

# **Request for Proposal**

**“Design, Supply & Installation of Bus Queue Shelters”**

**in**

**Bhubaneswar, Odisha**

**on**

**Engineering Procurement & Construction Basis**

**May' 2018**

**Capital Region Urban Transport- (CRUT)**

C/o: Bhubaneswar Development Authority  
Akash Shova Building, Sachivalaya Marg,  
Bhubaneswar, Odisha (INDIA), Pin -751001

Telephone / Fax: 0674-2395155

E-mail: [crutbsr@gmail.com](mailto:crutbsr@gmail.com)

## **DISCLAIMER**

The information contained in this Request for Proposal document (“bidding document”) or any other information subsequently provided to Bidders, whether verbally or in documentary or any other form by or on behalf of the Client or any of its employees or advisers, is provided to the Bidders on the terms and conditions set out in this bidding document and such other terms and conditions subject to which such information is provided.

This bidding document is not an agreement and is neither an offer nor invitation by the Client to the prospective Bidders or any other person. The purpose of this bidding document is to provide interested Bidders with information that may be useful to them in the formulation of their Proposals pursuant to the bidding document. This bidding document includes statements, which reflect various assumptions and assessments arrived at by the Client in relation to the Services. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require.

This bidding document may not be appropriate for all persons, and it is not possible for the Client, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this bidding document. The assumptions, assessments, statements and information contained in this bidding document may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this bidding document and obtain independent advice from appropriate sources.

Information provided in this bidding document to the Bidders is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Client accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on the law expressed herein.

The Client, its employees and advisers make no representation or warranty and shall have no liability to any person including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense, which may arise from or be incurred or suffered on account of anything contained in this bidding document or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the bidding document and any assessment, assumption, statement or information contained therein or deemed to form part of this bidding document or arising in any way in this selection process.

The Client also accepts no liability of any nature whether resulting from negligence or otherwise however caused or arising from reliance of any Bidder upon the statements contained in this bidding document.

The Client may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this bidding document.

The issue of this bidding document does not imply that the Client is bound to select a Bidder or to appoint the selected consultant / contractor, as the case maybe, to provide the services and the Client reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Client or any other costs incurred in connection with or relating to its Proposal. All such costs whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Proposal, regardless of the conduct or outcome of the selection process.

**Volume-I**

**INVITATION FOR BID**  
**(IFB)**

## Schedule of Bidding Process

<b>NAME OF WORK</b>	:	<b>Design, Supply &amp; Installation of Bus Queue Shelters in Bhubaneswar.</b>
<b>PERIOD OF AVAILABILITY OF RFP DOCUMENTS</b>	:	From <b>21/05/2018</b> to <b>12/06/2018</b> (till 5.00 PM)
<b>TIME AND DATE OF PRE-BID MEETING</b>	:	<b>30/05/2018</b> at <b>3:00 PM</b>
<b>LAST DATE AND TIME FOR RECEIPT OF PROPOSALS</b>	:	<b>12/06/2018</b> up to <b>5:00 PM</b>
<b>LAST DATE OF RECEIPT OF ORIGINAL DOCUMENTS OF FINANCIAL INSTRUMENTS &amp; COVER – III</b>	:	<b>19/06/2018</b> up to <b>5:00 PM</b>
<b>TIME AND DATE OF OPENING OF TECHNICAL PROPOSALS</b>	:	<b>20/06/2018</b> at <b>11:00 AM</b>
<b>TIME AND DATE OF OPENING OF FINANCIAL PROPOSALS</b>	:	To be communicated later to the qualified bidders only
<b>VENUE OF OPENING OF PROPOSALS</b>	:	Conference Hall, Bhubaneswar Development Authority Akash Shova Building, Sachivalaya Marg, Bhubaneswar, Odisha (INDIA), Pin -751001 Telephone/ Fax: 0674-2395155
<b>OFFICER INVITING PROPOSALS</b>	:	Managing Director, CRUT C/o- Bhubaneswar Development Authority Akash Shova Building, Sachivalaya Marg, Bhubaneswar, Odisha (INDIA), Pin -751001

# CAPITAL REGION URBAN TRANSPORT (CRUT)

C/o- Bhubaneswar Development Authority, Akash Shova Building, Sachivalaya Marg,  
Bhubaneswar, Odisha (INDIA), Pin -751001, Telephone/ Fax: 0674-2395155

## **NOTICE INVITING REQUEST FOR PROPOSAL**

**Bid Identification No. 423/CRUT, dated 19.05.2018**

Capital Region Urban Transport, Bhubaneswar invites proposal from reputed and experienced firms, to be received on online mode for Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha as per the details below on Engineering, Procurement, Construction (EPC) basis.

Name of Project	Bid Security (in INR)	Cost of RFP document + GST (in INR)	Period of Completion
Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha	INR 19,00,000/- (Rupees Nineteen lakhs) only	Tender paper Cost INR 10,000/- + GST 12%	3 (Three months)

RFP documents can be downloaded from the **website: <http://www.tendersodisha.gov.in> / [www.bdabbsr.in](http://www.bdabbsr.in).**

RFP documents will be available in above website from **21/05/2018** to 17:00 hours of **12/06/2018** for "ONLINE BIDDING". A pre-bid meeting shall be organized for the same on **30.05.2018 at 3:00 PM** in BDA Conference Hall. Proposals shall be received "online" only on or before **17:00 hours of 12/06/2018**.

Proposals received online will be opened at 11:00 hours on **20/06/2018** in the office of Capital Region Urban Transport. For further details, please refer the RFP documents. In case of any queries / clarifications, please contact 0674-2395155 or e-mail @ [crutbbsr@gmail.com](mailto:crutbbsr@gmail.com).

**Any further intimation (i.e. corrigendum/ addendum / response to queries / clarifications) shall be uploaded in the above websites only.**

**Sd/-  
Managing Director  
Capital Region Urban Transport**

Memo No.424/CRUT / Date19.05.2018

Copy to M/s. Saffron Communication Pvt. Ltd., Plot No.4708 (In front of Drugs Control office), Gajapati Nagar, Bhubaneswar-751005, Mobile No. – 09778136622 with a request to publish the E-Procurement Notice in one issue of two Oriya New paper Daily "**THE DHARITRI**" & "**THE SAMAJA**" and one issue of English National Dailies "**THE TIMES OF INDIA**" (All India Edition) and "**THE ECONOMIC TIMES**" (All India Edition) with a minimum space to be published on **21/05/2018**. Payment will be made as per P.R. Department, Govt. of Odisha with 13.00% discount and Tax will be paid as applicable.

**Sd/-  
Managing Director  
Capital Region Urban Transport**

# CAPITAL REGION URBAN TRANSPORT (CRUT)

C/o- Bhubaneswar Development Authority, Akash Shova Building, Sachivalaya Marg,  
Bhubaneswar, Odisha (INDIA), Pin -751001, Telephone/ Fax: 0674-2395155

## **NOTICE INVITING REQUEST FOR PROPOSAL**

### **Bid Identification No. 423/CRUT, dated 19.05.2018**

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Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha	INR 19,00,000/- (Rupees Nineteen lakhs) only	Tender paper Cost INR 10,000/- + GST 12%	3 (Three months)

2. The bidders have to participate in ONLINE bidding only. The web-site for "ONLINE BIDDING" is <http://tendersodisha.gov.in>.
3. RFP documents consisting of plans, specifications and the set of terms and conditions of contract and other necessary documents can be downloaded from the **website: <http://www.tendersodisha.gov.in> / [www.bdabbsr.in](http://www.bdabbsr.in)**.
4. Proposals must be accompanied by Bid Security as Earnest Money Deposit of the amount specified for the work in the table above, pledged in favour of Managing Director, Capital Region Urban Transport and will have to be in any one of the forms specified in the RFP document.
5. The bidder must possess compatible Digital Signature Certificate (DSC) of Class-II or Class-III.
6. RFP documents will be available in above website from **21/05/2018** to 17:00 hours of **12/06/2018** for "ONLINE BIDDING".
7. Proposals shall be received "online" only on or before **17:00 hours of 12/06/2018**. A pre-bid meeting shall be organized for the same on **30.05.2018 at 3:00 PM** in BDA Conference Hall
8. Proposals received online will be opened at 11:00 hours on **20/06/2018** in the office of Capital Region Urban Transport, C/o Bhubaneswar Development Authority, Akash Shova Building, Sachivalaya Marg, Bhubaneswar – 751 001 in the presence of bidders who wish to attend. Bidders who do not participate in the bid can witness the opening of proposals after logging on to the site through their DSC. If the office happens to be closed on the date of opening of the proposals as specified, the proposals will be opened on the next working day at the same time and venue.
9. After the date & time of receipt of bid is over, the original Bid security and Demand Draft towards cost of bid documents shall be submitted in the office of the undersigned on or before **17:00 hours of 19/06/2018**, during office hours on working days failing which the bid will be rejected.
10. For further details, please refer the RFP documents. In case of any queries / clarifications, please contact 0674-2395155 or e-mail @ [crutbbsr@gmail.com](mailto:crutbbsr@gmail.com).
11. **Any further intimation (i.e. corrigendum/ addendum / response to queries / clarifications) shall be uploaded in the above websites only.**

Sd/-

**Managing Director  
Capital Region Urban Transport**

**Memo No. 425/CRUT, Dt. 19/05/2018**

Copy to the P.S. to Development Commissioner –cum A.C.S. to Govt. of Odisha for kind information of Development Commissioner-cum Chairman, Capital Region Urban Transport.

Sd/-  
Managing Director,  
CRUT, Bhubaneswar.

**Memo No. 426/CRUT, Dt. 19/05/2018**

Copy submitted to Commissioner cum Secretary to Housing & Urban Development Dept, Govt. of Odisha, Bhubaneswar for favour of kind information.

Sd/-  
Managing Director,  
CRUT, Bhubaneswar.

**Memo No. 427/CRUT, Dt. 19/05/2018**

Copy submitted to Commissioner, Bhubaneswar Municipal Corporation, Vice Chairman, BDA & CEO, Smart City Ltd., Bhubaneswar for favour of kind information.

Sd/-  
Managing Director,  
CRUT, Bhubaneswar.

**Memo No. 428/CRUT, Dt. 19/05/2018**

Copy to Executive Engineer, Div-II, BDA for favour of information and necessary action.

Sd/-  
Managing Director,  
CRUT, Bhubaneswar

**Memo No. 429/CRUT, Dt. 19/05/2018**

Copy to CE, e- procurement, Bhubaneswar for information and necessary action. It is requested to display this Tender Notice & Documents in e –procurement portal.

Sd/-  
Managing Director,  
CRUT, Bhubaneswar.

**Memo No. 430/CRUT, Dt. 19/05/2018**

Copy to Secretary, BDA and Additional Commissioner, BMC, Bhubaneswar with a request to upload this advertisement in your web sites.

Sd/-  
Managing Director,  
CRUT, Bhubaneswar.

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**VOLUME-II**

**INSTRUCTION TO BIDDERS**

**(ITB)**

# A. General Information

## 1. Introduction

- 1.1 The Managing Director, CRUT, Bhubaneswar, Odisha invites proposals for the works of “**Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar**” on Engineering, Procurement & Construction basis. Total 200 number of Bus Queue Shelters each 100 numbers of 9mt. and 6.0 mt. length, are proposed to be developed.
- 1.2 The successful bidder is required to complete **Engineering, Design, procurement of materials and services, installation & construction of** the works by the intended completion date as specified in the **Contract**. The Bidder has to design the structures in accordance with Bhubaneswar Development Authority (BDA) and other applicable Norms.
- 1.3. Throughout these bidding documents, the terms ‘bid’, ‘tender’, RFP and their derivatives (bidder, tenderer, bid/ tender, bidding/ tendering, etc.) are synonymous. Contractor means the selected bidder for the work.

## 2. Source of Funds:

The expenditure on this project shall be funded by CRUT / from Area Based Development Programme of Smart City Mission (SCM).

## 3. Eligible Bidders:

- 3.1. This Invitation for Proposals is open to all legal entities / firms registered with the State Government of Odisha / Gol and bidders having adequate experience in similar type of works. Bidders are advised to note the minimum qualification criteria specified in the “Instruction to Bidders” to qualify for the award of contract.
- 3.2. All bidders shall fill the Technical formats as provided in Volume- III.

## 4. Qualification requirements of the Bidder (documents to be submitted- Checklist):

- 4.1 All bidders shall provide filled up **Technical Formats as provided in Volume-III**, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with broad calculations and quality – assurance procedures proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.

The execution of the project should be as per Bhubaneswar Development Authority norms, other applicable guideline and norms.

**The bidders shall submit the following documents (as also provided in the format of Checklist – Annexure – II of Volume-III) for qualification**

**Table for Checklist**

<b>S.No</b>	<b>Documents to be submitted</b>
1	<u>Original documents defining the constitution or legal status-</u> a. Article of Association b. place of registration c. principal place of business d. Power of attorney of the Authorized Signatory of the Bid to commit the Bidder;
2	Audited Annual reports, Balance Sheets, profit and Loss statements for last 5 (five) financial years i.e., 2017-18, 2016-15, 2015-14, 2014-13, 2013-13..
3	A certificate showing Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources) from their bankers;
4	Information regarding any pending litigation or arbitration cases resulting from contracts executed by the bidder in the last five years or currently under execution. The information shall include the names of the parties concerned, the disputed amount, cause of litigation, matter in dispute & the stage of the litigation. An Affidavit for the same shall be submitted.
5	The proposed Approach and Methodology and Program of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones as mentioned in the Contract data.
6	Bid Security in the form of a Bank Guarantee
7	Bid Document cost in the form of a Demand Draft drawn in favor of Capital Region Urban Transport, payable at Bhubaneswar.
8	Valid ESI and EFP certificates if available or to be submitted prior to signing of Contract
9	PAN No.
10	Service Tax Registration No.
11	Valid Trade License
12	GST Registration No.
13	Income Tax clearance certificate

4.2 **Consortium is not allowed.**

4.3 **Minimum Eligibility Criteria:**

**A. Technical Eligibility:**

- I Only reputed Indian legal entities / firms – [It is meant– sole proprietorship firm, partnership firm, company, corporation, trust, limited liability partnership, co-operative society, Government Company or any other legal entity] are allowed to apply for this Project.

- II Experience of having **successfully completed one similar nature of Works** as mentioned below within last **5** (five) years ending on **31.3.2018**. Value of executed work shall be brought to current price level at simple rate of **7% per annum**

**One number of similar project Rs. 15 Crores**

**Or**

**Two numbers of similar projects of Rs. 11 Crores**

**Note:**

- i. The Bidder should submit completion certificate for central / state government projects. For private sector projects, completion certificate with TDS shall be submitted.
- ii. Similar nature of work means Design, supply installation of stainless steel products / facilities / structures.

**B. Financial Capacity:**

1. The bidder should have an annual average turnover of **Rs. 45.00 Crores** certified by chartered accountant during last 5 (five) financial years ending **31.03.2018**.
2. Should have latest bank solvency certificate for amount of at least (**50% of the cost of the project put to tender**) in the current financial year. Certificate should be issued after 31.03.2018 and clearly stating that Banker shall be extending necessary financial support required for execution of the project under consideration.
3. The Firm should be **making profit during each of the last three financial years, ending on March 31, 2018**. Financial data for previous 5 years shall also be submitted under Section 2, Qualification Information.

**C. Bidding Capacity:**

Bidders who meet the minimum technical and financial criteria will be qualified only if their available bid capacity is equal or more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A \times N \times 2) - B$$

**Where**

**A** = Maximum value of civil engineering works executed in any one financial year during the last 7 (seven) financial years (updated to bid invitation year [say at 2018-19] price level) taking into account the completed as well as works in progress.

**N** = Number of years prescribed for completion of the works for which proposals are invited.

**B** = Value (updated to the price level on the year in which proposals are received) of existing commitments and on-going works to be completed during the next 18 calendar months.

**Note:** The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent. For private company the certificate should be obtained from the officers not below the rank of Director/MD. For Captive projects, completion certificate issued by MD/Director of the company along with certification of the Chartered Accountant of the applicant regarding project cost, plan/drawing, year of start/completion to that effect. Besides, TDS certificate as required in ITB

shall be submitted. However the cost of the project shall be assessed as per prevailing govt. norms

- I. The bidding capacity of the contractor should be equal to or more than the estimated cost of the work. The bidding capacity shall be worked out by the formula.

a. **Bidding Capacity = (A X N X 2) – B**

b. **Where:**

**A** = Maximum value of construction work executed in any one year during last 7 financial years.

**N**= Number of years prescribed for completion for which the bid has been invited.

**B**= Value of existing commitments and on-going works to be completed during the period of completion of work for which the bids have been invited.

- II. Bidders must furnish with their Bid, a detailed construction planning and methodology supported with layout and necessary drawings and detailed calculations to allow the Client to review their proposals and that banker shall be extending necessary financial support required for the execution of the subject work.

#### **D. Requirement of Plant and Machinery**

- i. The bidders shall provide undertaking for making availability (either owned or leased) of the following key and critical equipment in working conditions and not expired, sufficient to execute this work in requisite time schedule.

<b>SL NO.</b>	<b>List of Plants and Equipment</b>	<b>Requirement</b>
1.	Workshop – having CNC Lathe Cutting Machines, CNC pipe bending machine, Punching and stamping machine, CNC Pipe Rolling, forming , finishing machines, welding machine.	01 Nos
2.	Needle Vibrator Equipment	5 nos.
3.	Truck & Tipper	2 nos.
4.	Hoisting crane up to 15 M height	2 nos.
5.	Bar Bending and cutting machine	1 no.
6.	Cement Concrete Mixer	4 nos
7.	Generators (20 KVA and above)	2 nos

**Note: The bidders shall submit undertaking for availability of the above minimum requirement of List of Plant and Equipment (Format provided in Volume –III) duly certified by a Chartered Accountant.**

- ii. The bidders should undertake their own studies and furnish with their bid, a detailed construction planning and methodology be fitting with layout and necessary drawings and detail calculations to allow the Client to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

**4.4** Sub-contractors experience and resources shall not be taken into account in determining the bidders compliance with the qualifying criteria

**4.5** Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- I. Made any misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- II. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and / or
- III. Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the Client.

**5. One Proposal per Bidder:**

Each bidder shall submit only one proposal for one package.

**6. Cost of preparation of Proposals:**

The bidder shall bear all costs associated with the preparation and submission of his proposal, and the Client will in no case be responsible and liable for those costs.

**7. Site visit**

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Work and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidders own expense.

## B. Request for Proposal documents

### 8. Content of RFP documents:

8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10:

Section	Particulars	Volume No
	Invitation for Bid	I
1	Instructions to Bidders	II
2	Form of bid, Qualification Information, and other forms	III
3	Conditions of Contract	IV
4	Contract data	V
5	Technical Specifications For Civil Works	VI
6	Technical Specifications For Internal Electrification Specifications	VII
7	Securities And Other Forms	VIII
8	Terms Of Reference & Scope Of Work For Design Of The Project	IX
9	Design Considerations And Schedule Of Finishes	X

8.2. The Bidder shall duly fill all the formats along with the required documentary proof as mentioned in Vol-III and submit the Proposal.

8.3. The bidder shall be expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, forms, annexes and drawings in the RFP Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 26 hereof, proposals, which are not substantially responsive to the requirements of the RFP Documents, shall be rejected.

### 9. Clarification of RFP documents:

9.1 A prospective bidder requiring any clarification of the bidding documents may notify the Client in writing or by cable (hereinafter "cable" includes telex, facsimile and e-mail) at the Client's address indicated in the invitation to bid. The Client will respond to any request for clarification, which he received earlier than 15 days prior to the deadline for submission of proposals. Copies of the Client's response will be forwarded to all purchasers of bidding documents, including a description of the enquiry but without identifying its source.

#### 9.2 Pre-bid meeting: -

9.2.1 A pre-bid meeting shall be held at the scheduled date and time at the office of the MD, CRUT, C/o- Bhubaneswar Development Authority, Akash Shova Building, Sachivalaya Marg, Bhubaneswar-751001.

9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3 The Bidder is requested to submit any questions in writing to reach the Client not later than one week before the meeting.

**9.2.4** Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all prospective bidders. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by the Client exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.

## **10. Amendment of RFP documents:**

**10.1** Before the deadline for submission of proposals, the Client may modify the RFP documents by issuing addenda.

**10.2** Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing or by cable/e-mail to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing or by cable/e-mail to the Client. The Client will assume no responsibility for postal delays.

**10.3** To give prospective bidders reasonable time of one month in which to take an addendum into account in preparing their proposals, the Client shall extend as necessary the deadline for submission of proposals.

**10.4** The addendum shall also be available in official website.



## **C. Preparation of Proposals**

### **11. Language:**

All documents relating to the proposal shall be in the English language.

### **12. Documents comprising the proposal:**

The proposals to be submitted by the bidders shall be in two separate parts, **Technical Proposal & Financial Proposal**. The Proposal shall be submitted in 3 separate covers as under:

#### **Cover-I: "Technical Proposal" and shall comprise (to be submitted in online) of: -**

- (i) Technical Bid (in the format indicated at Section 2);
- (ii) Bid Security in the form specified in Section 8 & cost of bid documents.
- (iii) Qualification documents as per the table of Checklist and supporting documents as specified in Clause 4.1 of Section-2
- (iv) Certificates, undertakings, affidavits as specified in Section 2,
- (v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1

#### **Cover –II: "Financial Proposal" and shall comprise (to be submitted in online in excel format) inclusive of all statutory taxes)** **(The Lump Sum Price Bid)**

#### **Cover- III: To be submitted in sealed cover and shall comprise of: -**

- 1. Approach & Methodology**
- 2. Work Plan**
- 3. Designs and Engineering**

The sealed cover III shall be received in the office of the **Managing Director, Capital Region Urban Transport, C/o- Bhubaneswar Development Authority, Akash Shova Building, Sachivalaya Marg , Bhubaneswar-751001**, only during the office hours up to 5 working days from the last date of submission of the bid (cover-I, cover-II) in online form. The sealed cover (cover III) and the original of Financial Instruments delivered in person or submitted by post or by Courier should reach and delivered in the office within the stipulated date and time positively. The department will not be held responsible for any delay or loss or damage of the Bid documents during transit and in such events the proposals stands rejected summarily. If cover III is not received in due and time, the bid shall be declared non-responsive.

**The Cover III shall be opened along with Cover – I (Technical Proposal) for evaluation.**

### **13. Bid Price:**

- 13.1** The contract shall be for the whole work as described in Sub-Clause 1.1, based on the Lump Sum Price Bid submitted by the Bidder.
- 13.2** The bidder shall fill the total bid price as **Lump Sum Price** (both in figures and words) for all items of works as specified in the Bid document for the entire 200 nos of bus Queue Shelters. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 13.3** The prices tendered shall except in so far as it is otherwise, provided under the contract, include cost of design & engineering, all constructional plant, labour, supervision, materials, erection maintenance, insurance, profit, taxes and duties & other levies together with all general risks, liabilities and obligations set out or implied in the contract.
- 13.4** The lump sum bid price quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account.

### **14. Currencies of Bid and Payment:**

The currency of bid and payment shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

### **15. Bid Validity:**

- 15.1** Proposals shall remain valid for a period not less than **(180) One Eighty days** after the deadline date for bid submission. A proposal valid for a shorter period shall be rejected by the Client as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.
- 15.2.** In exceptional circumstances, prior to expiry of the original time limit, the Client may request that the bidder may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable / e-mail. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

### **16. Bid Security:**

- 16.1** The Bidder shall furnish, as part of his Bid, a Bid security of an amount as mentioned in Volume-I of the RFP for this particular work. Bid security in the shape such as **Deposit Receipt of Scheduled Bank (Term Deposit Receipt) / Post Office Savings Bank Account / National Savings Certificate / Postal Office Time Deposit Account** duly pledged in favor of the Managing Director, CRUT, Bhubaneswar-751001 is acceptable. The bidder has the option of furnishing Bid Security in the form of **Bank Guarantee from a Nationalized Bank** of India. Bidders who have owned or desirous to hire machineries or equipments but deployed outside the State are required to furnish **twice the above amount** as Bid Security in the shape as mentioned above. Bid Security shall remain valid till **180 (One Hundred Eighty) Days** after the deadline date for bid submission.
- 16.2.** Any bid not accompanied by an acceptable Bid Security and not secured as indicated in sub-clauses 16.1 shall be rejected by the Client as non-responsive.
- 16.3.** The Bid Security of unsuccessful bidders shall be returned within 28 days of the end of the bid validity period specified in sub-clause 15.1.

- 16.4.** The Bid Security of the successful bidder shall be discharged when the bidder has signed the Agreement and furnished the required Performance Security
- 16.5** The Bid Security may be forfeited
- (a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity;
  - (b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to
    - (i) Sign the Agreement; or
    - (ii) Furnish the required Performance Security.

## **17. Alternative Proposals by Bidders:**

Bidders shall submit offers as per his own estimates based on his own design & drawing but complying with the requirements of the bidding documents, including the basic technical design parameters and as per regulations of concerned Urban Development Authority, OECBC, specifications as per relevant IS Codes & NBC. **Conditional offer or alternative offers will not be considered further in the process of tender evaluation.**

## **18. Format and Signing of Proposal:**

- 18.1** The bidder shall submit one set of the bid comprising the documents as described in **clause-12 of Volume-II of the RFP.**
- 18.2.** The Bid shall be typed or written in indelible ink and **shall be signed by a person or persons duly authorized to sign on behalf of the Bidder.** All pages of the Bid shall be signed by the person or persons signing the proposal, sealed and page numbered along with a content table referring page numbers.
- 18.3.** The proposal shall contain no overwriting alternations or additions, except those to comply with instruction issued by the Client or as necessary to correct errors made by the Bidder, in which case such corrections shall be made by scoring out the cancelled portion, writing the correction and initialing and dating it by the person or persons signing the Bid.

## D. Submission of Bids

(Online submission as per Govt. of Odisha e-Procurement Procedure annexed)

### 19. Sealing and Marking of Proposals – Refer Volume-II

#### 19.1.

- a. **Technical Bid:** To be opened on the scheduled date and time.
- b. **Financial Bid:** Not to be opened except with approval of the Client.

The contents of the “Technical Bid” and “Financial Bid” shall be as specified in clause-12 of ITB.

#### 19.2. The sealed envelope (cover-III) as per clause-12 shall be submitted in hard copies and shall -

- a) be addressed to the Client at the address provided in Volume-I of IFB.
- b) bear the name and identification number provided in Volume-I of IFB.
- c) provide a warning not to be opened before the specified time and date for opening as mentioned in clause-22.1 of ITB.

#### 19.3. In addition to the identification required in clause-19.2, each of the envelopes shall indicate the name and address of Bidder to enable the Bid to be returned unopened in case it is declared late pursuant to clause-20.1 of ITB or declared non-responsive, pursuant to clause -27 of the ITB.

### 20. Deadline for Submission of the Proposals

#### 20.1 Bid shall be received on or before the scheduled date of submission as notified in IFB.

#### 20.2 The Client may extend the deadline for submission of proposals by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Client and the bidders previously subject to the original deadline will then be subject to the new deadline.

#### 21. **Late Proposals:** Any Bid received by the Client after the dead line prescribed in clause-20 of ITB will be returned unopened to the Bidder.

## E. Bid Opening and Evaluation

### 22. Bid Opening:

22.1 All technical proposals received shall be opened in the office of Managing Director, CRUT, Bhubaneswar 751001 on the scheduled date and time in the presence of the Bidders or their representatives who choose to attend. In the event of the specified date of Bid opening being declared a holiday, the Proposals will be opened at the appointed time and location on the next working day.

22.2 The Client shall prepare minutes of the Bid opening.

### 23. Process to be Confidential:

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

### 24. Clarification of Financial Proposals:

24.1. To assist in the examination, evaluation, and comparison of Proposals, the Client may, at his discretion, ask the **lowest evaluated responsive bidder for clarification of his-Bid, including breakdowns of unit rates**. The request for clarification and the response shall be in writing or by cable/e-mail, but no change in the price or substance of the Bid shall be sought, offered, or permitted.

24.2. Subject to sub-clause 24.1, no Bidder shall contact the Client on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Client, it should do so in writing.

24.3. Any effort by the Bidder to influence the Client in the Client's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

### 25. Examination of Proposals and Determination of Responsiveness:

During the detailed evaluation of "**Technical Proposals**", the Client will determine whether each Bid

- (a) Meets the minimum eligibility criteria as specified in Volume - II
- (b) Is accompanied by the required Earnest Money Deposit and Cost of RFP document
- (c) Is substantially responsive to the requirements of the Bidding documents.

### 26. Evaluations and Comparison of Financial Proposals

26.1. The Client will evaluate and compare only the **Financial Proposals** determined to be substantially responsive in accordance with the procedure as per **Volume – II**.

- 26.2. The Client reserves the right to accept or reject any variation arising out of change in scope of work. Such variations, which are in excess of the requirements of the Bidding documents, shall not be taken into account in Bid evaluation.

## F. Award of Contract

### 27. Award Criteria:

- 27.1 Subject to Clause 28, the Client will award the Contract to the lowest responsive Bidder whose Bid has been determined to be substantially responsive to the Bidding documents and who has been selected in compliance to clause-26.1, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3 and (b) qualified in accordance with the provisions of Clause 4.

- 27.2 **In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid.** The contract will in such cases be awarded to the next lowest bidder at his evaluated bid price.

### 28. Client's Right to accept any Bid and to reject any or all Proposals:

- 28.1 Notwithstanding Clause 27, the Client reserves the right to accept or reject any Bid and to cancel the Bidding process and reject all Proposals at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Client's action.

### 29. Notification of Award and Signing of Agreement:

- 29.1 The Bidder whose Bid has been accepted will be notified of the award by the Client prior to expiration of the Bid validity period by cable, telex, facsimile or e-mail confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Client will pay the Bidder in consideration of the design and execution of the Works on a Engineering, procurement & Construction basis by the Bidder as prescribed by the Contract (hereinafter and by the Contract called the "Contract Price").

- 29.2 The notification of award will constitute the formation of the Contract, subject to condition that after furnishing of a performance security in accordance with the provisions of Clause 30, the award will be complete.

- 29.3 The Contract will incorporate all agreements between the Client and the successful Bidder. The detail work programme and milestone wise activity shall be finalized during contract negotiation with the successful bidder within 07 days after notification of award. The agreed work programme / milestone shall form part of the contract agreement. The agreement will be signed by the Client and sent to the successful Bidder, within 14 days following the notification of award along with the Letter of Acceptance. Within 14 days of receipt, the successful Bidder will sign the Agreement and deliver it to the Client.

- 29.4 Upon the furnishing by the successful Bidder of the Performance Security, the Client will promptly notify the other Bidders that their Proposals have been unsuccessful.

- 29.5 In the event of non-payment of the performance security by the L1 bidder, the successful bidders in sequence (L2, L3 ....) may be asked for negotiation for execution of the work with the bid price quoted by the L1 bidder.

### 30. Performance Security:

- 30.1 Within **07 (seven) days** of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Client a Performance Security [valid for a period as stipulated in Cl. 48 of Conditions of Contract & in the contract data] in any of the forms given below for an amount equivalent to **5% of the Contract price**:

- a bank guarantee in the format provided in the RFP, or

- a deposit receipt of Schedule Bank / Post Office Savings Bank Account / National Savings Certificate / Postal Office Time Deposit Account duly pledged in favor of the Managing Director, CRUT, Bhubaneswar-751001 payable at Bhubaneswar. The bidder has the option of furnishing Bid Security in the form of Bank Guarantee from a Nationalized Bank of India, counter guaranteed by its branch at Bhubaneswar.

**30.2** If the performance security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued either (a) at the Bidder's option, by a Nationalized/ Scheduled Indian bank or (b) by a foreign bank located in State and acceptable to the Client.

**30.3** Failure of the successful Bidder to comply with the requirements of Sub-Clause 30.1 and/or 30.2 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

**31.** Deleted

**32. Corrupt or Fraudulent Practices:**

**32.1** It is required that the bidders / contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, it is defined, for the purposes of this provision, the terms set forth below as follows:

(i) “**Corrupt practice**” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution and

(ii) “**Fraudulent practice**” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Client and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition.

The Client will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

**32.2** Furthermore, Bidders shall be aware of the provision stated in sub-clause 23.2 and sub-clause 54.2 of the Conditions of Contract.

## **G. Procedure to participate in online bidding- e-procurement**

**1. PARTICIPATING IN THE BID IN THE E-PROCUREMENT PORTAL:** The Contractor/Bidder intending to participate in the bid is required to register in the Portal with some information about the firm/Contractor. This is a onetime activity for registering in Portal. During registration, the contractor has to attach a Digital Signature Certificate (DSC) to his / her unique user ID. The DSC used must be of appropriate class (Class II or Class III) issued from a registered Certifying Authority such as n-Code solutions CA (GNFC), Safe script, TCS, MTNL, IDRBT, E-Mudhra etc. and:

(a) To log on to the portal the Contractor/Bidder is required to type his/her username and password. The system will again ask to select the DSC and confirm it with the password of DSC. For each

login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique ID, password and DSC combination and authenticates the login process for use of portal.

- (b) The tender documents uploaded by the Tender Inviting Officer in the website 'e'-procurement portal <https://tendersodisha.gov.in>

will appear in the section of "Upcoming Tender" before the due date of tender sale. Once the due date has arrived, the tender will move to "Active Tender" Section of the *homepage*. Only a small notification will be published in the newspaper specifying the work details along with *mention* of the specific website for details. The publication of the tender will be for specific period of time till the last date of submission of proposals as mentioned in the 'Invitation for Bid' after which the same will be removed from the list of Active tenders. Any bidder can view or down load the bid documents from the web site.

- (c) Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption.

- (d) If the *software* application has the provision of payment of cost of tender document through payment gateways of *authorized* bankers by directly debiting the account of the bidders, bidders will be required to avail on-line payment. Furnishing scanned copy of such documents is mandatory along with the tender documents otherwise his/her bid shall be declared as non-responsive and thus liable for rejection.

- 1.1. In the case of any failure, malfunction, or breakdown of the electronic system used during the e-procurement process, the tender inviting officer shall not accept any responsibility for failures or breakdowns other than in those systems strictly within their own control.
- 1.2. Any third party/company/person under a service contract for operation of e-procurement system in the State or his/their subsidiaries or their parent companies shall be ineligible to participate in the procurement processes that are undertaken through the e-procurement system irrespective of who operates the system.
- 1.3. For submission of Proposals through the E-Procurement Portal, the bidder shall up load the scanned copy/copies of document in prescribed format wherever warranted in support of eligibility criteria and qualification information. The on-line bidder shall have to produce the original documents in support of the scanned copies and statements uploaded in the portal before the specified date as per DTCN.
- 1.4. Each bidder shall submit only one bid for one package. A bid is said to be complete if accompanied by **cost of bid document** and appropriate **bid security**. The system shall consider only the last bid submitted through the E-Procurement portal.
- 1.5. The Officer inviting the bid / Engineer-in-Charge will clarify queries on the Contract Data on requisition by the intending Bidder. The bidder may ask question in the e-procurement portal using his DSC; provided the questions are raised before the date mentioned in the home page under critical dates.
- 1.6. The proposals uploaded by the Tender Inviting Officer may consist of conceptual drawings or typical sections of the project. Bidder may down load these drawings and take out the print for detail study. Any other drawings and documents pertaining to the works available with the officer inviting the Bid as well as in the office of the Chief Engineer and Executive Engineer / GM as



mentioned in the Contract Data will be open for inspection by the bidders. The bidder is required to download all the documents including the drawings for preparation of his bid. It is not necessary for the part of the Bidder to upload the drawings other Bid documents (after signing) while uploading his bid. He is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantities duly filled in. It is assumed that while participating in the bid, the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid. Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer Inviting the Bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.

- 1.7. Any addendum issued shall be part of the bidding documents and shall be notified in the website [www.tendersodisha.gov.in](http://www.tendersodisha.gov.in) /[www.bdabbsr.in](http://www.bdabbsr.in) and through paper publication.
- 1.8. All the volumes/documents shall be provided in the portal by the Officer inviting the bid. The bidder shall carefully go through the document and prepare the required documents and upload the scanned documents in Portable Document Format to the portal in the designated locations of Technical Bid. Submission of documents shall be effected by using DSC of appropriate class.
2. **BID SECURITY:** The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under Invitation for Bid (IFB)/Contract Data. The bidder shall scan all the written pages of the bid security and upload the same to the system in designated place. The on-line bidder shall deposit the original copy of the 'bid security' within the specified period mentioned in the DTCN (after receipt date of bid but before opening date & time of bid) with the "Officer inviting the Bid". The Officer inviting the bid shall not be responsible for any postal delay and/or non-receipt of the original copy of the bid security on or before specified date and time. Non-submission of bid security within the designated period shall debar the bidder from participating in the on-line bidding system and his portal registration shall be cancelled. His name shall also be informed to the registering authority for cancellation of his registration.
3. **FORMAT AND SIGNING OF BID:** The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience within the final date and time of submission. The bidder shall only submit single copy of the required documents and Price Bid in the portal. In the Financial bid, the bidder cannot leave any figure blank. He has to only write the figures; the words will be self-generated. The Bidders are advised to upload the completed Bid document well ahead of the last date & time of receipt to avoid any last moment problem of power failures etc.
  - 3.1. The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid Document, Bid Security, Declaration form, price bid etc and store in the system.
  - 3.2. The bidder shall log on to the portal with his DSC and move to the desired tender for uploading the documents in appropriate place one by one simultaneously checking the documents. Once the Bidder makes sure that all the documents have been uploaded in appropriate place he clicks the submit button to submit the bid to the portal.
    - 3.2.1. The proposals once submitted cannot be retrieved or corrected. Tender cannot be pre-opened and cannot be submitted after due date and time. Therefore, only after satisfying that all the documents have been uploaded, the Bidder should activate submit button.
    - 3.2.2. In the e-procurement process each process are time stamped. The system can identify each

individual who has entered in to the portal for any bid and the time of entering in to the portal.

- 3.2.3.** The Bidder should ensure clarity of the document up loaded by him to the portal especially the scanned documents by taking out sample printing. Non-submission of legible documents may render the bid non-responsive. However, the Officer inviting the Bid if so desires can ask for legible copies or original copies for verification with in a stipulated period provided such document in no way alters the Bidder's price bid. If the Bidder fails to submit the original documents with in the stipulated date, his bid security shall be forfeited.

**4. SECURITY OF BID SUBMISSION:**

- 4.1.** All bid data uploaded by the Bidder to the portal will be encrypted by the DSC. The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.
- 4.2.** The Bid shall be received in encrypted format by the system which can only be decrypted / opened by the authorized openers only on or after the due date and time.

**5. DEADLINE FOR SUBMISSION OF THE PROPOSALS:**

The online bidding will remain active till the last date and time of the bid submission. Once the date and time (Server date and time) is over, the bidder will not be able to submit the bid. The date & time of bid submission shall remain unaltered even if the specified date for the submission of proposals declared as a holiday for the Officer inviting the Bid.

**6. LATE PROPOSALS:**

The system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the server time displayed in the e-procurement portal shall be the time to be followed by the bidder and concerned officers.

**7. MODIFICATION AND WITHDRAWAL OF PROPOSALS:**

- 7.1.** In the E-Procurement Portal, it is allowed to modify the bid any number of times before the final date and time of submission. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the proposals already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure. If the bidder fails to submit his modified proposals with in the designated time of receipt, the bid already in the system shall be taken for evaluation.
- 7.2.** In the E-Procurement Portal, withdrawal of bid is allowed. But in such case he has to write a letter with appropriate reasons for his with drawl addressed to the Officer inviting the bid and up load the scanned document to portal in the respective bid before the closure date and time of receipt of the bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

**8. OPENING OF THE BID:**

- 8.1.** Bid opening date is specified during tender creation or can be extended with corrigendum. This date is available in IFB, tender document as well as the home page of portal. Bid opening can

be done by the authorized users which are defined during the tender publication / approval stage. The proposals are encrypted using their public keys and can be decrypted only on or after the Bid Opening due date and time. The bid openers private key will be required to open the proposals and all the openers have to log on to the portal during that time.

- 8.1.1.** The bidders who participate in the online bidding can witness opening of the bid from any system logging on to the portal with the DSC away from opening place. Contractors are not required to be present during the bid opening at the opening location if they so desire.
- 8.1.2.** Each activity is date and time stamped with user details. For time stamping, server time is taken as the reference.
- 8.2.** In the event of the specified date of bid opening being declared a holiday for the Officer inviting the Bid/Engineer-in-Charge, the proposals will be opened at the appointed time on the next working day.
- 8.3.** In case proposals are invited for more than one package, the order for opening of the “Bid” shall be that in which they appear in the “Invitation for Bid”.
- 8.4.** During bid opening, the covers containing original financial instruments towards Cost of bid and Bid Security in the form specified in the DTCN, received after last date of receipt of bid and before opening of the proposals shall be opened and declared.
  - 8.4.1.** Combined bid security for more than one work is not acceptable.
- 8.5.** The Bid openers; who have been pre-defined shall log on to the portal with their respective DSC. Unless all the Officers who have been declared as Opening officers, log on the portal with their DSC the Tender cannot be opened.
  - 8.5.1.** The Opening Officers will systematically check the scanned demand draft towards cost of the bid document and the scanned document of Bid security with that of the original submitted. If found in order, they will continue opening of all other documents in the system provided under Technical Bid.
  - 8.5.2.** Subject to confirmation of the bid security by the issuing institutions, the proposals accompanied with appropriate bid cost and valid bid security will be taken up for evaluation with respect to the qualification Information and other information furnished.
  - 8.5.3.** After receipt of confirmation of the bid security, the bidder may be asked in writing to clarify to the documents in the Technical Bid, if necessary, with respect to any doubts or illegible documents required for Technical Evaluation.
  - 8.5.4.** The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit
  - 8.5.5.** Immediately, on receipt of these clarifications, the Evaluating Officers; predefined in the system for the bid, will finalize the list of responsive bidders. They will log on to the site with their DSC and record their comments on the Technical evaluation page in the system. The Officer Inviting the Bid if also the accepting authority, authorised officer shall log on to the system with his digital signature and check the technical evaluation. He can either accept or pass on to the evaluating officers for re-evaluation. Upon acceptance of technical evaluation by the Accepting authority in the system, the system shall automatically generate letter to all the responsive bidders and the system shall forward the letter to all the responsive bidder that their technical

bid has been evaluated responsive with respect to the data/information furnished by him and the letter shall also intimate him the date & time of opening of financial bid. The system shall also inform the non-responsive bidders in their e-mail ID that their bid has been found non-responsive.

- 8.5.6.** The Technical evaluation of all the proposals will be taken up as per the information furnished by the Bidders. But evaluation of the bid does not exonerate the bidders from checking their original documents and if at a later date the bidder is found to have misled the evaluation through wrong information, action as per relevant clause of DTCN shall be taken against the bidder/contractor.
- 8.5.7.** After technical evaluation of the bidders and selection of the qualified bidders, the financial proposals of the technically qualified bidders shall be opened on the due date of opening. Members of the bid opening committee log on to the system in sequence and open the financial proposals for the technically qualified bidders. The opening of financial bid by the opening officer using their DSC shall decrypt the financial proposals in the following manner:-
- 8.5.8.** Opening of price bid and evaluation of lowest bidder is subject to satisfaction of other qualification information.
- 8.5.9.** The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.
- 8.5.10.** At the time of opening of "Financial Bid", the names of the bidders whose technical proposals were found responsive will be announced and the proposals of only those bidders will be opened. The remaining proposals will be rejected.
- 8.5.11.** The responsive bidders' name, the bid prices, the item wise rates the total amount of each item, any discounts and withdrawals, and such other details as the officer inviting the tender may consider appropriate, will be announced by him or his authorized representatives at the time of opening.
- 8.5.12.** Rebate/discount offer if any uploaded to the system shall be declared and recorded first.
- 8.5.13.** The Financial bid of the bidders shall be opened one by one by the designated officers. The system shall auto-generate the Comparative statement.
- 8.5.14.** The Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.

## **9. CLARIFICATION OF PROPOSALS:**

- 9.1. For examination, evaluation, and comparison of proposals, the officer inviting the bid may, at his discretion, ask lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdowns of unit rates.**
- 9.2.** On opening of the price bid the system shall arrange the financial proposals in order of their value (L1 first, followed by L2, L3 ....) for subsequent evaluation. The evaluation status (Sheet) will be visible to all the participating bidders after opening on their respective logins. Each activity is recorded in the system with date and time stamping.

## **10. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:**

In the E-Procurement Portal, the system shall generate the template of award letter and the Officer

Inviting the Bid shall mention the amount of Performance Security and additional security required to be furnished in the letter and intimate the bidders in his e-mail ID. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.

## H. EVALUATION OF PROPOSALS

### 1. Evaluation of Technical Proposals:-

#### 1.1 INTRODUCTION

Evaluation Criteria contains the broad criteria based on which the applicants shall be evaluated.

#### 1.2 EVALUATION CRITERIA

Applicants' Technical Proposals will be evaluated based on their technical, organizational capability, past experience and track record and financial capability. The Applicants are required to submit all the necessary documentary proofs from the respective clients.

#### CRITERIA FOR EVALUATION OF THE PERFORMANCE OF CONTRACTORS FOR PRE-ELIGIBILITY

Sl. No	Name	Attributes	Marks	Evaluation
(a)		<b>Financial strength</b> i) Average annual Turnover (ii) Solvency Certificate as per clause-4.3B. of ITB	<b>(35 marks)</b>  <b>31 marks</b>  <b>4 marks</b>	I. 60% marks for minimum eligibility criteria. II. 100% marks for twice the minimum eligibility criteria or more III. in between (i) & (ii) – on pro-rata basis.
(b)		<b>Experience in Construction of similar project works</b>	<b>(35 marks)</b>	I. 60% marks for minimum eligibility criteria. II. 100% marks for twice the minimum eligibility criteria or more III. in between (i) & (ii) – on pro-rata basis.
(c)		<b>Technical Presentation</b>	<b>Marks (30 Marks)</b>	
1.		1. Approach & Methodology (10 Marks) 2. Work Plan (10 Marks) 3. Designs and Engineering (10 Marks)		30

The bidders qualifying the initial criteria as set out will be evaluated for following criteria by scoring method on the basis of details furnished by them.

S. No.	Criteria	Maximum Marks	Minimum Marks to be scored
A	Financial Strength	35	21
B	Experience in Similar Nature of work during last 5 years	35	21
C	Technical presentation on Approach & methodology, Work plan & Design and Engineering	30	18
	<b>Total Marks</b>	<b>100</b>	<b>60</b>

The bidders shall ensure that the minimum development obligations shall be fulfilled in their proposed design and plan. Date and time of technical presentation shall be communicated later.

The bidders securing 60% and above marks in the Technical bid evaluation will be technically qualified to go for opening of financial Proposal.

**The proposal with the lowest financial bid (L-1) shall be awarded the work.**

# Volume-III

## FORMATS FOR TECHNICAL PROPOSAL

### TABLE OF FORMATS:

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## **ANNEXURE- I**

### **Cover Letter of Technical Proposal**

*(The cover letter shall be submitted on the letter head of the Applicant)*

To,

Date: \_\_\_\_\_

**Managing Director,  
Capital Region Urban Transport,  
C/o- Bhubaneswar Development Authority  
Bhubaneswar – 751 001**

**Sub: Technical Proposal for Design, supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha .**

Dear Sir,

With reference to your RFP document \_\_\_\_\_, dated \_\_\_\_\_, I, having examined the RFP Documents and understood their contents, hereby submit my/our proposal for the aforesaid Project. The Proposal is unconditional and unqualified.

2. I acknowledge that the Authority will be relying on the information provided in the Proposal and the documents accompanying the proposal for selection of the Contractor for the aforesaid Project, and we certify that all information provided in the proposal and its Annexures along with the supporting documents are true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the proposal are true copies of their respective originals.
3. This statement is made for the express purpose of our selection as EPC Contractor for the design and execution of the aforesaid Project and maintenance of the Project during the Defect Liability Period.
4. I shall make available to the Authority any additional information it may find necessary or require to supplement or authenticate the BID.
5. I acknowledge the right of the Authority to reject our BID without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
6. I certify that in the last three years, we have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
7. I declare that:
  - (a) I have examined and have no reservations to the Bidding Documents, including any Addendum issued by the Authority; and
  - (b) I have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFP document, in respect of any tender or request for proposal issued by or any Agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and
  - (c) I hereby certify that we have taken steps to ensure that in conformity with the provisions of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice; and



- (e) the undertakings given by us along with the Application in response to the RFP for the Project and information mentioned for the evaluation of the BID Capacity were true and correct as on the date of making the Application and are also true and correct as on the BID Due Date and I shall continue to abide by them.
8. I understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any BID that you may receive nor to invite the Bidders to BID for the Project, without incurring any liability to the Bidders, in accordance with the RFP document.
9. I certify that in regard to matters other than security and integrity of the country, we have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
10. I undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the Authority of the same immediately.
11. I further acknowledge and agree that in the event such change in control occurs after signing of the Agreement up to its validity, it would, notwithstanding anything to the contrary contained in the Agreement, be deemed a breach thereof, and the Agreement shall be liable to be terminated without the Authority being liable to us in any manner whatsoever.
12. I hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority in connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.
13. In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into a Agreement in accordance with the draft that has been provided to me/us prior to the BID Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.
14. I have studied all the Bidding Documents carefully and also surveyed the project area. We understand that except to the extent as expressly set forth in the Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or relating to the Bidding Process including the award of Agreement.
15. I offer a BID Security of Rs. \_\_\_\_\_/- (Rupees \_\_\_\_\_ Only) to the Authority in accordance with the RFP Document.
16. The BID Security in the form of a Bank Guarantee is attached.
17. The documents accompanying the Technical BID, as specified in the RFP, have been submitted in separate files.
18. I agree and understand that the BID is subject to the provisions of the Bidding Documents. In no case, I shall have any claim or right of whatsoever nature if the Project / Contract is not awarded to me or our BID is not opened or rejected.
19. The BID Price has been quoted by me after taking into consideration all the terms and conditions stated in the RFP, draft Agreement, our own estimates of costs and after a careful assessment of the site and all the conditions that may affect the project cost and implementation of the project.
20. I agree and undertake to abide by all the terms and conditions of the RFP document.
21. I shall keep this offer valid for 180 (one hundred and eighty) days from the BID Due Date specified in the RFP.

22. I hereby submit our BID and offer a BID Price as indicated in Financial Bid for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement.

In witness thereof, I submit this BID under and in accordance with the terms of the RFP document.

Yours faithfully,

**Date:**

**(Signature, name and designation**

**Place:**

**of the Authorised signatory)**

**Name & seal of Bidder**

## ANNEXURE- II

### CHECKLIST

S.No	Documents to be submitted	Submitted (Yes/No)	Page No.	
			From	To
1	a. Article of Association			
	b. place of registration			
	c. principal place of business			
	d. Power of attorney of the Authorized Signatory of the Bid to commit the Bidder;			
2	Audited Annual reports, Balance Sheets, profit and Loss statements for last 5 (five) financial years i.e., 2017-18 2016-15, 2015-14, 2014-13, 2013-12..			
3	A certificate showing Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources) from their bankers;			
4	Information regarding any pending litigation or arbitration cases resulting from contracts executed by the bidder in the last five years or currently under execution. The information shall include the names of the parties concerned, the disputed amount, cause of litigation, matter in dispute & the stage of the litigation. An Affidavit for the same shall be submitted.			
5	The proposed Approach and Methodology and Program of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones as mentioned in the Contract data.			
6	Bid Security			
7	Bid Document cost in the form of a Demand Draft drawn in favour of Capital Region Urban Transport, payable at Bhubaneswar.			
8	Valid ESI and EFP certificates ( If available, to be submitted prior to signing of Contract)			
09	PAN No.			
10	Service Tax Registration No.			
11	Valid Trade License			

12	GST Registration No.			
13	Income Tax clearance certificate			

***(Signature, name and designation of the authorised signatory)***

**ANNEXURE-III**  
**Details of Bidder**

**1. Details of the Bidder**

- a) Name:
- b) Country of incorporation:
- c) Address of the corporate headquarters and its branch office(s), if any, in India:
- d) Date of incorporation and/ or commencement of business:

**2. Brief description of the Bidder including details of its main lines of business and proposed role and responsibilities in this Project:**

**3. Details of individual(s) who will serve as the point of contact/ communication for the Authority:**

- a) Name:
- b) Designation:
- c) Company:
- d) Address:
- e) Telephone Number:
- f) E-Mail Address:
- g) Fax Number:

**4. Particulars of the Authorised Signatory of the Bidder:**

- (a) Name:
- (b) Designation:
- (c) Address:
- (d) Phone Number:
- (e) Fax Number:
- (f) Class III Digital Signature Certificate ID number

*(Signature, name and designation of the authorised signatory)*

## ANNEXURE- IV

### Technical Capacity of the Bidder

1. Please refer Clause No. 4.3 of Volume –II of the RFP. The bidder shall fill the format below for showcasing its technical capacity through its projects during the last 5 (five) financial years ending 31st March, 2018.

(a) **Nature of experience shown by the bidder. Put tick on the appropriate box.**

1.	One similar project of Rs. 15 Crores	
2.	Two similar projects of Rs. 11 Crores	

(b) The bidder shall give details of the project to be taken into consideration for Technical evaluation.

Project Name	Name of the Client*	Description of work	Contract No.	Value of contract (in INR Crs)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work completed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

*\*Attach certificate (s) from the Engineer(s)-in-Charge. The bidder should submit completion certificate for Central/State Government projects. For private sector projects, completion certificate with TDS shall be submitted.*

**Signed and sealed by a Chartered Accountant with Membership No**

*(Signature, name and designation of the authorised signatory)*

## ANNEXURE- V

### Financial Capacity of the Bidder

#### 1. Details of Turn over

Name of Bidder	Annual Turnover (in INR Crores)				
	2013-14	2014-15	2015-16	2016-17	2017-18
Average Turnover					

#### 2. Bank Solvency Certificate for 50% of the cost of the Project put to tender

Name of Certificate	Submitted (Yes/No)	Name of the issuing Bank and details of the Certificate	Page No.
Bank Solvency Certificate for 50% of the cost of the Project put to tender			

#### 3. Statement of Profit during the last three financial years

S.No	Parameter	Profit during 2015-16 (in INR Crs)	Profit during 2016-17 (in INR Crs)	Profit during 2017-18 (in INR Crs)
1.	The Firm should be making profit during each of the last three financial years.			

**Instructions:**

1. The Bidder shall attach copies of the balance sheets, financial statements and Annual Reports for 5 (five) years preceding the Bid Due Date.

**Signed and Sealed by a Chartered Accountant**

**Membership of the Chartered Accountant**

**Date.\_\_\_\_\_Place.\_\_\_\_\_**

***Signed and sealed by a Chartered Accountant with Membership No***

***(Signature, name and designation of the authorised signatory)***



## ANNEXURE- VI

### BID Capacity

The bidder shall calculate the bid capacity and fill the format below:

$$\text{Bid Capacity} = (A*N*2-B) = \text{INR} \underline{\hspace{2cm}} \text{ Crores. (the bidder shall fill the space)}$$

Where;

- N=** Number of years prescribed for completion of work for which Bid is invited.
- A=** Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the year indicated in table below under note) taking into account the completed as well as works in progress.
- B=** Value (updated to the price level of the year indicated in table below under note) of existing commitments and on-going works to be completed during the next 18 (eighteen) months (period of completion of the works for which proposal is invited).

**Table for Calculating the Value of "A"**

SI. No.	Year	Value of Similar Works undertaken w.r.t. Projects (EPC projects / Item rate contract/%rate contract/Construction works) (Rs. In Crores)
1	2017-18	
2	2016-17	
3	2015-16	
4	2014-15	
5	2013-14	

The Value of **A** is \_\_\_\_\_.

**NB:**

- i. Detailed list of works of similar nature completed duly certified by the authority / officer not below the rank of Executive Engineer in Govt. Sector.

or

By chartered accountant along with the statement of TDS for the work in respective years, if it is not in Govt. / Semi Govt. Sector.

**Table for calculating the value of B**

Sl. No.	Name of Project/Work	Percentage of participation of Bidder in the project	Date of start / appointed date of project	Value of contract as per Agreement /LOA	Value of work completed	Balance value of work to be completed	Anticipated date of completion	Balance value of work at 2017-18 price Level
				Rs. in Crore	Rs. in Crore	Rs. in Crore		Rs. in Crore
1	2	3	4	5	6	7= (5-6)	8	9 (3x 7 x #)

The Value of B is \_\_\_\_\_.

**Table for Updation Factor as given below:**

For Year	F.Y.	Up-dation Factor
1	2017-18	1.00
2	2016-17	1.05
3	2015-15	1.10
4	2014-15	1.15
5	2013-14	1.20

The Statement showing the value of all existing commitments and ongoing works as well as the stipulated period of completion remaining for each of the works mentioned above is verified from the certificate issued that has been countersigned by the Client or its Engineer-in-charge not below the rank of Executive Engineer or equivalent in respect of said Projects or Concessionaire / Authorised Signatory of SPV in respect of BOT Projects. No awarded / ongoing works has been left in the aforesaid statement which has been awarded to M/s.....individually as on bid due date of this RFP.

**Signed and sealed by a Chartered Accountant with Membership No**

*(Signature, name and designation of the authorised signatory)*

**ANNEXURE- VII**

Deleted

## ANNEXURE- VIII

### FORMAT FOR SUBMISISON UNDERTAKING FOR MAKING AVAILABILITY OF LIST OF PLANT & EQUIPMENT

We do hereby undertake for making availability (either owned or leased) of the following key and critical equipment in working conditions (along with all other plants and equipment required) to execute this work in requisite time schedule.

SL NO.	Minimum List of Plants and Equipment	Minimum Requirement	Availability With the bidder	Owned/Leased/to be procured	Age and condition of the Plants and Equipment
1.	Workshop – having CNC Lathe Cutting Machines, CNC pipe bending machine, Punching and stamping machine, CNC Pipe Rolling, forming , finishing machines, welding machine.	01 Nos			
2.	Needle Vibrator Equipment	5 nos.			
3.	Truck & Tipper	2 nos.			
4.	Hoisting crane up to 15 M height	2 nos.			
5.	Bar Bending and cutting machine	1 no.			
6.	Cement Concrete Mixer	4 nos			
7.	Generators (20 KVA and above)	2 nos			

***Signed and sealed by a Chartered Accountant with Membership No***

***(Signature, name and designation of the authorised signatory)***

**ANNEXURE- IX**

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY  
OF CREDIT FACILITIES**

**BANK CERTIFICATE**

This is to certify that M/s. .... is a reputed company with a good financial standing.

If the contract for the work, namely “[ insert name of the work]” on EPC basis involving design, engineering, procurement and construction of works is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. .... to meet their working capital requirements for executing the above contract.

**Name of Bank**  
**Senior Bank Manager**  
**Address of the Bank**

**ANNEXURE- X**

**AFFIDAVIT**

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s.....  
..... have abandoned any work in India nor any contract awarded to us by the State of Odisha for such works have been rescinded, during last five years prior to the date of this bid.
3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department/ Project implementing agency.

(Signed by an Authorized Officer of the Firm)

Title of Officer:

Name of Firm:

DATE:

---

**Tenderer(s)is/are required to submit the information in the following Schedules**

**CERTIFICATE OF NO RELATIONSHIP**

I/We hereby certify that I/We\* am/are\* **related / not related**(\*) to any officer of CRUT/BDA/H&UD of the rank of Assistant Engineer & above and any officer of the rank of Assistant / Under Secretary and above of the H&UD Department, Govt. of Odisha I/We\* am/are\* aware that, if the facts subsequently proved to be false, my/our\* contract will be rescinded with forfeiture of E.M.D and security deposit and I/We\* shall be liable to make good the loss or damage resulting from such cancellation.

(\*) - Strike out which is not applicable

Signature of the Tenderer

Date:-

---

**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING EXPELLING OF TENDERED OR  
ABANDONMENT OF WORK BY THE TENDERER**

- |    |   |          |
|----|---|----------|
| 1. | a) Is the tenderer currently involved in any litigation relating to the works.  | Yes/No   |
|    | b) If yes: give details:  |          |
| 2. | a) Has the tenderer or any of its constituent partners been debarred/ expelled by any agency in India during the last 5 years.  | Yes / No |
| 3. | a) Has the tenderer or any of its constituent partners failed to perform on any contract work in India during the last 5 years. | Yes / No |
|    | b) If yes, give details:  |          |

**Note:**

*If any information in this schedule is found to be incorrect or concealed, qualification application will be summararily be rejected.*

**Signature**



**ANNEXURE- XI**  
**Letter of Acceptance**

Letter No: \_\_\_\_\_

Date: \_\_\_\_\_

Sub: **Proposal for Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha.**

To,

**[Name and address of the Contractor]**

Dear Sir(s)

This is to notify you that your Proposal dated \_\_\_\_\_ for execution of the work “**Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha.**” on turnkey basis involving design and execution of works \_\_\_\_\_ [Name of the contract and identification number, as given in the Instructions to Bidders] for the Contract Price of Rupees \_\_\_\_\_ (\_\_\_\_\_) [amount in words and figures], as corrected and modified in accordance with the Instructions to Bidders<sup>1</sup> is hereby accepted by our Agency.

We note that as per the bid, you do not intend to subcontract any component of work

**(Or)**

We note that as per bid, you propose to employ \_\_\_\_\_ as sub-contractor for executing \_\_\_\_\_

**(Delete whichever is not applicable)**

You are hereby requested to furnish Performance Security and Additional Performance Security (if any) in the form detailed in the ITB for an amount of Rs...../- within 7 days of the receipt of this letter of acceptance and sign the contract failing which action as stated in Para 30.3 of ITB will be taken.

Yours faithfully,

**Authorized Signature**

**Name and Title of Signatory**

**Name of Agency**

**ANNEXURE- XII**

**Issue of Notice to proceed with the work**

(Letter head of the Client)

To,

Date \_\_\_\_\_

(name and address of the Contractor)

-----

Dear Sirs:

Pursuant to your furnishing the requisite security and signing of the contract agreement for the work “**Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha**” involving design and execution of works @ a Bid Price of Rs. \_\_\_\_\_, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

**(Signature, name and  
Title of signatory authorized  
to sign on behalf of Client)**

**ANNEXURE- XIII**  
**Agreement Form**

This agreement, made the \_\_\_\_\_ day of \_\_\_\_\_ 20....,  
between

\_\_\_\_\_ [name and address of Client]  
(hereinafter called "the Client") of the one part and \_\_\_\_\_

\_\_\_\_\_ [name and  
address of contractor] (hereinafter called "the Contractor") of the other part.

Whereas the Client is desirous that the Contractor "[insert name of the work], [name and identification number of Contract] (hereinafter called "the Works") and the Client has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a contract price of Rs.....

**NOW THIS AGREEMENT WITNESSETH as follows:**

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Client to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Client to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Client hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
  - i) Letter of Acceptance
  - ii) Notice to proceed with the works
  - iii) Contractor's Bid
  - iv) Contract Data
  - v) Conditions of contract (including Special Conditions of Contract)
  - vi) Specifications
  - vii) Drawings
  - viii) Bill of Quantities (Optional)
  - ix) Payment Schedule and
  - x) Any other document listed in the Contract Data as forming part of the contract.

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of \_\_\_\_\_  
was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said \_\_\_\_\_

in the presence of:

Binding Signature of Client

\_\_\_\_\_

Binding Signature of Contractor

\_\_\_\_\_

—

**ANNEXURE- XIV -DELETED**

**ANNEXURE- XV - DELETED**

**ANNEXURE- XVI**  
**FINANCIAL BID (Cover II)**

The bidder shall quote the financial bid for “**Design, Supply & Installation of Bus Queue Shelters in Bhubaneswar, Odisha**” in Cover II (excel format) only through online and shall be inclusive of all statutory taxes and applicable tax.

**The bidder shall quote the financial bid confirming,**

1. I/ We acknowledge that the Authority will be relying on the information provided in the BID and the documents accompanying the BID for selection of the Contractor for the aforesaid Project, and we certify that all information provided in the Bid are true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the BID are true copies of their respective originals.
2. The BID Price has been quoted by me/us after taking into consideration all the terms and conditions stated in the RFP, draft Agreement, our own estimates of costs and after a careful assessment of the site and all own the conditions that may affect the project cost and implementation of the project.
3. I acknowledge the right of the Authority to reject our BID without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
4. In the event of my/us being declared as the Selected Bidder, I agree to enter into an Agreement in accordance with the draft that has been provided to me prior to the BID Due Date. I agree not to seek any changes in the aforesaid draft and agree to abide by the same.
5. I shall keep this offer valid for 180 (**one hundred and eighty**) days from the BID Due Date specified in the RFP.
6. This Bid and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.
7. We undertake that, in competing for (and if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely “Prevention of Corruption Act 1988”.

**(Signature, name and  
Title of signatory authorized  
to sign on behalf of Client)**

**VOLUME-IV**  
**CONDITIONS OF CONTRACT**

# Conditions of Contract

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# CONDITIONS OF CONTRACT

## A. GENERAL

### 1. Definitions

- 1.1. Terms, which are defined in the Contract Data and not defined in the Conditions of Contract shall keep their defined meanings. Capital initials are used to identify defined terms.
- 1.1.1 **Bill of Quantities** means the priced and completed Bill of Quantities;
- 1.1.2 **Compensation Events** are those defined in Clause 41 hereunder;
- 1.1.3 The **Completion Date** is the date of completion of the Works as certified by the Engineer in accordance with sub-clause (1) of clause 50;
- 1.1.4 The **Contract** is the contract between the Client and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.
- 1.1.5 The **Contract Data** defines the documents and other information, which comprise the Contract;
- 1.1.6 The **Contractor** is a person or corporate body, whose Bid to carry out the Works has been accepted by the Client; 1.1.7 The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Client and includes Technical and Financial proposals;
- 1.1.8 The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract;
- 1.1.9 **Days** are calendar days; months are calendar months;
- 1.1.10 A **Defect** is any part of the Works not completed in accordance with the Contract;
- 1.1.11 The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date;
- 1.1.12 The **Client** is the party who will employ the Contractor to carry out the Works;
- 1.1.13 **The Engineer** is the person named in the Contract Data will be the Engineer in Charge of work, who is responsible for supervising the Contractor's work, administering the Contract, making payments due to the Contractor;
- 1.1.14 **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works;
- 1.1.15 **Initial Contract Price** is the Contract Price listed in the Client's Letter of Acceptance;
- 1.1.16 **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Client by issuing an extension of time;
- 1.1.17 **Materials** are all supplies, including consumables, used by the contractor for incorporation in the Works;
- 1.1.18 **Plant** is any integral part of the Works, which is to have a mechanical, electrical, electronic or chemical or biological function;
- 1.1.19 The **Site** is the area defined as such in the Contract Data;
- 1.1.20 **Site Investigation Reports** are those, which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site;



- 1.1.21 Specification** means the Specification of the works included in the Contract and any modification or addition made or approved by the Client;
- 1.1.22** The **Start Date/ Date of Commencement** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates;
- 1.1.23** A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site;
- 1.1.24 Temporary Works** are works designed, constructed, installed, and removed by the Contractor, which are needed for construction or installation of the Works;
- 1.1.25** A **Variation or Change in Scope** is an instruction given by the Client, which varies and change the scope of Works;
- 1.1.26 Works** are what the Contract requires the Contractor to construct, install, and turn over to the Client, as defined in the Contract Data;
- 1.1.27** Year may be understood as financial year;

## **2. Interpretation**

- 2.1.** In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their general meaning under the language of the Contract unless specifically defined. The Client will provide instructions clarifying queries about the Conditions of Contract.
- 2.2.** If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works).
- 2.2** The documents forming the Contract shall be interpreted in the following order of priority:
- a) Agreement
  - b) Letter of Acceptance, notice to proceed with the works
  - c) Contractor's Bid
  - d) Contract Data
  - e) Conditions of Contract including Special Conditions of Contract
  - f) Specifications
  - g) Drawings
  - h) Bill of quantities (optional) and
  - i) Any other document listed in the Contract Data as forming part of the Contract.

## **3. Languages and Law**

The language of the Contract and the law governing the Contract are stated in the Contract Data.

## **4. Deleted**

## **5. Delegation:**

The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

## **6. Communications:**

Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

7. Deleted

8. Deleted

9. Deleted

**10. Client's and Contractor's Risks:**

The Client carries the risks which this Contract states are Client's risks, and the Contractor carries the risks which this Contract states are contractors risks.

**11. Client's Risks:**

The Client is responsible for the excepted risks which are in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive.

**12. Contractor's Risks:**

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks as mentioned above under previous clause are the responsibility of the Contractor.

**13. Insurance:**

**13.1** The Contractor shall provide, insurance cover ***for the period as stated below against the events and*** in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

**A) From the starting date to the end of defect liability period:**

Loss of or damage to the works

**B) From the start date till completion of the work as per agreement:**

a) Loss of or damage to plant, materials and equipment,

b) Loss of or damage of property (except the works, plant, materials and equipment) in connection with the contract, and

c) Personal injury or death.

**13.2** If all the items as listed at Cl.13.1(B) can be combined / grouped under one insurance cover like Contractor's, All Risks (CAR) Policy, then the same is acceptable.

**13.3** Prior to seven days before the start date, the Contractor shall furnish to the Engineer notarized true copies of the certificates of insurance, copies of insurance policies and premium payment receipts in respect of such insurance for the Client's approval. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

**13.4** If the contractor does not provide any of the policies and certificates required, the Client may affect the insurance which the contractor should have provided and recover the premiums the

Client has paid from payments otherwise due to the contractor or, if no payment is due, the payment of the premiums shall be a debt due.

**13.5** Alterations to the terms of insurance shall not be made without the approval of the Client.

**13.6** Both parties shall comply with any conditions of the insurance policies.

**14. Site Investigation Reports:**

The Contractor, in preparing the Bid, may rely on any site Investigation Reports referred to in the Contract Data, which are indicative and not exhaustive. The Client shall provide all available details to the Contractor (Bidder) for his information, if requested by him at least one week prior to the bid submission date. The bidder shall be responsible for interpreting all such data. After award of work, the Contractor shall carryout detail survey and investigation for preparation of detail designs as per the scope of work and time period stipulated.

To the extent which was practicable (taking account of cost and time), the Contractor (Bidder) shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor (Bidder) shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- (a) the form and nature of the Site, including sub-surface conditions,
- (b) the climatic conditions,
- (c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
- (d) the Laws, procedures and labour practices of the Country, and
- (e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.
- (f) availability of required materials

**15. Queries about the Contract Data:**

The Client will clarify queries on the Contract Data if any during the Pre-bid meeting.

**16. Contractor to Construct the Works:**

The Contractor shall construct and install the Works in accordance with the approved specification and drawings. All designs, drawings and specifications to be furnished by the contractor shall be approved by the Client before execution in accordance with Cl. 18.

**17. The Works to be completed by the Intended Completion Date:**

The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

**18. Approval by the Engineer:**

**18.1** The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

**18.2** The Contractor shall be responsible for design of Temporary Works.

**18.3** The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

**18.4** The Contractor shall obtain approval to the design, drawings and specifications of all components of the building, except those for the temporary works as stated at Cl. 18.1, from any National Institute of Repute such as Indian Institute of Technology (IIT) at its own cost. Such approved documents need to be furnished to the Client within the stipulated datelines as mentioned in the contract data and at Section-8.

**18.5** All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Client / Engineer before their use.

**19. Safety:**

The Contractor shall be responsible for the safety of all activities on the Site.

**20. Deleted**

**21. Possession of the Site:**

The Client shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data, the Client is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

**22. Access to the Site:**

The Contractor shall allow the Client and any person authorized by the Client access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

**23. Instructions:**

**23.1** The Contractor shall carry out all instructions of the Engineer pertaining to works, which comply with the applicable laws where the Site is located.

**23.2** The Contractor shall permit the Client to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Client, if so required by the Client.

**24. Disputes:**

That for the purpose of jurisdiction in the event of disputes if any of the Contracts would be deemed to have been entered in to within the State of Odisha at Bhubaneswar and it is agreed that only the courts of Bhubaneswar shall have the exclusive Jurisdiction to entertain the dispute or any proceeding.

**25. Procedure for Settlement of Disputes:**

In case of any Dispute or difference arising between the Client & the contractor relating to any matter arising out of or connected with this agreement, such disputes or differences shall be settled in accordance with the Arbitration and Conciliation Act 1996.

**26. Replacement of Adjudicator : Not applicable**

## **B. TIME CONTROL**

### **27. Programme:**

- 27.1** Within 7 days of issue of letter of award, the successful bidder shall submit to the Client detail work programme for approval showing the general methods, arrangements, order and timing for all the activities in the Works along with monthly cash flow forecast. The agreed work programme / milestones during such contract negotiation shall form part of the agreement.
- 27.2** An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- 27.3** The contractor shall submit to the Client, for approval, an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue programme has been submitted.
- 27.4** The Client's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Client again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

### **28 Extension of the Intended Completion Date:**

- 28.1** The Client shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

**29.** Deleted

**30.** Deleted

### **31. Early Warning**

- 31.1** The Contractor shall co-operate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

## **C. QUALITY CONTROL**

### **32. Identifying Defects:**

The Engineer shall check the Contractor's work regularly and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for defects and to uncover and test any work that the Engineer considers may have a Defect. The defects so found shall be suitably rectified by the contractor within a reasonable time as decided by Engineer-in-charge of the project.

### **33. Tests:**

If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

**34. Correction of Defects:**

**34.1** The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period, is for a period of 5 years from date of completion including 1 year of replacement warranty for any major defective structure making unserviceable.

**34.2** Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

**35. Uncorrected Defects:**

If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

## **D. COST CONTROL**

**36. Changes in the Quantities: (OPTIONAL)**

**37. Change of Scope (Variations) and Procedure for change of Scope:**

**37.1.** The Client may, require the Contractor to make modifications/alterations to the construction works before the issue of the completion certificate either by giving an instruction or by requesting the contractor to submit a proposal for change of scope involving additional cost or reduction in cost. Any such change of scope shall be made and valued in accordance with the provisions of this contract and the contractor, in that event, will have no further claim on the ground that had it been known / disclosed earlier he would have made such charges in other connected work in their design, construction which would have saved him some cost and given him other consequential benefits.

**37.2** Change in scope may include;

- (a) change in specifications of any item of works
- (b) omission/ deletion of any item of work from the scope of work
- (c) any additional work (such as addition of numbers) which are not included in the scope of work including.

**37.3** In the event of the Client determining that a change of scope is necessary, it shall issue notice to the contractor a notice specifying in reasonable detail the works contemplated there under ("Change in scope notice")

**37.4** The total value of all change of scope of work shall not exceed 5% of total contract price for the construction work.

**38.** Deleted

**39. Payment Certificates:**

**39.1** The Contractor shall submit to the Engineer statements of the value of the work completed for its payments.

**40. Payments:**

Payments shall be adjusted for deductions for retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The Engineer shall pay the Contractor the amounts as per the payment schedule attached to the contract.

**41. Compensation Events:**

**41.1** The following are Compensation Events unless they are caused by the Contractor:

- (a) The Client does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.
- (b) Other contractors, public authorities of utilities or the Client does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

**41.2** If a Compensation Event would prevent the work being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Contractor will react competently and promptly to the event and shall submit information demonstrating the effect of the Compensation Event and the required extended time period for completion.

**41.3** The Engineer shall examine the information furnished by the Contractor and shall recommend to the Client by how much time the Intended Completion Date shall be extended. The Client shall decide / sanction the required extension of time due to such compensation event.

**41.4** The Contractor shall not be entitled to compensation to the extent that the Client's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer.

**42. Tax:**

The rates quoted by the Contractor shall be deemed to be inclusive of the GST, Royalty, Income Tax, Labour CESS and all other statutory taxes that the Contractor will have to pay for the performance of this Contract. The Client will perform such duties in regard to the deduction of such taxes at source as per applicable law.

**43. Currencies:**

All payments shall be made-in Indian Rupees.

**44. Retention:**

**44.1** The Client shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the works or settlement of final payment.

**44.2** On completion of the whole of the works half the total amount retained is repaid to the contractor and half when the Defects Liability Period has passed and the Engineer has certified that all defects notified by the Engineer to the contractor before the end of the period have been corrected.

**45. Liquidated Damages:**

**45.1** The Contractor shall pay liquidated damages to the Client at the rate per week stated in the Contract Data for each week that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Client may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not relieve the contractor from his / her / their obligation to complete the works or from any other duties, obligations or responsibilities which he / she / they may have under the contract.

**45.2** If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

**45.3** If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the Client the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for every week or part of week which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data.

The Client may, without prejudice to any other method of recovery deduct the amount of such damages from any money due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works or from any other of his obligations and liabilities under the contract.

**46.** Deleted

**47.** Deleted

**48. Securities:**

The Performance Security shall be provided to the Client no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Client, and denominated in Indian Rupees. The Performance Security shall be valid up to the **end of defect liability period**.

**49. Cost of Repairs:**

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions including the situation as stipulated at Cl. 12.

## **E. FINISHING THE CONTRACT**

**50. Completion:**

The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.

**51. Taking Over:**

The Client shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.

**52.** Deleted

**53.** Deleted

**54. Termination:**

**54.1** The Client may terminate the Contract if the other party causes a fundamental breach of the Contract.

**54.2** Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the Contractor stops work for more than 15 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- (b) the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;



- (a) the Contractor does not maintain a security which is required;
- (d) the Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
- (e) if the Contractor, in the judgment of the Client has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition."

**55. Payment upon Termination:**

**55.1** If the-Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Client exceeds any payment due to the Contractor, the difference shall be a debt payable to the Client.

**55.2** If the Contract is terminated at the Client's convenience, the Engineer shall issue a certificate for the value of the work done, less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law. No extra cost will be paid by the Client for expenditure towards removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works and the Contractor's costs of protecting and securing the Works.

**56. Property:**

All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Client, if the Contract is terminated because of a Contractor's default.

**57.** Deleted

**58.** Deleted.

## F. SPECIAL CONDITIONS OF CONTRACT

### 1. LABOUR:

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labor, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

### 2. COMPLIANCE WITH LABOUR REGULATIONS:

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Client indemnified in case any action is taken against the Client by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Client is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Client shall have the right to deduct any money due to the Contractor including his amount of performance security. The Client/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Client. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Client at any point of time.

### SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK

- a) Workmen Compensation Act 1923: - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) Payment of Gratuity Act 1972: - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- c) Employees P.F. and Miscellaneous Provision Act 1952: The monthly contributions by the Client plus workers shall be applicable as per the provision of the Act. The benefits payable under the Act are:
  - (i) Pension or family pension on retirement or death, as the case may be.
  - (ii) Deposit linked insurance on the death in harness of the worker.
  - (iii) Payment of P.F. accumulation on retirement/death etc.
- d) Maternity Benefit Act 1951: - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

- e) Contract Labour (Regulation & Abolition) Act 1970: - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Client by Law. The Principal Client is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Client if they employ 20 or more contract labour.
- f) Minimum Wages Act 1948: - The Client is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, and Runways are scheduled employments.
- g) Payment of Wages Act 1936: - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) Equal Remuneration Act 1979: - The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- i) Payment of Bonus Act 1965: - The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/-per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above up to Rs.3500/- per month shall be worked out by taking wages as Rs.2500/-per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- j) Industrial Disputes Act 1947: - The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) Industrial Employment (Standing Orders) Act 1946: - It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Client on matters provided in the Act and get the same certified by the designated Authority.
- l) Trade Unions Act 1926: - The Act lays down the procedure for registration of trade unions of workmen and Clients. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) Child Labour (Prohibition & Regulation) Act 1986: -The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: - The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home up to the establishment and back, etc.
- o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: - All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Client of the establishment is required to provide

safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Client to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

- p) Factories Act 1948: -The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

### 3. **PROTECTION OF ENVIRONMENT:**

The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or other resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority. The contractor shall also abide by the requirements as per Attachment-X of the Bid Document.

**Salient features of some of the major laws that are applicable are given below:**

**The Water (prevention and Control of Pollution) Act, 1974**: This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health or animals or plants or of aquatic organisms.

**The Air (prevention and Control of Pollution) Act, 1981**: This provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

**The Environment (Protection) Act, 1986**: This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human being, other living creatures, plants, micro-organism and property.

**The public Liability Insurance Act, 1991**: This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

## **ARBITRATION (GCC Clause 25)**

**The procedure for arbitration will be as follows:**

- 25 (a) In case of Dispute or difference arising between the Client and a domestic contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with legal proceedings to be held in **Bhubaneswar only.**

**VOLUME-V**

**CONTRACT DATA**

## **CONTRACT DATA**

**Items marked "N/A" do not apply in this Contract.**

The following documents are also part of the Contract:

### **Clause Reference**

- The Schedule of Operating and Maintenance Manuals **NA**
- The Schedule of Other Contractors **NA**
- The Schedule of Key Personnel **NA**
- The Methodology and Program of construction **[27]**
- The Schedule of Key and Critical equipment to be deployed on the work as per agreed program of construction **[27]**
- Site Investigation reports **[14]**
- The Client is Capital Region Urban Transport, C/o- Bhubaneswar Development Authority, Bhubaneswar -751001
- Name of authorized Representative: Managing Director,  
Capital Region Urban Transport.
- The name and identification number of the Contract  
Name: Design, Supply & Installation of bus Queue Shelters in Bhubaneswar,  
Identification number of the Contract - [423/CRUT,dated19/05/2018] **[1.1]**
- The Works consist of: [Refer the site plan, technical specifications etc. attached at Section-7]
- The Start Date /Commencement Date: - Date of issue of notice to proceed with the work.  
The Intended Completion Date for the whole of the Works [03 Months from award of work].This period includes the time period for survey, investigation and detail design as per the scope of services described at Section-8

**The following documents also form part of the Contract:**

**[2.3]**

- i. NBC Specification Book of Latest Edition
- ii. Notice inviting bid including all corrigendum's / addendum / additional conditions / specifications / drawings etc. if any issued at the time of invitation of bid and acceptance thereof.
- iii. Bid document.
- iv. Performance security
  - The language of the Contract documents is English **[3]**
  - The law which applies to the Contract is the laws of Union of India **[3]**
  - Insurance requirements are as under: **[13]**

Sl. No	Item	Minimum Cover for Insurance	Maximum deductible for Insurance
(i)	Works and Plant and Materials	Full	0.45% of insured amount
(ii)	Personal injury or death insurance		

a) For other people;	Rs.1,50,000.00	As applicable
b) For contractor's Employees	In accordance with the statutory requirements applicable to India	

- The duration of insurance- up to end of defect liability period [ 13.1(A)]
- The duration of insurance- up to end of completion period [ 13.1(B)]
- The Site Possession Date shall be simultaneously with the notice to proceed with the work: [21]
- The Contractor shall submit a Program for the Works within 7 days of delivery of the Letter of Acceptance of tender. [27.1]

(This program should be in adequate detail and generally conform to the program submitted along with bid in response to ITB Clause 4.2 (K). deviations if any from that should be clearly explained and should be satisfactory to the Engineer)

- The amount to be withheld for late submission of an updated Program shall be **1% of the Contract Amount** [27.3]
- **The Defects Liability Period is Five Years from the date of certification of completion of work.** [34 & 35]
- The currency of the Contract is Indian Rupees. [43]
- The rates and prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to any adjustment [37]
- Retention money - 5 % of gross value of the bill] – [44]
- The liquidated damages - 1% of the balance work per week subject to a maximum of 10% (ten percent) of the respective Contract Price. [45]
- Validity of Performance Security-Up to the end of defect liability period [48.1]
- The amount to be withheld for failing to supply "as built" drawings NA
- The percentage to apply to the value of the work [55.1]  
not completed representing the Client's additional cost for completing the Works shall be --20% of the value of incomplete work



**VOLUME-VI**

**TECHNICAL SPECIFICATIONS FOR CIVIL  
WORKS**

### TECHNICAL SPECIFICATION OF CIVIL PORTION OF WORK

Materials of following specification are to be used in work. The Tenderer are expected to possess and be well conversant with the following IS standard and code of practice.

1.	Cement	Will be as per I.S. 269/455 (However the grade of cement to be selected by the Engineer-in-Charge of work and compressive cube test before commencement of work in each batch).
2.	Steel	I.S. 1786 of 2008
3.	Vibrator	I.S. 7246
4.	Aggregate	I.S. 383, I.S. 515
5.	Water for mixing and curing	Shall be clean, free from injurious amount of oil, salt, acid, vegetable materials and other substances and harmful to concrete in conformity to I.S. 456 and I.S. 2025.
6.	Sand/ Fine Aggregate	I.S. 2116, 383
7.	Binding wire	I.S. 280 (galvanised minimum 1 mm)
8.	Rain water pipe	I.S. 2527
9.	Construction joints	I.S. 3414
10.	Steel Window Frame	I.S. 1038/83
11.	Steel Door Frame	I.S. 4351/75
12.	Fitting & Fixtures for joinery works	Conforming to I.S. 7452/82 strictly conform to I.S. specification and as per direction of Engineer-in-Charge.

**Note:** For road work (Approach Road) specification as per road and bridges (latest edition) published by I.R.C & M.O.S.T. shall be followed. In case of any doubt and absence of provision, regarding specification I.S. shall be referred (Indian standard).

## ITEM OF WORK

1. Concrete shall be with conformity to I.S.456.
2. Foundation shall be with conformity to I.S.1080.
3. Stone masonry (R.R.) shall be with conformity to I.S.1597 (Part-I)
4. C.R. Masonry shall be with conformity to I.S.1597.
5. Brick masonry shall be with conformity to I.S.2212.
6. Cement plastering shall be with conformity to I.S.9103 & 6925.
7. Mortar shall be with conformity to I.S.2250
8. White and color washing shall be with conformity to I.S.6278.
9. CC in foundation shall be with conformity to I.S.2571.
10. Anti-Termite Treatment shall be with conformity to I.S.6313. (Part – I & Part – II)
11. Painting to all surfaces shall be with conformity to I.S.2395 (Part – I & Part – II)
12. DPC shall be with conformity to I.S.3067
13. Steel painting shall be with conformity to I.S.1477 (Part – I & Part – II) I.S.1661

**Waterproofing:**

Checking the leakage & seepage with ponding test & application of approved waterproof compound 2 coats over the roof slab & continued over R.C.C. parapet wall. Coping with 1:4 Cement mortar admixed with approved waterproof compound. Followed by a protection screed (1:1.5:3) in panels of size 2mtr x 2mtr to drain the rain water towards rain water pipe & finally filled the joint groove with Polyurethane sealant of approved make. Complete as per manufacturer specification and direction of engineer in charge. Note: Excluding cost of concrete.

Cleaning of surface, provision of Sika Swell S2 & Sika Swell A (Acrylic Profile over swellable sealant at construction joints at retaining wall), Providing & applying of Sika Topseal 109hi (2 component based acrylic polymer coating over a coat of primer over PCC followed by protection plaster. Consumption 2.4Kg/sq.m. followed by a protection plaster over a bond coat of Sika Latex (1:4:6). Note: pressure grouting of cement slurry at joints with expanding grout polymer Sika Intraplast EP@0.5Kg/50 Kg Cement. Complete as per manufacturer specification and direction of engineer in charge. Note: Excluding cost of concrete & plaster.

**Termite Treatment:**

Providing and inject-ng chemical emulsion for pre - constructional ant termite treatment as per IS specification and creating a chemical barrier in bottom and sides of foundation trenches, top-surface of plinth filling junction of walls and floors along with external perimeter of the building expansion joints surrounding the pipes and cables etc. complete using approved quality of chemical emulsion of requisite quantity prescribed by the manufacturer as directed by the Engineer-in-charge including cost of all materials and labour taxes etc. complete. (indemnity bond for warranty for 10 years to be furnished)

**Cement Concrete Tile:**

Supplying, fitting and fixing in position 25mm thick cement concrete tile of Ultra category-1/Eurocon or equivalent type of approved make, quality, color and size in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient grouted with neat white cement slurry with required quantities of pigments of approved marks watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties and taxes of all materials, cost of all labour, sundries, T&P required for the work complete in all respect as directed by the Engineer-in-charge.

**Vitrified Tile Flooring:**

Providing vitrified tile flooring using double charged vitrified tiles of premium grade of JOHNSON/KAJARIA/ASIAN/SOMANY/RAK/NITCO or equivalent make having thick of 10mm conforming to IS 13756 of 800mmx800mm/ 600mmx600mm colored / printed series (homogeneous) of approved quality, color in floors, treads on steps and landings in all floors at all height on 20mm thick bed of cement mortar of mix (1:4) laid in proper slope and gradient with screened and washed sharp sand for mortar and grouted with epoxy grout with required quantities of pigments of approved marks to match the shades of the vitrified tile if required watering and curing for 21 days, including cost, conveyance, loading, unloading, royalties and taxes of all materials, cost of all labour, sundries, T&P required for the work, complete in all respect as per specification and direction of Engineer-in-charge.

**Stainless Steel Railing:**

Supplying, Fitting and fixing of stainless steel of 304 grade in hand railing using 50mm dia of 2mm thick circular pipe with Balustrade of size 32mmx32mmx2mm @ 0.90mtr C/C and stainless square pipe bracing of size 32mmx32mmx2mm in 3 rows in ramps case as per approved design and specification buffing polishing etc with cost conveyance taxes of all materials labour T&P etc required for the complete in all respect.

**Paver Block:**

Supplying and laying of M40 grade heavy duty factory made hydraulically pressed and mechanically compacted free cast interlocking TUFF STONE brand pavers of 80mm thick, coral

shaped preparation of sub base with 50mm sand and leveling, laying of interlocking paver block with sand binding and final compaction with plate vibrator finishing the surface including cutting of blocks at the edges with all labour and materials etc complete as per direction of Engineer-in-charge.

**BUILDING MATERIALS:**

**(a) Bricks:**

Bricks shall be of locally available best quality kiln burnt. Bricks shall be well burnt, uniform deep red, cherry or copper colored, free from cracks and flaws, well shaped, uniform in size, homogeneous in textures and shall omit a clear metallic sound when struck, bricks shall have a minimum crushing strength 75 Kg/Cm<sup>2</sup> and shall not absorb water more than 20% by weight.

**(b) Cement Mortar:**

Mortar shall be well mixed to a uniform color and consisting in the proportion as specified in the items of work. Sand shall be measured on the basis of its dry volume and the quantity shall be adjusted for bulking of damp sand. Cement shall be mixed, taking 50 kg. or 0.035 Cum. in volume only required quantity that can be consumed within 30 minutes of adding water shall be mixed at one time.

**(c) Cement:**

Cement should confirm to IS-269/IS-455.

**(d) Sand:**

Locally available best river sand medium size.

**(e) Coarse Aggregates:**

The coarse aggregate shall be of hard granite stone and shall generally confirm to I.S. 389. Porous coarse aggregate shall not be used. The aggregate shall be free from clay films and other adherent coatings. Aggregate containing clay films over the stone materials shall be thoroughly washed. The aggregate shall be from approved quarry and crusher broken. Coarse aggregates shall be composed of particles ranging between the sizes 2.36 to the maximum size as may be specified in the relevant item of work, within the range, the aggregates shall be well graded as to produce a dense concrete.

**(f) Reinforcements:**

HYSD Steel bars of steel of medium tensile strength will be used as reinforcement as per drawing and design and directions. Mild steel bars shall confirm to I.S.;226/1-62 standard quality or IS:432/1966 - Grade-I. Black annealed wire (Not thinner than 24 gauge for tying the reinforcements shall be used).

# **VOLUME-VII**

## **TECHNICAL SPECIFICATION OF INTERNAL ELECTRIFICATION** **WORKS**

## **TECHNICAL SPECIFICATION OF INTERNAL ELECTRIFICATION WORKS**

The details of internal wiring, the position of fittings, fans, switches and plug sockets etc. are indicated in the layout drawings. The position of light fittings, fans, switchboards etc. indicated in these drawings are only for the guidance of the supplier and the actual position of these shall be mutually decided between the supplier and the purchaser. The supplier shall submit the purchaser of his consideration and approval all runs of wiring and the exact position of all the points and the switch boxes first marked on the points buildings.

All internal wiring shall be done in conformity to the latest Indian standard specification/Rules, code of practice adopted by CPWD and other standard practices prevalent in the part of the country. For the purpose of the specification the terminology used shall be as defined in IS: 732 and IS: 1356 of the definition of points wiring. The installation shall be carried out in conformity to all requirements of IE Act, 1910 and IE Rules 1956 and IE Rules 2005.

- a) Ceiling rose in (in case of ceiling and exhaust fan).
- b) Ceiling rose or connector (in case of pendants except stiff pendant points)
- c) Bank plate (in case of stiff pendant).
- d) Socket outlet (in case of socket outlet points)
- e) Lamps holder (in case of wall Bracket, batten holder bulk head fitting and similar other fittings)
- f) Call bell / buzzer (in case words 'via' the switch shall be read 'via' the ceiling rose / socket outlet for bell push, where no ceiling rose / socket outlet its provided.

The following shall be deemed to be included in the point wiring

- a) Switch and ceiling rose are required
- b) In case of wall brackets, bulk head fittings, cables as required up to the lamp holders]
- c) Bushed conduit for porcelain tubing where cables pass through walls.
- d) All wood or metal blocks, boards and boxes, R.J. Boxes sunks or surface type including those required for fan regulator but excluding those under the distribution board and main control switch.
- e) Earth wire from 3 pin socket point to the common earth including connection to the earth dolley.
- f) Earth wire of 16SWG/14 SWG/I.G. wire for loop earthing of the fixture
- g) All fixing accessories such as clips, nails, screw, plug, raw plug, wooden plug, round blocks etc. as required
- h) Joint for junction boxes and connecting the same as required
- i) Connections to ceiling rose or connection socket outlet, lamp holders, switch, fan regulators etc

The point wiring in case of fan and light points shall mean the distance between the control switch and ceiling rose, connect or back plate, socket outlet or lamp holder depending upon the fittings measured along the runs of wiring irrespective of the number of wires in run. In the case of socket outlet points, the length shall mean the distance between the socket outlet and the tapping point of live wire on the nearest switchboard or junction box, as the case may be.

In the case of exclusive socket outlet circuits wired on 'Joint Box' system of wiring, any junction provided for extending the wiring beyond the point referred to, shall be treated as the nearest tapping point. In case of call bell / buzzer points the length shall mean the distance between the call bell and the ceiling rose / socket outlet or the bell push (when the ceiling rose / socket outlet is not used).

Sub main shall include the earth wire of adequate size main distribution Board up to sub distribution board B.B. such wiring has been classified on the basis of length. For the internal lighting,

either surface conduct wiring system or recessed conduit or batten wiring system shall be provided as specific in the bill of quantities and working drawings.

### **Conduit wiring**

For recessed conduit wiring system the conduit shall be placed in the ceiling / columns etc. before the casting of the slab or column. The conduit pipes shall be properly positioned and fixed so that it will not be displaced at the time of concreting. The junction boxes provided shall be so arranged that its cover will be flushed with the finished surface of the ceiling or column.

For placing the conduits in the walls, chases of ample dimension shall be made neatly to fix the conduit in a desired manner. The conduit pipe shall be fixed by means of staple or saddles not more than 600mm apart. Fixing of standard bends or elbows shall be avoided and all curves maintained by bending the conduit itself with a long radius will permit easy drawing of the conductors. Suitable inspection boxes shall be provided to permit periodical inspection and removal or replacement of wires if necessary. There shall be mounted flush with the wall with holes in the cover of the box.

The switch or regulator box shall be made of metal on all sides except on the front where backlight sheet or Perspex cover painted to match the colors of the wall shall be used in case of surface wiring system. For recessed wiring system, these boxes shall be made flush with the conduit of each conduit or section shall be completed before conductors are drawn in. The entire system of conduit after installation shall be tested for mechanical strength and electrical continuity throughout the earthing of the entire installation shall be carried out in accordance with I.E. Rules and standards. The number of wires drawn in the conduits shall not exceed the numbers those specified in Indian standard specification No.732.

### **Main and Sub Distribution Boards:**

The position of main boards for lighting and sub distribution board for different components are approximate and the exact location shall be given to the successful tenderer at the time of installation. The scope of this specification includes installation of the panel boards and distribution boards and making necessary connections. The installation of the boards shall be done strictly in accordance with the details supplied with the specifications; the instructions supplied by the switchgear manufacturer, Indian standard specifications and H.E. Rules. The supplier shall submit the details of installations to the purchaser for his consideration and approval, prior to installation.

When the switchboards are wall / column mounted top, they shall, be mounted on a suitable angle iron framework. All the metal supports etc. shall be protected against corrosion. The mounting height for such switchboards shall be such that it can be conveniently operated.

### **Earthing**

Earthing shall generally be carried out in accordance with the requirements of Indian Electricity Rules and the relevant rules and regulations of electrical supply authorities. The complete earthing work for the installation covered by this specification shall also be provided taking into account Indian Standard Specification No.IS:732 and IS: 3043. The earthing system adopted shall also have adequate mechanical strength.

The work shall include earthing of noncurrent carrying metallic parts of all the equipment, light fittings, conduit pipes, cable and cable supports and earth strips (the design to be approved by the purchaser) and all the inter connection between the earthing system to a value mutually agreed upon between the purchasers and the supplier.

### **Installation, testing and commissioning:**

The supplier shall be responsible for the installation testing the commissioning of all the equipment and materials supplied by him against this specification. This shall also include the provision of miscellaneous wiring and supports and earthing in compliance with Indian Electricity rules and to the full satisfaction of the Government Electrical Inspector. All small items such as clamps, bolts, nuts, racks, supports, miscellaneous wiring etc. required to make the installation complete, shall constitute the part of



major items specified in the bill of quantities and the tenderer should quote for each item taking these into consideration.

The responsibility of the supplier shall include receiving all the equipment and materials at site, storage for required period, handling the same at the site of erection, final execution, erections, revisions of equipment, if any, testing and commissioning and handing over the installation complete in all respect to the entire satisfaction of the purchaser's authorized representative. The supplier shall make good of all the damaged equipment and materials during this period at his own expense. The supplier shall submit sample of each and every equipment and materials for the final approval of the purchaser's representatives immediately after the acceptance of offer. All the equipments and materials shall be supplied exactly as per to the approved samples. If at any stage the purchaser brings to the notice of the supplier any discrepancy or defect the supplier shall replace the same at his own expense.

The supplier shall render all reasonable assistance to the purchaser in getting the installation approved by the Government Electrical Inspector prior to the energization and supply necessary drawings, test certificates and both for tests carried out at the factory and site as well as the tests which the inspector may demand. In case any addition of alternations are required, to be made in the installation or in the equipment as per the directive of the Government Electrical Inspector / Local Authorities, he same will have to be carried out by the supplier, at his own expense.

The position of light fittings, main board, switches, sockets and routes of pipes and cables shown in the drawings are only indicative. The actual position of these shall be decided at site at the time of execution joints by the supplier and the purchaser's authorized representative. The position of light fittings, pipes and board if required, to be changed / shifted due to the change in the building design etc by the purchaser's authorized representative, the same shall be carried out at no extra cost.

All the materials supplied to the contractor according to the Contract condition will be subject to inspection and approval of the officer or his representative from time to time. The contractor will provide all facilities of such inspections free of cost. At the time of inspection, the owner or his representative will have full liberty to reject any such materials, which does not conform to the specification / requirement. No claim for any rejected materials will be entertained by the owner. The contractor will remove all rejected materials from site at his own cost. No surplus materials procured by the contractor will be accepted by the owner. The contractor will be responsible to get the Electric installations cleared by the Electrical Inspector of Odisha Government. Only the inspection fee will be reimbursed by Department on production of challan copy.

**Installation and Maintenance Tools:**

The supplier along with the tender shall furnish a complete list of tools, appliances and accessories required for the installations of switch gear, light fittings, pipes cables and wires.

**Drawings:**

All drawings, test certificates, instructions manuals etc. shall be in English Language and all dimensions and weights shall be in metric units.

The tenderer shall submit with the tender general arrangement drawings for the installations work, typical methods and cabling and cables supports pipe work and pipe supports, typical methods of earthing and fixing of light fittings earthing etc. as offered by him in the tender.

The contractor shall submit for the purchaser's approval all layout, the general arrangement drawings as well as the typical details of all types of installation work in three sets before commencing the manufacture and the site installations work well in advance so that the site work shall not suffer.

After obtaining approval of the above drawings the contractor shall supply three sets of the following drawings:

- (a) The arrangement and support of conduit pipe
- (b) The position of light fittings, switches / plug socket and switch boards
- (c) Earthing installations
- (d) Layout plan showing the entire cable network

On completion of work, the successful tenderer shall supply one set of tracing in transparent linen and five sets of prints of all drawings incorporating all the changes / modifications affected during the execution of the contract. All wiring diagrams shall indicate clearly, the switch board, the runs of main and sub main wiring and the position of all the points with their controls. All the circuits shall be clearly indicated and numbered in accordance with IS: 375. The technical literatures and operating instructions and the maintenance manuals shall also be supplied in triplicate to the purchasers after the completion of the installations work.

**Test:**

Manufactures standard tests in accordance with Indian Standard and other standards, adopted shall be carried out on all the equipment and accessories covered by this specification so as to ensure efficient and satisfactory performances of all the components and also the equipment as a whole under working conditions at site. The tenderer shall submit a complete list of all such tests. If the purchaser, if so desired for special tests, to be carried out, under certain conditions the same shall be made by the successful tenderer at his own expenses. All equipment shall be tested at site before the commissioning in accordance with the adopted standard and Indian Electricity Rules. Voltage test shall be carried out on each circuit on completion of wiring and cabling.

**Technical Data:**

The tenderers shall submit with their tender all such technical data, which are required for complete evaluation of the equipment offered. The suppliers shall give complete technical information of the equipment as detailed in Annexure and relevant Indian standards. The tenderer should supply such details of all equipment and materials offered specially with regard to the following.

- a) Fuse switch board and distribution boards
- b) Light fittings
- c) Conduits and the accessories for them
- d) Switches / plug sockets
- e) Cable and wires

The tender shall give along with his tender the following details:

- a) Complete details of earthing electrodes, earthing station and earthing conductors
- b) Details of conduit supports
- c) Details of all the equipment and accessories to be supplied

**Exception to Specifications:**

The object of this specification is to have all tenderers quote for equivalent materials and workmanship. It is, however, understood the certain manufacturers may not be able to offer as specified in every case, where the tenderer may find it necessary to deviate from the exact letter and not the intent of the specification, he must specifically state what these deviations may be at the time he submits the tender. All deviations must be grouped in one statement. No deviations other than those included in the tender will be permitted.

**PVC insulated Cables and Wires:**

For 415V Distribution system, cables of voltage grade not less than 1000V shall be used. These cables shall be heavy-duty class, PVC insulated and PVC sheathed with aluminium/ copper conductors. The wires used in the lighting installation shall be PVC insulated and PVC sheathed copper / aluminium wire in case of conduits wiring and of 660V grade. Wires of different colors shall be made use of for quick identification of phase wire / neutral wire etc. All cable of wires shall comply with the requirements regarding the manufacture and testing etc as specified in India Standard Specification IS: 1554 and IS:694.

No joint shall be allowed in a run of cables, which can be covered by a possible drum length of cables.

Fuse switch / switch fuse shall be metal clad dust and vermin proof suitable for use under climatic conditions prevailing at site. Switch fuse / fuse switch units shall comply in general to IS: 1567/4064 with regard to design and constructional / features.

The 'ON' and 'OFF' position of the switch handles shall be distinctly indicated and interlocks shall be provided to ensure that the switch cover cannot be opened unless the switch is in the 'OFF' position. Means shall, however, be provided for releasing the interlock to permit closing of switch with cover open for testing purposes. Designs with normal conventional position of switch handles, i.e. with switch handle up in the 'ON' position and down in the 'OFF' position shall be preferred. All live parts inside the switch shall be properly surrounded and inter phase barrier shall be provided.

Switch fuse / fuse switch units, distribution boards shall be provided with necessary metal frame work so that they can be mounted on wall / columns structure etc. as desired. The panel boards shall be wall mounted type or floor mounted type as specified in the bill of quantities or drawings. Necessary supporting metal frame of approved design shall be provided for all panel boards

The arrangements of work boards shall be such that the operational handle of the top mounted switches are within the convenient of operators (about 1.2 M from the finished floor level) and proper space shall be provided for the termination of the cable in the switches provided below the bus-bars.

The bus-bars within the bus-bar chamber shall be liberally spaced for taking the riser connection. The bus bars with aluminium conductors shall be provided and PVC sleeves of different color shall be mounted on them for easy identification, Clamped joints for taking the riser connections, instead of bolted type shall be preferred.

Two bolted type earthing terminals shall be provided on the switch boards. All individual switches shall be connected with suitable size earth wire to the main earthing terminals of the switchboard. Hanger Board and shock treatment / charts shall be supplied wherever required. At the incoming side of each phase, 3-neon type indicating lamps should be provided at the main board.

#### **Switches and Plug Sockets**

Switches provided for control of light points shall conform to IS:1087 and shall be rated for 5A/15A 250V

#### **Ceiling Fans and Exhaust Fans:**

Ceiling fans shall conform to Indian standard specification IS: 374-1960. The fans shall be supplied with all standard accessories like regulator and capacitors etc.

The performances rating of the propeller fans shall in accordance with stipulations of IS: 2312. All fans shall be robust in design and construction and shall be supplied complete with wall brackets / clamps etc.

#### **LED Fittings:**

All LED fittings supplied shall conform in general to IS: 1913 and shall be complete with all standard accessories like choke, starter and capacitor etc. The type of enclosure provided for the fittings shall be of that specified in the bill of quantities and the working drawings. The materials of construction for fittings used for outdoor installations and for use in the work anodes shall be such that they shall withstand the atmospheric condition in that area. Lamp holders used shall be fully shock proof, spring-loaded rotary type to ensure positive lamp locking. It should also be not possible to touch live parts of the lamp holder both after the lamp has been taken out and during the insertion or removal of the lamp. The starters shall be designed to give designed starting characteristics that shall promote full lamp life. Starter shall have high mechanical strength and topic proof construction. It should be incorporated with radio suppression capacitor of adequate rating and capacity. Power factor improvement capacitors are provided with hermetically sealed housing to ensure long and trouble free service. Terminal soldering tango shall be provided for easy electrical connections. The capacitors in general shall conform to IS:

1569-1963 and P.F improvement up to 0.95 for twin LED light fittings and 0.9 for single LED light fittings is to be maintained.

The ballast provided in the fluorescent fittings shall generally be in accordance to IS: 1534. The ballast should incorporate the following design features.

- i) Low working temperature
- ii) Correct pre-heating current for the electrodes
- iii) Proper wave foam
- iv) Small in dimensions
- v) Correct power supply to the lamp
- vi) No hum.
- vii) Easy connection leads.

All the metal construction of the fittings shall be such that they shall:

- 1) Withstand the atmospheric condition prevailing in the area
- 2) Provide maximum mechanical protection to the tubes and fittings accessories. Assists in maximum and uniform light distribution. All fittings shall be provided complete with LED lamps. All lamps shall confirm to IS: 2418.

## C O D E S

Codes shall mean the following including the latest ascendants and / or replacement if any.

- a) Indian Boiler Act, 1923 and Rules and Regulations made their under
  - b) Indian Electricity Act, 1923 and Rules and Regulations made there under
  - c) Indian Factories Act, 1948 and Rules and Regulations made there under
  - d) The minimum wages Act
  - e) The Women's Compensation Act
  - f) The Payment of Wages Act
  - g) The Fatal Accident Act
  - h) The Industrial Employment Act
  - i) The Employment provident Fund Act
  - j) Indian Explosive Act 1984 the Rules and Regulations made there under
  - k) Indian Petroleum Act 1934, and Rules and Regulations made there under
  - l) A.S.M.E. Test Codes
  - m) AIRE Test, Codes
  - n) American Society of Materials Testing Codes
  - o) Standards of the Indian Standards Institution
  - p) Electricity Act 2003
  - q) Electricity Rule 2005
- |     |   |                           |
|-----|---|---------------------------|
| 1)  | Low Tension Circuit Breakers:   | IS 2516-1955 Part I Sec.1 |
| 2)  | Switchgear Bus Bars   | IS 375-1963               |
| 3)  | HRC fuse links  | IS 2208-1962              |
| 4)  | Distribution fuse boards  | IS2675-1966               |
| 5)  | Enclosure for Low Voltage switchgear                                      | IS214701962               |
| 6)  | PVC Cables  | IS1554-1975               |
| 7)  | Tabular fluorescent lamps for Cameral lighting service                    | IS2418-1963               |
| 8)  | Tungsten Filament Lamps for cameral service                               | IS415-1963                |
| 9)  | Ceiling Fans  | IS274-1966                |
| 10) | Flood lights  | IS1947-1961               |
| 11) | Wall Glass flame-proof electric light fittings                            | IS2206-1962 (Part 1)      |
| 12) | Water Tight Electric Light Fittings                                       | IS3553-1956               |
| 13) | Steel Boxes for Enclosure of Electrical Accessories                       | IS5133-1969               |
| 14) | Fittings for Rigid Steel conduit  | IS2667-1979               |
| 15) | Rigid steel circuits for electrical wiring                                | IS3837-1966               |
| 16) | Accessories for Rigid Steel Conduits for Electrical Wiring                | IS3837-1966               |
| 17) | Switch Socket Outlets   | IS3837-1966               |
| 18) | PVC Wiring  | IS694-1977                |
| 19) | Switches for domestic and similar purpose                                 | IS3854-1966               |
| 20) | PVC wiring  | IS694-1977                |
| 21) | Call Bell and Buzzers   | IS2268-1966               |
| 22) | Straight through joint boxes and leads sleeves or paper insulated cables- | EID-0032-1964             |

23)	Earthing	IS3043-1966
24)	Electrical Wiring installations	IS732-1963
25)	Switchgear	IS3072-1965 (Part I)
26)	Lighting protection	IS2309 –1969
27)	Public Address system	IS1882-1962
28)	Low Tension switch use units	IS4064-1978
29)	Code of Practice for Automatic FIRE ALARM system	IS2189-1970
30)	Specification for Heat Sensitive Fire Detectors	IS2175-1977
31)	Guide for Safety procedure in Electric work	IS5216-1969
32)	Rubber Mats for Electric works	IS5424-1969

p) Other internationally approved standards and / or Rules and Regulations touching the subject matter of the contract

**Volume- VIII**  
**SECURITIES AND OTHER FORMS**

## **BID SECURITY (BANK GUARANTEE)**

**WHEREAS**, \_\_\_\_\_ " [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated \_\_\_\_\_ [date] for the construction o" [name "f Contract hereinafter called "the Bid"].

**KNOW ALL PEOPLE** by these presents that We \_\_\_\_\_  
[Name of Bank] of \_\_\_\_\_ [name of country] having our registered office at \_\_\_\_\_ (hereinafter called "the Bank") are bound unto [name of Client] (hereinafter called "the Client") in the sum of \_\_\_\_\_\* for which payment well and truly to be made to the said Client the Bank itself, his successors and assigns by these presents.

**SEALED** with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20.

**THE CONDITIONS** of this obligation are:

- (1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;

OR

- (2) If the Bidder having been notified to the acceptance of his bid by the Client during the period of Bid validity:
  - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
  - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders; or
  - (c) does not accept the correction of the Bid Price pursuant to Clause 27

We undertake to pay to the Client up to the above amount upon receipt of his first written demand, without the Client having to substantiate his demand, provided that in his demand the Client will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 180 days after the deadline for submission of Proposals as such dead-line is stated in the Instructions to Bidders or as it



may be extended by the Client, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

**DATE** \_\_\_\_\_

**SIGNATURE** \_\_\_\_\_

**WITNESS** \_\_\_\_\_

**SEAL**

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[Signature, name and address]

\* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.

\*\* 180 days after the end of the validity period of the Bid. Date should be inserted by the Client before the Bidding documents are issued.

## PERFORMANCE BANK GUARANTEE

To

\_\_\_\_\_ [name of Client]

\_\_\_\_\_ [address of Client]

\_\_\_\_\_

**WHEREAS** \_\_\_\_\_ [name and address of Contractor] (hereafter called "the Contractor") has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ [name of Contract and brief description of Works] (hereinafter called "the Contract").

**AND WHEREAS** it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

**AND WHEREAS** we have agreed to give the Contractor such a Bank Guarantee:

**NOW THEREFORE** we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of \_\_\_\_\_ [amount of guarantee]\* \_\_\_\_\_ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

\* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Proposals, if any and denominated in Indian Rupees.



## UNDERTAKING

I the undersigned do here by undertake that our firm M/s.....  
Agree to abide by this bid for a period .....days for the date fixed for receiving the same  
and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an authorized officer of the Firm)

Title of Officer \_\_\_\_\_

Name of the firm \_\_\_\_\_

DATE \_\_\_\_\_

# **Volume- IX**

## **TERMS OF REFERENCE & SCOPE OF WORK FOR DESIGN OF THE PROJECT**

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## TERMS OF REFERENCE & SCOPE OF WORK FOR DESIGN OF THE PROJECT

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### 1. BRIEF TASKS TO BE CARRIED OUT AT EXECUTION STAGE

- Collect sub-soil data, undertake detailed survey & sub-soil investigations;
- Prepare Detailed structural designs and drawings,
- Whenever required or necessitated by the site conditions, modify designs as well as suggest solutions to the problems come across during actual execution.
- Approval and clearances from concerned Departments.

### 2. DETAIL SCOPE OF WORK

- a) Carryout Geotechnical Investigations and sub-soil exploration at each proposed project locations, and conduct all relevant laboratory and field tests on soil and rock samples. Soil bore particulars duly indicating the classification of soils within a bore log chart and soil test reports conducted in Govt. of Odisha approved soil testing laboratory on undisturbed and disturbed samples for all the geo-technical parameters like C,  $\phi$ , Atterberg limits, DFS, SPT and silt factor worked out from the mean diameter of the particle size to the maximum scour level, safe bearing capacity of soils or rocks, core recovery (RQD) for rock, errodibility test for rocks, consolidation settlement parameters etc.
- b) Prepare detailed structural designs and approaches following the latest IS codes and relevant international codes.
- c) Brief details of the various elements of the proposed Project are presented in the following section (to be attached).
  - i) The activities required for completion of the Project on a turnkey basis include
    - Procurement, installation, testing and commissioning of requisite facilities as per specifications provided in Volume-X.
    - Procurement and installation of required fittings & fixtures
    - Project Management to ensure completion of Project as per the specified timelines
    - Compliance with Environmental and Energy efficiency norms .
    - Handing over of the facilities after fulfilling all the obligations under "Client's Requirement"

### 3. TIME PERIOD FOR THE COMPLETION.

The total period of contract including Survey, Investigation, Testing, detailed Design, and Execution shall be **03 calendar months** from the date of signing of Contract. The defect liability period for the structure shall be **five (5) years** from the date of completion of the project including 1 year of replacement warranty for any defective structure major making unserviceable.

The Contractor shall carry out the design proofing from Institutes of national importance like NIT, IIT.

The Contractor shall submit all designs, drawings, technical specifications and methodology to the Client. The Client shall give approval on all sketches, drawings, reports and recommendations and other matters and proposals submitted for approval by the Bidder in such reasonable time as not to delay or disrupt the performance of the Contractor's services.

#### 4. SCHEDULE FOR COMPLETION OF TASKS

The reports have to be submitted in the following phasing in the number of copies indicated against each of them.

SL NO	DESCRIPTION	SCHEDULE OF COMPLETION
4.1	Details of survey including laboratory test report	15 days from the date of commencement
4.2	Architectural and draft structural drawings with detail engineering designs and technical specifications & methodology	
4.3	Statutory Approval from relevant authorities	
4.4	Final structural drawings with detail engineering designs and technical specifications & methodology	
4.5	Changes during construction	As and when referred by the Client / Engineer

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**PROJECT EXECUTION & SUPERVISION ASPECTS,  
CONTRACT MANAGEMENT FRAMEWORK & PAYMENT SCHEDULE**

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**B-3. ACTIONS REQUIRING SPECIFIC APPROVAL OF THE CLIENT**

The Engineer will be required to obtain the specific approval of the Client before taking any of the following actions:

- a) certifying additional cost;
- b) determining an extension of time;
- c) Issuing a variation order, except
  - (i) in an emergency situation, as reasonably determined by the Engineer as per OPWD Code
  - (ii) when there is no financial impact;
- d) fixing rates or prices
- e) approving programme for execution of works; and,
- f) suspension of works

**C) DATA, SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT**

Attention is drawn to the following which are **not provided by the Client** and are to be arranged by the Bidder at his own cost.

- ❖ CRUT will not provide office accommodation. The Bidder shall make his own office accommodation arrangements for their office staff for each of the field supervision teams including furniture, equipment, operation and maintenance.
- ❖ CRUT will not provide project vehicles to the Bidder. The Bidder shall make his own arrangements in respect of vehicles. The Bidder shall ensure that vehicles for the team are of good makes and are of excellent working condition.
- ❖ The Bidder shall be responsible for making his own arrangements for survey equipment.
- ❖ The Bidder shall be responsible for making his own arrangements for communications.

**Site Laboratories:** The site laboratories (including furniture, equipment, running and maintenance) shall be provided by the Bidder, the cost of which is inclusive in this turn-key contract. The laboratory equipment shall be as specified and as required by the Engineer.

**D-1. REPORTING REQUIREMENTS**

Fortnight report to be submitted by the agency.

Besides the above, five copies each of Construction Supervision and Maintenance Manuals are to be submitted along with the Final Completion Report.

**D -2. DOCUMENTS PREPARED SHALL BE THE PROPERTY OF THE CLIENT**

All plans, drawings, specifications, designs, reports and other documents (both computer hard copies and soft copies) prepared by the Bidder in performing the works shall become and remain the property



of the Client, and the Bidder shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Bidder may retain a copy of such documents but shall not use these documents for purposes unrelated to this Contract without the priory written approval of the Client.

#### **E-1. PROCEDURE FOR PAYMENT**

The Bidder shall submit all bills to the Engineer who will process the bills for payment after due scrutiny of work actually completed including their quality aspects as per the latest codal guidelines.

**However, in no case, the total cost of payment shall exceed the Lump Sum Contract Value for which the agreement is signed except change in scope, compensation or bonus etc. as admissible as per the contract.**

Detail Project / Work accounts will be kept by the General Manager, CRUT, who shall perform his duties as per rules of OPWD / OGFR Code. All bills furnished by the bidder shall be routed through the General Manager, CRUT for payment.

**VOLUME - X**

**DESIGN CONSIDERATIONS AND  
SCHEDULE OF FINISHES**

**A. TECHNICAL SPECIFICATION BUS SHELTER (6.00 Mt. Length)**

<b>SCOPE OF WORK-1</b>	Design, Fabrication, Supply & Installation of stainless steel Bus Shelters  (Civil construction work up to floor level, Including- Earth work in foundation, sand fill, PCC, RCC, Steel- Reinforcement, Brick work (KB), flooring (antiskid tile), electrical wok, testing, lead & lift, etc. complete.)
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**Technical Specification**

<b>DESCRIPTION OF BQS 6X3.00mter Size</b>	<ul style="list-style-type: none"><li>• Design, Fabrication, Supply &amp; Installation of stainless steel make, Bus Queue Shelter. made of Square Box Section, thick welded to base plate assembly, fixed on base existing civil foundation.</li><li>• Provided with floor fixed bench model assembly made out of pipes &amp; fitted with perforated sheet with complete model.</li><li>• Roof structure made of thick horizontal box section frame work, fitted with multiwall poly carbonate roofing sheet with front facia sheet .</li><li>• provided with front add panel assembly along with Route map panel assembly, made out of bend profiles fixed to support pipes, clear polycarbonate sheet, cam locks, EPDM gasket, hinges and 6mm thick support members as per drawing detail.</li></ul>
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**B. TECHNICAL SPECIFICATION BUS SHELTER (9.00 Mt. Length)**

<b>SCOPE OF WORK-1</b>	Design, Fabrication, Supply & Installation of stainless steel Bus Shelters  (Civil construction work up to floor level Including- Earth work in foundation, sand fill, PCC, RCC, Steel- Reinforcement, Brick work (KB), flooring (antiskid tile), electrical wok, testing, lead & lift, etc. complete.)
------------------------	---

**Technical Specification**

<b>DESCRIPTION OF BQS</b> <b>9X3.00mter Size</b>	<ul style="list-style-type: none"><li>• Design, Fabrication, Supply &amp; Installation of stainless steel make, Bus Queue Shelter. made of Square Box Section, thick welded to base plate assembly, fixed on base existing civil foundation.</li><li>• Provided with floor fixed bench model assembly made out of pipes &amp; fitted with perforated sheet with complete model.</li><li>• Roof structure made of thick horizontal box section frame work, fitted with multiwall poly carbonate roofing sheet with front facia sheet.</li><li>• provided with front add panel assembly along with Route map panel assembly, made out of bend profiles fixed to support pipes, clear polycarbonate sheet, cam locks, EPDM gasket, hinges and 6mm thick support members as per drawing detail.</li></ul>
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**C. Technical Specifications of Bus Queue Shelters: -**

(All materials except and otherwise indicated shall be of Stainless Steel)

S.N.	Particulars	Specifications	
		Type-1	Type-2
	<b>Numbers of Bus Queue Shelters</b>	<b>100 Nos.</b>	<b>100 Nos</b>
1	Size of Bus shelter		
	Length	9 Mt.	6 Mt.
	Breadth	3.00 Mt.	3.00 Mt.
	Height	3.00 Mt. (From floor level)	3.00 Mt. (From floor level)
2	Roof Structure		
	Roof Size	9.3 Mt. x 3.3 Mt	6.3 Mt. x 3.3 Mt
	Roof beams	100x100x3 mm	100x100x3 mm
	Roof Structure	80x40x3 Box sections	80x40x3 Box sections
	Roof Cover	Polycarbonate sheet – Min 10 mm thick	Polycarbonate sheet – Min 10 mm thick
3	Vertical Support (Stainless Steel)		
	Preferred size of vertical support	100x100x3 mm	100x100x3 mm
	Number of Vertical Support	8 nos	8 nos
4	Base Plate		
	Min size	400x400x12 mm	400x400x12 mm
	Number of Base Plates	8 Nos	8 Nos.
	Base Foundation	8 Nos	8 Nos.
5	Bench assembly		
	(Provided with floor fixed bench model assembly made out of SS pipes & perforated sheet with complete model)		
	Sizes	5250 mm x 500 mm	3500 mm x 500 mm
	Base Pipe	Min 50 mm Dia., 2 mm thick	Min 50 mm Dia., 2 mm thick.
	Perforated sheet	Min. 1.5 mm thick	Min. 1.5 mm thick
6	Display Board		
	Front (facing) adv. Number of Panel (Min. 1.5 mm thick with curved profile and covered with Min. 5 mm thick clean polycarbonate sheet) – Box Shape with LED / energy efficiency light fittings.	1 No. (Min 6375x 2300 mm)	1 no (Min 4250x 2300 mm)
	Board for display of city map / information / route map- 5 mm thick polycarbonate sheet fixed with vertical frame in both the sides. (Box Shape with LED / energy efficiency light fitting)	1 No. (Min 1500x 2425 mm)	1 No. (Min 1500x 2425 mm)
	Hanging Display Board. (Box shape, composite electronic display unit, with power connection, back side with partial perforated sheet)	1 No. (Min 500x 500 x 500 mm)	1 No. (Min 500x 500 x 500 mm)
7	Stainless Steel Litter bins		
	Litter bin, with 45 liter Each bin capacity , Consisting of min 50x50x2mm , thick vertical pipe with 1mm, thick ss dustbin sheet profile , fixed on pivot for movement of 120 degree . Vertical post fixed on floor with 6mm, thick base plate, & anchor fastener, complete, polished as per approved design .	1 Set	1 Set

8	Cycle Stand		
	Fabrication and supply of SS, Cycle Stand ,Consisting of 50x50x5mm, Thick L angle frame. 3mm, thick Rolled profile sheet weld on L angle frame ,with complete , fixed on RCC/PCC Base with 6mm, Thick SS base plate with anchor fastener All complete, polished as per approved design.	1 Set	1 Set
9	Bus Post ( for Signage)		
	Bus Post ( of Stainless Steel) (Vertical Support 100x100x3 mm, with board of size 450x750,	1 No each for every BQS	1 No each for every BQS
10	Total weight of Stainless Steel Structures		
	Minimum Weight ( bus shelter + chairs + display board+ cycle stand+ dustbins)	1900 Kg	1400 kg
11	Flooring for the bus stop		
	Providing and fixing antiskid tiles – Ultra / Eurocon tiles on 25 mm thick bed of cement mortar 1:1....complete	300 Sft	200 Sft

\* All dimensions indicated are tentative and subject to modification based on design and approval of Client.

\* All Stainless steel items should be of SS 304

**Additional Specifications: -**

1. All the structural members of the Bus Shelters shall be of stainless steel of appropriate grade. Hairline finish is to be given on the structure.
2. The vertical poles are to be designed in order to withstand any kind of external loads, pressure (also considering the wind load during cyclone) and the dead load of the entire structure as a whole.
3. The Base Plate has to be firmly fixed to the foundation. The Base Plate is to be of stainless steel of appropriate grade.
4. The Bench has to be securely fixed. The Bar is to be fixed using bolts and no gap should be visible between the Bar and the Vertical poles.
5. The seating arrangement is to be welded on the Bench Bar. Hairline finish needs to be done after welding and no sharp edges are to be left on the joints.
6. The roof beam is the beam for securing of the entire roof structure. All trusses, square sections are to be welded with the roof beam.
7. The polycarbonate roofing is to be ensured to the roof structure.
8. The Advertisement Display Panels are to be made of stainless steel sheet frame. Proper fixing of the panel with the structure is to be done. It has to be water proof and to be sealed for light leakages. All electrical fittings used for the lighting of panel are to be as per the Indian Electrical standards. Poly carbonate sheet for the Display Panel is to be transparent and UV protected.
9. The polycarbonate sheet should be securely fixed with the roof structure pipe and should not allow any leakage of water and should be thermally insulated with a high level of flame resistance. The multiwall polycarbonate sheet should be UV resistant. The retainers, screws for fixing of this sheet to the roof structure should be of Aluminium/ Stainless steel. Proper gasketing and silicon filling to be done to avoid water leakages.
10. Foundation: the grade of the concrete is to be minimum M25. The anchor boards to be of minimum length of 460mm with a bending length of 100mm. Minimum 4 bolts are to be used for each pole. The material grade for the nuts and bolts to be IS2062 grade B with yield strength of not less than 240MPa. The bolts and nuts are to be hot dip galvanised.
11. All the necessary electrical fittings/fixers shall be used of standard specifications and the work shall be got done through approved licensed electrician/wireman with a certificate to this effect. The fixtures should be waterproof.

12. In no case the specifications below those mentioned in the specification/drawing attached with the documents shall be allowed. Structural members of the Bus Shelters should not be of size lesser than the sizes mentioned in the drawings. However, higher specifications may be adopted.
13. Entire color scheme and samples of the materials shall be got approved prior to use in the construction of Bus Shelters. Stickers of appropriate grade like 3M or equivalent to be used for the structures.
14. Proper provisions should be incorporated for installation of IT related infrastructure.
15. Electricity connection to be provided to display boards and separate electric meters to be provided as per instruction of engineer in charge.
16. In case of any dispute regarding specifications, the relevant IS code shall be bound to be adopted.

**CONCEPTUAL DRAWINGS :-**

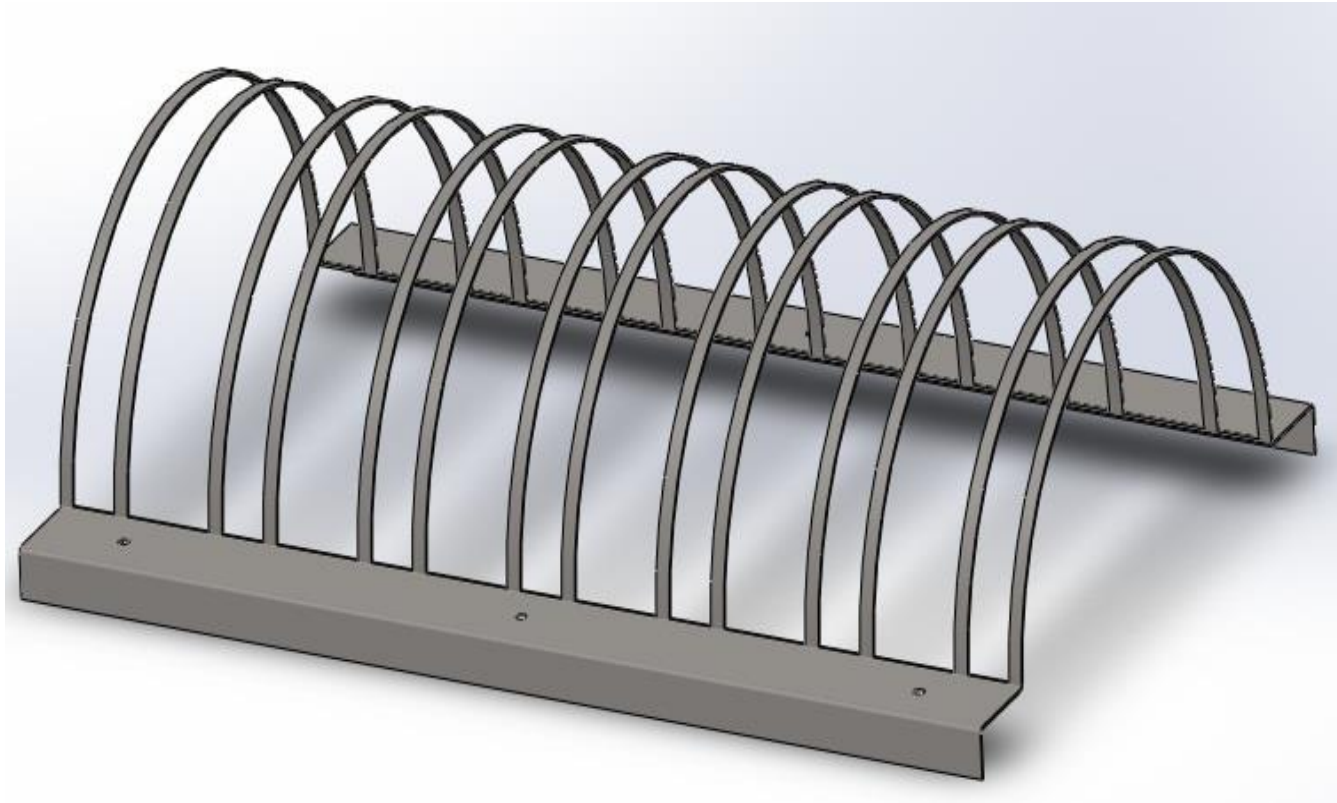


**Bus Queue Shelter with Post**

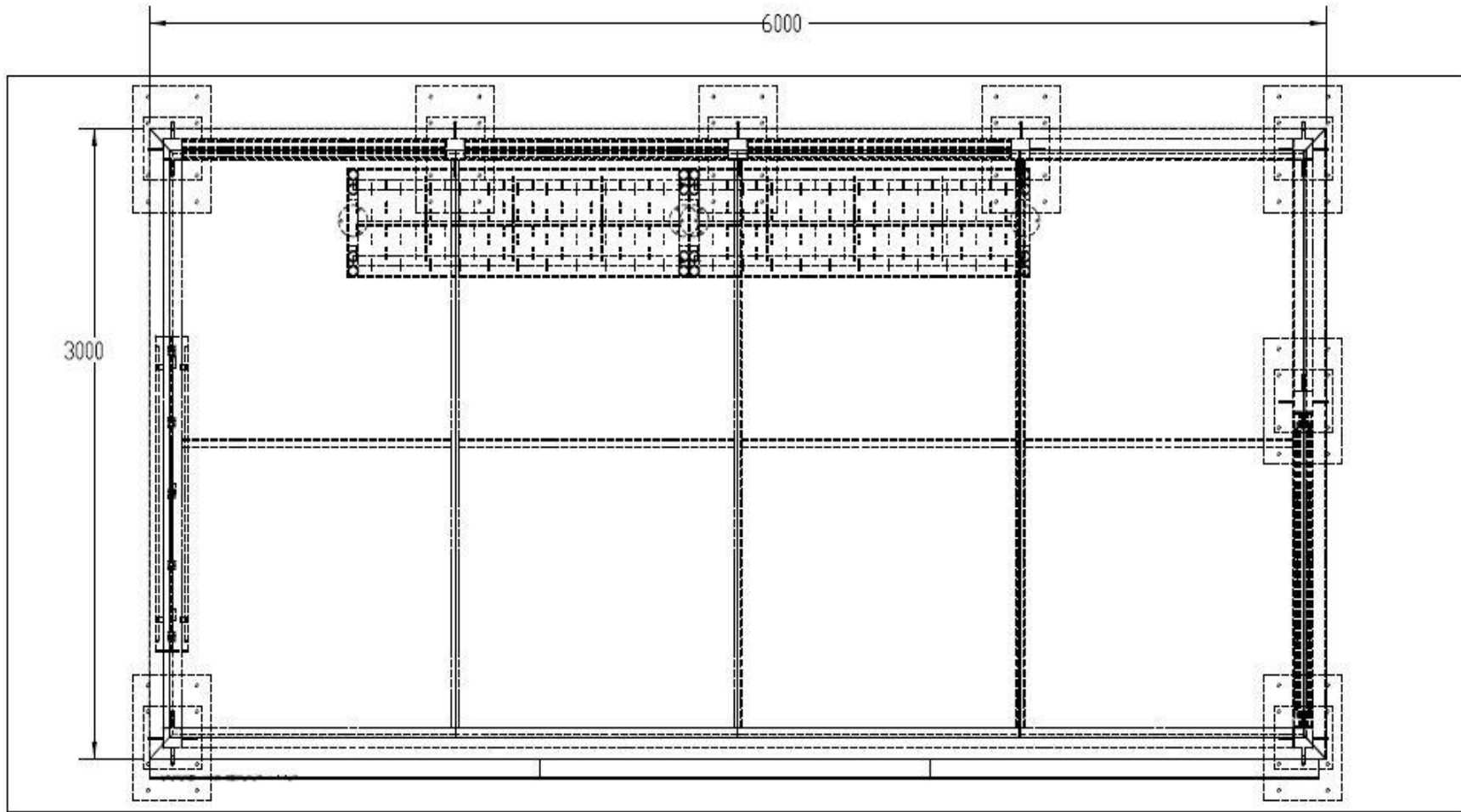




Litter bins



Cycle Stand



PLAN VIEW

2mm, THICK SS BOARD PANEL  
FOR DISPLAY UNIT

2mm, THICK, FRONT SS FACIA SHEET

10mm, THICK MULTIWALL POLYCARBONATE  
ROOF SHEET FIXED, WITH ALUMINIUM PROFILE  
BEADING

80x40x3mm, THICK ROOF SUPPORT  
MEMBER

6000

MASTER PANEL

100x100x3mm,  
THICK VERTICAL  
FRAME

CITY MAP BOARD PANEL  
ASSLY FIXED ON VERTICAL  
FRAME WITH 5mm, THICK  
POLYCARBONATE SHEET

3000

SS SEATING ARRANGEMENT

2mm, THICK SS  
FRAME SHEET FOR  
ADVERTISEMENT  
PANEL WITH RUBBER  
GASKET

12mm, THICK SS BASE PLATE  
WITH STIFFNER FIXED ON EXISTING  
CIVIL BASE FOUNDATION

300

ELEVATION VIEW

