall remain valid for a period not less than 90 days after the date of opening of tenders.

Tenderer must read “ Information & Instruction for Tenders” and be satisfied himself in respect to scope and the situation of works or any issue as related to the work as considered necessary before the submission of the tenders.

10. The authority shall have the right to reject any or all the tenders and will not be bound to accept the lowest or any other offer.
11. The complete bid (hard copy) as per the tender document should reach the office of Director, Inland Waterways Authority of India, Gaighat, P.O.-Gulzarbagh, Patna -800007, on or before date & time of opening of tender. The technical bid will be **opened on 05.07.2017 at 1500 hrs** in the presence of intending bidders.
12. 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.



INDEX

S.No.	CONTENT
1.	Tender acceptance letter
2.	Notice Inviting Tender
3.	Index
4.	Instruction to the contractors / Bidders for the e-submission
<u>PART – I</u>	
5.	Form of Tender
6.	Instruction for submission of bid
7.	PART-II - General Conditions of Contract
8.	PART – III - Technical Specifications & Special Conditions
9.	PART – IV - Schedule Bill of Quantities (A TO E)
<u>PART – V (ANNEXURE)</u>	
10	Annexure-I (Proforma for agreement)
11.	Annexure-II (Proforma for Performance guarantee)
12.	Annexure – III -E – PAYMENT FORMAT
13.	Annexure – IV (Typical drawing of bandal arrangement)
14.	Annexure – V (Typical drawing of conventional bamboo marks)
15.	Annexure – VI (Typical drawing of Navigational boat)

16. Annexure – VI (Typical drawing of Beacon lights)

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

- 1) Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-procurement /e-tender portal is a prerequisite for e-tendering.
- 2) Bidder should do the enrollment in the e-procurement site using the <https://eprocure.gov.in/eprocure/app> option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide the correct/true information including valid email_id. All the correspondence shall be made directly with the contractors/bidders through email_id provided.
- 3) Bidder need to login to the site thro' their user ID/ password chosen during enrollment/registration.
- 4) Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/SmartCard, should be registered.
- 5) The DSC that is registered only should be used by the bidder and should ensure safety of the same.
- 6) Contractor/Bidder may go through the tenders published on the site and download the required tender documents/schedules for the tenders he/she is interested.
- 7) After downloading / getting the tender document/schedules, the Bidder should go thro' them carefully and then submit the documents as asked.
- 8) If there are any clarifications, this may be obtained online thro' the tender site, or thro' the contact details. Bidder should take into account of the corrigendum published before submitting the bids online.
- 9) Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the eToken/SmartCard to access DSC.
- 10) Bidder selects the tender which he/she is interested in by using the search option & then moves it to the 'my favourites' folder.
- 11) From my favourites folder, he selects the tender to view all the details indicated.
- 12) It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the bid will be rejected.

- 13) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, if permitted.
- 14) If there are any clarifications, this may be obtained through the site, or during the pre-bid meeting if any. Bidder should take into account the corrigendum published from time to time before submitting the online bids.
- 15) The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- 16) Bidder should submit the TFee/ EMD as specified in the tender. The original payment instruments should be posted/couriered/given in person to the Tender Inviting Authority within the due date as mentioned in this tender document. Scanned copy of the instrument should be uploaded as part of the offer, if asked for.
- 17) While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- 18) The bidder has to select the payment option as offline to pay the TFEE/ EMD as applicable and enter details of the instruments.
- 19) The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.
- 20) The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
- 21) The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid will be rejected.
- 22) If the price bid format is provided in a spread sheet file like BoQ_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The PriceBid/BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- 23) The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the

difficulties faced during the submission of bids online by the bidders at the eleventh hour.

- 24) After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.
- 25) The bidder should ensure/see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is likely/liable to be rejected.
- 26) The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- 27) All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.
- 28) Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 29) The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 30) The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 31) For any queries regarding e-tendering process , the bidders are requested to contact through the modes given below:
E-mail: iwaiptn@rediffmail.com
Contact Telephone Numbers: _0612-2310026 , Fax No. : 0612-2310029
Person: Sh. A.K. Singh, Dy. Director

FORM OF TENDER

To,

The Director,
Inland Waterways Authority of India,
IWT Terminal, Gaighat
P.O.- Gulzarbagh
Patna - 800007
(Bihar)

Name of Work: Erection & maintenance of bandalling and day & night navigation system during the period July' 2017 to March' 2018 in Rajmahal to Allahabad stretch of National Waterway No. 1 (River Ganga)

Sir,

1. 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.
2. I/ We undertake to complete and Deliver the whole of the works comprised in the Contract within the time as stated in the tender and also in accordance in all respects with the specifications, designs, drawings and instructions as mentioned in the tender documents.
3. I am tendering for the works mentioned in the table below and submitting the EMD separately for each stretch of National waterway in the form of demand draft in favour of IWAI Fund payable at PATNA at Nationalized / Schedule Bank as per the details given therein:

Sl. No	Name of stretch	Demand draft No. & Date	EMD (Rs.)	Details of Bank (Name of Bank, Branch and address)
1.	Rajmahal - Munger			
2.	Munger - Patna			
3.	Patna – Ghazipur			
4.	Chunar – Allahabad			

4. I/ We agree to abide by this tender. I/ We agree to keep the tender open for a period of 90 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.

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

Date

Signature

Name

Designation

duly authorized to sign & submit tender for an on behalf of

(Name and address of firm)

M/s

.....

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

Witness :

Signature.....

Name :

Occupation

Address

Telephone nos.

WARRANTY FORM

M/s _____

_____ having its registered office at _____ (hereinafter referred to as the contractor) having carefully studied all the documents, specifications, designs, drawings etc pertaining to the contract for works required for the work of _____ and the local and site conditions and having under taken to execute the said works:

DO HEREBY WARRANT THAT:

1. The contractor is familiar with all the requirements of the contract.
2. The Contractor has investigated the site and satisfied himself regarding the character of the work and local conditions that may affect the work or its performance.
3. The contractor is satisfied that the work can be performed and completed as required in the contract.
4. The contractor accepts all risks directly or indirectly, connected with the performance of the contract.
5. The contractor has no collusion with other contractors, with any of the men of the Engineer-in-Charge or with any other person in Authority to execute the said works according to the terms and conditions of the said contract.
6. The contractor has not been influenced by any statement or promise of the Authority or Engineer-in-Charge but only by the contract documents.
7. The Contractor is financially solvent.
8. The Contractor is experienced and competent to perform the contract to satisfaction of the Engineer-in-Charge.
9. The Statement submitted by the contractor is true.
10. The contractor is 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.

Date:

For and on behalf of the Contractor.

Signature : _____

Name : _____

Stamp : _____

INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Govt. of India)

INSTRUCTIONS FOR SUBMISSION OF BID

- 1.0 All covering letters and information to be included in the bid shall be submitted along with the bid itself.
- 2.0 This tender schedule is only for the work of “Erection & maintenance of bandalling and day & night navigation system during the period July’ 2017 to March’ 2018 in Rajmahal - Allahabad stretch of National Waterway No. 1 (River Ganga)”.
- 3.0 Stretch wise total estimated cost of works is as under:

Sl. No	Stretch of NW 1	Estimated Cost including all taxes, levies, cess etc except service tax as applicable. (Rs. In Lakh)
		Total
1.	Rajmahal – Munger	108.07
2.	Munger – Patna	141.89
3.	Patna – Ghazipur	120.84
4.	Chunar- Allahabad	12.43

- 4.0 Tender should be submitted **on line** in two cover system

Cover – 1 (Part-I) : Technical & Commercial Bid.
Cover – 2 (Part-II) : Price Bid of offer.

Tenders are invited on line for following stretches of NW 1 and following schedules shall be submitted by bidders as per their choice:

- (a) : Price bid: Schedule -A: Stretch Rajmahal-Munger
- (b) : Price bid: Schedule -B: Stretch Munger-Patna
- (c) : Price bid: Schedule -C: Stretch Patna-Ghazipur
- (d) : Price bid: Schedule -D: Stretch Chunar-Allahabad

Bidders may quote for any one or more than one or all of the schedules i.e. Schedule A, B, C, D and/or _____ and to be submitted in one cover i.e. under cover-2. No other document other than the Price schedule/ schedules should be placed inside Envelope – 2 containing price bid otherwise tender will be summarily rejected.

Cover –1 :

The first cover shall be submitted along with the following documents and the cover should be super scribed with “TECHNICAL/ COMMERCIAL BID FOR ERECTION & MAINTENANCE OF BANDALLING AND DAY & NIGHT NAVIGATION SYSTEM DURING THE PERIOD JULY’ 2017 TO MARCH’ 2018 IN RAJMAHAL - ALLAHABAD STRETCH OF NATIONAL WATERWAY NO. 1 (RIVER GANGA): -

- a) Scanned copy of Original Bid document duly completed in all respect except prices and signed with seal on every pages,
- b) Scanned copy of Blank Performa of Schedule of Prices (prices not to be filled)
- c) Scanned copy of Earnest Money Deposit and tender cost (Demand Draft as prescribed)
- d) Scanned copy of Service Tax, GST and Firm Registration certificate from concerned Authorities.
- e) Scanned copy of Experience certificate.
- f) Scanned copy of Solvency certificate.
- g) Scanned copy of Letter of Authority for signing and negotiation of tender (as the case may be).
- h) Scanned copy of Permanent Account Number (PAN) issued by Income Tax Department.
- i) Scanned copy of Audited balance sheets along with turnover, profit and loss account for the last 3 years.
- j) Scanned copy of Cancelled cheque for E-Payment (As per annexure-III)
- k) Scanned copy of a Signed declaration stating that no alteration has been made in any form in the downloaded tender document to be attached.
- l) Scanned copy of the bidder shall give a declaration that they have not been banned or black-listed by any Govt. or Quasi Govt. Agency or Public Sector Undertaking (PSU).
- m) In addition to the above, the contractor is required to submit scanned copy of other document if any to full fill all the condition of the tender document and the same may be attached after thoroughly read/study failing which he will be treated as technically disqualified.

Note:- The Tenderer shall also submit the hard copies of tender in two sealed covers (apart from online copy) marked “Cover-1st” and “Cover-2nd”. The cover 1st shall contain the Tender Fee, EMD and technical bids. The cover 2nd shall contain the Price bids. In case the first cover is not submitted with EMD & Tender Fee in a proper form, the second cover shall not be opened and rejected summarily. Both cover-1 & cover-2 are to be placed in a single cover. Duly sealed covers containing the hard copies of technical and financial bids will be put in a separate single cover which should be sealed. The full name, postal address and phone/ Fax of the Bidder shall be written on the bottom left hand corner of each of the sealed envelopes.

Cover - 2:

The second cover shall be submitted along with the following documents and the cover should be superscribed with “and the cover should be superscribed with “ENVELOPE-2: PRICE BID FOR ERECTION & MAINTENANCE OF BANDALLING AND DAY & NIGHT NAVIGATION SYSTEM DURING THE PERIOD JULY’ 2017 TO MARCH’ 2018 IN RAJMAHAL - ALLAHABAD STRETCH OF NATIONAL WATERWAY NO. 1 (RIVER GANGA).: -

- (i) Schedule of Prices duly filled in the specified form, i.e. “SCHEDULE –A/B/C/D etc.” (Whichever is relevant).
 - (ii) It may please be noted that this part shall not contain any terms & conditions. Any condition given in the price bid (envelope-2) will be a sufficient cause for rejection of bid.
 - (iii) The bidder must ensure to quote the rate of each item of Bill of Quantities. If the bidder has omit / left some items, then the rate of such items shall be treated as zero value.
- 5.0 Bidders are advised to submit on line 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.
- 6.0 Earnest Money Deposit separately for each stretch as indicated against stretch of NW-1 in the Notice inviting tender should be submitted by Demand Draft drawn in favour of “IWAI-Fund” payable at PATNA on any Nationalised/ Scheduled Bank of India for each stretch. Bids not accompanied with EMD/tender cost in form of Demand Draft are liable for rejection.
- 7.0 In case the bidder decide not to participate for this work, then the down loaded complete set of bid document may kindly be withdrawn from the e-tender CPPP site.
- 8.0 The bids can only be submitted in the name of the bidder in whose name the bid documents were downloaded.
- 9.0 Any annotations or accompanying documentation in the bid shall be in Hindi or English language only and in metric system. Tenders filled in any other language will be summarily rejected.
- 10.0 Bidders shall sign their proposal with the exact name of the firm to whom the bid document has been issued. The bid shall be duly signed and sealed by an authorized person of the bidder’s organization as following:
- 10 (a) If the Tender is submitted by an individual, it shall be signed by the proprietor above his full name and full name of his firm with its current business address.
 - 10 (b) If the Tender is submitted by the proprietary firm, it shall be signed by the proprietor above his full name and full name of his firm with its name and current business address.

- 10 (c) If the Tender is submitted by a firm in partnership, it shall be signed by all the partners of the firm above, their full names and current business address, or by a partner holding the power of attorney for the firm for signing the Tender in which cases a certified copy of the power of attorney shall accompany the Tender. A certified copy of the partnership deed and current business address of all the partners of the firm shall also accompany the Tender.
- 10 (d) If the Tender is submitted by a limited company, or a limited Corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the Tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded. 'Satisfactory evidence' means the certificate of incorporation of the limited company or corporation under Indian Companies Act, 1956.
- 10 (e) 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.
- 10 (f) All witnesses and sureties shall be persons of status and their full names, occupations and addresses shall be stated below their signatures. All signatures affixed in each pate in the tender will be dated.
- 11.0 Bidders shall clearly indicate their legal constitution and the person signing the tender shall state his capacity and also the source of his ability to bind the bidder. The power of attorney or authorization or any other document constituting adequate proof of the ability of the signatory to bind the bidder shall be annexed to the bid. The Owner may reject outright any bid unsupported by adequate proof of the signatory's authority.
- 12.0 **The bid document shall be completed in all respects and shall be submitted on line together with the requisite information and appendices. The Tenderer shall also submit the hard copies of Tender in two sealed covers (apart from on line copy) marked "Cover-1" and "Cover - 2".** 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
- 13.0 If the space in the bid form or in the Appendices thereto is insufficient, additional pages shall be separately added. These pages shall be consecutively page numbered and shall also be signed by the Bidder.
- 14.0 The Bid documents shall be signed by the bidder on each page.

- 15.0 Bidders should indicate at the time of quoting against this bid their full postal addresses, telephone numbers and other communication details enabling IWAI to contact the bidder in case the need so arise.
- 16.0 Bidder shall set their quotations in firm figures and without qualification. Each figure stated should also be repeated in words and in the event of any discrepancy between the amounts stated in figures and words; the amount quoted in words shall be deemed the correct amount. Bid containing qualifying expressions such as “subject to minimum acceptance” or “subject to availability of material/ equipment” etc. is liable to be rejected.
- 17.0 IWAI shall have a 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.
- 18.0 The EMD shall be retained with the IWAI until finalization of tenders. Further, security deposit as per the clause of Security shall be payable by the successful bidder. If the tenderer fails to furnish the security deposit in accordance with tender conditions EMD shall be forfeited. In the event of the Bidder becoming the successful Contractor. The amount of EMD would be adjusted against the Security deposit.
- 19.0 IWAI shall, however, arrange to release the EMD in respect of unsuccessful bidders within 30 days of placement of order to successful bidder. No interest shall be payable on EMD by IWAI.
- 20.0 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.
- 21.0 The Tender Evaluation Committee (TEC) shall open the tenders in the presence of the intending tenderers who may be present at the date and time of opening informed in the bid document or subsequently. If any of the tenderer or his agent is not present at the time of opening of tender, the TEC shall, on opening of tenders of the absentee tenderer, prepare a statement of the attested and unattested corrections in the tender over their signature. Such a list shall then be binding on the absentee tenderer.
- 22.0 The successful tenderers shall be required to execute a contract agreement in the given format. In case of any refusal/ failure on the part of such successful tenderer to execute such a contract shall be deemed to be a failure on the part of such successful bidder to comply with the terms contained herein.

23. **Suspension of Business of Contractor**

As per clause No 22.2 & 22.3 of CPWD Enlistment rule -2005 modified upto 08.07.2013 suspension of business and removed from the list and are not eligible for award of any work whenever adverse report related to adverse performance, misbehavior, direct and indirect involvement in threatening, making false complaint, filing legal suites for playful reasons, hampering tender process or execution of contract or any act, omission or commission etc. damaging the reputation of department / Officer or other type of complaint considered fit by Authority,.

24. Banned or Blacklisted Contractors

The bidder shall give a declaration that they have not been banned or black-listed by any Govt. or Quasi Govt. Agency or Public Sector Undertaking (PSU).

If a bidder has been banned by any Govt. or Quasi Govt. Agency or PSU, this fact must be clearly stated and it may not necessarily be a cause of disqualifying the firm. If this declaration is not given, the bid shall be rejected as non-responsive.

25. LAST DATE AND TIME FOR SUBMISSION AND OPENING

The tender shall be received on line upto **17.00 hrs. on 03.07.2017** and shall be opened **at 15.00 hrs. on 05.07.2017** in the presence of authorized representatives of the tenderers who would like to be present at the time of opening. The hard copy of tender should reach on or before date & time of opening of tender. Late receipt of required document shall not be considered.

26. EARNEST MONEY DEPOSIT

The tender shall be accompanied with a crossed Bank Draft as specified in NIT/as mentioned in the NIT for respective places, drawn on any Nationalised Bank in favour of “INLAND WATERWAYS AUTHORITY OF INDIA FUND” payable at PATNA.

27. VALIDITY OF PRICES

The tenderer should quote the rate for various items of work in prescribed schedule. The rates quoted should be firm and should be kept valid for consideration for at least 90 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.

28. DETAILS OF OFFER

- i) IWAI reserves the right to segregate the work to one or more parties without assigning any reason thereof.
- iii) IWAI has the right to reject any or all of the tenders without assigning any reasons and will not be bound to accept the lowest or any other tender or to give any reason for such decision.

PART – II

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

INTEGRITY AGREEMENT

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

BETWEEN

Chairperson, Inland Waterways Authority of India represented through Director, Inland Waterways Authority of India, Gaighat, Gulzarbag, Patnas-800007.

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

1. WHEREAS the Principal / Owner has floated the Tender (NIT No : IWAI/PTN/17(13) /ALLD/2015-16) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for "Construction of tube well & horticulture work at Lawain terminal, Allahabad on National Waterways No-1. (River Ganga)" hereinafter referred to as the "Contract".

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

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

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

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

- (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder (s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder (s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall Endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

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

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

regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- d) The Bidder (s)/Contractor (s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder (s)/Contractor (s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent 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 willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
 5. The Bidder (s)/Contractor (s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

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

1. If the Bidder (s)/Contractor (s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder (s)/Contractor (s) from the tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

2. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder (s) from the tender process prior to the award of the contract or terminated/determined the contract or has accrued the right to terminate/determine the contract according to Article 3 (1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
3. Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a bidder or Contractor, or of an employee or a representative or an associate of a bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

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

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

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

Article 6: Duration of the Pact

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

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

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original 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 Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8: LEGAL AND PRIOR RIGHTS

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

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

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

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

WITNESSES:

1.
(signature, name and address)
2.
(signature, name and address)

Place:

Date :

SCHEDULES

SCHEDULE 'A' : Salient Features of the work.

Name of Work : Erection & maintenance of bandalling and day & night navigation system during the period July' 2017 to March' 2018 in Rajmahal - Allahabad stretch of National Waterway No. 1 (River Ganga).

Estimated cost of work: The work is estimated to cost Rs.383.23 lakhs including all taxes except service tax / GST as applicable

This estimate, however, is given merely as a rough guide.

(a) Earnest Money	:	Rs.7.68 lakh
(b) Performance Guarantee	:	5% of awarded value.
(c) Security Deposit	:	5% of awarded value.

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

- (i). **Officer inviting tender:** - Director, IWAI, Gaighat, Gulzarbagh, Patna-800007
- (ii). **Tender Accepting Authority:-** Director, IWAI, Gaighat, Gulzarbagh, Patna-800007
- (iii). (a) **Time allowed for submission of Performance Guarantee as per clause 3.1 of GCC from the date of issue of letter of acceptance:-** 15 days
(b) **Maximum allowable extension beyond the period provided in (iii) (a) above:-** 7 days
- (iv) **Percentage on Cost of Materials & Labour to cover all overheads and profits:-** 15%
- (v) **Standard Schedule of Rates:-** Reference of DSR/ Market Rates
- (vi) **Specifications to be followed:-** -----
- (vii) **Deviation Limit beyond which clause 16.3, 16.4, 16.5 & 16.6: -** 25%
- (viii) **Competent authority of grant extension of time under clause 34:-**
 - (a) Member (Technical), IWAI (if the amount of contract is upto 100 lakhs).
 - (b) Vice-Chairman/ Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).

(c) Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(ix) Competent authority to levy liquidated damages for delay under clause 35:-

(d) Member (Technical), IWAI (if the amount of contract is upto 100 lakhs).

(e) Vice-Chairman/ Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).

(f) Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(x) Competent authority to determine the contract as per clause 36:-

(g) Engineer-in-Charge with the prior approval of

(h) Member Technical), IWAI (if the amount of contract is upto 100 lakhs).

(i) Vice-Chairman/ Chairperson, IWAI, Noida (if the cost of contract is more than 100 lakhs & up to 500 lakhs).

(j) Chairman, IWAI, Noida (if the amount of contract is more than 500 lakhs).

(xi) Milestones as per table given below:

(Clause 34.5 & 34.6 shall be applicable only when the amount of the contract is more than 10 crores)

Sl. No.	Milestone	Time Allowed (from date of start) in months	Amount to be withheld in case of non-achievement of mile stone
1.			
2.			
3.			
4			

**(xii) Competent authority to reschedule
The milestones as per clause 34.5 :-**

Chairman, IWAI, Noida

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

Engineer-in-Charge with the
prior approval of
(a) Member Technical), IWAI
(if the amount of contract is
up to 100 lakhs).

clause 31 :-

(b) Vice-Chairman/
Chairperson, IWAI, Noida (if the cost
of contract is more than 100 lakhs & up
to 500 lakhs).

(c) Chairman, IWAI, Noida (if the
amount of contract is more than 500
lakhs).

(xiv) Incentive for early completion.

(a) Whether Clause 50 is applicable:-

.....

PART-II

GENERAL CONDITIONS OF CONTRACT

C O N T E N T S

CLAUSE-1 : DEFINITIONS
CLAUSE-2 : INTERPRETATIONS
CLAUSE-3 : SECURITY DEPOSIT FOR PERFORMANCE
CLAUSE-4 : REFUND OF SECURITY DEPOSIT
CLAUSE-5 : SUFFICIENCY OF TENDER
CLAUSE-6 : CONTRACT DOCUMENTS
CLAUSE-7 : DISCREPANCIES AND ADJUSTMENT OF ERRORS
CLAUSE-8 : DUTIES AND POWERS OF ENGINEER-IN-CHARGE'S REPRESENTATIVE
CLAUSE-9 : ASSIGNMENT AND SUB-LETTING
CLAUSE-10 : FACILITIES TO OTHER CONTRACTORS
CLAUSE-11 : CHANGE IN CONSTITUTION
CLAUSE-12 : COMMENCEMENT OF WORK
CLAUSE-13 : WORKS TO BE CARRIED OUT IN ACCORDANCE WITH SPECIFICATION DRAWINGS AND ORDERS ETC.
CLAUSE-14 : SETTING OUT THE WORKS
CLAUSE-15 : URGENT WORKS
CLAUSE-16 : DEVIATIONS
CLAUSE-17 : CONTRACTORS SUPERVISION
CLAUSE-18 : INSTRUCTION AND NOTICE
CLAUSE-19 : PLANT AND EQUIPMENT
CLAUSE-20 : PATENT RIGHTS
CLAUSE-21 : MATERIALS
CLAUSE-22 : LAWS GOVERNING THE CONTRACT
CLAUSE-23 : WATCHING AND LIGHTING
CLAUSE-24 : WORK DURING NIGHT OR ON SUNDAYS AND HOLIDAYS
CLAUSE-25 : LABOUR
CLAUSE-26 : MATERIALS OBTAINED FROM EXCAVATION AND TREASURE TROVE, FOSSILS ETC.
CLAUSE-27 : FORCE MAJEURE
CLAUSE-28 : LIABILITY FOR DAMAGE, DEFECTS OR IMPERFECTIONS AND RECTIFICATION THEREOF
CLAUSE-29 : CONTRACTOR'S LIABILITY AND INSURANCE
CLAUSE-30 : SUSPENSION OF WORKS
CLAUSE-31 : FORE CLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK
CLAUSE-32 : TERMINATION OF CONTRACT ON DEATH
CLAUSE-33 : CORRUPT PRACTICE & TERMINATION OF CONTRACT IN FULL OR IN PART
CLAUSE-34 : COMPLETION TIME AND EXTENSIONS
CLAUSE-35 : COMPENSATION FOR DELAY
CLAUSE-36 : LIQUIDATED DAMAGES
CLAUSE-37 : INSPECTION AND APPROVAL
CLAUSE-38 : COMPLETION CERTIFICATE
CLAUSE-39 : DEFECTS LIABILITY PERIOD
CLAUSE-40 : MEASUREMENTS
CLAUSE-41 : PAYMENT ON ACCOUNT
CLAUSE-42 : TAXES, DUTIES AND LEVIES ETC
CLAUSE-43 : PAYMENT OF FINAL BILL
CLAUSE-44 : OVER PAYMENTS AND UNDER PAYMENTS
CLAUSE-45 : CONTRACT MATTERS TO BE TREATED AS CONFIDENTIAL
CLAUSE-46 : FINALITY CLAUSE
CLAUSE-47 : SUM PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED IS REASONABLE WITHOUT PREFERENCE TO ACTUAL LOSS
CLAUSE-48 : ARBITRATION

PART - II

GENERAL CONDITIONS OF CONTRACT

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 this tender document and shall be deemed to include the contractor's successors, executors, representatives or assign approved by the Engineer-in-charge.
- (iv) **Employer** means the Chairman, Inland Waterways Authority of India and his successors.
- (v) **IWAI/ Authority/ Department/ Owner** shall mean the Inland Waterways Authority of India, which invites tenders on behalf of the Chairman, IWAI and includes therein-legal representatives, successors and assigns.
- (vi) **Engineer-In-Charge (EIC)** means the Engineer officer authorised to direct, supervise and be In-charge of the works for the purpose of this contract who shall supervise and be in charge of the work.
- (vii) **Engineer-in-charge representative** shall mean any officer of the Authority nominated by the Engineer-in-charge for day to day supervision, checking, taking measurement, checking bills, ensuring quality control, inspecting works and other related works for completion of the project.
- (viii) **Chairman:** means Chairman of Inland Waterways Authority of India.
- (ix) **Chief Engineer:** means the Chief Engineer of the Authority.
- (x) **Director** means the Director of the Authority, as the case may be.
- (xi) **Deputy Director** means the Deputy Director of the Authority, as the case may be.
- (xii) **Assistant Director** means the Asstt. Director of the Authority, as the case may be.
- (xiii) **Assistant Hydrographic Surveyor** means the Assistant Hydrographic Surveyor of the Authority, as the case may be

- (xiv) **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.
- (xv) **Day** : means a calendar day beginning and ending at mid-night.
- (xvi) **Week** : means seven consecutive calendar days
- (xvii) **Month** : means the one Calendar month.
- (xviii) **Site** means the waterway and / or other places through which the works are to be executed.
- (xix) **Vessel** : means the vessel/craft belonging to the Contractor for carrying out the work.
- (xx) **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.
- (xxi) **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.
- (xxii) **Work/ works**: means work / works to be executed in accordance with the contract.
- (xxiii) 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.
- (xxiv) District specifications mean the specifications followed by the State Government in the area where the work is to be executed.
- xxv) Tendered value means the value of the entire work as stipulated in the letter of award.

CLAUSE – 2 : INTERPRETATIONS

- 2.1 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 GURANTEE & SECURITY DEPOSIT

3.1 PERFORMANCE GURANTEE

The contractor shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee in the form of either demand draft 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.

3.2 SECURITY DEPOSIT

A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with sum already deposited as earnest money will amount to security deposit of 5 % of the contract value of the work. 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 demand draft only in favour of 'Inland Waterways Authority of India – Fund' payable at PATNA.

- a. The total performance guarantee/security deposit shall remain with IWAI till defect liability period after satisfactory completion of work.
- b. Interest will not be paid on security deposit or performance guarantee.
- c. If the contractor having been called upon by the Engineer in charge to furnish the security 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.

- 3.4 No claim shall lie against the authority either in respect of interest or any depreciation in value of any security.

- 3.5** If the contractor neglects to observe or fails to perform any of his obligations under the contract, it shall be lawful for the Employer/ EIC to forfeit either in whole or in part, the security deposit furnished by the contractor. However, if the contractor duly performs and completes the contract in all respects and presents in absolute "NO DEMAND CERTIFICATE" in the prescribed form, the IWAI shall refund the security deposit to the contractor after deduction of cost and expenses that the Authority may have incurred and other money including all losses and damages which the Authority is entitled to recover from the Contractor.
- 3.6** In case of delay in the progress of work, the Engineer- in-Charge shall issue to the contractor a memo in writing pointing out the delay in progress and calling upon the contractor to explain the causes for the delay within 3 days of receipt of the memo and 10 days from issuance of memo whichever is earlier. If the Engineer-in-Charge is not satisfied with the explanations offered, he may forfeit the security deposit and / or withhold payment of pending bills in whole or in part and/ or get the measures of rectification of progress of work accelerated to the pre-defined level at the risk and cost of the contractor.
- 3.7** All compensation or other sums of money payable by the contractor under the terms of the contract or any other contract or on any other account whatsoever, may be deducted from or paid by the sale of a sufficient part of his security or from the interest arising there from or from any sums which may be due or may become due to the contractor by the Authority on any account whatsoever. Also in the event of the contractor's security deposit being reduced by reasons of such deductions or sale, as aforesaid the contractor shall, within 14 days of receipt of notice of demand from the Engineer-in-Charge make good the deficit in his security deposit.

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

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

CLAUSE – 6 : CONTRACT DOCUMENTS

- 6.1** The language in which the contract documents shall be drawn up shall be English and if the said documents are written in more than one languages, the language according to which the contract is to be constructed and interpreted shall be English 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 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 or price in Schedule of Quantities and Prices or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the 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, 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.

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

- 8.1 The duties of the representative of the Engineer-in-Charge are to watch and supervise the works and to test and examine any materials/ parts to be used or workmanship 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 authorised by Authority or any statutory body which may be employed at the site for execution of any work not included in the contract which the

Authority may enter into in connection with or ancillary to the works. In all matters of conflict of interest, the Engineer-in-Charge shall direct what compromise should be made and his decision shall be final and binding on the parties.

Clause – 11 : CHANGE IN 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 work at the respective sites within 10 days of the issue of Letter of Award. If the contractor commits default in mobilization of resources, and equipment as aforesaid, the Engineer-in-Charge shall without prejudice to any other right or remedy be at liberty to cancel the contract and forfeit the earnest money/security deposit.

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

- 13.1 The contractor shall execute the whole and every part of the work in the most substantial and workman like manner 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.

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

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

CLAUSE – 14 : SETTING OUT THE WORKS

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

CLAUSE – 15 : URGENT WORKS

If any urgent work (in respect 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. However, such deviation for individual item shall be limited to $\pm 10\%$ but the total value of the contract should not exceed 10%
- 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).

CLAUSE -19: PLANT AND EQUIPMENT

- 19.1 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.
- 19.2 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 – 20 : PATENT RIGHTS

The contractor shall indemnify the Authority, its representatives or its employees against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part thereof included in the contract. In the event of any claim being made or action being brought against the Authority or any agent, servant or employee of the Authority in respect of any such materials as aforesaid the contractor shall immediately be notified thereof. Provided that such 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.

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 PATNA 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 fortnightly to the Engineer-in-Charge, a distribution return of the number and description by trades of the works of people employed on the works. The contractor shall also submit on the 4th and 19th of every month for the period of second half of the preceding month and first half of the current month respectively to the Engineer-in-Charge, a true statement in respect of the following.
- i) Any 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:
 - x) The Personal Injuries (Compensation Insurance) Act 1963 and any modifications thereof and rules made thereunder 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. 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 non-fulfillment 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 submitting or filling any form/Register/Slip under the provisions of these Regulations which is materially incorrect then on the report of the Inspecting officer as defined in the relevant Acts and Rules as referred in Clause 25.5 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" 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 contractor or from his security deposit or sale thereof in full or part under the contract or any other contract with the Authority towards fulfillment of the said decree, award or orders.

25.13 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 sub-contractor, 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 permission of the Engineer-in-Charge.

CLAUSE – 26 : MATERIALS OBTAINED FROM EXCAVATION AND TREASURE TROVE, FOSSILS, ETC.

- 26.1 Materials of any kind obtained from excavation on the site shall remain the property of the Authority and shall be disposed off as directed by the Engineer-in-Charge.
- 26.2 However if any of the materials thus obtained from excavation on the site is such as can be used in the execution of the work under the contract, the contractor will be allowed to use the same free of cost (except that any amount of royalty paid for in this regard by the Authority shall be recoverable from the contractor) for the aforesaid purpose provided the same is found suitable and is approved by the Engineer-in-Charge.
- 26.3 Fossils, coins, articles of value, structures and other remains or things of geological or archeological interest discovered on the site shall be the absolute property of the Authority. The contractor shall take reasonable precautions to prevent his labour or any other person from removing or damaging any such article or thing and shall acquaint the Engineer-in-Charge with such discovery and carryout the Engineer-in-Charge's directions as to the disposal of the same at the expense of the Authority.

CLAUSE – 27: 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, hostilation, 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.

CLAUSE - 28 : LIABILITY FOR DAMAGE, DEFECTS OR IMPERFECTIONS AND RECTIFICATION THEREOF

- 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 good the same 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 employees 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 added to the contract sum. Provided always that the Contractor shall, at his own cost, repair and make good so much of the loss or damage as has been occasioned by any failure on his part to perform his obligations under the contract or not taking precautions to prevent loss or damage or minimise the amount of such loss or damage, Final assessment of loss or damage shall be decided by the Engineer-in-Charge and his decision shall be final and binding.

- 29.3 The contractor shall take special precautions to see that public places and roads adjacent to contractor's yard are not blocked at anytime either by his material or by his workmen. The roads are to be kept always clear and no equipment/materials shall be stacked.
- 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 shall include claims/compensations of the third party.
- 29.6 (a) Before commencing execution of the work, the Contractor shall without in any way limiting his obligations and responsibilities under this condition, insure against any damage, loss or injury which may occur to any property (excluding that of the Authority but including the Authority building rented to the contractor wholly or in part and any part of which is used in part and any part of which is used by him for storing combustible materials) public liability by arising out of the carrying out of the contract. For this purpose the contractor shall take out, pay all costs and maintain throughout the period of his contract public liability with the following coverage.
- i) Public liability limits for bodily injury or death not less than Rs. 1,00,000/- for one person and Rs. 2,00,000/- for each accident.
 - ii) Property liability limits for each accident not less than Rs. 1,00,000/-.
 - iii) The Contractor shall prove to the Engineer-in Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period.
- (b) The Contractor shall ensure that similar insurance policies are taken out by his sub-contractor (if any) and shall be responsible for any claims or losses to the Authority resulting from their failure to obtain adequate insurance protection in connection thereof. The Contractor shall produce or cause to be produced by his sub-

contractors (if any) as the case may be, relevant, policy or policies and premium receipt as and when required by the Engineer-in-Charge.

- (c) If the contractor and/or his sub- contractor (if any) shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the term of the Contract then and in any such case the Authority may, without being bound to effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the Authority from any moneys due or which may become due to the contractor or recover the same as a debt due from the contractor.
- (d) The contractor shall at his own expense arrange for the safety provisions as required in respect of the works covered under this contract as per the instruction of Engineer-in-charge. In case, the contractor fails to comply with the provisions of the safety the Engineer- in-Charge shall be entitled to and make the necessary arrangements at the risk and cost of the contractor. This will, however, not absolve the Contractor of his overall responsibility to execute the works under the contract.

CLAUSE – 30 : SUSPENSION OF WORKS

30.1 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.

CLAUSE – 31: FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

If at any time after acceptance of the tender the Authority decides to abandon or reduce the scope of the works for reason whatsoever and hence does not require the whole or any part of the works to be carried out, the Engineer-in-Charge 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.

CLAUSE- 33 : CORRUPT PRACTICE & TERMINATION OF CONTRACT IN FULL OR IN PART

33.1 If the contractor -

- i) 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 10 days in any case after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
- ii) 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
- iii) assigns, transfers, sublets (engagement of labour on a piece-work 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.

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 favour or disfavour 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
- i) To take 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
 - ii) Also any materials, constructional plant, equipment, implements, stores, structures etc. thereon. 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. In such agencies shall be credited to the contractor at his contract prices and the contractor shall pay the excess amount, if any, incurred in completing the work as aforesaid, 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 and materials, structures 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.
- 33.5 If the expenses incurred or to be incurred by the Authority for carrying out 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.

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:
- i) Increase in the quantity of work to be done under the contract as per clause 16, or
 - ii) Suspension of work as per clause 30 ; or
 - iii) Rebuilding of work as per clause 31 ; or
 - iv) "Force Majeure" as per clause 27 ; or
 - v) 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

- 35.1 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 an 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 $\frac{1}{2}$ % per week on the total value of the work. However, the L.D. will be imposed for the value of particular work i.e. in case of being defaulter in lean/ flood season/night navigation channel marking work the LD shall be imposed only on contract value of lean/ flood season/night navigation channel marking work and in case of bandalling (erection/ re-erection), the L.D. shall be imposed on the total contract value of individual bandalling site (cost of erection, re -erection and maintenance) subject to maximum 10% of the total contract value of Bandalling works of the awarded stretch. However, in case of default in mobilization, liquidated damage @ $\frac{1}{2}$ % of the total value of the contract value of work (bandalling, lean & flood season and night navigation channel marking work) per week subject to 10% of total value of work (bandalling, lean & flood season and night navigation channel marking work) shall be charged.
- 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 consider 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 EIC or his representative by their vessels. The contractor can have the inspection schedules finalized with the Engineer-in-charge. Generally all attempts should be made to have joint inspection and number of inspections be not less than three in a calendar month.

CLAUSE – 38 : COMPLETION CERTIFICATE

- 38.1 The work shall be completed to the entire satisfaction of the Engineer-in-Charge and with in 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 realised by the sale of Contractor's belongings / temporary arrangements less the cost of fulfilling the said requirements and any other amount that may be due from the contractor. Should the expenditure on the aforesaid account exceed the amount realised by sale of such contractor's belongings / temporary arrangements then the contractor shall on demand pay the amount of such excess expenditure.

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 authorised representative and by the contractor or his authorised 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 authorised representative for measurement after such notice or fails to countersign or to record the objection within a week from the date of taking the measurements, 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 Interim bills shall be submitted by the contractor monthly on or before the date fixed by the Engineer-in-Charge for the items of work completed. The Engineer-in-Charge shall then arrange to have the bills verified with reference to the measurements recorded in the measurement book(s).
- 40.2 Payment on account for amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment for the work executed, after deducting there from the amount already paid, the security deposit and such other amounts as may be withheld, deductible or recoverable in terms of the contract.
- 40.3 Payment of the contractor's bills shall be made by the Authority only in Indian Rupees within 30 days from the date of submission of the bill subject to the acceptance of the Engineer-in-Charge.
- 40.4 Payments due to the contractor shall be made by crossed cheque by the Engineer-in-Charge or his authorised representative. Such cheques shall be issued direct to the contractor on furnishing a stamped receipt for the amount of the cheque or to his constituted attorney duly authorised to receive such payments from the EIC.
- 40.5 Any interim certificate given relating to work done or materials delivered may be modified or corrected by any subsequent interim certificate or by the final certificate. No

certificate(s) of the Engineer-in- Charge supporting an interim payment shall itself be conclusive evidence that any work or materials to which it relates is / are in accordance with the same.

- 40.6 Should there be a request for extension of date of completion, pending its consideration interim payments shall continue to be made as provided herein.
- 40.7 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.

- 41.1 The prices shall include all the taxes, levies, cess, octroi, royalty, terminal tax or any other local or central taxes as applicable/ charged by Center or State Government or Local authorities except service tax / GST 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 except service tax / GST. The service tax / GST as applicable shall be reimbursed to the contractor upon production of proof of its remittance to the concerned department

CLAUSE - 42 : TAX DEDUCTION AT SOURCE

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

CLAUSE – 43 : PAYMENT OF FINAL BILL

The final bill shall be submitted by the contractor within one month from the date of completion of the work or of the date the certificate of completion furnished by the Engineer-in-Charge. No further claim in this regard unless as specified herein under shall be entertained. Payment 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 anytime thereafter may become due to the contractor under this contract and failing that under any other contract with the Authority or from any other sum whatsoever due to the contractor from the Authority or from 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 notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an arbitrator appointed under clause 48 of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.
- 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.
- 44.5 Any sum of money due and payable to the Contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or Authority against any claim of the Authority or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or Authority or with such other person or persons. The sum of money so withheld or retained under this clause by the Engineer-in-Charge or Authority will be kept withheld or retained as such by the Engineer-in- Charge or Authority or till his claim arising out of in the same contract or any other contract is either mutually settled or determined by the arbitrator, if the contract is governed by the arbitration clause under the clause 48 or by the competent court hereinafter provided, as the case may be, and the contractor shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause.

CLAUSE - 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 un-authorized 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 Chief Engineer 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 defects liability period, failing which all rights and claim under this contract shall be deemed to have been waived and thus forfeited and absolutely barred.

- 48.6 The Arbitrator shall give reasons for the award if the amount of claim in dispute is Rs. 75000/- 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 dt.30.06.93 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.

PART- III

TECHNICAL SPECIFICATIONS & SPECIAL CONDITIONS

1.0 OBJECTIVE AND AREA OF WORK

1. The Objective of the work is to provide and maintain a navigable channel with the help of bandalling and day / night marking the navigational channel with conventional bamboo & solar navigational marks for day & night navigation and their maintenance in Rajmahal – Allahabad stretch of National Waterway No 1 River Ganga.

2. National Waterway No. 1 : It extends from Rajmahal to Allahabad (length about 960 km) river Ganga. The river carries floods during month 15th June/July - September months when water hugs both high banks. The lean season in river Ganga extends from month of October to May. There is considerable difference between flood and lean season discharges and water level. The maximum water level difference is about 10 m. The current in the river ranges from 0.5 to 4 m/s. However, the current during the lean season seldom exceeds 1.5 m/s. The bed material along the waterway comprises silt to sand. During lean season many channels are formed of which main channel is to be maintained. In order to maintain 2.5 m depth in Rajmahal - Barh, 2.0 m depth in Barh - Varanasi and 1.3 m depth in Varanasi - Allahabad with 45 m wide channel (30 m at shoals), temporary river conservancy works bandalling, is required to be adopted to clear off the shoals having depth less than 2.5 m, 2.0 m and 1.3 m (termed as shoal) respectively. The present tender is invited for execution of this work. The information is given in good faith. Tenderers are advised to make their own assessment. No claim due to this information shall be entertained.

3. For Erection and maintenance of bandalling, waterway will be in the following reaches:

Sl. No.	Stretch	Distance (in river KM)
1.	Rajmahal – Munger	210
2.	Munger - Patna	162
3.	Patna – Ghazipur	223
4.	Chunar – Allahabad	203

4. To facilitate round the clock navigation of the vessels, IWAI is executing the scheme for maintenance of navigable channel by providing bandalling, day / night channel markings and their maintenance. It may be mentioned that the bandalling is resorted to in order to divert water to the main channel wherever the river is braided or width is more, which causes scour of the bed increasing the depth in the channel. For bandalling to be most effective the bandal shall be erected in time and in the appropriate alignment. The general arrangement, specifications and details of the bandal is given in the Annexure- IV.
5. The navigable channel of 45 m width having depth more than 2 meter is to be marked during flood and lean season using conventional bamboo marks in day & erection and installation of the provided solar navigational lights in the night. These day / night markings are to be shifted to its correct positions as and when navigational channel changes its course.
6. The tender for the subject work is being considered for one financial year i.e. 2017-18 and further will be extended upto May/June months as per site conditions and as per direction of EIC.
7. ***The quantity of the items of work to be executed in this tender may change as per the actual assessment of the time to time work requirement and hydraulic condition of the navigation channel. Hence a supplementary directive will be issued by the EIC of the work after the change in the season and before start of the season.***
8. IWAI shall initially award the works up to March' 2018, however IWAI reserve the rights to extend the contract for further period of another two years i.e. 2018-19 and 2019-20 by 5% enhancement on each item of rate for each year over the awarded rate of previous year at the same terms and conditions of the contract after getting willingness from the contractor and subject to satisfactorily performance of the works.
- 9 Each stretch has been considered with 1 schedule (i.e. 2017-2018), whereas, the amount of tender and tender analysis will be considered only upto March 2018.
- 10 The tenderer may quote rates for any stretch or all the stretches as per the schedule. The tenderer has ensured to quote the rates at least for all the items of any stretch. If the tenderer fails to quote the rates in the above manner, the offer will summarily be rejected.

2.0 TECHNICAL SPECIFICATIONS AND SPECIAL CONDITIONS

2.1 Bandalling

1. Bandals are to be erected at shoal sites of an average length of about 300 m to increase the depth of main channel for the purpose of navigation or to maintain desired depth in dredged channel. The contract comprises of erection, supervision, safe keeping, re-erection and maintenance of bandals and other allied works complete with all labour, materials, boats, temporary and permanent works, taxes, levies, duties etc. as specified in the contract.
2. Bandals are to be fabricated using new bamboos, mats and coir string. Length of each unit of bandal is normally about 30 m/ 15 m and size of screen is 1.2 m x 0.9 m. These bandals are to be placed at 30 degree to 45 degree angle to the direction of current by driving bamboo poles. The bamboo mats are to be placed in such a way that only 10 cm. is above the water level and rest inside the water. It is required to be maintained at appropriate level by lowering/raising the mats depending on the change in water level. Bandal needs to be erected according to Figure given in Annexure 3. In A type bandal the 90 cm side of the mat will be in vertical position (i.e. 80 cm. inside water and 10 cm. above) and in B type bandal 120 cm. side is in vertical position.
3. New harauti/ Jati bamboo of 18-23 cm circumference at 45 cm from the bottom and 7 to 7.5 m long shall be used for horizontal, vertical and side support. The vertical bamboo pins are to be driven in proper line with spacing of 60 cm as per drawings enclosed. The number of bamboos required for 15 m length/30 m length are as under:

For 15 m – 40 Nos.

For 30 m – 80 Nos.

4. New bamboo mats 1.2 m x 0.9 m made of minimum 1 mm thick and minimum 1.5 to 2 cm. wide bamboo strips closely woven, tied together with the help of bamboo strips and coir string are to be fixed on vertical bamboo pins of bandal to act as screen as per drawing and direction of EIC. The no. of mats & quantity of thick and thin coir string required during erection of 15 m and 30 m length of bandals will be as under :

For 30 m

Bamboo mats - 56 nos.

Coir string (thick) – 10 kgs.

Coir string (thin) – 5 kgs.

For 15m

Bamboo mats - 28 nos.

Coir string (thick) – 5 kgs.

Coir string (thin) – 2.5 kgs.

5. Tenderers are required to erect the bandal of specified length at the sites as decided jointly by the representative of E.I.C and Contractor during the pre bandal Survey.
6. Erected / re-erected bandals are to be maintained normally till 31st May in NW 1 in the following way as per the direction of the representative of Authority. However the above

date could be advanced or extended depending upon the requirements as per the discretion of the E.I.C.

- i) The tenderer must maintain satisfactorily, entire length of bandal ordered and erected at each site during the period of contract. If during any period, at any site it is found that less than 80% length of bandal is maintained, no payment for maintenance for that site shall be made for the period during which less than 80% bandal was maintained. If the length is satisfactorily maintained between 80% and 100% at a site the payment shall be made for the actual length maintained during that month.
 - ii) Mats of bandals are to be lowered / raised according to fall / rise of water level respectively.
 - iii) After certain period sand chur may appear behind one or more length of bandal at one end of alignment of bandal in that case such one or more units of bandal may require to be removed and re-erected at other alignment.
 - iv) **The tenderer should also maintain the LAD of 2.5 m (Rajmahal – Barh), 2.0 m (Barh – Varanasi) and 1.3 m (Varanasi – Allahabad) in each erected / re-erected bandal sites up to 500 m d/s of bandal site. If during any period at any site it is found that the LAD maintained is less than these prescribed LADs but is within 0.2 m of the prescribe LAD then a reduction of 10% of the maintenance charges payable for that period will be deducted. If the LAD is maintained less than 2.3m, 1.8 m and 1.3 m respectively, no payment for maintenance for the period during that month for that site shall be made.**
 - v) The depth during inspections will be jointly recorded by IWAI's Hy. Surveyor, Technical Officer, Contractor and master of Survey / inspection launch.
7. During maintenance period, materials of bandal (e.g. bamboo, bamboo mats, coir strings) shall be changed due to decay of material only. The decay of materials of bandals shall be ascertained by the representative of the Authority. Tenderer is required to replace the material immediately after getting the replacement order from the representative of the Authority.
 8. Such anticipated amount of materials (e.g. bamboo, bamboo mats, coir string) shall have to be stored at each bandal site so that during maintenance materials may be replaced without any loss of time. Replacement of decayed mats shall be completed within six days of written order for each 300 mts. length of bandal. If the length of bandal for which order for replacement of mats is given, is more than or less than 300 mtr. the number of days in which the replacement shall be completed, shall be proportionately calculated and rounded off to the nearest whole number of days. For example replacement of mats for 360 m length of bandal shall be completed within 7 days and that of 240 m in 5 days. If the replacement of mats is not completed within specified time as given above, no payment for maintenance shall be made from the date of written order for replacement of mats till the completion of satisfactory replacement of mats. Removal of decayed mats and replacement by new mats shall be done simultaneously so that no part of bandal is kept without mats at any time.
 9. Some times it is observed that the required depth of main channel is achieved at any shoal by erecting bandals after a period of time and continuing the bandals is no longer considered necessary. In that case the erected bandals shall be removed by the tenderer as per written instruction of the authority.

10. As per the direction of the E.I.C. or representative of E.I.C. re-erection of bandal at new places shall be done by the tenderer with the help of salvaged materials obtained from the removed bandal and by using other fresh materials e.g. bamboo, bamboo mats and coir string whatsoever may be found damaged in the process of re-erection.
11. Materials for initial erection and re-erection of bandal i.e. bamboo, bamboo mats, coir string and other tools and plants as may be required shall be arranged at different sites by the tenderer.
12. Adequate number of boats shall be arranged by the bidder for erection and maintenance of the bandals at each site.
13. One no. of experienced bandal Sardar and adequate number of labourers which will be required for erection and one no. of Sardar and adequate number of labourers for maintenance of bandal at each site are to be arranged by the tenderer.
14. Tenderer may use power boats/ launches for timely erection and proper maintenance of bandal.
15. Bio-data of the expert in bandalling work shall be submitted along with tender papers.
16. Contractor shall intimate in writing the erection of bandal immediately after completion (within two days) to enable E.I.C. for arranging for the inspection of the same. The E.I.C. or his representative will inspect immediately and file a certificate within 8 days after intimation about the completion of that particular bandal. If due to unavoidable reason the site cannot be inspected by river, the E.I.C. or his representative shall reach the nearest spot by Road and the contractor shall arrange for transport by river by suitable vessel / boat to the site from this nearest spot (if the distance is very much far say more than 5 km. fast moving craft shall be arranged by the contractor at his own cost).
17. The tenderer before submitting the tender may thoroughly acquaint himself with the proposed work and all rates quoted are to be final rates inclusive of cost of materials, labours, carriage of materials, arranging of boats etc. at the site for initial erection, shifting and maintenance of bandal.
18. (i) Order for start of erection of bandal at various sites shall be given only after the detailed hydrographic survey and fixation of alignment of bandal as decided jointly by the representative of E.I.C. and Contractor. In case detail pre-bandal survey could not be carried out due to any reason, detail hand drawn sketch shall be prepared as required for commencement of work. However, in order to start erection of bandals at the earliest date the order for mobilisation of men and materials for erection shall be given prior to the finalisation of alignment of bandal to enable contractor to organize men and materials in advance. Inputs of Bandal Sardar of the contractor shall also be taken while finalizing the bandal alignment. No extra claim shall be entertained in this regard. The contractor should set out the alignment of the works as specified by the representative of E.I.C. and Contractor.

(ii) The **completion period** for erection of **each bandal is ten days** from the date of alignment / order of intimation to the contractor by the E.I.C. or his representative.

After completion of the erection the contractor shall inform about the same along with the erection report in the Performa – I. On submission of the erection report in Performa – I and after detailed measurements as per relevant clauses of the tender document and observing the stability of bandals for a period of 10 days, payment of erection shall be released. During detailed measurement following measurements shall be undertaken:

- (a) Correctness of alignment of bandal
- (b) Number and dimensions of bamboo
- (c) Over all dimensions of mat will only be measured i.e. bandal length covered with the mats will only be measured (dimensions of individual mats will not be measured) to verify the dimensions of 15 m x 0.9 m or 15 m x 1.2m or 30 m x 0.9 m or 30 m x 1.2 m.

In case variation in measurement is upto –5% contractor will be allowed 3 days for rectification. The maintenance period shall start from the next date of completion but claim for the maintenance charges shall be entertained only after ascertaining the stability of bandal up to 10 days or more after date of completion of erection. ***90% payment for erection shall be made only after the full completion of bandal at each location. The balance 10% cost of erection shall be paid after satisfactorily maintenance of erected/re-erected along with final bills.*** The completion date of bandal is the date on which the assigned length of bandal is completely erected at a particular location.

- (iii) The above conditions shall hold good for the payment of re-erection of bandals also.
 - (iv) Monthly maintenance charges shall be paid after completion of one month of maintenance work from the date indicated as per clause (ii) above and certification by the representative of EIC with regard to clause 6 (iv) of this tender.
 - (v) For facilitating the programme of inspection by IWAI and also to reduce complications in submitting the maintenance bills it is suggested that contractor should submit first maintenance bill for part month so that the rest of the bills are for one full calendar month.
- 19.** The bandal materials shall be dismantled and removed by the tenderer at his own cost after maintenance period. The salvage value for the materials shall be taken into account by the tenderer while quoting the rates for these items.
- 20.** In case the depth of main channel is achieved, the erected bandal is required to be removed by the tenderer at his own cost as per the written instructions of the E.I.C or representative of EIC.
- 21.** In the case mentioned in the previous item (i.e. 20) the tenderer shall re-erect the bandal at new place with the help of salvaged material obtained from the removed bandal and by using other materials whatsoever needed at his own cost as per the direction of E.I.C or representative of EIC. The re-erection site specified for the bandals shall be within a distance of 10 km d/s and 2 km u/s from existing location.

22. Any damage caused to the erected/re-erected bandals during the entire period of erection/re-erection and maintenance shall be responsibility of the tenderer which shall be rectified by the tenderer at his own cost.
23. The contractor shall make his own arrangements for protecting the works during the course of erection and maintenance. During the process of work the contractor shall provide such precautionary and protective works at his own cost to protect the work from the rough weather, swell and the contractor shall be solely responsible for any damage which may occur due to contractor not taking necessary protective steps.
24. The contractor shall submit the rate analysis for the work/sub item in case the Department requires for the same during a negotiation.
25. Theft of materials of total bandal length or part thereof shall be responsibility of tenderer and tenderer shall make good it immediately by replacing the materials at his own cost. On request of the contractor, IWAI may consider to provide police protection at certain locations. Providing police protection does not relieve the contractor in any way from fulfilling the contractual obligations.
26. Washing away of total bandal length or part thereof or materials of total bandal length or part thereof shall be the responsibility of tenderer. Tenderer shall make good it immediately by replacing the materials at his own cost.
27. The re-erection of the bandal at different sites shall be completed within 10 days from the date of placement of the written order.
28. In case the tenderer fails to maintain the erected / re-erected bandal according to specification terms and conditions and direction given by the representative of E.I.C. from time to time, E.I.C. shall be free to cancel the entire or part maintenance works as the case may be and the security amount deposited for the maintenance part of the cancelled work shall be forfeited. In addition, the E.I.C. reserves the right to maintain that erected/re-erected bandals for the entire stipulated period through other agencies. In such an event the tenderer shall be allowed to remove the material used in the initial erection/re-erection of bandals only after completion of the stipulated maintenance period.
29. The contractor shall forthwith dispatch, raise and remove any plant (floating or otherwise) belonging to him or to any person employed by him which may be sunk in the course of execution and completion of the works or otherwise deal with the same as the E.I.C. and the representative may direct, until the same shall be raised and removed, the contractor shall display at night search lights and do all such things for the safe navigation as may be required by the department. In the event of the contractor not carrying out the obligations imposed upon him by this clause, the E.I.C. shall raise and remove the same (without prejudice to the right of the department to hold the contractor liable) and the contractor shall pay to the department all costs incurred in connection therewith. The fact that sunken vessel, craft or plant is insured or has been declared a total loss, shall not absolve the contractor from his obligation under this clause to raise and remove the same.
30. The progress of the work at each stage shall be subjected to the approval of the E.I.C. whose decision as to the rate of progress at each stage shall be final and binding on the

contractor. The E.I.C. reserves to himself the right to cancel the contract for unsatisfactory progress in the work at any stage.

31. The materials used on the work must be of first class variety corresponding to relevant BIS and other specifications laid in the contract. The work must be carried out in a workman like and expeditious manner and the quantity of work at each stage shall be subject to the approval of the E.I.C. The E.I.C.'s decision as to the quality of such materials and work shall be final and binding on the contractor.
32. The contractor shall maintain at each site or work (whether one side or many sites) one Inspection Register which must be produced by the contractor or his agent whenever called upon to do so by the EIC or his representative during their inspection of the work. If the rectification ordered to be done are not carried out within a time specified, the EIC shall have the right to get the same done through a third party and recover the expenditure incurred in the same from the any payment due to the contractor or the security deposit. This inspection register shall be the duplicate copying type so that one copy of the entries gets recorded in the EIC's office. The contractor shall not make any entry of any kind in this register.
33. Bandals shall be erected / re-erected at the specified sites as per instructions of the EIC or his representative and drawing. The location of bandal sites shall be specified at the time of giving the work order (please see item no. 2 also). In case of wrong erection during initial erection or re-erection the same shall have to be rectified if necessary by re-erection by the tenderer at his own cost.
34. The bandals in the stretch shall be inspected at least twice in a month for close monitoring and the contractor shall facilitate such inspection duly deploying a representative along with the inspection team.
35. The contractor shall get the payment for monthly maintenance based upon the certification about maintenance according to the specifications.
36. If the contractor fails to maintain the bandals as per **clause 6** in a particular 15 days period during inspection, the maintenance charges for 15 days shall be rejected by the Engineer-in-Charge and for the further period will be considered only after up keeping of the bandals intact according to the specification.
37. However, for the maintenance of the initial month and the last month shall be considered with a partial maintenance during the calendar month based on the actual number of days against the month.

2.2 Day channel marking

1. The contract comprises erection, supervision, safe keeping, re - erection and maintenance of the channel marks and other allied works and the provision of all labour, materials, mechanized boats, temporary works and everything whether of a temporary or permanent nature required for completion and maintenance so far as the necessity for providing the same as specified in or reasonably to be inferred from the contract.

2. For marking the channel, material used shall be bamboos, bamboo strips, bamboo mats, coir string, straw, lime, etc., the materials and other tools and plants as may be required are to be arranged at different beats at contractor's own cost.
3. Marks shall have to be erected at suitable places as per the instructions of E.I.C. or his representative and also as per Annexure - V herewith. In case, any marks are placed wrongly the same shall be rectified by the contractor at his own cost.
4. The contractor shall at his risk and cost, make all arrangements for locating the navigable channels, sand churs, snags, etc., by means of regular soundings along the river and change the position of the marks to indicate the navigable channel for the vessels operating in that stretch.
5. The contractor has to furnish free of charge a weekly report on the water depths available at different shoals formed in the stretch as mentioned in the contract. The report must reach the office of the EIC within the last working day of every week. The contractor should employ sufficient number of experienced technical staff to the satisfaction of EIC who are conversant with the river conservancy works in such rivers to carry out the work.
6. The stretch is divided into different beats. The contractor shall be indicated about the span of every beat and the marks to be erected and maintained therein by a detailed list before commencement of work.
7. All the marks termed as right hand marks, left hand marks, channel closing marks and snags (for lean season) and right hand transit mark and left hand transit mark (for flood season) are of variable nature and this can be determined only after conducting the survey in the field. However, the total no. of marks shall not exceed the number indicated in the contract. In case of additional requirement of marks the contractor shall intimate the E.I.C. in writing about the same and obtain written orders before taking up erection of additional marks in order to be eligible for claiming additional cost.
8. The contractor shall be liable to bear the expenditure of all manpower, material and equipment required for the work at his cost. He must, therefore, have thorough knowledge about the work prior to submission of his rates. No extra claim in this regard shall be entertained once the contract has been awarded. The marks after initial erection shall be maintained up to May' 2012 for lean season and up to Nov' 2011 for flood season. However, the maintenance period can be extended or curtailed at the discretion of EIC. The material used for channel marking thereafter shall have to be removed by the contractor at his risk & cost.
9. The Contractor shall ensure provision of boats, manjhies and dandies in their respective beat/ reach so as to maintain the required number of marks as stipulated in clause no. 29 of special and technical condition of contract.
10. Contractor shall intimate in writing the initial erection of marks immediately after completion within two days to enable EIC for arranging for the inspection of the same. The EIC or his representative shall inspect immediately and file a certificate accordingly.
11. **The completion period for initial erection of entire marks is 20 days, inclusive of the mobilization period of 5 days from the date of order of intimation to the contractor by**

the EIC or his representative. The marks so erected shall be inspected immediately on receipt of intimation about completion of erection of the channel mark in the particular beat. ***Full payment for erection of marks shall be done only after verification of stability of marks after 10 days from the date of completion of erection of marks provided the number of marks found are $\geq 100\%$ of the number specified for the beat.*** In case of the number of channel marks are less than that specified; the contractor shall immediately set right the same and inform the EIC for same. The payment shall be released only after EIC or his authorized representative inspect and certify that the number of channel marks erected are \geq the number of channel marks specified. 90% of the cost of erection shall be released on completion and balance 10% shall be payable along with final bill after satisfactory maintenance of channel marks during the contract period. The maintenance shall start immediately after the date of erection. Payment for erection shall be made only after the full completion of marks in all the beats. Maintenance of the marks shall be paid after verification of successful maintenance of the marks for every month. The contractor or his authorized representative shall have to accompany the officer in-charge during every inspection days. In case the contractor fails to attend the inspection trip he shall be liable to accept the measurement recorded during the inspection.

12. Channel marks erected / maintained in wrong position or without purpose shall not be considered for payment.
13. In case the ***contractor fails to maintain the erected / re-erected marks*** according to the specification and direction given by the EIC / his representatives from time to time, E.I.C. shall be free to cancel the entire or part maintenance works as the case may be and security amount deposited for the beat shall be forfeited. In addition the EIC reserves the right to maintain that erected / re-erected marks for the entire stipulated period through other agencies. In such an event the contractor shall be allowed to remove the material used in the initial erection / re-erection of marks only after completion of the stipulated maintenance period.
14. The contractor shall forthwith dispatch, raise and remove any plant (floating or otherwise) belonging to him or to any person employed by him which may be sunk in the course of execution and completion of the works or otherwise deal with the same as the EIC and the representative may direct until the same shall be raised and removed, the contractor shall set all such things for the safety of navigation as may be required by the Department. In the event of the contractor not carrying out the obligations imposed upon him by this clause, the EIC shall raise and remove the same (without prejudice to the right of the department to hold contractor liable) and the contractor shall pay to the department all costs incurred in connection therewith. The fact that sunken vessel, craft or plant is insured or has been declared a total loss, shall not absolve the contractor from his obligation under this clause to raise and remove the same.
15. Payment against each beat shall be done after inspection and verification by the E.I.C. or his representative on completion of the erection / maintenance work, in entire stretch. The EIC or his representative shall inspect the above marks as per clause 11 and shall file a certificate in writing showing the work done by the contractor in the stretch.
16. The tenderer shall submit the rate analysis for the work / sub items in case the department enquires for the same during negotiation.

17. Bamboo Harauti of 18 to 23 cm circumference at 45 cm (1'-6") from the bottom about 7 to 7.5 mtrs. long are required for marking the channel. The marks shall be driven properly by using wooden hammer up to at least (one) 1 meter below the ground level.
18. Submerged sand churs, submerged high banks and other possible navigational obstructions shall be duly marked.
19. The navigable channel shall be at least 45 m wide (30 m wide at shoals) and 2.5m/ 2 m / 1.5m deep in lean season. Marks shall be erected after taking measurement across the river by marked bamboo poles.
20. Beginning and end of a channel through churs shall be prominently marked using bamboo poles with bamboo mats reinforced with bamboo strips for being located. These shall also be painted with lime.
21. The reference of marking shall be commenced from up stream of the river and marks shall be put up on the right hand side of the channel or the left hand side of channel as given in Annexure - V.
22. Navigational channel in the crossing from one bank to another shall be marked with transit marks.
23. Where straight reach is available, marking shall be placed at longer distance but shall be visible from first mark.
24. For marking the main channel passing through the shoal / churs the marks shall be erected in water close to the main navigational channel.
25. All snags shall be marked with proper care. During the flood a number of trees, trunks & other permanent structures which are uprooted in the U/S of the river, flows down & get strangles at marking places even some time in the main channel. For safety of navigation, these obstructions known as snags should be detected first & marks properly. For this special marks (as mid water snag marks, left & right hand snag marks) are being used which may be seen in Annexure - V. If they are deep in water lying on river bed but allowing sufficient navigation depth in lean period then marking is done by a navigation buoy made of a sealed 15 liter empty oil tin painted red, tied with a wire rope & sunk by a sinker.
26. The materials used on the work shall be of good quality conforming to the specifications laid in the contract. The work shall be carried out in a workman like and expeditious manner and the quality of work at each stage shall be subject to the approval of the EIC. The EIC's decision as to the quality of such materials and work shall be final and binding on the contractor.
27. The contractor shall bear full responsibility for the intimation to the EIC forthwith of any accident and take all necessary action required under relevant Acts and Rules, Marine Rules etc., as the case may be. The contractor shall also report such accidents to the Competent Authority wherever such reports are required under rules. The EIC or his representative must however, be informed immediately in the event of any marine accident. The contractor should also bear full responsibility for all accident, damages or injury

caused to any of the IWAI's employees, cause of which is established as due to contractor's carelessness or negligence.

28. It has been proposed that the entire stretch shall be inspected at least twice in a month for very close monitoring and the contractor shall facilitate such inspection duly deploying representative along with the inspection team.
29. It must be noted that in each beat at least 80% marks should be available during each inspection in a month.
30. In case the tenderer fails to maintain the navigational marks according to specification and directive given by the representative of the Engineer-in-charge from time to time, the Engineer-in-charge shall be free to cancel the entire or / part of the maintenance as the case may be.
31. **The payment of monthly maintenance shall be as follows:-**
 - i) If during a month the marks seen in all the two inspections are 80% or above in the specified beat, erection / maintenance is payable for the full month for the marks actually seen in the beat limited to the least number observed during two inspections.
 - ii) If during a month the marks seen in one inspection is 80% or above but observed less than 80% in the 2nd inspection, the maintenance is payable for 15 days only.
 - iii) No monthly maintenance shall be payable for the full month if the marks seen are less than 50% in any inspection during a month.
32. However, the maintenance for the initial month and the last month shall be considered with a partial maintenance during the calendar month, based on the number of days of maintenance against the month.

2.3 Night channel Marks

A. (2 NM Country boat mounted Navigational lights)

1. The country boats, which are to be used for installation and operation of navigational lighting system, should be of about 22 feet x 5 feet size (with a permissible variation of + 15% in size) with arrangement for accommodation of one boatman / manjhi. Boats are to be placed all along the navigation channel at pre-determined interval to mark the channel to facilitate round the clock navigation. The contract includes provision of labour, materials, boats, fitting arrangements for light on country craft. A general arrangement drawing of boat with light is given at Annexure- VI.
2. Each boat should have a boatman and all necessary fixtures like oars, bamboo poles one flag each of green and red colour of size 1.0 m x 0.5 m fitted on a pole (given a coat of lime wash) of minimum 2.0 m height. One flag will be hoisted on boat at a time depending upon its position. The flag will have IWAI marking in it. The boat will also have board of 0.5 x 0.5 meter to display the number of the boat. Material like coir string, straw, lime, and other tools and plants as may be required are to be arranged at different beats at contractor's own cost.

3. The boat should be in good condition and should be able to bear extreme weather condition of river.
4. The boats shall have at least 1 no. Grab Nail Anchor of 10 kg weight with necessary mooring rope etc.
5. Each boat should have all joints well caulked and bitumen painted to reduce seepage.
6. Each boat should have accommodation facility, shelter and working facilities for a single boatman. These boats are to be placed to facilitate night navigation from 6PM to 6AM.
7. The contractor has to ensure that the boatman engaged at each boat should keep the boat in correct position and safekeeping of the navigation light and battery, solar sets, charging unit etc.
8. The contractor has to ensure that the boatman engaged at each boat should well acquaint with the navigable channel of that area. The boatman should also have experience in marking the channel.
9. The contractor has to first identify the navigable channel all along the beat and erect bamboo mark at each critical position where the boats with the navigational lights are to be maintained. The boatman should be able to see one boat upstream side and one boat downstream side so that the vessels should be able to see boats continuously from a long distance at night without any difficulties.
10. The contractor shall also have to ensure that with the rise and fall of water level and with the changes of orientation of navigable channel; these boatmen also re-orient their position, drive a new bamboo mark at the new position withdrawing the bamboo from the old position and anchor their boats by the side of these new bamboo positions.
11. The contractor has to ensure that the boatmen deployed in each boat are from the adjacent locality. Each boatman should have identity card with full address.
12. The contractor shall be responsible for the safety of the lighting system after the same are issued to him. He shall have to hand over all lighting systems to the store of the Authority at Patna and obtain a "No Dues Certificate" after expiry of work order or as per instruction of EIC. The said "No Dues Certificate" is required to be submitted to the Authority for release of his security deposit.
13. Tenderer shall have to maintain a register through every beat in charge, stationed at every 50 kms with mechanized boat for inspection, indicating the names and addresses of each boatman deployed in a beat.
14. All night navigational lighting equipments will be issued by the Authority to the contractor but all cases of theft/pilferage shall have to be reported to the Police Station by the contractor as soon as any such incident occurs but not later than 24 hours. While submitting F.I.R. to the Police Station, if any assistance is required by the contractor the same will be provided by E.I.C. However, for the loss of navigational lighting

equipment, the contractor will be solely responsible and the cost will be deducted from the running bill.

15. The contractor shall ensure that beat In charge make his inspection at night and at day to ensure proper operation of the lighting system and positioning of marks to ensure the safety of the vessels plying in his beat.
16. The navigational lights with solar panels will have to be installed on the top of a manned country boat of standard size having provision for accommodation of one boatman / manjhi. The battery shall be kept under the shed in case of big navigational lights. His boat shall be placed at critical position as found suitable during the inspection and surveyed by IWAI and shall work like a floating buoy. His boat should also have a small platform at a height of about 1 meter from the deck of the boat (above the shed) and night navigation light fitted with solar panel and battery shall be installed on the platform. While the battery shall be kept under the shed for safety and security, the solar panel shall charge the battery in the day time and the light shall be flashing at the pre-determined interval and work as night navigation system. The boats shall have to be kept in a position with its anchor and shall be moored at a depth of 2.0 – 2.5 meter depending on the fall and rise of the water level and the changing channel pattern and these boats shall have to be placed at a suitable position for marking the navigable channel, along with day navigational marks.
17. If there is any navigational lights theft/damage/ pilferage of the navigational lights, the cost of the same will be deducted from the running bill of the contractor for the said work for the said period.
18. After receipt of the claim recoverable amount by IWAI from the insurance company, the same amount will be reimbursed to the contractor, which was deducted from his running account bill towards theft/damage/ pilferage of the navigational lights.
19. The contractor shall make his own arrangements for protecting the works during the course of installation and operation. During the process of work the contractor shall provide such precautionary and protective works at his own cost to protect the lighting equipments from the rough weather and the contractor shall be solely responsible for any damage, which may occur due to contractor not taking necessary protective steps.
20. The contractor shall submit the rate analysis for the work/sub item in case the Department requires for the same during a negotiation.
21. The contractor shall forthwith raise and remove any plant (floating or otherwise) belonging to him which may be sunk in the course of execution until the same shall be raised and removed, the contractor shall display at night search lights and do all such things for the safe navigation as may be required by the department. In event of the contractor not carrying out the obligations imposed upon him by this clause, the E.I.C. shall raise and remove the same (without prejudice to the right of the department to hold the contractor liable) and the contractor shall pay to the department all costs incurred in connection therewith. The fact that sunken vessel, craft or plant is insured or has been declared a total loss, shall not absolve the contractor from his obligation under this clause to raise and remove the same.

22. The progress of the work at each stage shall be subject to the approval of the EIC whose decision as to the rate of progress at each stage shall be final and binding on the contractor. The EIC reserves to himself the right to cancel the contract for unsatisfactory progress in the work at any stage.
23. The contractor shall maintain at each stretch one Inspection Register for recording details of navigational lights like battery, solar panel, and light etc which is required for replacement/charging/repairing etc and upkeep the same as per requirement and provision in the agreement under intimation to R.O. If the rectification ordered to be done are not carried out within a time specified, the EIC shall have the right to get the same done through a third party and recover the expenditure incurred in the same from the any payment due to the contractor or the security deposit. This inspection register shall be the duplicate copying type so that one copy of the entries get recorded in the EIC's office.
24. The contractor shall get the payment for monthly operation of lights and conventional bamboo marks based upon the certification.
25. However, for the operation during the initial month and the last month shall be considered with a partial operation during the calendar month based on the actual number of days against the month.
26. The contractor shall at his risk and cost, make all arrangements for locating the navigable channels, sand churs, snags etc. by means of regular soundings along the river and change the position of the lights to indicate the navigable channel for the vessels operating in that stretch.
27. Navigational lights are termed as green light (left side along the current) and red light (right side along the current) are of variable nature and this can be determined only after conducting the survey in the field. However the total no. of navigational lights shall not exceed the number indicated in the contract.
28. The contractor shall be liable to bear the expenditure of all manpower, material and equipment required for the work at his cost. He must, therefore, have thorough knowledge about the work prior to submission of his rates. No extra claim in this regard shall be entertained once the contract has been awarded. The navigational lights after initial installation shall be operated for the complete period of contract. However, the operation period can be extended or curtailed at the discretion of EIC.
29. The Contractor shall ensure provision of boats, manjhies beat Incharge with mechanized boat in their respective beat/ reach so as to maintain and operate the required number navigational lights.
30. Contractor shall intimate in writing the installation of navigational light immediately after completion within two days to enable EIC for arranging for the inspection of the same. The EIC or his representative shall inspect immediately and file a certificate accordingly.
31. The completion period for installation of entire stretch for navigational lights is 20 days, inclusive of the mobilisation period from the date of order of intimation to the

contractor by the EIC or his representative. The navigational lights shall be inspected on any day from the date of receipt of intimation about completion of installation of the navigational lights in the particular beat. Full payment for installation of navigational lights shall be done only after the inspection provided the number of lights found is 100% of the number specified for the beat. In case, the number of lights found are less than that specified, the contractor shall immediately set right the same and inform the EIC for same. The payment towards installation shall be released only after EIC or his authorised representative inspects and certifies that the number of navigational lights erected is same as the number specified. The operation shall start after 100% lights is installed to the satisfaction of EIC. The operation shall start immediately after the date of installation. Payment for installation shall be made only after the full completion of lights in all the beats. Operation of the lights shall be paid after verification of successful operation of the lights for every month. The contractor or his authorised representative shall have to accompany the officer in-charge during every inspection days. In case the contractor fails to attend the inspection trip he shall be liable to accept the measurement recorded during the inspection.

32. Navigational lights installed or operated in wrong position or without purpose shall not be considered for payment.
33. In case the contractor fails to operate the erected/re-erected navigational lights according to the specification and direction given by the EIC / his representatives from time to time, E.I.C. shall be free to cancel the entire or part operating cost as the case may be and security amount deposited for the same shall be forfeited. In addition, the EIC reserves the right to operate the installed / re-positioned lights for the entire stipulated period through other agencies. In such an event the contractor shall be allowed to remove the material used in the initial installation / re-installation of lights only after completion of the stipulated operating period.
34. Payment against each beat shall be done after inspection and verification by the E.I.C. or his representative on completion of the installation work, in entire stretch.
35. The navigable channel shall be at least 45m wide (30m wide at shoals) and 2.5/2 meter deep.
36. Where straight reach is available, boat lighted with navigational light shall be placed at longer distance but shall be visible from previous light.
37. For marking the main channel passing through the shoal/churs, the boat lighted with navigational light shall be placed in water close to the main navigational channel.
38. The contractor shall bear full responsibility for the intimation to the EIC forthwith of any accident and take all necessary action required under relevant Acts and Rules, Marine Rules etc. as the case may be. The contractor shall also report such accidents to the competent Authority wherever such reports are required under rules. The EIC or his representative must however, be informed immediately in the event of any marine accident. The contractor should also bear full responsibility for all accident, damages or injury caused to any of the IWAI's employees, cause of which is established as due to contractor's carelessness or negligence.

39. It has been proposed that the entire stretch shall be inspected at least two times in a month for very close monitoring and the contractor shall facilitate such inspection duly deploying his representative along with the IWAI inspection team.
40. It must be noted that in each beat during two inspections at least 95% lights should be available during each inspection in a month.
41. The payment of monthly operational cost shall be as follows: -
 - a. If during a month the lights seen in all the 2 inspections are 95% or above in the specified beat operational cost is payable for the full month for the lights actually seen in the beat limited to the least number observed during two inspections.
 - b. No monthly operational cost shall be payable for the full month if the lights on boats seen are less than 95% in any inspection during a month.
42. The contractor should deploy sufficient mechanized inspection boats for close monitoring and the contractor shall facilitate such inspection duly deploying representative along with proper manpower.
43. Transportation of men and material and delivery of the materials shall be under the scope of contractor. Any delays encountered in the transportation/mobilization of the men and material shall be accounted to the contractor.
44. Care should be taken to ensure the proper holding of anchor of country boat/buoy, correct location of country boat in upright condition etc. at the time of installation and operation period.
45. The contract can be extended for further period on mutually agreed terms and conditions.

B. MAINTENANCE OF 2 NM NAVIGATIONAL LIGHTS MOUNTED ON 11.5 M HEIGHT M.S POLE .

- i) The Beacon Pipe structure shall have to be fabricated from new M.S Pipes (3 mm thick) of diameters 6” at bottom and 3” at top as per drawing and shall have a total length of 10 meters of its length projected on the top of cement foundation while another 1.5 meters of the pipe shall have to be embedded in the ground and above ground with cement concrete of mix (1:2:4) as indicated in the enclosed drawing.

- ii) The beacon Pipe structure shall have one 200 mm X 200 mm size 6mm thick M.S plate welded on the pipe to accommodate the beacon light. The plate shall have 8nos $\frac{1}{2}$ " dia hole as shown in the drawing for fixity of the navigation light. The plate shall also have a bracket support by M.S angle/ M.S Flat to provide required rigidity to the base plate holding the navigation light. The steel pipe beacon towers shall have to be painted in red and white or green and white in horizontal bands with one coat red oxide and two coats of synthetic enamel as shown in the drawing.

- iii) For foundation concrete, a foundation of size 0.5m (length) x 0.5m (breadth) x1.5m (height) shall have to be excavated at the specific location. After making PCC work and pouring a layer of concrete as per drawing, the pipe beacon shall have to be fixed in the centre with supports from all sides to keep it vertical. The excavated pit shall thereafter have to be filled up with concrete up to 150 mm height from the surrounding ground level as specified in the drawing. The protruding portion of the concrete foundation has to be finished with a layer of thick cement plaster of (1:4) mix. A height of 0.50 mtr to be above the ground level will be embedded with cement concrete as indicated in the enclosed drawing. For PCC of size 0.50 m X 0.50 m X 0.15 m shall have to be done with cement concrete of mix (1:2:4) as indicated in the enclosed drawing.
- iv) While IWAI shall deploy one of its survey launch along with one of its technical manpower to indicate the location of each beacon and also to supervise the work on day to day basis, the contractor shall have to procure/manufacture the pipe beacons, fit the beacon light on the top, load and transport the pipe beacons including the light to its site for erection through his own boat/barge/powered launch, complete including excavation, P.C.C in foundation work, painting of the beacon towers, curing of the foundation for 7 days and plastering to the exposed portion of the beacon foundation).
- vi) The Contractor shall have to ensure that the lights are all functional before he carries the same to the site/at his workshop. He has to ensure that all lights are functional when the beacon towers are erected. Each beacon tower shall be handed over to IWAI within 15 days of its erection and till such time the contractor has to ensure stability and safety of the beacon towers.
- vii) IWAI officer accompanying the erection team shall have to ensure that the beacon lights are visible both from its up stream and down stream locations in the navigable channel and care to be taken that the visibility is not obstructed by trees/vegetation growth.
- viii) The contractor has to plan his activities in a meticulous manner to ensure that all activities including procurement of materials, fabrication of structures as per approved drawing, mobilization of powered crafts, transportation and erection is completed within the stipulated time period.
- viii) The contractor has to engage manpower for safety, security and maintenance of Beacon Tower fitted with navigational lights at each location.
- ix) The contractor shall be responsible for the safety of the lighting system after the same are issued to him. In case of any theft/pilferage same shall have to be reported to the Police Station by the contractor as soon as incident occurs but not less than 24 hours and submit insurance claim of the same. While submitting F.I.R to the police station or insurance firm, if any assistance required by the contractor the same will be provided by E.I.C .However , for the loss of any navigational lighting equipment, the contractor will be solely responsible for the same and the cost will be deducted from the running bill.
- x) **Mobilization, Fabrication & Installation of 2 NM Navigational Lights on 11.5 m high Pole along the navigational channel at the specified suitable locations of NW-1 shall be completed by the contractor. The operation, maintenance & safe**

keeping of these installed navigational lights shall be considered at the rate & cost accepted for this purpose by the tenderer.

- xi) To have a proper watch keeping to these pole mounted lights, the contractor has to identify one his person whose details shall be recorded in the register and one copy of the same will be provided by the contractor to EIC. This person shall submit monthly status report of the light to contractor for further submission to the IWAI. In case of any defect etc. in the light the contractor shall take appropriate action to rectify it.
- xii) In case of any theft/pilferage during the contract period it shall have to be reported to the Police Station by the contractor as soon as any such incident occurs but not later than 24 hours. While submitting F.I.R. to the Police Station, if any assistance is required by the contractor the same will be provided by E.I.C. However, for the loss of navigational lighting equipment, the contractor will be solely responsible and the cost will be deducted from the running bill.
- xiii) **The payment of monthly operational cost shall be as follows: -**
 - a. If during a month the lights seen in all the 2 inspections are 95% or above in the specified beat operational cost is payable for the full month for the lights actually seen in the beat limited to the least number observed during two inspections.
 - b. No monthly operational cost shall be payable for the full month if the lights on poles seen are less than 95% in any inspection during a month.

C. *5 NM Beacon lights mounted on 15 m height trestle tower*

- 1. 5 NM shore beacon lights have been fabricated & installed at the specified locations along the navigational channel as a navigational aid for safe inland navigation. The contractor shall be responsible for proper operation, maintenance & safe keeping of beacon lights installed on these towers during the contract period.
- 2. To have a proper watch keeping to these pole mounted lights, the contractor has to identify one his person whose details shall be recorded in the register and one copy of the same will be provided by the contractor to EIC. The contractor shall be responsible for safety, security and proper up keeping of beacons on tower and deploy a suitable person for it. Cost for this will be borne by contractor. This person shall submit monthly status report of the light to contractor for further submission to the IWAI. In case of any defect etc. in the light the contractor shall take appropriate action to rectify it.
- 3. For operation of the beacon lights mounted on 15 m trestle tower, the completed unit shall be handed over by the Authority to the contractor but in case of any theft/pilferage during the contract period shall have to be reported to the Police Station by the contractor as soon as any such incident occurs but not later than 24 hours. While submitting F.I.R. to the Police Station, if any assistance is required by the contractor the same will be provided by E.I.C. However, for the loss of navigational lighting equipment, the contractor will be solely responsible and the cost will be deducted from the running bill.

BANDAL ERECTION REPORT

1. Name of Contractor
2. Bandal Location
(Enclose alignment of bandal as furnished by EIC and alignment as executed on detailed survey chart/ hand sketch)
3. Date of award of work
4. Date of giving of alignment of bandal
5. Date of start of work
6. Date of completion of work
7. Declaration of material used
 - a. No. of mats of size 1.2 m x 0.9 m with thickness \geq specified =
 - b. No. of mats of size 0.9 m x 1.2 m with thickness \geq specified =
 - c. Vertical pins used
(furnish the minimum dimensions in the lot of bamboos used)

Number	=	
Diameter	\geq	cm
Circumference at 45cm from bottom	\geq	cm
Length	\geq	m
 - d. Inclined pins used
(furnish the minimum dimensions in the lot of bamboos used)

Number	=	
Diameter	\geq	cm
Circumference at 45cm from bottom	\geq	cm
Length	\geq	m
 - e. Horizontal bamboo used
(furnish the minimum dimensions in the lot of bamboos used)

Number	=	
Diameter	\geq	cm
Circumference at 45cm from bottom	\geq	cm
Length	\geq	m
 - f. Declaration
I solemnly declare that the details furnished above are correct and if any information is found incorrect at the time of inspection, the EIC may reject part or whole of such works and may recover the payment made by IWAI on such account.

(Signature of the Contractor)
Name

SPECIAL CONDITIONS

A. HOLD HARMLESS:

- i) The Contractor should indemnify and hold the Authority harmless from any liability or claim for damages because of bodily injury, death, property damage, sickness, disease or loss and expense arising from the Contractor's performance of this Contract.
- ii) The Contractor is acting in the capacity of an independent contractor with respect to the Authority.
- iii) The Contractor should protect, defend and indemnify the Owner from any claims by labourers or Sub Contractors for unpaid work or labour performed in connection with this Contractor.

B. CHANGE ORDERS:

- i) The Contractor should not make any changes in the schedule of work or the Specifications without written authorization by the Engineer in Charge and written concurrence by the Authority.

C. UNSATISFACTORY PERFORMANCE:

- i) In case of unsatisfactory performance/ progress / services by the Contractor, IWAI shall have the right to issue a show cause notice to the consultant requiring him to explain the reason thereof.
- ii) In case of continuation of such unsatisfactory performance / progress / services, IWAI reserves the right to rescind the Contract and get the balance work executed at the risk and cost of the Contractor.

D. WARRANTIES:

- i) The Contractor should warrant that this contract does not and shall not infringe any existing or subsequent patents, rights or licenses of any third party.
- ii) The Contractor should further warrant that the rights of the Authority under the present contract are not and shall not be infringed by any prior or subsequent contract, which may have been or may hereafter be entered into by the Contractor with any other party.

E. MISCELLANEOUS:

- i) The Contract embodies the entire understanding of the parties as to its subject matter and shall not be amended except in writing executed by both the parties and subject to the approval of the concerned authorities.

PART – IV

SCHUDLE OF

QUANTITIES (A TO D)

SCHEDULE: A**BILL OF QUANTITY**

Name of Work : Erection and maintenance of Bandalling and day & night navigational system

National Waterway No. 1**Stretch :- Rajmahal – Munger**

Sl. No.	PARTICULARS	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1.	BANDALLING				
1.1	Initial erection of bandal including labour, materials, tools and plants. Rajmahal – Munger: 2400 m,	2400	Meter		
1.2	Regular maintenance of bandal including labour, materials, tools and plants from December '2017 to March' 2018.	9600	Meter month	(Bidder not required to quote for this item) Rate for this item shall be 0.35 times of rate quoted for item no.1.1 rounded to two decimal digit	
1.3	Re-erection of bandal by using salvaged materials obtained from removed bandal and using fresh materials from December '2017 to March' 2018.	2400	Meter	(Bidder not required to quote for this item.) Rate for this item shall be 0.20 times of rate quoted for item no.1.1 rounded to two decimal digit	
2.	DAY CHANNEL MARKING (LEAN SEASON)				
2.1	Erection of right hand/left hand mark /snag/channel closing mark as per specification, drawing and direction of EIC during October-2017.	271	Mark		
2.2	Maintenance of right hand/left hand mark /snag /channel closing mark as per specification, drawing and direction of EIC from October '2017 to March' 2018. (271 marks x 6 months)	1626	Mark Month	(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit	
3	DAY CHANNEL MARKING (FLOOD SEASON)				
3.1	Erection of right hand/left hand transit mark /snag/channel closing mark as per specification, drawing and direction of EIC during July-2017.	135	Mark		
3.2	Maintenance of right hand/left hand transit mark / snag/channel closing mark as per specification, drawing and direction of EIC from July' 2017 to September' 2017.	405	Mark Month	(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit	

Contd/-

4.	NIGHT NAVIGATION CHANNEL MARKING (Light on Boat / Bamboo Structure) Lean Season				
4.1	Mobilization & placement of country boats / bamboo structure mounted 2 NM navigational lights with manning as per specification, drawing and direction of EIC during October-2017.	73	Per lighted boat		
4.2	Operation & maintenance of provided 2 NM night navigation light mounted on country boats / bamboo structure with manning as per specification, drawing and direction of EIC from October ' 2017 to March' 2018. (146 boats x 6 months)	876	Lighted boat month		
5	NIGHT NAVIGATION CHANNEL MARKING (Light on Boat / Bamboo Structure) Flood Season				
5.1	Mobilization & placement of country boats / bamboo structure mounted 2 NM navigational lights with manning as per specification, drawing and direction of EIC during July-2017.	73	Per lighted boat		
5.2	Operation & maintenance of provided 2 NM night navigation light mounted on country boats / bamboo structure with manning as per specification, drawing and direction of EIC from July ' 2017 to September' 2018. (73 boats x 3 months)	219	Lighted boat month		
6.	NIGHT NAVIGATION CHANNEL MARKING (Light on Pole)				
6.1	Operation, maintenance & safe keeping of provided 2 NM night navigation light marks mounted on fixed 11.5 m high post and shifting of marking pole as per navigational requirement & as per specification, drawing and direction of EIC from July, 2017 to March, 2018 (54 pole x 9 months)	486	Light pole-month		
7.	NIGHT NAVIGATIONAL Aids (Light on 15 m high trestle tower)				
7.1	Operation, maintenance & safe keeping of the erected 5 NM shore Beacon lights mounted on 15 m high trestle tower as per the direction of EIC from July-2017 to March-2018. (8 Beacon Lights x 8 Months)	72	Beacon Lights Month		
8	Painting				
8.1	Painting (two or more coats) on 10-11 m high M.S. Pole with synthetic enamel paint of approved branded manufacture and required colour on old work as per direction of EIC or his representative at different locations on the bank of river Ganga between Rajmahal and Munger stretch of NW-1	54	No.		
8.2	Painting (two or more coats) on 15 m high trestle tower with aluminum paint of approved branded manufacture to give an even shed as per direction of EIC or his representative at different locations on the bank of river Ganga between Rajmahal and Munger stretch of NW-1	8	No		

Total

(SIGNATURE OF TENDERER)
NAME & DESIGNATION
NAME OF FIRM
DATE
SEAL

SCHEDULE: B**BILL OF QUANTITY****Name of Work :** Erection and maintenance of Bandalling and day & night navigational system**National Waterway No. 1****Stretch :- Munger - Patna**

Sl. No.	PARTICULARS	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1.	BANDALLING				
1.1	Initial erection of bandal including labour, materials, tools and plants. Munger - Patna: 5700 m,	5700	Meter		
1.2	Regular maintenance of bandal including labour, materials, tools and plants from December '2017 to March' 2018.	22800	Meter month	(Bidder not required to quote for this item) Rate for this item shall be 0.35 times of rate quoted for item no.1.1 rounded to two decimal digit	
1.3	Re-erection of bandal by using salvaged materials obtained from removed bandal and using fresh materials from December '2017 to March' 2018.	5700	Meter	(Bidder not required to quote for this item.) Rate for this item shall be 0.20 times of rate quoted for item no.1.1 rounded to two decimal digit	
2.	DAY CHANNEL MARKING (LEAN SEASON)				
2.1	Erection of right hand/left hand mark/snag /channel closing mark as per specification, drawing and direction of EIC during October-2017.	249	Mark		
2.2	Maintenance of right hand/left hand mark /snag /channel closing mark as per specification, drawing and direction of EIC from October '2017 to March' 2018. (249 marks x 6 months)	1494	Mark Month	(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit	
3	DAY CHANNEL MARKING (FLOOD SEASON)				
3.1	Erection of right hand/left hand transit mark /snag/channel closing mark as per specification, drawing and direction of EIC during July 2017.	125	Mark		
3.2	Maintenance of right hand/left hand transit mark / snag/channel closing mark as per specification, drawing and direction of EIC from July 2017 to September' 2017.	375	Mark Month	(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit	

Contd/-

4.	NIGHT NAVIGATION CHANNEL MARKING (Light on Boat / Bamboo Structure) Lean Season				
4.1	Mobilization & placement of country boats / bamboo structure mounted 2 NM navigational lights with manning as per specification, drawing and direction of EIC during October-2017.	64	Per lighted boat		
4.2	Operation & maintenance of provided 2 NM night navigation light mounted on country boats / bamboo structure with manning as per specification, drawing and direction of EIC from October ' 2017 to March' 2018. (129 boats x 6 months)	774	Lighted boat month		
5	NIGHT NAVIGATION CHANNEL MARKING (Light on Boat / Bamboo Structure) Flood Season				
5.1	Mobilization & placement of country boats / bamboo structure mounted 2 NM navigational lights with manning as per specification, drawing and direction of EIC during July 2017.	65	Per lighted boat		
5.2	Operation & maintenance of provided 2 NM night navigation light mounted on country boats / bamboo structure with manning as per specification, drawing and direction of EIC from July ' 2017 to September' 2018. (65 boats x 3 months)	195	Lighted boat month		
6.	NIGHT NAVIGATION CHANNEL MARKING (Light on Pole)				
6.1	Operation, maintenance & safe keeping of provided 2 NM night navigation light marks mounted on fixed 11.5 m high post and shifting of marking pole as per navigational requirement & as per specification, drawing and direction of EIC from July, 2017 to March, 2018 (28 pole x 9 months)	252	Light pole-month		
7.	NIGHT NAVIGATIONAL Aids (Light on 15 m high trestle tower)				
7.1	Operation, maintenance & safe keeping of the erected 5 NM shore Beacon lights mounted on 15 m high trestle tower as per the direction of EIC from July-2017 to March-2018. (5 Beacon Lights x 9 Months)	45	Beacon Lights Month		
8	PAINTING OF SHORE BEACON LIGHTS				
8.1	Painting (two or more coats) on 10-11 m high M.S. Pole with synthetic enamel paint of approved branded manufacture and required colour on old work as per direction of EIC or his representative at different locations on the bank of river Ganga between Munger and Patna stretch of NW-1	28	No.		
8.2	Painting (two or more coats) on 15 m high trestle tower with aluminum paint of approved branded manufacture to give an even shed as per direction of EIC or his representative at different locations on the bank of river Ganga between Munger and Patna stretch of NW-1	5	No		

Total

(SIGNATURE OF TENDERER)
NAME & DESIGNATION
NAME OF FIRM
DATE
SEAL

SCHEDULE: C**BILL OF QUANTITY**

Name of Work : Erection and maintenance of Bandalling and day & night navigational system

National Waterway No. 1**Stretch :- Patna - Ghazipur**

Sl. No.	PARTICULARS	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1.	BANDALLING				
1.1	Initial erection of bandal including labour, materials, tools and plants. Patna - Ghazipur: 5400 m,	4800	Meter		
1.2	Regular maintenance of bandal including labour, materials, tools and plants from December '2017 to March' 2018.	19200	Meter month	(Bidder not required to quote for this item) Rate for this item shall be 0.35 times of rate quoted for item no.1.1 rounded to two decimal digit	
1.3	Re-erection of bandal by using salvaged materials obtained from removed bandal and using fresh materials from December '2017 to March' 2018.	4800	Meter	(Bidder not required to quote for this item.) Rate for this item shall be 0.20 times of rate quoted for item no.1.1 rounded to two decimal digit	
2.	DAY CHANNEL MARKING (LEAN SEASON)				
2.1	Erection of right hand/left hand mark/snag /channel closing mark as per specification, drawing and direction of EIC during October-2017.	220	Mark		
2.2	Maintenance of right hand/left hand mark /snag /channel closing mark as per specification, drawing and direction of EIC from October '2017 to March' 2018. (220 marks x 6 months)	1320	Mark Month	(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit	
3	DAY CHANNEL MARKING (FLOOD SEASON)				
3.1	Erection of right hand/left hand transit mark/snag/channel closing mark as per specification, drawing and direction of EIC during July-2017.	110	Mark		
3.2	Maintenance of right hand/left hand transit mark / snag/channel closing mark as per specification, drawing and direction of EIC from July' 2017 to September' 2017.	330	Mark Month	(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit	

Contd/-

4.	NIGHT NAVIGATION CHANNEL MARKING (Light on Boat / Bamboo Structure) Lean Season				
4.1	Mobilization & placement of country boats / bamboo structure mounted 2 NM navigational lights with manning as per specification, drawing and direction of EIC during October-2017.	49	Per lighted boat		
4.2	Operation & maintenance of provided 2 NM night navigation light mounted on country boats / bamboo structure with manning as per specification, drawing and direction of EIC from October ' 2017 to March' 2018. (98 boats x 6 months)	588	Lighted boat month		
5	NIGHT NAVIGATION CHANNEL MARKING (Light on Boat / Bamboo Structure) Flood Season				
5.1	Mobilization & placement of country boats / bamboo structure mounted 2 NM navigational lights with manning as per specification, drawing and direction of EIC during July-2017.	49	Per lighted boat		
5.2	Operation & maintenance of provided 2 NM night navigation light mounted on country boats / bamboo structure with manning as per specification, drawing and direction of EIC from July ' 2017 to September' 2018. (49 boats x 3 months)	147	Lighted boat month		
6.	NIGHT NAVIGATION CHANNEL MARKING (Light on Pole)				
6.1	Operation, maintenance & safe keeping of provided 2 NM night navigation light marks mounted on fixed 11.5 m high post and shifting of marking pole as per navigational requirement & as per specification, drawing and direction of EIC from July, 2017 to March, 2018 (17 pole x 9 months)	153	Light pole-month		
7.	NIGHT NAVIGATIONAL Aids (Light on 15 m high trestle tower)				
7.1	Operation, maintenance & safe keeping of the erected 5 NM shore Beacon lights mounted on 15 m high trestle tower as per the direction of EIC from July-2017 to March-2018. (16 Beacon Lights x 9 Months)	144	Beacon Lights Month		
8	PAINTING OF SHORE BEACON LIGHTS				
8.1	Painting (two or more coats) on 10-11 m high M.S. Pole with synthetic enamel paint of approved branded manufacture and required colour on old work as per direction of EIC or his representative at different locations on the bank of river Ganga between Patna and Ghazipur stretch of NW-1	17	No.		
8.2	Painting (two or more coats) on 15 m high trestle tower with aluminum paint of approved branded manufacture to give an even shed as per direction of EIC or his representative at different locations on the bank of river Ganga between Patna and Ghazipur stretch of NW-1	16	No		

Total

(SIGNATURE OF TENDERER)
NAME & DESIGNATION
NAME OF FIRM
DATE
SEAL

SCHEDULE: D**BILL OF QUANTITY**

Name of Work : Erection and maintenance of day navigational system
National Waterway No. 1

Stretch :- Chunar - Allahabad

Sl. No.	PARTICULARS	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1.1.	DAY CHANNEL MARKING (LEAN SEASON)				
1.1	Erection of right hand/left hand mark/snag/channel closing mark as per specification, drawing and direction of EIC.	260	Mark		
1.2	Maintenance of right hand/left hand mark/snag/channel closing mark as per specification, drawing and direction of EIC from October' 2017 to March' 2018.	1560	Mark Month	<i>(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.A1 rounded to two decimal digit</i>	
2	DAY CHANNEL MARKING (FLOOD SEASON)				
2.1	Erection of right hand/left hand transit mark/snag/channel closing mark as per specification, drawing and direction of EIC during August-2014.	130	Mark		
2.2	Maintenance of right hand/left hand transit mark / snag/channel closing mark as per specification, drawing and direction of EIC from July 2017 to September' 2017.	390	Mark Month	<i>(Bidder not required to quote for this item.) Rate for this item shall be 1.5 times of rate quoted for item no.2.1 rounded to two decimal digit</i>	

(SIGNATURE OF TENDERER)

NAME & DESIGNATION

NAME OF FIRM

SEAL

Date

AGREEMENT FORMAT

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

WHEREAS THE IWAI desirous of undertaking the works for

WHEREAS the contractor has offered to execute and complete such works and whereas IWAI has accepted the tender of the contractor and WHEREAS the contractor has furnished

as security for the due fulfillment for all the conditions of this contract.

NOW IN THIS AGREEMENT WITNESSTH AS FOLLOWS

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

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

- i) (a) Notice Inviting Tenders
- (b) Tender form
- (c) Warranty
- ii) Information & instruction for Tenders
- iii) (a) Schedule : Bill of Quantity
- (b) Annexure

- iv) General Conditions of Contract
- v) Technical specifications and Special Conditions of Contract

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

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

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

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

For and on behalf of

For and on behalf of

(Inland Waterways Authority of India)

Contractor

Signature _____

Signature _____

Name & Designation _____

Name & Designation _____

Stamp

Stamp

Witness:

Witness:

1) Signature _____

1) Signature _____

2) Name & Designation _____

2) Name & Designation _____

BANK GUARANTEE PROFORMA FOR FURNISHING
PERFORMANCE GUARANTEE

To
The Chairman
Inland Waterways Authority of India
A-13, Sector-1
Noida - 201301

In consideration for the Chairman, Inland Waterways Authority of India hereinafter called ‘the Authority’ having agreed, under the terms and conditions of the Agreement dated made between..... and ...for the due fulfillment of the said Agreement by the Contractor of the terms and conditions contained in the said Agreement, on production of Bank Guarantee for Rs..... (Rupees.....) at the request of..... Contractor(s), We (Bank) do hereby undertake to pay to the Authority an amount not exceeding Rs..... against any loss or damage caused to or suffered, or would be caused to or suffered by the Authority by reason of any breach of the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We..... do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Authority stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the authority by reason of breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the contractor(s)’s failure to perform the said Agreement,. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....

3. We undertake to pay the authority any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) / suppliers(s) 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 Bond shall be valid discharge of our liability for payment there under and the contractor(s) / supplier(s) shall have no claim against us for making such payment.

4. We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Authority under or by virtue of the said Agreement have been fully and its claim satisfied or discharge or till..... Certify that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contactor(s) and accordingly discharges this Guarantee after..... years from the date of completion of the said contract unless a demand or claim under this Guarantee is served in writing on the bank but before the expiry of the said period of years in which case it shall be enforceable against the bank not withstanding the fact that the same is enforced after the expiry of the said period of years.

5. We,.....further agree with the Authority that the Authority shall have the 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 of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Authority against the said Contractor(s) 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(s) or for any forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Contractor(s) 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.

6. It shall not be necessary for the Authority 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 Authority may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

7. Notwithstanding anything contained herein above our liability under the guarantee is restricted to Rs. and shall remain in force until..... Unless a claim or suit under this guarantee is filed with us on or before..... ALL OUR RIGHTS UNDER THE GUARANTEE SHALL BE FORFEITED and the bank shall be relieved and discharged from all liabilities therein.

8. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s) / supplier(s).

9. We,..... lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing.

Dated thedate of.....2010
for.....
(indicate the name of Bank)
Signature.....
Name of the Officer.....
(in Block Capitals)
Designation of
Code No.....
Name of the Bank and Branch.

**DETAILS OF BANK ACCOUNT FOR RELEASE OF PAYMENT THROUGH
ELECTRONIC FUND TRANSFER SYSTEM**

(TO BE FURNISHED BY THE BIDDER ON IT'S LETTER HEAD)

NAME OF THE PROJECT: _____

THE BANK ACCOUNT DETAILS ARE FURNISHED AS BELOW:

I/We _____ (Name of the Bidder) hereby request you to give our payments by crediting our bank account directly by E-Payment mode as per account details given below. We hereby undertake to intimate IWAI in case of any change in particulars given below and will not hold IWAI responsible for any delay / default due to any technical reasons beyond IWAI's control:-

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)

A BLANK CHEQUE (CANCELLED) IS ENCLOSED HEREWITH.

I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or credit is not affected at all for reasons of incomplete or incorrect information, I/We would not hold IWAI responsible.

Date:

Signature of Authorized Signatory

BANK CERTIFICATION:

It is certified that above mentioned beneficiary holds a bank account No. _____
with our branch and the bank particulars mentioned above are correct.

Date:

Authorized Signatory

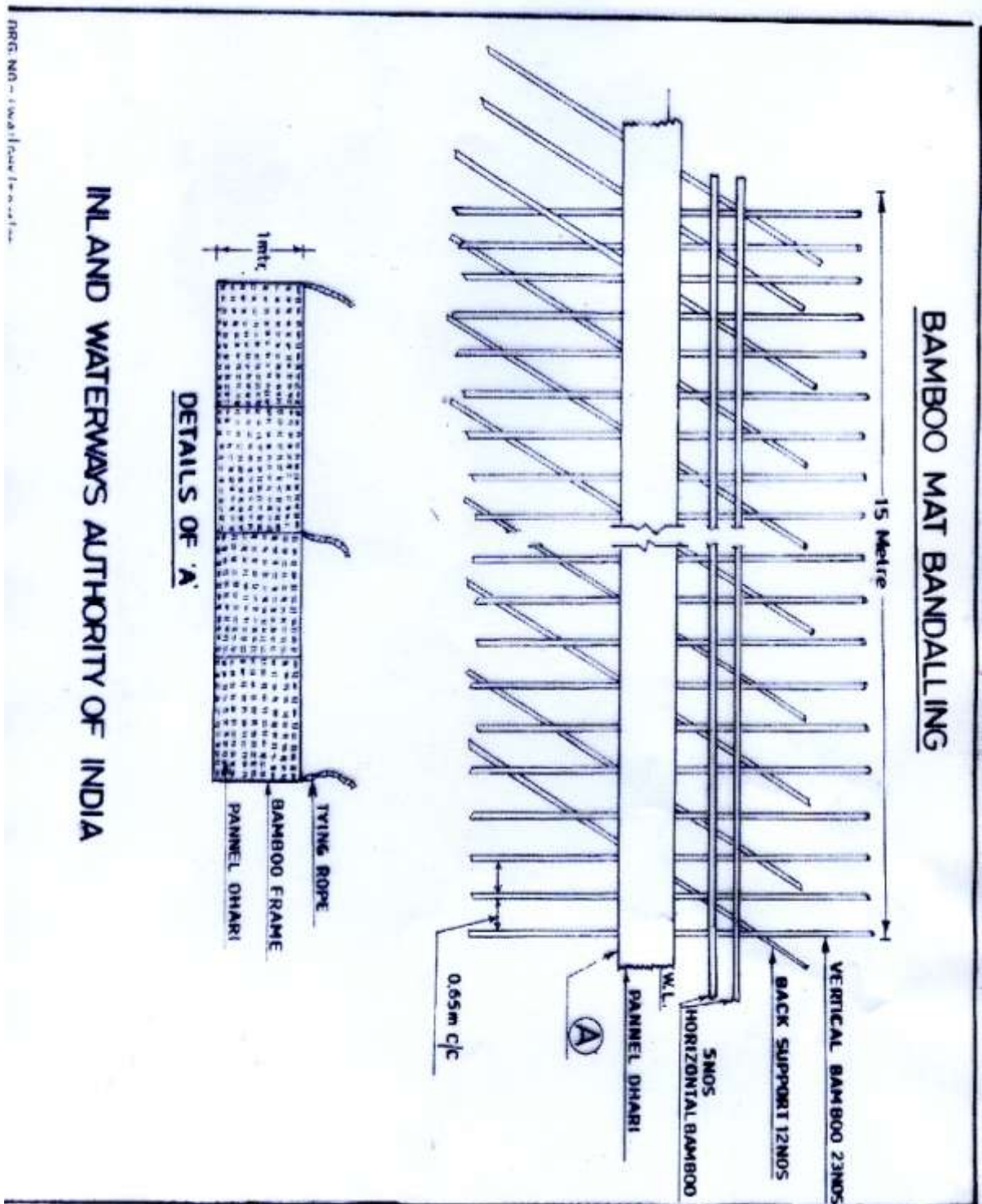
Authorization

No. _____

Name: _____

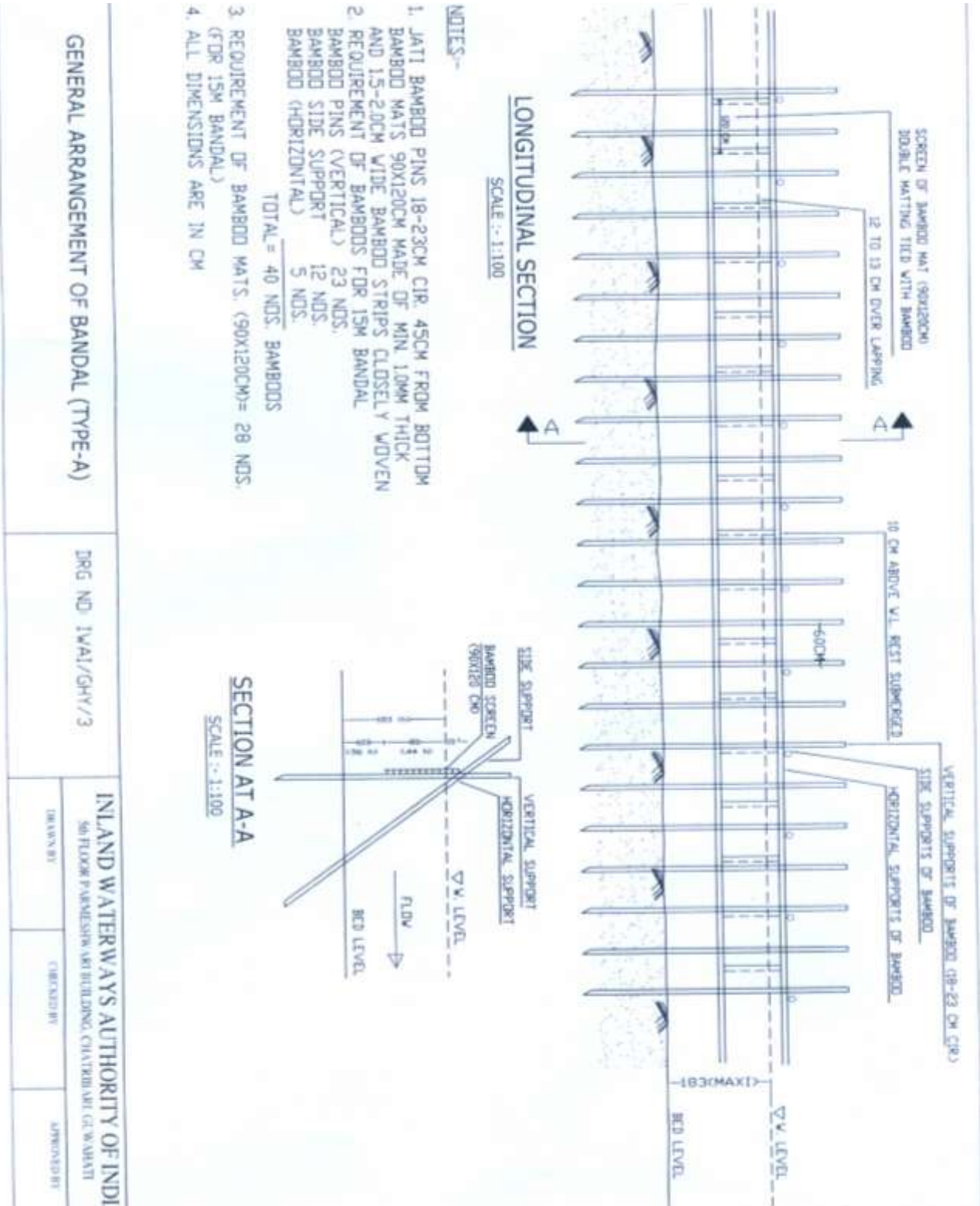
Official Seal/Stamp

ANNEXURE – IV (a)



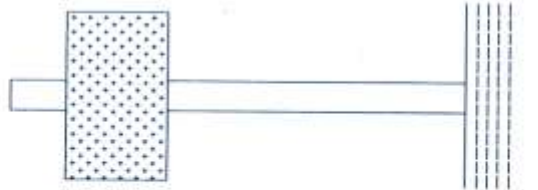
ANNEXURE -IV (b)

(Jati/Harauti bamboo May be used in NW-1)

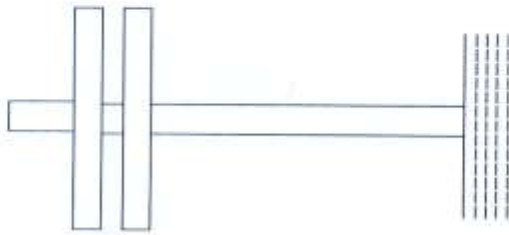


ANNEXURE - V

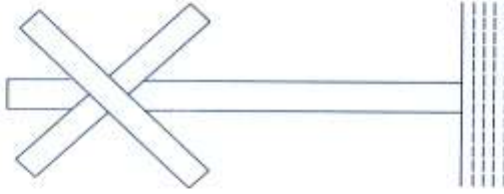
DIFFERENT MARKS OF RIVER ROUTE OF BRAHMAPUTRA



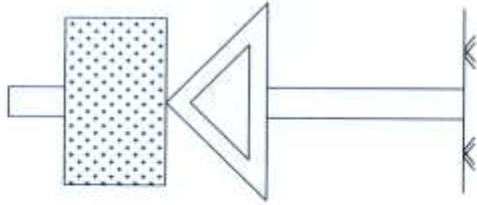
MUNDA
(RIGHT HAND MARKS)
LEAVE ME ON LEFT WHILE
GOING ON UP STREAM



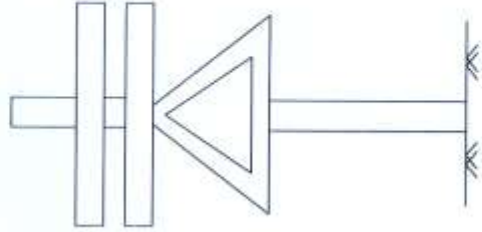
HATHI
(LEFT HAND MARKS)
LEAVE ME ON RIGHT WHILE
GOING ON RIGHT AND UP STREAM



CROSS
DANGER,
DON'T COME TOWARDS ME



PARI MUNDA
(RIGHT HAND MARK TRANSIT)
COME TOWARDS ME AND LEAVE ME ON LEFT
WHILE GOING ON UP STREAM



PARI HATHI
(LEFT HAND MARK TRANSIT)
COME TOWARDS ME AND LEAVE ME ON RIGHT
WHILE GOING ON UP STREAM

INLAND WATERWAYS AUTHORITY OF INDIA

MARKS ON THE BRAHMAPUTRA TO
INDICATE NAVIGABLE CHANNEL

NOTE:
MARKS ARE TO BE PLAINTED WITH LIME

DRG NO: IWAKGHV/2

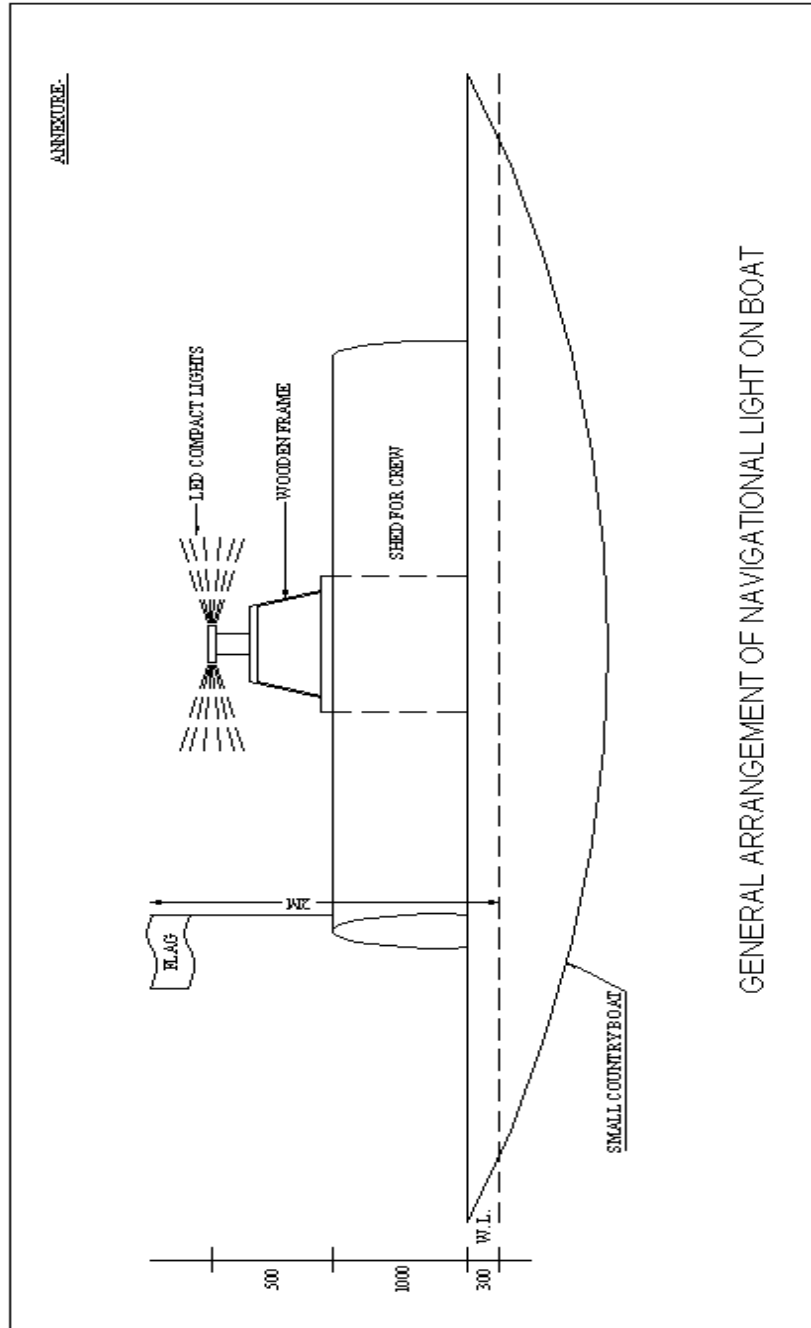
INLAND WATERWAYS AUTHORITY OF INDIA
5th FLOOR PARMESHWARI BUILDING, CHATRAPATI, GUWAHATI

DRAWN BY

CHECKED BY

APPROVED BY

ANNEXURE – VI



ANNEXURE-VII

DRAWING OF 11.5 M HIGH BEACON TOWER WITH M.S.PIPE (Read 10.50 m height from the Ground Level instead of 10.00m and remaining as per technical specification)

