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## **BIDDING DOCUMENT**

# National Open Competitive Procurement

for

Construction of Terminal and Riverine Infrastructure at Guwahati Gateway Ghat, Assam

(Engineering, Procurement, Construction ("EPC") following two envelope Bidding Process with e-Procurement)

VOLUME-3
BILL OF QUANTITIES

RFB:IN-IWT-244480-CW-RFB NCB No.: AIWTDS/270/2021

Employer:
Assam Inland Water Transport Development Society, (AIWTDS)
Government of Assam

**Country: India** 

Issued on 11-08-2021

#### **SPECIFIC INSTRUTION TO BIDDERS:**

Bidder shall upload the financial forms of the RFP in the Price folders only. Bidders shall refer to Vol-III while uploading financial forms. Following Financial forms will be available in MS excel format under the Price Folder:

- 1. Letter of Bid Financial Part- Vol I
- 2. Bill no 1 to Bill no 10 (Vol III)
- 3. Summary (Vol III)

Bidder needs to download these files from the price folder and needs to upload these forms in the Price Folder again after filling up the formats.

Bidder shall duly fill, scan and upload the following forms in the PDF format in the Price Folder

- 1. Appendix to Financial Part: Schedules Form SC-Sub-contracting- Vol I
- 2. Schedule A as PDF (vol III)

Bidder shall duly signed & scan and upload the following blank forms in the PDF format in the Price Folder as a confirmation of acceptance

- 1. SCHEDULE OF PRICES
- 2. Schedule B- Vol III
- 3. Schedule C- Vol III

Any bid unaccompanied with Schedule A- Vol-III shall be rejected summarily and treated as non-responsive.

The technical bid folder shall not contain any Price information. If any Price information is uploaded along with the technical bid, the bid shall be rejected summarily and treated as non-responsive.

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#### 1 SCHEDULE OF PRICES

#### 1.1 PREAMBLE

#### 1.1.1 General

The following shall be read in conjunction with the Conditions of Contract, Authority's Requirements, Scope of Work, Specifications and drawings for Construction of Inland Water Transport (IWT) Ferry Terminal at Guwahati Gateway Ghat (GGG), Assam including Material and Workmanship. All Lump Sum prices and units quoted in the Schedule of Prices shall include the following instructions where applicable.

- a) This is an EPC Fixed Price Lump sum Contract.
- The Schedule of Prices as quoted in Bills shall be the fixed Contract Price.

  The Bidder shall furnish a breakdown of lump sum prices with quantities for all of the Bill of Quantity items as part of the Bid Documents in **Schedule A**. The sum of which shall be added to give the lump sum price. The same shall be used for measurement and certification and shall be paid against number of units incorporated in the works during the certification period. Breakdown of Lump sum prices with quantities and unit rates are considered to be mandatory. **Any bid unaccompanied with Schedule A will be disqualified**. This schedule will be used only for the purpose of making interim payments. Interim measurements of the work will be made, and the Contractor will be paid based on the actual quantities of work executed. Format of monthly bill is enclosed as **Schedule B** for the information of the Contractor and the same format shall be used by the Contractor during execution of the project.

The Bidder shall note that the Schedule of percentage of Payments are provided for each Item containing the components of work and associated payment in proportion of bid amount of the respective item in **Schedule C**. The Payment **Schedule C** will be used only for the purpose of making interim percentage of payments. Interim measurements of the work will be made, and the Contractor will be paid based on the actual quantities of work executed. The quantities of work to be used for arriving at the payment milestone shall be based on the bill of quantities (duly verified by the Engineer) of the approved designs of the respective component.

- c) It shall be clearly understood that there shall not be any claim whatsoever by the Contractor on the ground that there are inadequate items of work (work based on quantity and work based on specified items) provided in the Schedule of Prices for pricing by the Contractor.
- d) The whole cost of complying with the provisions of the Tender document shall be included in the items provided in the priced Schedule of Prices and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the available items of work. The price quoted shall include all costs up to successful completion of Defects Liability Obligations by the Contractor.
- e) The rates and prices tendered by the Contractor in the Schedule of Prices shall, except in so far as it is otherwise provided under the Contract, including but not

limited to all Contractor's equipment, labor, supervision, materials, plant, wastage, fuel, erection, maintenance, insurance, profit, overheads, together with all general risks, liabilities and obligations set out or implied in the Tender document including all Taxes (including Goods and Service Tax), Duties, Fees, Royalty and other statutory deductions.

f) General requirements, directions and descriptions of work and materials, given in the Specifications or Drawings or Conditions of Tender / Contract are not necessarily repeated nor summarized in the Schedule of Prices. Contractor is specifically advised to check and include any other item required for completeness of the total work as per the scope of work and specification and satisfactory performance of the total system.

#### 1.2 CURRENCY

All monetary reference in the Price Schedule shall be made only in the currencies quoted and agreed as per the Tender document.

Dated
Signature in the capacity of
Duly authorized to sign Tenders for and on behalf of
(IN BLOCK LETTERS)
Address Witness
Occupation

### 1.3 BILL NO. 1

### 1.3.1 Engineering, Procurement of Materials and Construction of Site Grading

S. No.	Description	Qty.	Unit	Amount
1.1	Preliminary works and Site Grading	LS	LS	
	Carry out Topographic, Bathymetric and Geotechnical investigation surveys including report preparation as per the specifications.			
	Complete site grading works required at the site for construction of permanent works.			
	TOTAL OF BILL NO. 1: PRELIMINARY WORKS AND SITE GRADING CARRIED OVER TO GRAND			

Total Amount in Words	
Dated :	Signature of Bidder

#### 1.4 BILL NO. 2

### 1.4.1 Engineering, Procurement of Materials and Construction of Riverine Works

S. No.	Description	Qty.	Unit	Amount
2.1	Bankseat  Bankseat including mobilization and demobilization and ready to use as per approved designs, drawings and specifications including testing, inspection, commissioning and defect rectifications, complete in all aspects.	LS	LS	
2.2	Dolphins for Intermediate Pontoons  Dolphins for Intermediate pontoons including mobilization and demobilization and ready to use as per approved designs, drawings and specifications including testing, inspection, commissioning and defect rectifications, complete in all aspects.	LS	LS	
2.3	Dolphins for Berthing Pontoons  Dolphins for Berthing pontoons including mobilization and demobilization and ready to use as per approved designs, drawings and specifications including testing, inspection, commissioning and defect rectifications, complete in all aspects.	LS	LS	
2.4	Link Spans  Procure, supply, fabricate, install & commissioning of Pontoon with structural steel work welded in built up sections, framed work including cutting, hoisting and fixing in positions and applying paint (as per paint specifications) including drilling holes, fitting and fixing with bolts and nuts or welding, as per approved designs, drawings and specifications including testing, inspection and defect rectifications, complete in all respects.	LS	LS	
2.5	Berthing Pontoons  Procure, supply, fabricate, install & commissioning of Pontoon with structural steel work welded in built up sections, framed work including cutting, hoisting and fixing in positions and applying paint (as per paint specifications) including drilling holes, fitting and fixing with bolts and nuts or welding, as per approved designs, drawings and specifications including testing, inspection and defect rectifications, complete in all respects.	LS	LS	

2.6	Intermediate Pontoons	LS	LS	
	Procure, supply, fabricate, install & commissioning of Pontoon with structural steel work welded in built up sections, framed work including cutting, hoisting and fixing in positions and applying paint (as per paint specifications) including drilling holes, fitting and fixing with bolts and nuts or welding, as per approved designs, drawings and specifications including testing, inspection and defect rectifications, complete in all respects.			
2.7	Design Fee	LS	LS	
	TOTAL OF BILL NO. 2: RIVERINE WORKS CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words	
Dated :	Signature of Bidder

### 1.5 BILL NO. 3

### 1.5.1 Engineering, Procurement of Materials and Construction of Terminal Building

S. No.	Description	Qty.	Unit	Amount
3.1	Terminal Buildings and Ancillary services	LS	LS	
	Building works including mobilization & demobilization of equipment, foundations (Cast-insitu RCC bored piles) for superstructure of deck size 56.625m x 33.085m / 29.065m, control building, sheds, ready to use as per approved designs, drawings and specifications including testing, inspection and defect rectifications, complete in all respects.			
3.2	Design Fee	LS	LS	
	TOTAL OF BILL NO. 3: TERMINAL BUILDING CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words			
Dated :	Signature of Bidder		

#### 1.6 BILL NO. 4

### 1.6.1 Engineering, Procurement of Materials and Construction of Landscaping

S. No.	Description	Qty.	Unit	Amount
4.1	Landscaping	LS	LS	
	Landscaping including mobilization & demobilization, lawn making, planting, etc. and ready to use as per approved designs, drawings and specifications including inspection, commissioning and defect rectifications, complete in all respects.			
	TOTAL OF BILL NO. 4: LANDSCAPING CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words	
Dated :	Signature of Bidder

#### 1.7 BILL NO. 5

### 1.7.1 Engineering, Procurement of Materials & Construction of Electrical Works

S. No.	Description	Qty.	Unit	Amount
5.1	Electrical Works	LS	LS	
	All electrical works including mobilization & demobilization, installation of transformers, feeders, cables, earthing, lighting, etc. and ready to use as per approved designs, drawings and specifications including testing, inspection, commissioning and defect rectifications, complete in all respects.  This also includes installation, commissioning and testing of solar power panels and back up as necessary, all complete.			
	TOTAL OF BILL NO. 5: ELECTRICAL WORKS CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words	
Dated :	Signature of Bidder

### 1.8 BILL NO. 6

## 1.8.1 Engineering, Procurement of Materials & Construction of Water Supply, Sewerage and Drainage Works

S. No.	Description	Qty.	Unit	Amount
6.1	Water Supply, Sewerage and Drainage	LS	LS	
	All Water supply works including mobilization & de-mobilization, Water Treatment Plant, Storm water drainage, Irrigation network and ready to use as per approved designs, drawings and specifications including inspection, commissioning and defect rectifications, complete in all respects.			
	TOTAL OF BILL NO. 6: WATER SUPPLY, SEWERAGE AND DRAINAGE WORKS CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words	
Dated :	Signature of Bidder

## 1.9 BILL NO. 7

### 1.9.1 Engineering, Procurement of Materials & Construction of Plumbing Works

S. No.	Description	Qty.	Unit	Amount
7.1	Plumbing Works	LS	LS	
	Plumbing works in the terminal including mobilization and demobilization ready to use as per approved design, drawings and specifications including inspection, commissioning and defect rectifications, complete in all respects.			
	TOTAL OF BILL NO. 7: PLUMBING WORKS CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words	
Dated :	Signature of Bidder

### 1.10 BILL NO. 8

### 1.10.1 Engineering, Procurement of Materials & Construction of firefighting system

S. No.	Description	Qty.	Unit	Amount
8.1	Firefighting System Works	LS	LS	
	Firefighting system works in the terminal including mobilization and demobilization ready to use as per approved design, drawings and specifications including inspection, commissioning and defect rectifications, complete in all respects.			
	TOTAL OF BILL NO. 8: FIREFIGHTING WORKS CARRIED OVER TO GRAND SUMMARY			

Total Amount in Words	
Dated :	Signature of Bidder

### 1.11 BILL NO. 9

### 1.11.1 Environmental Management Plan (EMP)

Component	Item	Unit	Qty.	Rate	Amount
9.1 Technical Support	All technical support needed to implement the EMP, and fulfil statutory environmental compliance requirements including monitoring and reporting		Lump sum		
9.2 Flora	Plantation and management of flora as per the EMP	Lump sum	Lump sum		
9.3 Aquatic Fauna	All precautionary measures to mitigate impacts on aquatic life as per the EMP	Lump sum	Lump sum		
9.4 Water	Construction of soak pits at construction sites & labour camps Per site estimated				
	Provision of clean drinking & domestic water facility at labour camps and construction site Per month	Lump sum	Lump sum		
	Health checkup camps for construction workers	Lump sum	Lump sum		
9.5 Health	All other Environment, Health and Safety provisions and implementation of the Environmental health and Safety Systems during construction as per EMP				
	As per standards and frequency described in the EMP				
	Terrestrial and Aquatic Fauna	Lump sum	Lump sum		
	Per season (Once in six month)				

		SUB T (DESI	OTAL GN AND	
9.7 Other items of EMP	All other items of the EMP, the Contractors EMP or items needed for compliance of the applicable regulations as described in the EMP (Unless specifically quoted, these will be deemed to be included in the Bid Price).	Lump sum	Lump sum	
	Soil Quality, Erosion & Siltation and Riverbed Sediment Per Six months	Lump sum	Lump sum	
	Noise & Vibration Per monitoring for 24 months (Once in month)	Lump sum	Lump sum	
	Drinking Water Quality Once in month		Lump sum	
	For upstream & downstream (Once in month)			
he construction phase	Surface Water Quality	Lump sum	Lump sum	
9.6 Environmental Monitoring in	Per monitoring for 24 months (Once in two month)			
	Ambient Air Quality	Lump sum	Lump sum	

Total Amount in Words	
Dated :	Signature of Bidder

#### 1.12 BILL NO. 10

#### 1.12.1 Duties and Taxes

BILL NO.	Description	Present Rate	% Contract Value	AMOUNT (in words)
10.1	*Duties and Taxes including Goods and Service Tax (GST)			
	TOTAL OF BILL NO. 10: CARRIED OVER TO GRAND	SUMMAR	Υ	

<sup>\*</sup>The Contractor has to state different duties and taxes as applicable.

Total Amount in words	
Dated:	Signature of Bidder

#### 1.13 SUMMARY

BILL NO.	DESCRIPTION	AMOUNT (in figures), INR	AMOUNT (in words), INR
1.	Preliminary Works and site grading		
2.	Riverine Works		
3.	Terminal Building		
4.	Landscaping		
5.	Electrical Works		
6.	Water Supply, Sewerage and Drainage Works		
7.	Plumbing Works		
8.	Fire Fighting System		
9.	Environmental Management Plan (EMP)		
10.	Duties and Taxes including Goods and Service Tax (GST)		
	TOTAL CONTRACT PRICE CARRIED OVER TO FORM OF TENDER		

Total Amount in Words INR	
Dated :	Signature of Bidder

#### 1.14 SCHEDULE A

#### 1.14.1 Items of Work\*

S. No.	Description	Unit	Qty.	Unit Rate	Amount
	TOTAL OF SCHEDULE A				

Dated : Signature of Bidder
Total Amount in Words
$^st$ To be filled by the Contractor as per Para 1.1.1.b of Volume III of Tender Document.

### 1.15 SCHEDULE B

## 1.15.1 Format of Monthly RA Bill

S. No.	Description	Unit					As per Contract	
				Qty.	Amount	Qty.	Amount	
А	Preliminary Works and Site grading							
1.	Topography survey							
2.	Geotechnical investigations							
3.	Bathymetric survey							
В	Site grading							
1.	Site grading Works							
2.								
С	Dolphins							
1.								
2.								
3.								
D	LinkSpan							
1.								
2.								
3.								
E	Pontoons							
1.								
2.								

S. No.	Description	Unit	Unit Rate	As pe	As per Contract		er Contract Cumulative as potential the Progress		
				Qty.	Amount	Qty.	Amount		
F	Bankseat								
1.									
2.									
G	Terminal Building								
1.									
2.									
3.									
Н	Landscaping								
1.									
2.									
I	Electrical Works								
1.									
2.									
3.									
4.									
J	Water Supply, Sewerage and Drainage								
1.									
2.									
3.									
4.									

Dated:	Signature of Bidder
24464.	0.6

S. No.	Description	Unit	Unit Rate	As pe	As per Contract		Cumulative as per the Progress	
				Qty.	Amount	Qty.	Amount	
K	Plumbing Works							
1.								
2.								
3.								
L	Firefighting System							
1.								
2.								
3.								
М	Environmental management Plan							
1.								
2.								
3.								
N	Design Fee							
1.								
0	Duties and Taxes							
	TOTAL OF SCHEDULE-B							

Total Amount in Words		
Dated:	Signature of Bidder	

#### 1.16 SCHEDULE – C : PAYMENT SCHEDULE

Sl.No.	Item of Works	Percentage of	of bid amount
1	PRELIMINARY WORKS AND SITE GRADING		
(i)	Completion of Topography survey and Hydrographic survey	0.25%	0.25%
(ii)	Geotechnical investigations		
(a)	On Completion of 50 % Boreholes	0.75%	0.25%
(b)	On Completion of All Boreholes		0.25%
(c)	On Submission of Report		0.25%
(iii)	On Completion of Site Grading Works	0.25%	0.25%
2	RIVERINE WOKS		
Α	Dolphins for Berthing Pontoons		
(i)	On completion of design approvals		0.2%
(ii)	<u>Driving of steel piles</u>		
(a)	On completion of substructure for one Berthing Dolphin		2%
(b)	On completion of substructure for two Berthing Dolphins		2%
(c)	On completion of substructure for three Berthing Dolphins		2%
(d)	On completion substructure for of four Berthing Dolphins		2%
(e)	On completion of substructure for five Berthing Dolphins	47.50/	2%
(f)	On completion of substructure for six Berthing Dolphins	17.5%	2%
(iii)	RCC superstructure works		
(a)	On completion of superstructure for one Berthing Dolphin		0.75%
(b)	On completion of superstructure for two Berthing Dolphins		0.75%
(c)	On completion of superstructure for three Berthing Dolphins		0.75%
(d)	On completion superstructure for of four Berthing Dolphins		0.75%
(e)	On completion of superstructure for five Berthing Dolphins		0.75%
(f)	On completion of superstructure for six Berthing Dolphins		0.75%
(iv)	On completion of all Brackets for holding the pontoons		0.8%
В	Dolphins for Intermediate Pontoons		
(i)	On completion of design approvals		0.2%
(ii)	Driving of steel piles		
(a)	On completion of substructure for one Dolphin		4%
(b)	On completion of substructure for two Dolphins		4%
(c)	On completion of substructure for three Dolphins	32%	4%
(d)	On completion substructure for of four Dolphins		4%

SI.No.	Item of Works	Percentage o	f bid amount
(iii)	RCC superstructure works		
(a)	On completion of superstructure for one Dolphin		3.75%
(b)	On completion of superstructure for two Dolphins		3.75%
(c)	On completion of superstructure for three Dolphins		3.75%
(d)	On completion superstructure for of four Dolphins		3.75%
(iv)	On completion of all Brackets for holding the pontoons		0.8%
С	Bankseat		
(i)	On completion of design approvals		0.2%
(ii)	<u>Driving of steel piles</u>		
(a)	On completion of 50% of substructure		3%
(b)	On completion of 100% of substructure	8%	3%
(iii)	RCC superstructure works		
(a)	On completion of superstructure		1.8%
D	Link Span		
(a)	On completion of design approvals		0.2%
(b)	On completion of installation of 1st linkspan	5%	1%
(c)	On completion of installation of 2nd linkspan	- 5%	1%
(d)	On completion of installation of 3rd linkspan		1%
(e)	On completion of installation of 4th linkspan and Last Link span		1.8%
Е	Pontoons		
(a)	On completion of design approvals		0.5%
(b)	On completion of installation of 1st Berthing Pontoon		2%
(c)	On completion of installation of 2 <sup>nd</sup> Berthing Pontoon		2%
(d)	On completion of installation of 3 <sup>rd</sup> Berthing Pontoon	17.5%	2%
(e)	On completion of shed works over berthing pontoons		1.0%
(f)	On completion of installation of 1 <sup>st</sup> Intermediate Pontoon		2.5%
(g)	On completion of installation of 2 <sup>nd</sup> Intermediate Pontoon		2.5%
(h)	On completion of installation of 3 <sup>rd</sup> Intermediate Pontoon		2.5%
(i)	On completion of installation of 4 <sup>th</sup> Intermediate Pontoon		2.5%
3	TERMINAL BUILDING		
(i)	On completion of design approvals		0.2%
(ii)	RCC Cast-in-situ Piles		
(a)	On completion of 10% of Piles		1%
(b)	On completion of 20% of Piles		1%
(c)	On completion of 30% of Piles		1%

Sl.No.	Item of Works	Percentage o	f bid amount
(d)	On completion of 50% of Piles		1%
(e)	On completion of 70% of Piles		1%
(f)	On completion of 90% of Piles		1%
(g)	On completion of 100% of Piles		1%
(iii)	Deck superstructure works		
(a)	On completion of 25% superstructure deck slab		0.5%
(b)	On completion of 50% superstructure deck slab	12%	0.5%
(c)	On completion of 75% superstructure deck slab		0.5%
(d)	On completion of 100% superstructure deck slab		0.5%
(iv)	Terminal building over deck (superstructure)		2.8%
4	LANDSCAPING	0.05%	
(a)	On completion of works in all respects for landscaping		0.05%
5	ELECTRICAL WORKS		
(a)	On completion of DG System, Solar System, Air Conditioning	1.5%	0.5%
(b)	On completion of electrical works in all respects		1.0%
6	WATER SUPPLY, SEWARAGE AND DRAINAGE WORKS	0.45%	
(a)	On completion of works in all respects		0.45%
7	PLUMBING WORKS	0.10%	
(a)	On completion of works in all respects		0.10%
8	FIRE-FIGHTING SYSTEM	0.5%	
(a)	On completion of works in all respects		0.5%
9	ENVIRONMENTAL MANAGEMENT PLAN	0.4%	0.4%
10	ON HANDING OVER AFTER SATISFACTORY COMPLETION OF ALL WORKS INCLUDING FURNITURE	3%	3%
11	ON COMPLETION OF DEFECT LIABILITY PERIOD	1%	1%
	TOTAL	100%	100%

Notes:

- 1) The successful bidder shall submit the Payment Schedule within 14 days from Letter of Award to the Employer's Engineer for review and approval. This will be the basis for interim payments.
- 2) The Contract Price shall be paid over the course of the Project and in proportion to the Work completed during the applicable pay period, based on the percentage that such completed Work bears to the total Work provided for in the Bill of Quantities as reasonably determined by the Employer's Engineer.
- 3) The rates and sums entered by the Contractor against all items in the Bill of Quantities/Break up of Lumpsum Items shall bear a proper relationship to the cost of carrying out the work described in the Contract. All on costs and similar charges that are applicable to the Contract as a whole shall be spread over all items in the Bill of Quantities whilst those that are applicable only to particular sections of the Contract shall only to be spread over the relevant items in that particular sections.

- 4) Quantities and Unit Rates submitted by the Contractor are produced/submitted for the sole purpose of preparing Payment Schedule only. They shall not form part of the Contract or have any Contractual force.
- 5) The lump sum prices quoted shall be deemed to be applicable to any method of execution described or implied in the Bid Documents, and further payment in respect of the method of execution shall not be made unless otherwise approved by the Employer's Engineer.