



SAL/FF/PUR/F/01/08

**BHARATIYA RESERVE BANK  
NOTE MUDRAN PRIVATE LIMITED**  
(Wholly owned Subsidiary of Reserve Bank of India)  
P.O. RBNML - 721132, Salboni, Dist. Paschim Medinipur, West Bengal  
Phone: 03227-280212, 280213; FAX: 03227- 280222, 280744  
Website: [www.brbnmpl.co.in](http://www.brbnmpl.co.in); Email: [salbonipress@brbnmpl.co.in](mailto:salbonipress@brbnmpl.co.in)

**Non-Splittable (Cannot be SPLIT)**  
**Not Transferable**  
**Security Classification: Non-Security**

**BNM No. / (S) 07.07.06/TE-016/2021-22**

**Date: 23/12/2021**

**OPEN TENDER ENQUIRY (OTE) / NATIONAL COMPETITIVE BIDDING (NCB)**

TENDER ENQUIRY No. 016/SAL/MMD-CIVIL/2021-22

**"TENDER DOCUMENT FOR CONSTRUCTION OF NURSERY SCHOOL  
BUILDING AT BRBNMPL, SALBONI"**

This tender document contains: **238 Pages**

The tender document is sold to/downloaded by [Name of bidder]:

M/s. \_\_\_\_\_

Address \_\_\_\_\_

Details of Contact person/s in BRBNMPL regarding this tender:

<b>Name: P. K. Biswal</b> Designation: Deputy General Manager E-mail: <a href="mailto:pkbiswal@brbnmpl.co.in">pkbiswal@brbnmpl.co.in</a>	<b>Name: Prabhat Kumar</b> Designation: Assistant General Manager E-mail: <a href="mailto:prabhatkumar@brbnmpl.co.in">prabhatkumar@brbnmpl.co.in</a>
Phone: 03227-280212, 280213; FAX: 03227- 280222, 280744	
Note: All Official correspondences related to above tender are to be address to the head of Unit along with tender reference No. as follows  <b>The General Manager</b> Bharatiya Reserve Bank Note Mudran Private Limited <b>P.O. RBNML - 721132, Salboni, Dist. Paschim Medinipur, West Bengal</b>  Email: <a href="mailto:salbonipress@brbnmpl.co.in">salbonipress@brbnmpl.co.in</a>	

## Contents

Section I	:	Notice Inviting Tender (NIT)	Enclosed
Section II	:	General Instructions to Tenderers (GIT)	Enclosed
Part I	:	General Instructions Applicable to all Types of Tenders	Enclosed
Part II	:	Additional General Instructions Applicable to Specific Types of Tenders	Enclosed
Section III	:	Special Instructions to Tenderers (SIT)	Enclosed
Section IV	:	General Conditions of Contract (GCC)	Enclosed
Section V	:	Special Conditions of Contract (SCC)	Enclosed
Section VI	:	List of Requirements	Enclosed
Section VII	:	Technical Specifications	Enclosed
Section VIII	:	Quality Control Requirements	Enclosed
Section IX	:	Qualification / Eligibility Criteria	Enclosed
Section X	:	Tender Form	Enclosed
Section XI	:	Price Schedule	Enclosed
Section XII	:	Questionnaire	Enclosed
Section XIII	:	Bank Guarantee Form for EMD	Not Applicable for this Tender
Section XIV	:	Manufacturer's Authorization Form	Not Applicable for this Tender
Section XV	:	Bank Guarantee Form for Performance Security	Enclosed
Section XVI	:	Contract Form	Enclosed
Section XVII	:	Letter of Authority for attending a Bid Opening	Enclosed
Section XVIII	:	Shipping Arrangements for Liner Cargoes	Not Applicable for this Tender
A	:	In Respect of CFR / CIF / Turnkey / FOR Contracts For Import	Not Applicable for this Tender
B	:	In Respect of FOB / FAS Contracts For Imports	Not Applicable for this Tender

Section XIX :	Proforma of Bills for Payments	Enclosed
Section XX :	Proforma of Pre-contract Integrity Pact	Not Applicable for this Tender
Annexure – A	Confidentiality Statement and Declaration	Enclosed
Annexure – B	NEFT – Model Mandate Form	Enclosed
Annexure – C	Undertaking to submit SD (For NSIC/DG&SD Bidders)	Enclosed
Annexure – D	Bid Security Declaration	Enclosed
Annexure – E	Declaration & Undertaking by Micro & Small Scale Enterprises / Start-up Companies / Entities seeking purchase preference under Make In India Policy / Women entrepreneurs / Registration with TReDS/GeM	Enclosed
Annexure – F	Performance Bank Guarantee issued on behalf of holding Company for satisfactory performance of contract by its Subsidiary Company.	Enclosed
Annexure – G	Undertaking to provide financial support to wholly owned subsidiary by Holding Company	Enclosed
Annexure – H	Financial standings (as per Section-IX)	Enclosed
Annexure – I	GST Registration details	Enclosed
Annexure – J	Salient features of revised ‘Public Procurement (Preference to Make in India) Order, 2017	Enclosed
Annexure – K	Salient features of ‘Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012’ CONDITIONS FOR MICRO AND SMALL ENTERPRISES (MSEs	Enclosed
Annexure – L	Conditions for start-up companies	Enclosed
Annexure – M	Procedure to be adopted when the bidder qualifies as both MSE and Class-I local supplier	Enclosed
Annexure – N	Minimum Wages Details	Enclosed
Annexure – P	Escalation Matrix	Enclosed
Annexure – Q	Undertaking by Bidder for Compliance	Enclosed
Annexure - R	Declaration regarding Restrictions on Procurement from a Bidder of a Country which Shares a Land Border with India	Enclosed



**BHARATIYA RESERVE BANK  
NOTE MUDRAN PRIVATE LIMITED**  
(Wholly owned Subsidiary of Reserve Bank of India)  
P.O. RBNML - 721132, Salboni, Dist. Paschim Medinipur, West Bengal  
Phone: 03227-280212, 280213; FAX: 03227- 280222, 280744  
Website: www.brbnmpl.co.in; Email: salbonipress@brbnmpl.co.in

Not Transferable  
Security Classification: Non-Security

### **SECTION- I: NOTICE FOR INVITING TENDER (NIT)**

**BNM No. / (S) 07.07.06/TE-016/SAL/MMD-CIVIL/2021-22**

**Date: 23/12/2021**

**TENDER ENQUIRY No. 016/SAL/MMD-CIVIL/2021-22**

### **“CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI”**

The General Manager, BRBNMPL, Salboni invites sealed tenders from eligible and qualified tenderers in the enclosed formats under two bid system (Techno-commercial bid and Price bid) for **“CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI”** as per details given below:

<b>Schedule No./Nos.</b>	<b>Brief Description of Goods / Services</b>	<b>Quantity* (with unit)</b>	<b>Earnest Money (in Rs.)</b>	<b>Remarks</b>
<b>I</b>	<p align="center"><b>CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI</b></p> <p align="center"><b>Non-Splittable (Cannot be Split)</b></p> <p>As per Section VI: List of Requirements, Section VII: Technical Specifications, Section VIII: Quality Control Requirements/Declaration by Tenderer and Section XI: Price schedule.</p>	As per BOQ at Section XI: Price Schedule	Nil (Bid security declaration form to be submitted as per Annexure – D)	<p align="center"><b>Estimated Value including GST @ 18%:</b></p> <p align="center">Rs.3,87,08,000/- (Rupees Three Crore Eighty Seven Lakh Eight Thousand only) Approx.</p>

\* The schedule of items & quantities to be executed is an indicative one. Any /all item(s) may/ may not be operated. Contractor shall not have any claim for the same.

*Note:*

*The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, the cost of visiting the site shall be at the Bidder's own expense.*

<b>Type of Tender (Two Bid / PQB / EOI / RC / Development / Indigenization / Disposal of Scrap / Security item etc.)</b>	<b>Two Bid – Open Tender</b>
<b>Date of sale of tender documents</b>	From 23/12/2021 to 24/01/2022 during office hours (0830 hrs to 1715 hrs) on working days.
<b>Price of the Tender Document</b>	<b>₹ 2,500/- (Rupees Two Thousand Five Hundred only)</b> [If downloaded from our Website] <b>+ Speed Post/Courier Charges</b> (if obtained from the address given below as Place of Sale of tender documents )
<b>Place of Sale of tender documents</b>	MMD, Bharatiya Reserve Bank Note Mudran Private Limited, RBNML (PO), Salboni –721132, Paschim Medinipur (Dist.) West Bengal
<b>Closing date and time for receipt of tenders</b>	<b>25/01/2022 up to 11.30 hrs.</b>
<b>Place of receipt of tenders</b>	Administrative Building, Bharatiya Reserve Bank Note Mudran Private Limited, RBNML (PO), Salboni – 721132, Paschim Medinipur (Dist.) West Bengal.
<b>Time and date of opening of tenders</b>	<b>25/01/2022 at 11.45 hrs.</b>
<b>Place of opening of tenders</b>	Administrative Building, Bharatiya Reserve Bank Note Mudran Private Limited, RBNML (PO), Salboni – 721132, Paschim Medinipur (Dist.) West Bengal.
<b>Nominated Person / Designation to Receive Bulky Tender (Clause 21.1 of GIT)</b>	Shri P. K. Biswal, DGM (MMD) Shri Prabhat Kumar, AGM (MMD)

1. Interested tenderers may obtain further information about this requirement from the above office selling the documents. They may also visit our website mentioned above for further details.

2. Tender documents may be purchased and/or downloaded on payment of non-refundable fee of Rs.2,500/- (Rupees Two Thousand Five Hundred only) per set through :-

- a) Account Payee Demand Draft / Banker's cheque drawn from any branch of SBI in India, in favour of Bharatiya Reserve Bank Note Mudran (P) Limited, payable at State Bank of India, Note Press Branch (Branch Code No: 3558), Salboni, P.O.-R.B.N.M.L., PIN-721132, Dist- West Midnapore, West Bengal. If drawn from any branch of SBI in India. If drawn from any other scheduled Commercial Bank in India, it should be payable at Midnapore.
- b) Online Bank Transfer (Proof of online transfer should be submitted along with the Techno-

Commercial Bid (Part - I)) through NEFT/RTGS can be made at the following BRBNMPL account maintained with Salboni Note Press Branch of State Bank of India: -

Beneficiary Name	Bharatiya Reserve Bank Note Mudran (P) Limited
Name & Address of the Beneficiary	P.O.-R.B.N.M.L., BRBNMPL, Salboni-721132, Dist-West Midnapore, West Bengal
Bankers Name & Branch Address	State Bank of India, Note Press Branch, Salboni, P.O.-R.B.N.M.L., PIN-721132, Dist-West Midnapore, West Bengal
Account Type and Number	Cash Credit/ 11678747799
IFSC Code /MICR Number	IFSC Code: SBIN0003558 / 721002804

c) Other Electronic Modes of Payment as per UPI id and QR code given below.

- (i) Other Electronic mode of payment such as Debit Card powered by RuPay,
- (ii) Unified Payments Interface (UPI) (BHIM-UPI), Unified Payments Interface Quick Response Code (UPI QR Code) (BHIM-UPI QR Code)



**Note: In case of (b) and (c) mode of payments, bidders are requested to send proof of the same, after completion of transaction, to the contact email given in the tender by giving reference of the Tender number, Name of Company/firm and mobile number.**

3. If requested, the tender documents will be mailed by registered post / speed post to the domestic tenderers, for which extra expenditure per set will be Rs.500/- for domestic post. The tenderer is to add the applicable postage cost in the non-refundable fee mentioned in Para 3 above.
4. Tenderer may also download the tender documents from the web site and submit its bid by utilizing the downloaded document, along with the required non- refundable fee as mentioned in Para 2 above.
5. Tenderers shall ensure that their tenders, duly sealed and signed, complete in all respects as per instructions contained in the Tender Documents, are dropped in the tender box located at the address given on or before the closing date and time indicated in the Para 1 above, failing which the tenders will be treated as late and rejected.

6. In the event of any of the above mentioned dates being declared as a holiday / closed day for the purchase organization, the tenders will be sold / received / opened on the next working day at the appointed time.
7. The tender documents are not transferable.
8. BRBNMPL reserves the right to accept/reject/cancel any or all tender documents without assigning any reason thereof. BRBNMPL also reserves the right to accept the tender in whole or part. Incomplete documents not submitted in accordance with the directions issued shall be liable for rejection.
9. Tenderer shall note that the tender document is kept same for all schedules, if more than one schedule is specified, for administrative convenience. BRBNMPL reserves the right to conclude contract for each schedule independently as per the response and qualification.
10. **Exemption for MSEs and Start-ups:** The tenderers who are currently registered and shall continue to remain registered during the tender validity period with Central Purchase Organisation (CPO) or as a Micro and Small Enterprise (MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME) or as a Startup as recognised by Department for Promotion of Industry and Internal Trade (DPIIT), are exempted from payment of **Tender fee** and **Earnest Money Deposit (EMD)/Bid Security**. In case the tenderer falls in these categories, it should furnish certified copy of its valid registration details (registration with CPO or as a MSE or Startup, as the case may be).  
 Micro & Small Enterprises must attach Registration Certificate issued by DIC / KVIC / KVIB / Coir Board / NSIC / Directorate of Handicrafts and Handlooms, or any other body specified by MSME for authentication such as Udyog Aadhaar Memorandum / Acknowledgment.  
 Product Reservation/Purchase Preference shall be given to MSEs as per Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 along with amendments, if any, notified by Govt. of India.  
 Purchase preference shall be given to Local Suppliers as per Public Procurement (Preference to Make in India) Order, 2017 along with amendments, if any, notified by Govt. of India.

### **Guidelines for filling two-part tender:**

1. **Part I:** First sealed cover should contain the required Bid Security Declaration, cost of tender form (As applicable), technical offer (catalogue/brochure/specifications etc.), supportive documents related to eligibility criteria, tax related documents etc. along with all annexures of this tender **except Section XI (Price Schedule)**. All the pages included as Tender Document should be legible, neatly numbered and signed by authorized person with official seal of the Firm as acceptance of the terms and conditions. An offer with Counter Conditions is liable for Rejections. This first sealed cover should be clearly super-scribed with **“Part I - Techno-commercial bid – For “CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI”**. Any price indication in the Techno-commercial bid will be summarily rejected.

2. **Part II:** Second sealed cover should contain only section XI (Price Schedule) (duly sealed and signed). Format provided in the tender document for price schedule should be followed and any other format will be liable for rejection. This second sealed cover should be clearly super-scribed with **“Part II - Price Bid - For CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI”**.

3. The above-mentioned sealed covers (Part I & II) should be put in another big cover, sealed and super-scribed as **“Offer against Tender Enquiry No. 016/SAL/MMD-CIVIL/2021-22 dated 23/12/2021 for “CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI”** with *due date of opening as 25/01/2022* and should be addressed to:

**The General Manager,  
Bharatiya Reserve Bank Note Mudran Private Limited,  
P.O. RBNML, Salboni, Dist. - Paschim Medinipur,  
West Bengal, Pin- 721 132.**

**Important Note: Offers submitted not in line with the above guidelines will be liable for rejection.**

For & on behalf of BRBNMPL,

(P. K. Biswal)  
Deputy General Manager

**Address : Bharatiya Reserve Bank Note Mudran Private Limited, P.O. RBNML - 721132, Salboni,  
Dist. Paschim Medinipur, West Bengal**

**Phone : 03227-280496; Extn: 4090 FAX: 03227- 280222, 280744**

**Email : pkbiswal@brbnmpl.co.in**



**IMPORTANT TENDER CONDITIONS AT A GLANCE FOR ATTENTION OF BIDDERS**

1. **Validity of Tender:** The quoted rates shall be valid for a period of 120 days from the date of opening of the tenders. If any tenderer withdraws his tender before the said period or makes any modification in the Price Bid or terms and conditions of the tender then, bidder, without prejudice to any other right or remedy will be liable for suspension for time period as specified in Annexure-D: Bid Security Declaration.
2. **Period / Tenure of Contract:** The works shall have to be completed within 12 months from the date of issue of LoI / NoA / Work Order / Contract whichever is issued earlier. However, BRBNMPL reserves the right to terminate the contract at any point of time without any financial compensation or assigning any reason thereof. Failure to execute the assigned Contract due to reason whatsoever will result in forfeiture of Security Deposit. The entire work should be completed in all respects as per the Specifications, Activity Schedule, Price Schedule and Scope of Works and to the satisfaction of the BRBNMPL authority.
3. **Option Clause:** The quantity mentioned in the tender is indicative. BRBNMPL reserves the right to procure additional quantity of material as per the Option Clause 19.3 of GCC [Section IV] of tender document.
4. **Bid Security / Earnest Money Deposit (EMD):** NIL, Annexure-D: Bid Security Declaration to be submitted.
5. **Notification of Award:** BRBNMPL issue Notification of Award / LoI to the successful bidders, who qualify and become lowest bidder by post or by fax/email (to be confirmed by post) that its tender for Captioned Subject, has been accepted, briefly indicating therein the essential details of work and corresponding prices accepted. The successful tenderer/Contractor shall mobilize all men and materials required for timely performance involving various activities and start the work from the date mentioned in Notification of Award. Contractor should acknowledge the duplicate copy of Notification of Award duly signed and stamped in each page as token of acceptance.
6. **Security Deposit (SD)/Performance Bond:** SD shall be 10% of the Contract Value.

Before the commencement of work, SD @ 5% of the Contract Value to be deposited by the Contractor within twenty-one (21) days from the date of issue of Notification of Award of Contract (NoA)/ Letter of Intent (LoI) by BRBNMPL by way of Online Payment/DD/BG. In case, SD is submitted through BG, the BG should be valid up to Sixty days after date of completion of all contractual obligations, including warranty period and/or DLP Period.

The balance 5% of SD shall be deducted from each running bill of the Contractor till the sum amounts to 10% of the value of work done.

Failure of the successful tenderer in providing Performance Security within 21 days of receipt of Notification of Award and / or returning of duplicate copy of Notification of Award/ LOI duly signed shall make the tenderer liable for suspension for time period as specified in Annexure-D: Bid Security Declaration.

7. **Contract Agreement:** A formal agreement has to be executed between the Contractor and BRBNMPL on Rs.100/-Non-judicial stamp paper (03 Nos) purchased by the Contractor within 21 days from the date of issue of Notification of Award of Contract (LoI). In case Contractor fails to complete the formalities for execution of agreement, Work Order shall be cancelled. In such case, SD of the Contractor shall be forfeited and BRBNMPL may initiate appropriate action as deemed fit.
8. The Technical (Part I) tenders will be opened at **11.45 hrs on date as mentioned in Section - I** in the presence of available tenderers or their authorized representatives. Subsequently vendors who have qualified in techno-commercial bid shall be intimated of the opening of the Price Bid. In the second stage, the financial bids of only the technically acceptable offers shall be opened for further scrutiny and evaluation. Other financial bids would be returned unopened to the respective bidders under Registered AD/ Reliable Courier or any other mode with proof of delivery.
9. **Pre-Bid Visit / Clarification of Bidders:** : The bidders shall visit the site and shall have clear understanding about scope of work, volume of work, requirement of materials, requirement of skill levels of workforce etc. and any doubt/clarification may be cleared/done before submitting their offers. Any claim of ignorance about the system or responsibility shall not be entertained at later stage.  
  
*The Bidder, at the Bidder's own responsibility and risk is encouraged to visit the site and its surroundings to examine and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender. The cost of visiting the site shall be at the Bidder's own expense.*
10. Self-certified copies (with seal of firm) of Tender document, corrigendum, if any along with documents mentioned in the tender are to be provided along with the Bid.
11. No counter conditions shall be accepted.
12. Bidders to write Page no. / Pages on each page of the tender documents submitted
13. **Tender Evaluation:**

- i) **The evaluation shall be based on Overall L1 basis** (Subject to MSE Purchase Preference if stipulated in the tender). However, BRBNMPL does not pledge itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender or portion of the quantity tender or cancel the tender without assigning any reason what so ever.
- ii) BRBNMPL shall evaluate the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are generally in order.
- iii) Quoted price should be in words and figures. Any discrepancy between words and figures, the price in words shall prevail. Insertions, postscripts, additions and alterations shall not be recognized, unless authenticated by the tenderer's signature.
- iv) In case of discrepancy between unit price and total price/cost, the unit rate will be considered for evaluation. All decisions by BRBNMPL on the evaluation of bids will be final and binding on the Bidders and is not subject to any scrutiny.

- v) Any effort by a bidder to influence BRBNMPL personnel or representatives on matters relative to the bid under study in the process of examination, clarification, evaluation and comparison of bids, and in decisions concerning award of contract may result in rejection of his bid.
14. Parties who have been black listed /debarred by BRBNMPL or any PSU or any Government Departments are not eligible for submission of this tender.
15. BRBNMPL does not pledge itself to accept the lowest or any tender and reserves to itself the right of accepting/rejecting the whole or any part of the tender or portion of the quantity tendered without assigning any reason thereof.
16. If the tenderer is registered under NSIC, New Delhi/MSME they have to clearly mention and submit a copy of supporting documents. In absence of any such declaration, tenderer shall be considered as not registered under NSIC, New Delhi/MSME. Tenderer registered with NSIC/MSME are eligible for exemption of only EMD. **As regarding SD, the tenderer who are registered with NSIC/MSME should submit an undertaking for payment of SD in case they become L1 firm in bid process and this undertaking letter should be attached to the Techno-commercial bid-Part-I.**
17. Copies of Certificates / Documents related to GST Registration, PAN etc., to be provided along with the Techno-commercial bid-Part-I.
18. A tenderer should quote the tender in figures as well as in word rate(s). The amount for each item should be worked out and the requisite totals given. Special care shall be taken to write rates in figures as well as in words and the amounts in figures only in such a way that interpolation is not possible. The rates and total amounts should be rounded off to nearest Rupees value. In case of discrepancy between the rates in words and figures the rate quoted by the tenderer in words shall be taken as correct.
19. The tender document should be signed on each page by the tenderer or his duly authorized representative. Tender document should be accompanied by a certified true copy of an absolute power of Attorney in favour of signatory to the documents.
20. The use of whitener / eraser in this tender is prohibited. If any correction becomes of necessary, the same should be done by striking off originally written rates & figures etc. and then rewritten should be done under initials of person filling the tender.
21. All terms & conditions of this NIT shall be treated as part & parcel of the contract.

**(To be signed & stamped and submitted along with Techno-commercial Bid Part –I)**

## **SECTION II: GENERAL INSTRUCTIONS TO TENDERER (GIT)**

### **Part I: General Instructions Applicable to all Types of Tenders**

This Section-II shall be signed & stamped and submitted along with the **Techno-Commercial Bid –Part I** as acceptance of terms & conditions. *(Offer without the copies of Section-II shall liable to be rejected)*

#### **A PREAMBLE**

##### **1. Introduction**

1.1 Definitions and abbreviations, which have been used in these documents, shall have the meanings as indicated in GCC.

1.2 For sake of convenience, whole of this Standard Bidding Document (including all sections) is written in reference to Procurement of Goods Tenders. However, this SBD would be utilized for all types of Tenders e.g.

EOI, PQB, Rate Contract, Tenders involving Samples, Sale / Disposal of Scrap Material and Development / indigenization etc., Procurement of Services etc. Therefore the construction of all clauses are to be interpreted in the context of particular type of tender beyond the letter of the clause, read with the additional clauses for the specific type of tenders in Part II GIT/ GCC.

1.3 These tender documents have been issued for the requirements mentioned in Section - VI - "List of Requirements", which also indicates, inter-alia, the required delivery schedule and terms & place (i.e. destination) of delivery.

1.4 This section (Section II - "General Instruction to Tenderers" - GIT) provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract. With this limited objective, GIT is not intended to be complete by itself and the rest of this document - SIT, GCC and SCC in particular may also be thoroughly studied before filling up the Tender Document. There would be certain topics covered in GIT/SIT as well as in GCC/SCC from different perspectives. In case of any conflict between these, provisions of GCC/SCC would prevail.

1.5 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.

##### **2. Language of Tender**

The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and BRBNMPL, shall be written in English or Hindi language, unless otherwise specified in the Tender. However, the language of any printed literature furnished by the tenderer in connection with its tender may be written in any other language provided the same is accompanied by Hindi or English translation. For purposes of interpretation of the tender, the English translation shall prevail.

##### **3. Eligible Tenderers**

This invitation for tenders is open to all suppliers who fulfil the eligibility criteria specified in these documents. Please refer to Section IX: Qualification / Eligibility Criteria.

##### **4. Eligible Goods and Services**

All goods and related services to be supplied under the contract shall have their origin in India or other countries, subject to any restriction imposed in this regard in Section III (SIT). The term "origin" used in this clause means the place where the goods are mined, grown, produced or manufactured or from where the related services are arranged and supplied.

##### **5. Tendering Expense**

The tenderer shall bear all costs and expenditure incurred and / or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. BRBNMPL will, in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the tendering process.

#### **B TENDER DOCUMENTS**

##### **6. Content of Tender Documents**

##### **6.1 The tender document includes: -**

1. Section I : Notice Inviting Tender (NIT)
2. Section II : General Instructions to Tenderers (GIT)
- Part I : General Instructions applicable to all types of tenders
- Part II : Additional General Instructions applicable to specific types of tenders
3. Section III : Special Instructions to Tenderers (SIT)
4. Section IV : General Conditions of Contract (GCC)
5. Section V : Special Conditions of Contract (SCC)
6. Section VI : List of Requirements
7. Section VII : Technical Specifications
8. Section VIII : Quality Control Requirements
9. Section IX : Qualification / Eligibility Criteria
10. Section X : Tender Form
11. Section XI : Price Schedule
12. Section XII : Questionnaire
13. Section XIII : Bank Guarantee Form for EMD
14. Section XIV : Manufacturer's Authorization Form
15. Section XV : Bank Guarantee Form for Performance Security
- Page | 307
16. Section XVI : Contract Form
17. Section XVII : Letter of Authority for attending a Bid Opening
18. Section XVIII : Shipping Arrangements for Liner Cargoes
- A : In respect of CFR, CIF, Turnkey/F.O.R. contracts for import
- B : In respect of FOB/FAS contracts for import
19. Section XIX : Proforma of Bills for Payments
20. Section XX : Proforma for Pre Contract Integrity Pact

6.2 The relevant details of the required goods and services, the terms, conditions and procedure for tendering, tender evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested tenderers before formulating the tender and submitting the same to BRBNMPL, should read and examine all the terms, conditions, instructions etc. contained in the tender documents. Failure to provide and / or comply with the required information, instructions etc. incorporated in these tender documents may result in rejection of its tender.

##### **7. Amendments to Tender Documents**

7.1 At any time prior to the deadline for submission of tenders, BRBNMPL may, for any reason deemed fit by it, modify the tender documents by issuing suitable amendments to it.

7.2 Such an amendment will be uploaded in the website and notified in writing by registered / speed post or by fax / telex / e-mail, followed by copy of the same by suitable recorded post to all prospective tenderers, which have received the tender documents and will be binding on them.

7.3 In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, BRBNMPL may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

##### **8. Pre-Bid conference**

If found necessary, a pre-bid conference may be stipulated in the SIT, for clarification/amendment to Technical specifications / techno-commercial conditions in two-bid tenders.

##### **9. Clarification of Tender Documents**

A Tenderer requiring any clarification or elucidation on any issue of the tender documents may take up the same with BRBNMPL in writing or by fax / e-mail / telex.

BRBNMPL will respond in writing to such request provided the same is received by BRBNMPL not later than twenty one days (unless otherwise specified in the SIT) prior to the prescribed date of submission of tender. Copies of the query and clarification shall

be sent to all prospective bidders who have received the bidding documents.

## C PREPARATION OF TENDERS

### 10. Documents Comprising the Tender

10.1 The tender to be submitted by Tenderer shall contain the following documents, duly filled in, as required:

a. Tender Form and Price Schedule along with list of deviations (ref

Clause 19.4) from the clauses of this SBD, if any.

b. Documentary evidence, as necessary in terms of GIT clauses 3 and

16 establishing that the tenderer is eligible to submit the tender and,

also, qualified to perform the contract if its tender is accepted.

c. Documents and relevant details to establish in accordance with GIT

clause 17 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the tender documents along with list of deviations if any (ref clause 17.3 of GIT).

d. Earnest money furnished in accordance with GIT clause 18.18.1 alternatively, documentary evidence as per GIT clause 18.2 for claiming exemption from payment of earnest money. and

e. Questionnaire as per Section XII.

f. Manufacturer's Authorization Form (ref Section XIV, if applicable)

NB: The tenderers may also enclose in their tenders, technical literature and

other documents as and if considered necessary by them.

10.2 A tender, that does not fulfil any of the above requirements and / or gives evasive information / reply against any such requirement, shall be liable to be ignored and rejected.

10.3 Tender sent by fax/email/telex/cable shall be ignored.

### 11. Tender currencies

11.1 Unless otherwise specified, the tenderer shall quote only in Indian rupees.

11.2 Where the tender condition specifies acceptance of quotations in different currencies, then, for domestic goods, prices shall be quoted in Indian rupees only and for imported goods, prices shall be quoted either in Indian rupees or in the currency stipulated in the SIT, mentioning, inter-alia, the exchange rate adopted for converting foreign currency into Indian Rupees. As regards price(s) for allied services, if any, required with the goods, the same shall be quoted in Indian Rupees if such services are to be performed / undertaken in India.

11.3 Tenders, where prices are quoted in any other way shall be treated as

unresponsive and rejected.

### 12. Tender Prices

12.1 The Tenderer shall indicate on the Price Schedule provided under Section XI all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a tenderer, same should be clarified accordingly by the tenderer.

12.2 If there is more than one schedule in the List of Requirements, the tenderer has the option to submit its quotation for any one or more schedules and, also, to offer special discount for combined schedules. However, while quoting for a schedule, the tenderer shall quote for the complete requirement of goods and services as specified in that particular schedule.

12.3 The quoted prices for goods offered from within India (goods manufactured in India or goods of foreign origin already located in India) and that for goods of foreign origin offered from abroad are to be indicated separately in the applicable Price Schedules attached under Section XI.

12.4 While filling up the columns of the price schedule, the following aspects should be noted for compliance:

12.5 For goods offered from within India (goods manufactured in India or goods of foreign origin already located in India), the prices

in the corresponding price schedule shall be entered separately in the following manner:

a) The price of the goods, quoted ex-factory, ex-showroom, ex warehouse or off-the-shelf, as applicable, including Goods and services Tax, Customs duty or any other similar duties and taxes already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex showroom etc.

b) Goods and Services Tax, which will be payable on the goods in India if the contract is awarded.

c) Charges towards inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and

d) The price of incidental services, as and if mentioned in List of Requirements.

12.6 For goods of foreign origin offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) The price of goods quoted FAS / FOB port of shipment, CIF port of entry in India or CIF specified place of destination in India as indicated in the List of Requirements,

b) Wherever applicable, the amount of custom duty and import duty on the goods to be imported.

c) The charges for inland transportation, insurance and other local costs incidental to delivery of the goods from the port of entry in India to their final destination, as specified in the List of Requirements. and

d) The charges for incidental services, as and if mentioned in the List of Requirements.

### 12.7 Additional information and instruction on Duties and Taxes:

For goods offered from within India (goods manufactured in India or goods of foreign origin already located in India), if the Tenderer desires to ask for Goods and services Tax, Customs duty or any other similar duties and taxes to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

### 12.8 Goods and Services Tax

a) If reimbursement of Goods and Services Tax is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the tax applicable. In the absence of any such stipulation, it will be presumed that the prices quoted are firm and final and no claim on account of Goods and Services Tax will be entertained after the opening of tenders.

b) If a Tenderer chooses to quote a price inclusive of Goods and Services Tax and also desires to be reimbursed for variation, if any, in the Goods and Services Tax during the time of supply, the tenderer must clearly mention the same and also indicate the rate and quantum of Goods and Services Tax included in its price. Failure to indicate all such details in clear terms may result in statutory variations being denied to the tenderer.

c) Subject to sub clauses 12.8 (a) & (b) above, any change in Goods and Services Tax upward / downward as a result of any statutory variation in Goods and Services Tax taking place within original Delivery Period shall be allowed to the extent of actual quantum of Goods and Services Tax paid by the supplier. In case of downward revision in Goods and Services Tax, the actual quantum of reduction of Goods and Services Tax shall be reimbursed to BRBNMPL by the supplier.

All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

### 12.9 Goods and Services Tax...contd...

If a tenderer asks for GST to be paid extra, the rate and nature of such taxes applicable should be shown separately. Such taxes will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to such taxes and is payable as per the terms of the contract.

### 12.10 Goods and Services Tax...contd...

- i) The tenderer should quote the exact percentage of GST that they will be charging extra.
- ii) While quoting the rates, tenderers should pass on (by way of reduction in prices) the input tax credit that would become available to them by switching over to the new system of GST from the existing system of tax, duly stating the quantum of such credit per unit of the item quoted for.
- iii) The tenderer while quoting for tenders should give the following declaration:  
 "We agree to pass on such additional input tax credit as may become available in future in respect of all the inputs used in the manufacture of the final product on the date of supply under the GST scheme by way of reduction in price and advise the purchaser accordingly."
- iv) The supplier while claiming the payment shall furnish the following certificate to the paying authorities:  
 "We hereby declare that additional input tax credit to the tune of Rs..... has accrued and accordingly the same is being passed on to the purchaser and to that effect the payable amount may be adjusted."

#### **12.11 Duties, taxes and other levies of Local bodies**

Unless otherwise stated in the SIT, the goods supplied against contracts placed by BRBNMPL are not exempted from levy of duties, taxes and other Levies of local bodies. In such cases, the supplier should make the payment to avoid delay in supplies and forward the receipt of the same to the purchasing department for reimbursement and, also, for further necessary action. In cases where exemption is available, suppliers should obtain the exemption certificate from the purchasing department to avoid payment of such levies and taxes.

#### **12.12 Duties / Taxes on Raw Materials**

BRBNMPL is not liable for any claim from the supplier on account of fresh imposition and / or increase (including statutory increase) of Customs duty, Goods and Services Tax or any other similar duties and taxes on raw materials and/or components used directly in the manufacture of the contracted goods taking place during the pendency of the contract, unless such liability is specifically agreed to in terms of the contract.

#### **12.13 Imported Stores not liable to Above-mentioned Taxes and Duties:**

Above mentioned Taxes and Duties are not leviable on imported goods (goods of foreign origin offered from abroad) and hence would not be reimbursed.

#### **12.14 Customs Duty:**

In respect of imported goods of foreign origin offered from abroad, the tenderer shall specify the rate as well as the total amount of customs duty payable. The tenderer shall also indicate the corresponding Indian Customs Tariff Number applicable for the goods in question.

**12.14.1 For transportation of imported goods offered** from abroad, relevant instructions as incorporated under GCC Clause 11 shall be followed.

**12.14.2** For insurance of goods to be supplied, relevant instructions as provided under GCC Clause 12 shall be followed.

**12.14.3** Unless otherwise specifically indicated in this tender document, the terms FOB, FAS, CIF etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris

**12.14.4** The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 12) is for the purpose of comparison of the tenders by BRBNMPL and will no way restrict BRBNMPL's right to award the contract on the selected tenderer on any of the terms offered.

#### **13. Authorized Dealer/Distributor/Representative**

Principal manufacturers/OEMs, manufacturers under license or their authorized Dealers/Distributors/Representatives who are exclusively appointed by the principal manufacturers/OEMs to represent them in the country shall be eligible to apply or to take part in the bid. One Principal manufacturer/OEM can authorize only one Dealer/

Distributor/Representative for a particular tender. Similarly, one authorized Dealer/

Distributor/Representative can represent only one Principal manufacturer/OEM in a

particular tender. There can be only one bid from either: -

1. The Principal manufacturer/OEM directly; or
2. Any of its branch/division/subsidiary; or
3. Authorized Dealer/Distributor/Representative on behalf of the Principal manufacturer/OEM

Note:

(i) In a tender, either the Principal manufacturer/OEM or its authorized dealer/

distributor/representative can bid but both cannot bid simultaneously in the same tender.

(ii) In case the bidder is an authorized Dealer/Distributor/Representative, except in case of Commercially-Off-the-Shelf (COTS) items, then

(a) the bidder should have been associated as authorised dealer/distributor/representative of the same or other Principal Manufacturer/OEM for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years ending on 31st March (or any other year ending followed in relevant country) of the previous financial year; and

(b) the principal manufacturer/OEM should furnish a legally enforceable tender-specific authorisation in the prescribed form (Section XIV of SBD) assuring full guarantee and warranty obligations as per the general and special conditions of contract and to abide by other tender terms and conditions. The letter of authorisation should be signed by a person competent and having the power of attorney to legally bind the manufacturer; and

(c) the principal manufacturer/OEM should meet all the pre-qualification criteria without exemption.

(iii) For commercially off the shelf (COTS) items with clear and standard specifications, a valid dealership certificate will have to be submitted.

#### **14. Firm Price / Variable Price**

14.1 Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

14.2 In case the tender documents require offers on variable price basis, the price quoted by the tenderers will be subject to adjustment during original Delivery Period to take care of the changes in the cost of labour and material components in accordance with the price variation formula to be specified in the SIT. If a tenderer submits firm price quotation against the requirement of variable price quotation, that tender will be prima-facie

acceptable and considered further, taking price variation asked for by the tenderer as zero.

14.3 However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated in GIT clause 12 will apply for both firm price tender and variable price tender.

14.4 Subject to provisions of Clause 11 above, where prices are quoted in

foreign currencies, involving imports - Foreign Exchange Rate Variation (ERV) would be borne by the Purchaser within the original Delivery Period. The offer of the Tenderer should indicate import content and the currency used for calculating import content.

14.5 Base Exchange rate of each major currency used for calculating FE content of the contract should be indicated. The base date of ERV would be contract date and variation on the base date can be given up to the midpoint manufacture, unless firm has already indicated the time schedule within which material will be imported by the firm.

14.6 In case delivery period is refixed / extended, ERV will not be admissible, if this is due to default of the supplier.

14.7 Documents for claiming ERV:

- i. A bill of ERV claim enclosing working sheet

- ii. Banker's Certificate/debit advice detailing FE paid and exchange rate
- iii. Copies of import order placed on supplier
- iv. Invoice of supplier for the relevant import order

#### 15. Alternative Tenders

Unless otherwise specified in the Schedule of Requirements, alternative tenders shall not be considered.

#### 16. Documents Establishing Tenderer's Eligibility and Qualifications

16.1 Pursuant to GIT clause 10, the tenderer shall furnish, as part of its tender, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its tender is accepted.

16.2 The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:

- a) In case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorized by the goods manufacturer to quote for and supply the goods to BRBNMPL. The tenderer shall submit the Manufacturer's Authorization Letter to this effect as per the standard form provided under Section XIV in this document.
- b) The tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.
- c) In case the tenderer is not doing business in India, it is / will be duly represented by an authorized Dealer/Distributor/Representative stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

#### 17. Documents establishing Good's Conformity to Tender document

17.1 The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by BRBNMPL in the tender documents. For this purpose, the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by BRBNMPL in the tender documents to establish technical responsiveness of the goods and services offered in its tender.

17.2 In case there is any variation and/or deviation between the goods & services prescribed by BRBNMPL and that offered by the tenderer, the tenderer shall list out the same in a chart form without ambiguity along with justification, and provide the same along with its tender.

17.3 If a tenderer furnishes wrong and/or misleading data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to BRBNMPL in this regard.

#### 18. Earnest Money Deposit (EMD)

18.1 Pursuant to GIT clause 10.1(d) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect BRBNMPL against the risk of the Tenderer's unwarranted conduct as amplified under sub-clause 23.23.2 below.

18.2 The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Central Purchase Organisation or as a Micro and Small Enterprise (MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME) or as a Startup as recognized by Department for Promotion of

Industry and Internal Trade (DPIIT), are exempted from payment of earnest money. In case the tenderer falls in these categories, it should furnish certified copy of its valid registration details (registration with CPO or as a MSE or as a Startup, as the case may be). Micro & Small Enterprises must attach Registration

Certificate issued by DIC / KVIC / KVIB / Coir Board / NSIC / Directorate of Handicrafts and Handlooms, or any other body specified by MSME for authentication such as Udyog Aadhaar Memorandum / Acknowledgment.

18.3 The earnest money shall be denominated in Indian Rupees or in equivalent foreign exchange in case of GTE/ICB tenders.

18.4 The earnest money shall be furnished in one of the following forms:

- a) Account Payee Demand Draft from any scheduled commercial bank in India or
- b) Banker's cheque from any scheduled commercial bank in India or
- c) Online Bank Transfer (Proof of online transfer to be submitted)
- d) Other Electronic Modes of Payment
  - ☐ Debit Card powered by RuPay
  - ☐ Unified Payments Interface (UPI) (BHIM-UPI)
  - ☐ Unified Payments Interface Quick Response Code (UPI QR Code) (BHIM-UPI QR Code)

e) Bank Guarantee issued/confirmed by any scheduled commercial bank in India in the proforma given in Section XIII of SBD in case the amount is more than Rs.5 lakh and in case of foreign bidders in GTE/ICB tenders (in equivalent foreign exchange amount)

18.5 The earnest money shall be valid for a period of forty-five days beyond the validity period of the tender.

18.6 Unsuccessful tenderers' earnest monies will be returned to them without any interest whatsoever within 15 days of determination of the tenderers as unsuccessful after opening of Price Bid. The successful bidder's bid security (EMD) can be adjusted against the SD

or returned as per the terms of the tender document. The balance can be deducted from the supplier's bill/invoice before release of payment. Unlike Procurement of Works, in Procurement of Goods, the concept of taking part of Performance Guarantee as money retained from first or progressive bills of the supplier is not acceptable.

18.7 Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. The successful tenderer's earnest money will be forfeited if it fails to furnish the required performance security within the specified period.

#### 19. Tender Validity

19.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 90 days (Ninety days) in case of single bid tender system and 120 days in case of two-bid system after the date of tender opening prescribed in the tender document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.

19.2 In exceptional cases, the tenderers may be requested by BRBNMPL to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/email/telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly.

19.3 In case the day up to which the tenders are to remain valid falls on/subsequently declared a holiday or closed day for BRBNMPL, the tender validity shall automatically be extended up to the next working day.

19.4 Compliance with the Clauses of this Tender Document: Tenderer must comply with all the clauses of this Tender Document. In case there are any deviations, these should be listed in a chart form without any ambiguity along with justification.

#### 20. Signing and Sealing of Tender

20.1 An authenticated copy of the document which authorizes the signatory to commit on behalf of the firm shall accompany the offer. The individual signing the tender or any other documents connected therewith should clearly indicate his full name and designation and also specify whether he is signing.

(a) As Sole Proprietor of the concern or as attorney of the Sole Proprietor;

(b) As Partner (s) of the firm;  
 (c) As Director, Manager or Secretary in case the of Limited Company duly authorized by a resolution passed by the Board of Directors or in pursuance of the Authority conferred by Memorandum of Association.

20.2 The authorized signatory of the tenderer must sign the tender at appropriate places and initial the remaining pages of the tender.

20.3 The tenderers shall submit their tenders as per the instructions contained in GIT Clause

20.4 Unless otherwise mentioned in the SIT, a tenderer shall submit two copies

of its tender marking them as "Original" and "Duplicate".

20.5 The original and other copies of the tender shall either be typed or written in indelible ink and the same shall be signed by the tenderer or by a person(s) who has been duly authorized to bind the tenderer to the contract. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the tender.

20.6 All the copies of the tender shall be duly signed at the appropriate places as indicated in the tender documents and all other pages of the tender including printed literature, if any shall be initialed by the same person(s) signing the tender. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same shall be initialed by the person(s) signing the tender.

20.7 The tenderer is to seal the original and each copy of the tender in separate envelopes, duly marking the same as "Original", "Duplicate" and so on and writing the address of BRBNMPL and the tender reference number on the envelopes. The sentence 'NOT TO BE OPENED' before (The tenderer is to put the date & time of tender opening) are to be written on these envelopes. The inner envelopes are then to be put in a bigger outer envelope, which will also be duly sealed, marked etc. as above. If the outer envelope is not sealed and marked properly as above, BRBNMPL will not assume any responsibility for its misplacement, premature opening, late opening etc.

20.8 For purchasing capital equipment, high value plant, machinery etc. of complex and technical nature, tender document will seek quotation in two parts (Two Bid System) - first part containing the relevant technical details of the equipment / machinery etc., and in the second part, price quotation along with other allied issues. First part will be known as 'Techno-commercial bid', and the second part 'Financial bid'. Tenderer shall seal separately 'Techno-commercial bid' and 'Financial bid' and covers will be suitably super scribed. Both these sealed covers shall be put in a bigger cover and sealed and evaluation would be done as described in clause 25.24.4 below. Further details would be given in SIT, if considered necessary.

20.9 If permitted in the SIT, the tenderer may submit its tender through e-tendering procedure.

## **D SUBMISSION OF TENDERS**

### **21. Submission of Tenders**

21.1 Unless otherwise specified, the tenderers are to deposit the tenders in the tender box kept for this purpose at a place as indicated in para 1 of NIT. In case of bulky tender, which cannot be put into tender box, the same shall be submitted by the tenderer by hand to the designated officers of BRBNMPL, as indicated in clause 1 of NIT. The officer receiving the tender will give the tenderer an official receipt duly signed with date and time.

21.2 The tenderers must ensure that they deposit their tenders not later than the closing time and date specified for submission of tenders. In the event of the specified date for submission of tender falls on / is subsequently declared a holiday or closed day for BRBNMPL, the tenders will be received up to the appointed time on the next working day.

### **22. Late Tender**

A tender, which is received after the specified date and time for receipt of tenders will be treated as "late" tender and will be ignored.

### **23. Alteration and Withdrawal of Tender**

23.1 The tenderer, after submitting its tender, is permitted to alter / modify its tender so long as such alterations / modifications are received duly signed, sealed and marked like the original tender, within the deadline for submission of tenders. Alterations / modifications to tenders received after

the prescribed deadline will not be considered.

23.2 No tender should be withdrawn after the deadline for submission of tender and before expiry of the tender validity period. If a tenderer withdraws the tender during this period, it will result in forfeiture of the earnest money furnished by the tenderer in its tender besides other sanctions by BRBNMPL.

## **E TENDER OPENING**

### **24. Opening of Tenders**

24.1 BRBNMPL will open the tenders at the specified date and time and at the specified place as indicated in clause 1 of NIT. In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for BRBNMPL, the tenders will be opened at the appointed time and place on the next working day.

24.2 Authorized representatives of the tenderers, who have submitted tenders on time may attend the tender opening, provided they bring with them letters of authority as per the format in SBD XVII from the corresponding tenderers. The tender opening official(s) will prepare a list of the representatives attending the tender opening. The list will contain the representatives' names & signatures and corresponding tenderers' names and addresses.

24.3 During the tender opening, the tender opening official(s) will read the salient features of the tenders like description of the goods offered, price, special discount if any, delivery period, whether earnest money furnished or not and any other special features of the tenders, as deemed fit by the tender opening official(s).

24.4 In the case of two bid system mentioned in clause 20.8 above, the techno-commercial bids are to be opened in the first instance, at the prescribed time and date. These bids shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the tender document. Thereafter, in the second stage, the financial bids of only the technically acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation. Other financial bids would be returned unopened to the respective bidders under Registered AD / Reliable Courier or any other mode with proof of delivery.

## **F SCRUTINY AND EVALUATION OF TENDERS**

### **25. Basic Principle**

Tenders will be evaluated on the basis of the terms & conditions already incorporated in the tender document, based on which tenders have been received and the terms, conditions etc. mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

### **26. Preliminary Scrutiny of Tenders**

26.1 The tenders will first be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the tender document, the tenders, that do not meet the basic requirements, are liable to be treated as unresponsive and ignored.

26.2 The following are some of the important aspects, for which a tender may be declared unresponsive and ignored;

- a) Tender is not in the prescribed format or is unsigned or not signed as per the stipulations in the bid document.
- b) Tenderer is not eligible.
- c) Tender validity is shorter than the required period.
- d) Required EMD has not been provided or exemption from EMD is claimed without acceptable proof of exemption.
- e) Tenderer has quoted for goods manufactured by a different firm without the required authority letter from that manufacturer.
- f) Tenderer has not agreed to give the required performance security.
- g) Goods offered are sub-standard, not meeting the required specification etc.
- h) Tenderer has not agreed to essential condition(s) specially



incorporated in the tender enquiry.

i) Against a schedule in the List of Requirement (incorporated in the tender enquiry), the Tenderer has not quoted for the entire requirement as specified in that schedule. (Example: In a schedule, it has been stipulated that the Tenderer will supply the equipment, install and commission it and also train BRBNMPL 's operators for operating the equipment. The Tenderer has however, quoted only for supply of the equipment).

#### **27. Minor Infirmary / Irregularity / Non-Conformity**

If during the preliminary examination, BRBNMPL find any minor infirmity and / or irregularity and / or non-conformity in a tender, BRBNMPL may waive the same

provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the tenderers. Wherever necessary, BRBNMPL will convey its observation on such 'minor' issues to the tenderer by registered / speed post etc. asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

#### **28. Discrepancy in Prices**

28.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless BRBNMPL feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.

28.2 If there is an error in a total price, which has been worked out through addition and / or subtraction of subtotals, the subtotals shall prevail and the total corrected; and

28.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 28.1 and 28.2 above.

28.4 If, as per the judgment of BRBNMPL, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of BRBNMPL, the tender is liable to be ignored.

#### **29. Discrepancy between original and copies of Tender**

In case any discrepancy is observed between the text etc. of the original and that of other copies of the same tender set, the text etc. of the original shall prevail. Here also, BRBNMPL will convey its observation suitably to the tenderer by registered / Speed post and, if the tenderer does not accept BRBNMPL's observation, that tender will be liable to be ignored.

#### **30. Clarification of Bids**

During evaluation and comparison of bids, purchaser may, at its discretion ask the bidder or clarification of its bid. The clarification should be received within 7 days from the bidder from date of receipt of such request. The request for clarification shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. No post bid clarification at the initiative of the bidder shall be entertained.

#### **31. Qualification / Eligibility Criteria**

Tenders of the tenderers, who do not meet the required qualification / eligibility criteria prescribed in Section IX, will be treated as unresponsive and will not be considered further.

#### **32. Conversion of tender currencies to Indian Rupees**

In case the tender document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the Bill Currency Selling exchange rates established by the State Bank of India for similar transactions, as on the date of tender opening.

#### **33. Schedule-wise Evaluation**

In case the List of Requirements contains more than one schedule, the responsive tenders will be evaluated and compared separately for each schedule. The tender for a schedule will not be considered if the complete requirements prescribed in that schedule are not

included in the tender. However, as already mentioned in GIT sub clause 12.2, tenderers have the option to quote for any one or more schedules and offer discounts for combined schedules. Such discounts, wherever applicable, will be taken into account to determine the tender or combination of tenders offering the lowest evaluated cost for BRBNMPL in deciding the successful tenderer for each schedule, subject to that tenderer(s) being responsive.

#### **34. Comparison on CIF/FOR Destination Basis**

Unless mentioned otherwise in Section - III - Special Instructions to Tenderers and Section - VI - List of Requirements, the comparison of the responsive tenders shall be on CIF/FOR destination basis, duly delivered, commissioned, etc. as the case may be.

#### **35. Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders**

35.1 Further to GIT Clause 33 above, BRBNMPL's evaluation of a tender will include and take into account the following:

a) In the case of goods offered from within India (goods manufactured in India or goods of foreign origin already located in India), Goods and Services Tax or any other similar duties and taxes, which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and

b) In the case of goods of foreign origin offered from abroad, customs duty and other similar import duties/taxes, which will be contractually payable (to the tenderer) on the goods if the contract is awarded on the tenderer.

35.2 BRBNMPL's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.

35.3 As per policies of the Government from time to time, the purchaser reserves its option to give price preference to Micro & Small Scale Industries in comparison to the large scale Industries. This price preference cannot however be taken for granted and every endeavour need to be made by such firms to bring down cost and achieve competitiveness.

35.4 If the tenders have been invited on variable price basis, the tenders will be evaluated, compared and ranked on the basis of the position as prevailing on the day of tender opening and not on the basis of any future date.

#### **36. Tenderer's capability to perform the contract**

36.1 BRBNMPL, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.

36.2 The above mentioned determination will, inter-alia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of BRBNMPL as incorporated in the tender document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by BRBNMPL.

#### **37. Cartel Formation / Pool Rates**

Cartel formation or quotation of Pool / Co-ordinated rates, leading to 'Appreciable Adverse Effect on Competition' (AAEC) as identified in Competition Act, 2002, as amended by Competition (Amendment) Act, 2007, would be considered as a serious misdemeanor and would be dealt accordingly as per Clause 44 below.

#### **38. Negotiations**

Normally there would be no price negotiations. But BRBNMPL reserves its right to negotiate with the lowest acceptable bidder (L1), who is techno-commercially cleared / approved for supply of bulk quantity and on whom the contract would have been placed but for the decision to negotiate, under special circumstances in accordance with CVC guidelines. Selection of Contractors by negotiations should be a rare exception rather than the rule and may be resorted to only in the exceptional circumstances under the following circumstances: -

- (i) Where the procurement is done on nomination basis (PAC and STE without PAC);
- (ii) Procurement is from a single or limited sources of supply;
- (iii) Procurements where there is suspicion of cartel formation.

### **39. Contacting BRBNMPL**

**39.1.** From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact BRBNMPL for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.

**39.2.** It will be treated as a serious misdemeanour in case a tenderer attempts to influence BRBNMPL's decision on scrutiny, comparison, evaluation and award of the contracts. In such a case the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by BRBNMPL, in terms of clause 44 of GIT.

### **G AWARD OF CONTRACT**

#### **40. BRBNMPL's Right to Accept any Tender and to Reject any or all Tenders**

BRBNMPL reserves the right to accept in part or in full any tender or reject any tender without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.

#### **41. Award Criteria**

Subject to GIT clause 36 above, the contract will be awarded to the lowest evaluated responsive tenderer decided by BRBNMPL in terms of GIT Clause 34.

#### **42. Variation of Quantities at the Time of Award**

Normally, there will be no variation of quantities at the time of awarding the contract. However, at the time of awarding the contract, the quantity to be procured shall be rejudged based on the current data, since the ground situation may have very well changed. In that case, BRBNMPL reserves the right to increase or decrease the tendered quantity by 25 (Twenty-Five) per cent for ordering, if so warranted. A clause would be included in SIT giving further details.

#### **43. Parallel Contracts**

BRBNMPL reserves its right to conclude Parallel contracts, with more than one bidder (for the same tender). If this is foreseen at the time of Tendering, a clause would be included in SIT giving further details.

#### **44. Serious Misdemeanours**

**44.1.** Following would be considered serious misdemeanours:

- i. Submission of misleading / false / fraudulent information/ documents by the bidder in their bid
- ii. Submission of fraudulent / un-encashable Financial Instruments stipulated under Tender or Contract Condition.
- iii. Violation of Code of Ethics laid down in Clause 32 of the GCC.
- iv. Cartel formation or quotation of Pool / coordinated rates leading to "Appreciable Adverse Effect on Competition" (AAEC) as identified under the Competition Act, 2002.
- v. Deliberate attempts to pass off inferior goods or short quantities.
- vi. Violation of Fall Clause by Rate Contract holding Firms.
- vii. Attempts to influence BRBNMPL's Decisions on scrutiny, comparison, evaluation and award of Tender.

**44.2.** Besides, suitable administrative actions, like rejecting the offers or delisting of registered firms, BRBNMPL would ban / blacklist Tenderers committing such misdemeanour, including declaring them ineligible to be awarded BRBNMPL contracts for indefinite or for a stated period.

#### **45. Notification of Award**

**45.1** Before expiry of the tender validity period, BRBNMPL will notify the successful tenderer(s) in writing, by registered / speed post or by fax / email / telex / cable (to be confirmed by registered / speed post) that its tender for goods & services, which have been selected by BRBNMPL, has been accepted, also briefly indicating therein the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful tenderer must furnish to BRBNMPL the required performance security within twenty-one days from the date of this

notification. Relevant details about the performance security have been provided under GCC Clause 6 under Section IV.

**45.2** The notification of award shall constitute the conclusion of the contract.

#### **46. Issue of Contract**

**46.1** Within seven working days of receipt of performance security, BRBNMPL will send the contract form (as per Section XVI) duly completed and signed, in duplicate, to the successful tenderer by registered / speed post.

**46.2** Within seven days from the date of issue of the contract, the successful tenderer will return the original copy of the contract, duly signed and dated, to BRBNMPL by registered / speed post.

#### **47. Non-receipt of Performance Security and Contract by BRBNMPL**

Failure of the successful tenderer in providing performance security within 21 days of receipt of notification of award and / or returning contract copy duly signed in terms of GIT clauses 45 and 46 above shall make the tenderer liable for forfeiture of its EMD and, also, for further sanctions by BRBNMPL against it.

#### **48. Return of EMD**

The earnest money of the successful tenderer and the unsuccessful tenderers will be returned to them without any interest, whatsoever, in terms of GIT Clause 18.6.

#### **49. Publication of Tender Result**

The name and address of the successful tenderer(s) receiving the contract(s) will be mentioned in the notice board/bulletin/ web site of BRBNMPL.

#### **Part II: Additional General Instructions Applicable to Specific Types of Tenders:**

##### **50. Rate Contract Tenders**

**50.1** In addition to GIT in Part I above, following GIT will be applicable to rate contract Tenders:

- i. Earnest Money Deposit (EMD) is to be furnished by unregistered bidders only.
- ii. In the Schedule of Requirement, no commitment of quantity is mentioned; only the anticipated requirement is mentioned without any commitment.
- iii. BRBNMPL reserves the right to conclude more than one rate contract for the same item.
- iv. Unless otherwise specified in SIT, the currency of a Rate Contract would normally be for one year.
- v. During the currency of the Rate Contract, BRBNMPL may withdraw the rate contract by serving suitable notice. The prescribed notice period is generally thirty days.
- vi. During the currency of the Rate Contract, BRBNMPL would have the option to renegotiate the price with the rate contract holders.
- vii. During the currency of the Rate Contract, in case of emergency, BRBNMPL may purchase the same item through ad hoc contract with a new supplier.
- viii. Usually, the terms of delivery in rate contracts are FOR dispatching station.
- ix. Supply orders, incorporating definite quantity of goods to be supplied along with all other required conditions following the rate contract terms, will be issued by nominated Direct Demanding Officers (DDO) for obtaining supplies through the rate contract.
- x. BRBNMPL is entitled to place supply orders up to the last day of the validity of the rate contract and, though supplies against such supply orders will be affected beyond the validity period of the rate contract, all such supply will be guided by the terms & conditions of the rate contract.
- xi. The rate contract will be guided by "Fall Clause" as described below.

##### **50.2 Fall Clause**

If the rate contract holder reduces its price or sells or even offers to sell the rate contracted goods, following conditions of sale similar to those of the rate contract, at a price lower than the rate contract price, to any person or organization during the currency of the rate

contract, the rate contract price will be automatically reduced with effect from that date for all the subsequent supplies under the rate contract and the rate contract amended accordingly. Any violation of the fall clause would be considered a serious misdemeanour under clause 44 of the GIT and action, as appropriate, would be taken as per provision of that clause.

### 50.3 Performance Security

Depending on the anticipated overall drawl against a rate contract and, also, anticipated number of parallel rate contracts to be issued for an item, the procuring entity shall consider obtaining Performance Security @ 5% (Five percent) of the value of supply order in the supply orders issued against rate contracts on the rate contract holder.

### 50.4 Renewal of Rate Contracts

In case it is not possible to conclude new rate contracts before the expiry of existing ones, due to some special reasons, the existing rate contracts would be extended with same terms, conditions etc. for a suitable period, with the consent of the rate contract holders. Rate contracts of the firms, who do not agree to such extension, will be left out. Period of such extension would generally not be more than three months.

### 51. Prequalification Bidding

**51.1** Prequalification Bidding is for short listing of qualified Bidders who fulfil the Prequalification criteria as laid down in SIT or in Section IX of SBD - "Qualification Criteria" for procurement of Goods or Services as listed in Section VI of SBD - "List of Requirements". Short listed Bidders would be informed of their qualification and short listing in accordance with the stipulations laid down in the SIT. Unless otherwise stipulated in the SIT the PQB short listing would be valid only till the next procurement tender. Further conditions will be elaborated in the SIT.

**51.2** If stipulated in the SIT, only these short listed qualified bidders would be invited to participate in the Procurement of the requirements. Otherwise SIT may also indicate that instead of floating a separate PQB tender, it may be combined with the Procurement Tender, as a three bid tender. Initially the first Packet containing PQB would be opened and evaluation would be done. Thereafter the rest of tender would be handled as a two bid system for only those bidders who succeed in PQB.

### 52. Tenders involving Samples

**52.1** Normally no sample would be called along with the offer for evaluation.

**52.2 Purchaser's Samples:** If indicated in the SIT, a Purchaser's sample may be displayed to indicate required characteristics over and above the Specifications for perusal of the bidders. Name and Designation of the Custodian, Place, Dates and Time of inspection of Purchaser's sample will be indicated in the SIT. The supplies in the contract will have to meet the indicated required characteristics for which the Purchaser's sample was displayed, besides meeting the specification listed in Section VII - "Technical Specifications" of the SBD. He would be issued a sealed Purchaser's sample for the purpose at the time of award of the contract.

**52.3 Pre-Production Samples:** If stipulated in SIT, successful Contractor would be required to submit a Pre-Production sample(s) to the Inspecting Officer/ or the nominated authority mentioned in the contract within the time specified therein. If the Contractor is unable to do so, he must apply immediately to the Office issuing the acceptance of tender for extension of time stating the reasons for the delay. If the Purchaser is satisfied that a reasonable ground for an extension of time exists, he may allow such additional time as he considers to be justified (and his decision shall be final) with or without alteration in the delivery period stipulated in the contract and on such conditions as he deems fit. In the event of the failure of the Contractor to deliver the pre-production sample by the date specified in the acceptance of tender or any other date to which the time may be extended as aforesaid by the Purchaser or of the rejection of the sample, the Purchaser shall be entitled to cancel the contract and, if so desired, purchase or authorize the purchase of the stores at the risk

and cost of the Contractor (unless specified otherwise in the SIT). In such an event, in case of Security Items where urgency develops due to such delays, BRBNMPL reserves its right to procure not more than one year's requirement against this "Risk & Cost" tender from existing pre-qualified and security cleared firms. Bulk production and supply will only be allowed if this sample(s) pass the Tests laid down in the Section VIII "Quality Control Requirements" in the SBD.

**52.4 Testing of Samples:** Tests, procedures and testing laboratories for testing samples would be detailed in the Section VIII - "Quality Control Requirements" in the SBD.

**52.5 Validation / Prolonged Trials:** If specified in SIT or in the Section VIII - "Quality Control Requirements" in the SBD, pre-production samples may have to undergo validation or extended trial before their performance can be declared satisfactory.

**52.6** Parameters Settings and duration of Validation Tests would be indicated in the Section VIII - "Quality Control Requirements" in the SBD. It would also stipulate the period or event marking end of validation trials. It would also be indicated therein whether the Permission to start bulk production will have to wait full validation or it can go on in parallel.

### 53. Expression of Interest (EOI) Tenders:

**53.1** EOI tenders are floated for short listing firms who are willing and qualified for: -

i. Registration of Vendors for Supply of particular Stores or certain categories of Stores.

ii. Development of new items or Indigenization of Imported stores

**53.2** The qualification / eligibility criteria required and the format of submission

of such Data would be indicated in the Section IX - "Qualification Criteria" in the SBD.

**53.3** Objectives and scope of requirement would be indicated in the Section VI -

"List of Requirements" in the SBD. Indicative quantity required yearly and its future requirements would also be indicated.

**53.4** In case of EOI for Development of new Items or for Indigenization, prospective firms would be given opportunity to inspect the Machine / Item at the place of installation at the place, dates and Time mentioned in SIT.

**53.5** In case EOI is for registration of vendors, Registration Fees and validity period of registration would be detailed in the SIT.

**53.6 Short List of Suppliers:** The suppliers shall be evaluated for short listing,

inter-alia, based on their past experience of supplying goods in similar context, financial strength, technical capabilities etc. Each supplier will be assigned scores based on weightages assigned to each of the criteria mentioned in the Section IX - "Qualification Criteria" in the SBD.

**53.7** If stipulated in the SIT, the Firm's capacity and Capability may be assessed by a nominated Committee or by a third party nominated by BRBNMPL.

**53.8** All suppliers who secure the minimum required marks (normally 50% unless otherwise specified in the Section IX) would be short listed. Section IX may alternatively specify minimum qualifying requirement for each of the criteria i.e. minimum years of experience, minimum number of assignments executed, minimum turnover etc. Under such circumstances, all suppliers who meet the minimum requirement, as specified, will be short listed.

**53.9** In case of EOI for registration of vendors, registration letters would be issued to the short listed tenderers.

**53.10** In case of EOI for development / indigenization, these shortlisted tenderers would only be allowed to participate in the subsequent development/ indigenization tenders.

### 54. Tenders for Disposal of Scrap

**54.1** Introduction: The tender is for Sale of Scrap material lying at various locations. Details of scrap for sale including Description, Present Condition, Lot Size and its Location would be given in the Section VI - "List of Requirements".

**54.2** "As Is; Where Is; Whatever Is" Basis of This Sale:

**54.2.1** This sale of Scrap is strictly on "As is; Where is; Whatever is" basis. Tenderer must satisfy himself on all matters with regard to quality, quantity, nature of stores etc., before tendering as no complaint or representation of any kind shall be entertained after the safe contract is concluded.

**54.2.2** The description of lot in the particulars of sale has been given for the purpose of identification thereof only and the use of such description shall not constitute the sale thereof to be sale by description and no sale shall be invalid by reason of any defect or deviation or variation in any lot or on account of any lot not being exactly described and the purchaser shall not be entitled to claim any damage or compensation whatsoever on account of such fault, error in description, weight or the like.

**54.2.3** All quantities of scrap whether by weight or measurement mentioned in the Tender notice are only approximate and should the quantity, on actual weight or measurement basis as the case may be and whenever delivered on such basis, works out less than the advertised and for projected quantity, the BRBNMPL shall not under any circumstances be liable to make good any such deficiency

**54.2.4** BRBNMPL reserves right to increase or decrease the quantity of any item or items or terminate the contract at any stage by giving one week's notice. No claim whatsoever shall lie against the BRBNMPL on account of such termination of the contract or variation in the quantity.

**54.2.5** BRBNMPL shall have the right to remove certain items which it feels were not intended for sale but were inadvertently made a part of the scrap material or of the lot offered for sale lying at the premises or were joined or attached to the material offered for sale.

**54.2.6** Tenderers desirous of purchasing and participating in the tender must visit the site before submitting the offer, after taking due permission from the concerned Stock Holders. The Tenderers submitting the offers shall be deemed to have visited the site and acquainted themselves thoroughly with materials intended for sale in all respect.

**54.2.7** Any person giving offer shall be deemed to have made himself fully conversant with the Terms and Conditions of the Tender Sale, as well as the location and condition of the materials being sold and shall be deemed to have agreed to all the stated terms and conditions herein under.

#### **54.3 Submission of Offer**

**54.3.1** Unless specified otherwise in the SIT, tenders shall hold good for acceptance for a minimum period of 90 days (ninety days) from the date of opening of the tenders. The offers of the tenderers shall be irrevocable.

**54.3.2** The BRBNMPL reserves right to reject any offer without assigning any reason there for.

**54.3.3** Unless otherwise stated in the SIT, the amount of EMD in such tenders would be 5% of the value of the tender. The Earnest Money shall be forfeited if the tenderer unilaterally withdraws amends, impairs or derogates from his offer in any respect within the period of validity of his offer.

**54.3.4** If the offer of the tenderer is not accepted by the BRBNMPL, the Earnest Money deposit made by the tenderer shall be refunded to him. No interest shall be payable on such refunds. The EMD deposited by the successful tenderer shall remain with the BRBNMPL till payment of the security deposit (SD) money, as stipulated in relevant Clause, has been made. It may be adjusted as part of the total SD money at the discretion of the BRBNMPL.

**54.3.5** Duties, taxes and other levies of local bodies, whatever in force, shall be payable extra by the purchaser as per rules applicable to BRBNMPL. Current and valid PAN and Goods and Services Tax Identification Number (GSTIN), wherever applicable, must be provided in the Bid of the Tenderer.

**54.3.6** All arrangement for lifting and transportation of scrap material, including manpower, crane, transport vehicle and trolley etc., if required shall be made by the purchaser concerned only and the BRBNMPL shall not provide or help in providing any such arrangements and the rate quoted by the purchaser must include such and all incidental charges.

**54.3.7** Registered dealers who are exempted from payment of Goods and Services Tax must give reference to Goods and Services Tax laws which provides such exemption or submit any certificate as issued by the Goods and Services tax authorities and shall be required to submit necessary form duly completed in all respect to BRBNMPL or its representatives before obtaining delivery order, duly signed by the partner of the firm or the person authorized to do so.

**54.3.8** Evaluation of tenders for Disposal of scrap will be done on similar basis as Tenders for Procurement of Goods, except that the selection of the bidders shall be on the basis of the highest responsive Bidder (H1). In case full quantity is not offered to be taken

by the Highest Bidder, parallel contracts would be placed.

#### **54.4 Notification of Acceptance and Award of Contract:**

**54.4.1** The successful tenderer, herein after referred to as purchasers, shall have to submit security deposit (SD) @ 10% of the total sale value of the contract within 5 working days of issue of the sale contract (excluding the date of issue of sale contract). The SD shall be deposited in the form of account payee demand draft drawn on any scheduled commercial bank in India in favour of Bharatiya Reserve Bank Note Mudran Private Limited or through online transfer or through other electronic mode of payment as mentioned in clause 3 of NIT in connection with EMD.

**54.4.2** The purchaser has to pay balance payment within 20 days from the date of notification of acceptance, which is to be issued by BRBNMPL or his authorized representative, in the form of account payee demand draft drawn on any scheduled commercial bank in India in favour of Bharatiya Reserve Bank Note Mudran Private Limited or through online transfer or through other electronic mode of payment. In case of any, default to deposit balance payment, BRBNMPL reserves right to terminate the contract and forfeit the security deposit.

#### **54.5 Disposal Tenders for Security and Sensitive Machinery and Items:**

**54.5.1 Non-Misuse Declaration:** The bidder is required to give an undertaking that he or his employees or legal heirs will ensure that such items purchased from BRBNMPL, will be utilized only for scrap recovery and will not be misused for any other purpose. He will also ensure that this undertaking is honoured and it got underwritten from further down the line scrap processors / re-purchasers, if any. In case his firm changes hands, it will be his responsibility to ensure that the new owners honour and underwrite this undertaking.

**54.5.2** If stipulated in SIT delivery would be given only in dismantled / cutup condition.

#### **55. Development and Indigenization Tenders:**

**55.1** Already developed firms or firms who have already received development orders for the item (with whatever results) would not be considered in such tenders.

**55.2** If specified in SIT the contract documents may be issued free of cost, and submission of earnest money deposit and security deposit may be relaxed.

**55.3** If specified in SIT, The Tenderers may quote separately for  
i. Price / rate for bulk supply of item in development / indigenization supplies and

ii. Separately, cost of development including cost of pre-production samples. Firms would be paid only for the number of samples specified in the Tender. If he has to manufacture more samples due to failure of earlier one, he would not be paid for it.

**55.4** L1 would be determined on the basis of rate of item quoted including reference to total cost of the development cost (including the cost of prototype) plus the notional total cost of quantities that will be required over next three years, wherever applicable.

**55.5** Development contracts may, as far as feasible, be concluded with two or more Contractors in parallel.

**55.6** The ratio of splitting of the supply order between various development agencies / firms in cases of parallel development, including criteria thereof, would be specified in the SIT.

**55.7** However, in case the requirement is meagre and complex technology is involved, or quantity of the equipment / spares is

limited/small/uneconomic if distributed between two vendors, the entire order could be placed upon the L1 vendor only.

**55.8** If specified in SIT, Advance and Intermediate Payment to Suppliers may be allowed.

**55.9** Quantity for Development Commitment In Next three years, after the newly developed firm is able to successfully complete Development orders with +5% tolerances, 20% of annual quantity requirement may be reserved for Newly Developed firms.

**55.10** Period of Development Commitment

A newly developed firm would be granted this facility till only three years after completing the initial Development order. However this facility is not a bar to the firm from competing with

already established firms for quantities larger than 20% provided their prices and performance so warrant. Thereafter they would have to compete on equal terms with other already developed firms.

*(To be signed & stamped and submitted  
along with Techno-commercial Bid Part –I)*

### Section III. Special Instructions to Tenderers (SIT)

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/ substitute/ supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below:

In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

(Clauses of GIT listed below include a possibility for variation in their provisions through SIT. There could be other clauses in SIT as deemed fit.)

SL. No.	GIT Clause No.	Topic	SIT Provision
1	2	Language of Tender	To be submitted in <b>English</b> only.
2	3	Eligible Tenderers	Applicable. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
3	4	Eligible Goods & Services (Origin of Goods)	Applicable. In addition, A bidder is permitted to procure raw material, components, subassemblies etc. from the vendors from countries which share a land border with India. Such vendors will not be required to be registered with the Competent Authority as it is not regarded as "sub-contracting" However, in case a bidder has proposed to supply finished goods procured directly / indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).  <b>See Note A Below.</b>
4	8	Pre-bid Conference	Not applicable
5	11.2	Tender Currency	<b>Indian Rupees only.</b>
6	12.8	GST	I) Wherever applicable bidder shall quote the exact Tax percentage F.O.R. Salboni (West Bengal).  Supplier shall be solely responsible for correctness of the HSN Code of item to be supplied and its applicable rate. Any differential amount in taxes and duties including the

			<p>consequential penalty amount, if any, due incorrect HSN Code will be borne by Supplier. BRBNMPL will not be responsible for any ambiguities arising for incorrect HSN Code and its applicable rate. Supplier shall be solely responsible for any Legal Complicacy arising due to this.</p> <p>II) Bidder(s) needs to ensure that GST registration will be “Active” on the date of bid opening, its evaluation and throughout the tenure of contract. Failing of which will lead to termination of contract and action as deemed fit as per terms of tender and also if any payment due to the Contractor/supplier against Bills/Performance Security etc. will be kept on hold till the time bidder/Contractor/service provider furnishes the GST clearance certificate issued by the appropriate authority to BRBNMPL.</p>
7	12.11	Applicability of Octroi and Local taxes	No change, only firm price to be quoted.
8	18	EMD	<b>Applicable, Annexure-D: Bid Security Declaration to be submitted.</b>
9	19	Tender Validity	<b>120 days</b>
10	20	<p>Signing and Sealing of Tender</p> <p>20.4. Number of Copies of Tenders to be submitted</p> <p>20.9: E procurement:</p>	<p>No Change.</p> <p><b>20.4 No. of copies- One</b></p> <p>20.9 E procurement: Not permitted</p>
11	24.4	Opening of Tenders	Price bids of only those bidders who qualify in the Techno-Commercial Bid (Part-I) will be opened.
12	31	Qualification / Eligibility Criteria	<p>Pre-qualification criteria with regard to Prior Turnover and Prior experience may be relaxed for all MSEs and Startups (Whether MSEs or otherwise) Micro &amp; Small Enterprises as per GOI guidelines subject to meeting of quality and technical specifications [refer Annexure- K&amp;L]</p> <p>Relaxation in Qualification / Eligibility criteria may also be considered for Class-I and II Local Suppliers as per para 10 a and b of revised Make in India Order. [refer Annexure-J]</p> <p>Note: <b>This tender does not falls under the category of procurement of items/services related to public safety, health, critical security operations and equipment, etc [Ref. Sl.No.8 of Annexure-K &amp; Sl.No.5 of Annexure-L]</b></p>
13	33	Schedule-wise Evaluation.	The Tender will be finalized on the basis of <b>Overall L1</b> & as per other terms & conditions of the tender.

14	35.2, 35.3	Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders	Price bid evaluation will be subject to purchase preference as per Government guidelines [Refer Annexure - J, Annexure – K, Annexure-L & Annexure-M]. <b><i>“The tender quantity CANNOT be SPLIT / the tender quantity NOT Divisible in nature”.</i></b>
15	50	Rate Contract Tenders	NOT APPLICABLE
16	51	PQB Tenders	NOT APPLICABLE
17	52.2	Purchaser's Samples	NOT APPLICABLE
18	52.3	Pre-Production Samples:	NOT APPLICABLE
19	53	EOI Tenders	NOT APPLICABLE
20	54	Tenders for Disposal of Scrap	NOT APPLICABLE
21	55	Development and Indigenization Tenders	NOT APPLICABLE

**Note A:*****CLAUSES REGARDING RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA***

1. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
2. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
3. "Tender" will include other forms of procurement, except where the context requires otherwise.
4. "Bidder from a country which shares a land border with India" means: -
  - a. An entity incorporated, established or registered in such a country; or
  - b. A subsidiary of an entity incorporated, established or registered in such a country; or
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d. An entity whose beneficial owner is situated in such a country; or
  - e. An Indian (or other) agent of such an entity; or
  - f. A natural person who is a citizen of such a country; or



g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

5. The beneficial owner for the purpose of 4 above will be as under:

i. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation—

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder agreements or voting agreements;

ii. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

iii. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

iv. Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

v. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

6. An "Agent" is a person employed to do any act for another, or to represent another in dealings with third person.

7. The successful bidder shall not be allowed to sub-contract works to any Contractor from a country which shares a land border with India unless such Contractor is registered with the Competent Authority. The definition of "Contractor from a country which shares a land border with India" shall be as in paragraph 4 above.

8. A bidder is permitted to procure raw material, components, subassemblies etc. from the vendors from countries which share a land border with India. Such vendors will not be required to be registered with the Competent Authority as it is not regarded as "sub-contracting". However, in case a bidder has proposed to supply finished goods procured directly / indirectly

from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.

9. Bidders from those Countries (even if sharing a land border with India) to which Government of India have extended lines of credit or in which Government of India is engaged in development projects have been exempted from the requirement of prior registration. Updated list of Countries to which lines of credit have been extended or in which development projects have been undertaken are available in the website in the Ministry of External Affairs.

\*\*\*\*\*

## **SECTION IV: GENERAL CONDITIONS OF CONTRACT (GCC)**

This Section-IV shall be signed & stamped and submitted along with the **Techno-Commercial Bid –Part I** as acceptance of terms & conditions. *(Offer without the copies of Section-IV shall liable to be rejected)*

**1. Definitions; Interpretation and Abbreviations:** In the contract, unless the context otherwise requires:

### **1.1 Definitions and Interpretation:**

(i) "Contract" means the letter or memorandum communicating to the Contractor the acceptance of this tender and includes "Intimation of Award" of his tender; "Contract" includes Bid Invitation, Instructions to Tenderers, Tender, Acceptance of Tender, General Conditions of Contract, Schedule of Requirements, particulars and the other conditions specified in the acceptance of tender and includes a repeat order which has been accepted or acted upon by the Contractor and a formal agreement, if executed;

(ii) "Contractor" or "Supplier" means the individual or the firm supplying the goods and services. The term includes his employees, successors, authorized dealers/representatives, stockists and distributors. Other homologous terms are: Vendor, Firm, Manufacturer, OEM etc.;

(iii) "Drawing" means the drawing or drawings specified in or annexed to the Specifications;

(iv) "Government" means the Central Government or a State Government as the case may be;

(v) The "Inspecting Officer" means the person, or organisation specified in the contract for the purpose of inspection of stores of work under the contract and includes his / their authorised representative;

(vi) "Purchase Officer" means the officer signing the acceptance of tender and includes any officer who has authority to execute the relevant contract on behalf of the Purchaser;

(vii) The "Purchaser" means BRBNMPL - the organization purchasing goods and services as incorporated in the documents;

(viii) "Signed" includes stamped, except in the case of an acceptance of tender or any amendment thereof;

(ix) "Test" means such test as is prescribed by the particulars or considered necessary by the Inspecting Officer whether performed or made by the Inspecting Officer or any agency acting under the direction of the Inspecting Officer;

(x) The delivery of the stores shall be deemed to take place on delivery of the stores in accordance with the terms of the contract, after approval by the Inspecting Officer if so provided in the contract:

- a. The consignee at his premises; or
- b. Where so provided, the interim consignee at his premises; or
- c. A carrier or other person named in the contract for the purpose of transmission to the consignee: or
- d. The consignee at the destination station in case of contract stipulating for delivery of stores at destination station.

(xi) "Writing" or "Written" includes matter either in whole or in part, in manuscript, typewritten, lithographed, cyclostyled, photographed or printed under or over signature or seal, as the case may be.

(xii) Words in the singular include the plural and vice-versa.

(xiii) Words importing the masculine gender shall be taken to include the feminine gender and words importing persons shall include any Company or association or body of individuals, whether incorporated or not.

(xiv) The heading of these conditions shall not affect the interpretation or construction thereof.

(xv) Terms and expression not herein defined shall have the meanings assigned to them in the Indian Sale of Goods Act, 1930 (as amended) or the Indian Contract Act, 1872 (as amended) or the General Clauses Act, 1897 (as amended) as the case may be.

(xvi) PARTIES: The parties to the contract are the "Contractor" and the "Purchaser", as defined above;

(xvii) "Tender" means quotation / bid received from a firm / supplier.

(xviii) "Goods" means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, industrial plant etc. which the supplier is required to supply to BRBNMPL under the contract. Other homologous terms are: Stores, Materials etc.

(xix) "Services" means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.

(xx) "Earnest Money Deposit" (EMD) means monetary guarantee to be furnished by a Tenderer along with its tender.

(xxi) "Performance Security" means monetary guarantee to be furnished by the successful Tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit or Performance Bank Guarantee.

(xxii) "Consignee" means the person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of dispatch to another person as provided in the Contract then that "another" person is the consignee, also known as ultimate consignee.

(xxiii) "Specification" or "Technical Specification" means the drawing/document/standard that prescribes the requirement to which product or service has to conform.

(xxiv) "Inspection" means activities such as measuring, examining, testing, analysing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.

(xxv) "Day" means calendar day.

### **1.2 Abbreviations:**

"AAEC" means "Appreciable Adverse Effect on Competition" as per Competition Act

"BG" means Bank Guarantee

"BL or B/L" means Bill of Lading

"CD" means Custom Duty

"CIF" means Cost, Insurance and Freight Included

"CMD" means Chairman and Managing Director

"CPSU" means Central Public Sector Undertaking

"DDO" means Direct Demanding Officer in Rate Contracts

"DGS&D" means Directorate General of Supplies and Disposals

"DP" means Delivery Period

"ECS" means Electronic clearing system

"EMD" means Earnest money deposit

"EOI" means Expression of Interest (Tendering System)

"ERV" means Exchange rate variations  
 "FAS" means Free alongside shipment  
 "FOB" means Freight on Board  
 "FOR" means Free on Rail  
 "GCC" means General Conditions of Contract  
 "GIT" means General Instructions to Tenderers  
 "GST" means Goods and Services Tax  
 "H1, H2 etc." means First Highest, Second Highest Offers etc. in Disposal Tenders  
 Incoterms means International Commercial Terms, 2000 (of ICC)  
 "L1, L2 etc." means First or second Lowest Offer etc.  
 "LC" means Letter of Credit  
 "LD or L/D" means Liquidated Damages  
 "LSI" means Large Scale Industry  
 "NIT" means Notice Inviting Tenders.  
 "NSIC" means National small industries corporation  
 "PQB" means Pre-qualification bidding  
 "PSU" means Public Sector Undertaking  
 "PVC" means Price variation clause  
 "RC" means Rate contract  
 "RR or R/R" means Railway Receipt  
 "SBD" or "TD" means Standard Bid Document / Tender Document  
 "SCC" means Special Conditions of Contract  
 "SIT" means Special Instructions to Tenderers  
 "BRBNMPL" means Bharatiya Reserve Bank Note Mudran Private Limited  
 "SSI" means Small Scale Industry

## 2. Application

**2.1** The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by the Special Conditions of Contract (SCC) prescribed under Section V of this document.

**2.2** General Conditions of the contract shall not be changed from one tender to other.

### 2.3 Other Laws and Conditions that will govern the Contract:

Besides GCC and SCC following conditions and Laws will also be applicable and would be considered as part of the contract:

- i. Indian Contracts Act, 1872
- ii. Sale of Goods Act, 1930
- iii. Arbitration and Conciliation Act, 1996 read with the Arbitration and Conciliation (Amendment) Act, 2015
- iv. Competition Act, 2002 as amended by Competition (Amendment Act), 2007
- v. Contractor's Tender Submissions including Revised Offer during Negotiations if any
- vi. Conditions in other parts of the Tender Documents
- vii. Correspondence including counter-offers if any; between the Contactor and BRBNMPL during the Tender Finalization
- viii. Notification of award and Contract Documents
- ix. Subsequent Amendments to the Contract

## 3. Use of contract documents and information

**3.1** The supplier shall not, without BRBNMPL's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of BRBNMPL in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this tender document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

**3.2** During the process of procurement of Security or Sensitive Machinery and Items, Tender Documents and the specifications / drawings of such items would be issued only to Vendors having security clearance within the validity of such clearance and he shall maintain absolute secrecy and strictly control the number of copies and access to the documents and copies thereof, in addition to safeguards mentioned in sub-para above.

**3.3** Further, the supplier shall not, without BRBNMPL's prior written consent, make use of any document or information mentioned in GCC sub-clause 3.1 above except for the sole purpose of performing this contract.

**3.4** Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 3.1 above shall remain the property of BRBNMPL and, if advised by BRBNMPL, all copies of all such documents shall be returned to BRBNMPL on completion of the supplier's performance and obligations under this contract.

## 4. Patent Rights

**4.1** The supplier shall, at all times, indemnify BRBNMPL, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against BRBNMPL, BRBNMPL shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to BRBNMPL.

## 5. Country of Origin

**5.1** All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.

**5.2** The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

## 6. Performance Bond / Security

**6.1** Within twenty-one days after the issue of notification of award by BRBNMPL, the supplier shall furnish performance security to BRBNMPL for an amount equal to ten per cent of the total value of the contract, valid up to sixty days after the date of completion of all contractual obligations by the supplier, including the warranty obligations.

**6.2** The Performance security shall be denominated in Indian Rupees or in the currency of the contract and shall be in one of the following forms:

- a. Account Payee Demand Draft drawn on any scheduled commercial bank in India, in favour of Bharatiya Reserve Bank Note Mudran Private Limited as indicated in the clause 3 of NIT in reference to EMD.
- b. Bank Guarantee issued/confirmed by any scheduled commercial bank in India, in the prescribed form as provided in section XV of this document.

**6.3** In the event of any loss due to supplier's failure to fulfil its obligations in terms of the contract, the amount of the performance security shall be payable to BRBNMPL to compensate BRBNMPL for the same.

**6.4** In the event of any amendment issued to the contract, the supplier shall, within twenty-one days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.

**6.5** Subject to GCC sub-clause 6.3 above, BRBNMPL will release the performance security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations.

## **7. Technical Specifications and Standards**

**7.1** The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in 'Technical Specification' and 'Quality Control Requirements' under Sections VII and VIII of this document.

## **8. Packing and Marking**

**8.1** The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

**8.2** The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements under Sections VII and VIII and in SCC under Section V. in case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.

### **8.3 Packing instructions:**

Unless otherwise mentioned in the Technical Specification and Quality Control Requirements under Sections VII and VIII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

- a) contract number and date
- b) brief description of goods including quantity
- c) packing list reference number
- d) country of origin of goods
- e) consignee's name and full address and
- f) supplier's name and address

## **9. Inspection and Quality Control**

**9.1** BRBNMPL and / or its nominated representative(s) will, without any extra cost to BRBNMPL, inspect and/or test the ordered goods and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. BRBNMPL shall inform the supplier in advance, in writing, BRBNMPL's programme for such inspection and, also the identity of the officials to be deputed for this purpose.

**9.2** The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subContractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to BRBNMPL's inspector at no charge to BRBNMPL.

**9.3** If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, BRBNMPL's inspector may reject them and the supplier shall either replace the

rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to BRBNMPL and resubmit the same to BRBNMPL's inspector for conducting the inspections and tests again.

**9.4** In case the contract stipulates pre-despatch inspection of the ordered goods at suppliers' premises, the supplier shall put up the goods for such inspection to BRBNMPL's inspector well ahead of the contractual delivery period, so that BRBNMPL's inspector is able to complete the inspection within the contractual delivery period.

**9.5** If the supplier tenders the goods to BRBNMPL's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to BRBNMPL under the terms & conditions of the contract.

**9.6** BRBNMPL's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by BRBNMPL's inspector during pre-despatch inspection mentioned above.

**9.7** Goods accepted by BRBNMPL and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute BRBNMPL's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause.

## **10. Terms of Delivery**

**10.1** Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the contract.

### **11. Transportation of Goods**

**11.1** The supplier shall not arrange part-shipments and / or transshipments without the express / prior written consent of BRBNMPL.

**11.2 Instructions for transportation of domestic goods including goods already imported by the supplier under its own arrangement:** In case no instruction is provided in this regard in the SCC, the supplier will arrange transportation of the ordered goods as per its own procedure.

**11.3 Shipping Arrangement for Foreign Contracts:** In the case of FOB/FAS contracts, shipping arrangements shall be made by the Ministry of Shipping & Transport (Chartering Wing), New Delhi, INDIA, in accordance with details given in SBD Section XVIII. The Contractor shall give adequate, notice to the Forwarding Agents/Nominees about the readiness of the cargo from time to time and at least six weeks' notice in advance of the required position for finalising the shipping arrangements. In the case of CFR contracts, the Contractor shall arrange shipment in accordance with the requirements of the Ministry of Shipping & Transport, New Delhi, INDIA, indicated in the same SBD section (as applicable).

## **12. Insurance:**

**12.1** Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner.

**12.2** In case of supply of domestic goods on CIF/FOR destination basis, the supplier shall be responsible till the entire stores

contracted for arrive in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured. The insurance cover shall be obtained by the Supplier in its own name and not in the name of BRBNMPL or its Consignee.

12.3 In the case of FOB and CFR offers for import of Goods, insurance shall be arranged by the Purchaser. However, the supplier must give sufficient notice to the Purchaser prior to the date of shipment, so that the Insurance Cover for the shipment can be activated. The Supplier must co-ordinate so as to ensure that the Shipment sails only with Insurance cover in place.

12.4 In case of Import of Goods, even in case where the insurance is paid by the Purchaser, and loss or damage shall be made good by the Contractor free of cost, without waiting for the settlement of insurance claim. The payment after settlement of insurance claim shall be reimbursed by the Purchaser to the Contractor. It will be entirely the responsibility of the Contractor to make good loss/damage without waiting for settlement of insurance claim so that machine is commissioned within the time specified in the contract.

### **13. Spare parts**

**13.1** If specified in the List of Requirements and in the resultant contract, the supplier shall supply / provide any or all of the following materials, information etc. pertaining to spare parts manufactured and / or supplied by the supplier:

- a) The spare parts as selected by BRBNMPL to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and
- b) In case the production of the spare parts is discontinued:
  - i. sufficient advance notice to BRBNMPL before such discontinuation to provide adequate time to BRBNMPL to purchase the required spare parts etc., and
  - ii. immediately following such discontinuation, providing BRBNMPL, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by BRBNMPL.

**13.2** Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods so that the same are supplied to BRBNMPL promptly on receipt of order from BRBNMPL.

### **14. Incidental services**

**14.1** Subject to the stipulation, if any, in the SCC (Section V) and the Technical Specification (Section VII), the supplier shall be required to perform any or all of the following services:

- a) Providing required jigs and tools for assembly, start-up and maintenance of the goods
- b) Supplying required number of operation & maintenance manual for the goods
- c) Installation and commissioning of the goods
- d) Training of BRBNMPL's operators for operating and maintaining the goods
- e) Providing after sales service during the tenure of the contract
- f) Providing maintenance service after expiry of the warranty period of the goods if so incorporated in the contract

**14.2** Prices to be paid to the supplier by BRBNMPL for any of the required incidental services, if not already included in the contract price during the placement of the contract, shall be settled and decided in advance by BRBNMPL and the supplier. However, such prices shall not exceed the contemporary rates charged by the supplier to other customers for similar services.

### **15. Distribution of Despatch Documents for Clearance / Receipt of Goods**

**15.1** The supplier shall send all the relevant despatch documents well in time to BRBNMPL to enable BRBNMPL to clear or receive (as the case may be) the goods in terms of the contract. Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows:

**15.2** For Domestic Goods, including goods already imported by the supplier under its own arrangement, within 24 hours of despatch, the supplier shall notify BRBNMPL, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract):

- (a) Supplier's Invoice indicating, inter alia description and specification of the goods, quantity, unit price, total value;
- (b) Packing list;
- (c) Insurance certificate;
- (d) Railway receipt / Consignment note;
- (e) Manufacturer's guarantee certificate and in-house inspection certificate;
- (f) Inspection certificate issued by BRBNMPL's inspector
- (g) Expected date of arrival of goods at destination and
- (h) Any other document(s), as and if specifically mentioned in the contract.

**15.3** For Imported Goods, within 3 days of dispatch, the supplier will Notify BRBNMPL, consignee and other concerned if mentioned in the contract, the complete details of dispatch and also supply the following documents to them by Courier (or as instructed in the Contract), besides advance intimation by Fax / email:

- (a) Clean on Board Airway Bill/Bill of Lading (B/L)
- (b) Original Invoice
- (c) Packing List
- (d) Certificate of Origin from Seller's Chamber of Commerce
- (e) Certificate of Quality and current manufacture from OEM
- (f) Dangerous Cargo Certificate, if any.
- (g) Insurance Policy of 110% if CIP/CIF contract.
- (h) Performance Bond / Warranty Certificate

### **16. Warranty**

**16.1** The supplier warrants that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by BRBNMPL in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when the design adopted and/or the material used are as per BRBNMPL's specifications) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.

**16.2** This warranty shall remain valid for twelve months after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by BRBNMPL in terms of the contract or for fifteen months from the date of despatch from the supplier's premises for domestic goods (including goods already imported by the supplier under its own arrangement) or for eighteen months after the date of shipment from the port of loading in the source country for imported goods offered from abroad, whichever is earlier, unless specified otherwise in the SCC.

**16.3** In case of any claim arising out of this warranty, BRBNMPL shall promptly notify the same in writing to the supplier.

**16.4** Upon receipt of such notice, the supplier shall, with all reasonable speed (or within the period, if specified in the SCC), repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts / goods after providing their replacements and no claim, whatsoever shall lie on BRBNMPL for such replaced parts/goods thereafter.

**16.5** In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified / replaced goods shall be extended to a further period of twelve months from the date such rectified / replaced goods starts functioning to the satisfaction of BRBNMPL.

**16.6** If the supplier, having been notified, fails to rectify / replace the defect(s) within a reasonable period (or within the period, if specified in the SCC), BRBNMPL may proceed to take such remedial action(s) as deemed fit by BRBNMPL, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which BRBNMPL may have against the supplier.

#### **17. Assignment**

**17.1** The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with BRBNMPL's prior written permission.

#### **18. Sub Contracts**

**18.1** The Supplier shall notify BRBNMPL in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.

**18.2** Sub contract shall be only for bought out items and sub-assemblies.

**18.3** Sub contracts shall also comply with the provisions of GCC Clause 5 ("Country of Origin").

#### **19. Modification of contract**

**19.1** Once a contract has been concluded, the terms and conditions thereof will generally not be varied. However, if necessary, BRBNMPL may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:

- (a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for BRBNMPL,
- (b) mode of packing,
- (c) incidental services to be provided by the supplier
- (d) mode of despatch,
- (e) place of delivery, and
- (f) any other area(s) of the contract, as felt necessary by BRBNMPL depending on the merits of the case.

**19.2** In the event of any such modification / alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by BRBNMPL, the supplier shall convey its views to BRBNMPL within twenty-one days from the date of the supplier's receipt of BRBNMPL's amendment / modification of the contract.

**19.3 Option Clause:** By a suitable provision in the SCC, the Purchaser may reserve the right to increase the ordered quantity by

25% at any time, till final delivery date of the contract, by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of Delivery Period.

#### **20. Prices**

**20.1** Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its tender or during negotiations, if any, and incorporated in the contract except for any price adjustment authorized in the SCC.

#### **21. Taxes and Duties**

**21.1** Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until delivery of the contracted goods to BRBNMPL.

**21.2** Further instruction, if any, shall be as provided in the SCC.

**22. Terms and Mode of Payment:** Unless specified otherwise in SCC, the terms of payments would be as follows:

**22.1** Unless otherwise specified in SCC, usual payment term is 100% on receipt and acceptance of goods by the consignee (Stores) and on production of all required documents by the supplier.

**22.2 For Domestic Goods:** Unless otherwise specified in the SCC, payments to suppliers are usually made by account payee cheque or through ECS only.

**22.2.1** Where the terms of delivery is FOR dispatching Station, the payment terms, depending on the value and nature of the goods, mode of transportation etc. maybe 60% to 90% (as specified in SIT) on proof of dispatch and other related documents and balance on receipt at site and acceptance by the consignee (Stores section).

**22.2.2** Where the terms of delivery is delivery at site / FOR destination, usual payment term is 100% on receipt and acceptance of goods by the consignee (Stores section) and on production of all required documents by the supplier.

**22.2.3** Where goods to be supplied also need installation and commissioning by the supplier, the payment terms are generally as under:

- (a) For a contract with terms of delivery as FOR dispatching station
  - i. 60% on proof of dispatch along with other specified documents
  - ii. 30% on receipt of the goods at site by the consignee (Stores section) and balance
  - iii. 10% on successful installation and commissioning and final acceptance by the consignee (User department)
- (b) For a contract with terms of delivery as Delivery at site/FOR destination
  - i. 90% on receipt and acceptance of goods by the consignee (Stores section) at destination and on production of all required documents by the supplier
  - ii. 10% on successful installation and commissioning and final acceptance by the consignee (User department)

**22.3 For Imported Goods:** Unless otherwise specified in SCC, payments are made through an irrevocable Letter of Credit (LC).

(a) Cases where Installation, Erection and Commissioning (if applicable) **are not the responsibility of the Supplier** - 90% net FOB/FAS/CFR/CIF/CIP price is to be paid against invoice, shipping documents, inspection certificate (wherever applicable), manufacturers' test certificate, etc. and balance 10% on receipt of goods and after its suitability is ascertained by the consignee (User department).

(b) Cases where Installation, Erection and Commissioning are the responsibility of the Supplier - 80% to 90% net FOB/FAS/CFR/CIF/CIP price (as specified in the SCC) will be paid against invoice, inspection certificate (where applicable),

shipping documents etc. and balance within 21-30 days of successful installation and commissioning at the consignee's premises and final acceptance by the consignee (User department).

**22.4** Unless specified otherwise in the SCC, the following general conditions will apply for payment to the supplier.

**22.5** The payment shall be made in the currency / currencies authorized in the contract.

**22.6** The supplier shall send its claim for payment in writing as per Section XIX -

"Proforma for Bill for Payments", when contractually due, along with relevant documents etc., duly signed with date, as specified in SCC and in a manner as also specified therein.

**22.7** While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.

**22.8** The important documents which the supplier is to furnish while claiming payment are:

- a) Original Invoice
- b) Packing List
- c) Certificate of country of origin of the goods from seller's Chamber of Commerce.
- d) Certificate of pre-dispatch inspection by BRBNMPL's representative / nominee
- e) Manufacturer's test certificate
- f) Performance / Warrantee Bond
- g) Certificate of insurance
- h) Clean on Bill of lading / Airway bill / Rail receipt or any other dispatch document, issued by a government agency (like postal department) or an agency duly authorized by the concerned ministry / department
- i) Consignee's Certificate confirming receipt and acceptance of goods
- j) Dangerous Cargo Certificate, if any, in case of imported goods.
- k) Any other document specified.

**22.9** While claiming reimbursement of duties, taxes Goods and Services Tax, Customs duty and any other similar duties and taxes from BRBNMPL, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to BRBNMPL. The supplier shall also refund the applicable amount to BRBNMPL immediately on receiving the same from the concerned authorities.

**22.10** In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:

- (a) The supplier will make good any defect or deficiency that the consignee (s) may report within six months from the date of despatch of goods.
- (b) Delay in supplies, if any, has been regularized.
- (c) The contract price where it is subject to variation has been finalized.
- (d) The supplier furnishes the following undertakings: "I/We, \_\_\_\_\_ certify that It We have not received back the Inspection Note duly receipted by the consignee or any

communication from BRBNMPL or the consignee about non-receipt, shortage or defects in the goods supplied. I / We agree to make good any defect or deficiency that the consignee may report within three months from the date of receipt of this balance payment or six months from the date of dispatch whichever is later.

### **23. Delay in the supplier's performance**

**23.1** The time for and the date specified in the contract or as extended for the delivery of the stores shall be deemed to be the essence of the contract and the supplier shall deliver the goods and perform the services under the contract within the time schedule specified by BRBNMPL in the List of Requirements and as incorporated in the contract.

**23.2** Subject to the provision under GCC clause 28, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions besides any administrative action:

- a) Imposition of liquidated damages,
- b) Forfeiture of its performance security and
- c) Termination of the contract for default.

**23.3** If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform BRBNMPL in writing about the same and its likely duration and make a request to BRBNMPL for extension of the delivery schedule accordingly. On receiving the supplier's communication, BRBNMPL shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

**23.4** When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, inter alia contain the following conditions:

- a) BRBNMPL shall recover from the supplier, under the provisions of the clause 24 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract
- b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of customs duty, Goods and Services Tax or on account of any other duties and taxes which may be levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.

c) But nevertheless, BRBNMPL shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, Goods and Services Tax or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.

**23.5** The supplier shall not despatch the goods after expiry of the delivery period. The supplier is required to apply to BRBNMPL for extension of delivery period and obtain the same before despatch. In case the supplier despatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against BRBNMPL.

### **24. Liquidated damages**



**24.1** Subject to GCC clause 28, if the supplier fails to deliver any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, BRBNMPL shall, without prejudice to other rights and remedies available to BRBNMPL under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to the 0.5% percent (or any other percentage if prescribed in the SCC) of the delivered price of the delayed goods and / or services for each week of delay or part thereof until actual delivery or performance, subject to a maximum deduction of the 10% (or any other percentage if prescribed in the SCC) of the delayed 'goods' or 'services' contract price(s). During the above mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 23.4 above shall also apply.

**25. Custody and Return of BRBNMPL's Materials / Equipment / Documents loaned to Contractor**

**25.1** Whenever stores are required to be issued to the firm/Contractor for fabrication or prototypes or sub-assemblies are issued for guidance in fabrication, these would be issued against appropriate Bank Guarantee as specified in SCC. In addition to the Bank Guarantee, appropriate insurance may be asked if specified in the SCC.

**25.2** All drawings and samples issued to the Contractor in connection with the contract must be returned by him. Final payment will be withheld if this is not done, besides any other sanction deemed fit by BRBNMPL.

**26. Termination for default**

**26.1** BRBNMPL, without prejudice to any other contractual rights and remedies available to it (BRBNMPL), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods and/or services or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by BRBNMPL pursuant to GCC sub clauses 23.3 and 23.4.

**26.2** In the event of BRBNMPL terminates the contract in whole or in part, pursuant to GCC sub-clause 26.1 above, BRBNMPL may procure goods and / or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit at the "Risk and Cost" of the supplier and the supplier shall be liable to BRBNMPL for the extra expenditure, if any, incurred by BRBNMPL for arranging such procurement.

**26.3** Unless otherwise instructed by BRBNMPL, the supplier shall continue to perform the contract to the extent not terminated.

**27. Termination for insolvency**

**27.1** In the event the supplier becomes bankrupt or otherwise insolvent or loses substantially the technical or financial capability (based on which he was selected for award of contract) or liquidation proceedings are commenced against it by a third party or by own volition, BRBNMPL reserves the right to terminate the contract, at any time, by serving written notice to the supplier, without any adverse consequence to BRBNMPL and without being liable to pay any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect any rights of action or remedies which have accrued or will accrue prior to termination or thereafter to BRBNMPL.

**27.2** Upon such termination, BRBNMPL shall be deemed to be the owner of the stores/materials manufactured by the supplier and retain first right and lien over the stores/materials including the raw material purchased by the supplier for performance of the contract

and require the stores/materials to be delivered under the contract, which is terminated on account of bankruptcy or insolvency or likely bankruptcy or insolvency of the supplier and such stores in possession of the supplier shall be earmarked and be delivered to BRBNMPL before the start of the bankruptcy or insolvency process.

**27.3** In the event the supplier is aware or apprehends that it is likely to go into liquidation whether on account of liquidation proceedings commenced by a third party or by way of voluntary liquidation, then the supplier shall forthwith inform BRBNMPL as soon as it is aware that a third party has issued notice that it intends to commence liquidation proceedings or well before it files for liquidation.

**27.4 Escrow Arrangement**

The Supplier shall deposit with a third party escrow agent mutually agreed to by the parties, a copy of Software and its source code and object code for safe keeping with instructions for it to be released forthwith to BRBNMPL, in the event the Supplier fails to make the source code/object code accessible to BRBNMPL whenever required and/or in the event the Supplier is likely to go into liquidation or goes into liquidation. In the event, the Supplier apprehends that it is likely to go into liquidation whether on account of liquidation proceedings commenced by a third party or in the event it anticipates filing for bankruptcy, then the Supplier shall inform BRBNMPL in advance and engage with it to determine the sale and possession of BRBNMPL's software and its source code. In the event Supplier fails to do so, the third party escrow agent shall be instructed under the Escrow Agreement to release the Software and its source code to BRBNMPL as noted above. For the purpose of this Clause, the term '*Software*' shall collectively mean, the full and final version of the Software to be delivered to BRBNMPL insource code and object code forms, together with any and all improvements, corrections, modifications, updates, enhancements or other changes, whether or not included in the full and final version including all System Documentation and User Documentation. The term '*System Documentation*' shall mean any and all documentation used in the development and updating of the Software, including but not limited to, customer requirements and specifications design or development specifications, test and error reports, and related correspondence and memoranda. And the term '*User Documentation*' shall mean the end-user instruction manual that usually accompanies the Software instructing end users in the use of the Software in both printed and electronic form.

**28. Force Majeure**

**28.1** In the event of any unforeseen event directly interfering with the supply of stores arising during the currency of the contract, such as war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, or acts of God, the Contractor shall, within a week from the commencement thereof, notify the same in writing to the Purchaser with reasonable evidence thereof. Unless otherwise directed by BRBNMPL in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. If the force majeure

condition(s) mentioned above be in force for a period of 90 days or more at any time, either party shall have the option to terminate the contract on expiry of 90 days of commencement of such force majeure by giving 14 days' notice to the other party in writing. In

case of such termination, no damages shall be claimed by either party against the other, save and except those which had occurred under any other clause of this contract prior to such termination.

**28.2** Notwithstanding the provisions contained in GCC clauses 23, 24 and 26, the supplier shall not be liable for imposition of any such sanction so long the delay and / or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.

**28.3** In case due to a Force Majeure event BRBNMPL is unable to fulfil its contractual commitment and responsibility, BRBNMPL will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

## **29. Termination for convenience**

**29.1** BRBNMPL reserves the right to terminate the contract, in whole or in part for its (BRBNMPL's) convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of BRBNMPL. The notice shall also indicate inter-alia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.

**29.2** The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by BRBNMPL following the contract terms, conditions and prices. For the remaining goods and services, BRBNMPL may decide:

- a. to get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
- b. to cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

## **30. Governing language**

**30.1** The contract shall be written in Hindi or English language following the provision as contained in GIT clause 2. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

## **31. Notices**

**31.1** Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing, the procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.

**31.2** The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

## **32. Code of Ethics**

BRBNMPL as well as Bidders, Suppliers, Contractors, and Consultants under BRBNMPL contracts shall observe the highest standard of ethics during the procurement or execution of such contracts. In pursuit of this policy, for the purposes of this provision, the terms set forth below are defined as follows:

(a) "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;

(b) "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;

(c) "Collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Purchaser, designed to establish bid prices at artificial, non-competitive levels; and

(d) "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.

(e) A particular violation of ethics may span more than one of above mentioned unethical practices.

**32.1** The following policies will be adopted in order to maintain the standards of ethics during procurement:

(a) A proposal for award will be rejected if it is determined that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

(b) A contract will be cancelled if it is determined at any time that BRBNMPL representatives / officials have directly or indirectly, engaged in corrupt, fraudulent, collusive or coercive practices during the procurement or the execution of that contract

(c) In case any individual staff is found responsible, suitable disciplinary proceedings should be initiated against such staff under the applicable government conduct rules. The existing provisions under the Indian law including the instructions of Central Vigilance Commission should be followed in this regard.

(d) Firms or individuals shall be banned / blacklisted after following due process, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a BRBNMPL contract, if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a BRBNMPL contract.

(e) Bidders have to sign an Integrity Pact in tenders meeting the criteria of threshold value / nature of procurement. Integrity Pact format shall be included in the Bid Document as Section XX. Each page of such Integrity pact proforma would be duly signed by Purchaser's competent signatory. All pages of the Integrity Pact will have to be duly signed by the same signatory who is duly authorized to sign the bid and to make binding commitments on behalf of his Company and to be submitted along with the techno-commercial bid. Any bid not accompanied by Integrity Pact duly signed by the bidder shall be considered to be a non-responsive bid and shall be rejected straightway.

## **33. Resolution of disputes**

**33.1** If dispute or difference of any kind shall arise between BRBNMPL and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations. If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either BRBNMPL or the supplier may seek recourse to settlement of disputes through arbitration as per The Arbitration and conciliation Act 1996 as per following clause.

**33.2 Arbitration Clause:** If both parties fail to reach such amicable settlement, then either party (the Purchaser or Seller) may within 21 days of such failure give a written notice to the other party requiring that all matters in dispute or difference be arbitrated upon. Such written notice shall specify the

matters which are in difference or of difference of which such written notice has been given and no other matter shall be referred to the arbitration in accordance with the conciliation and arbitration rules of International Chamber of Commerce (ICC)/United National Commission on International Trade Law (UNCITRL) by three arbitrators appointed in accordance with the procedure set out in clause below. The arbitration proceeding shall be held in Bangalore/Mysore/Kolkata and shall be conducted in English language. All documentation to be reviewed by the arbitrators and / or submitted by the parties shall be written or translated into English. Venue of arbitration shall be Bangalore/Mysore/Kolkata. The arbitrator or arbitrators appointed under this article shall have the power to extend time to make the award with the consent of the parties. Pending reference to arbitration the parties shall make all endeavours to complete the contract/work in all respects and all disputes, if any, will finally be settled in the arbitration.

#### **34. Applicable Law**

**34.1** The contract shall be interpreted in accordance with the laws of India.

**34.2** Irrespective of the place of delivery, or the place of performance or the place of Payments under the contract, the contract shall be deemed to have been made at the place from which the notification of acceptance of the tender has been issued.

#### **35. Secrecy**

**35.1** The Contractor shall take all reasonable steps necessary to ensure that all persons employed in any work in connection with the contract, have full knowledge of the Official Secrets Act and any regulations framed thereunder.

**35.2.** Any information obtained in the course of the execution of the contract by the Contractor, his servants or agents or any person so employed, as to any matter whatsoever, which would or might be directly or indirectly, of use to any enemy of India, must be treated secret and shall not at any time be communicated to any person.

**35.3.** Any breach of the aforesaid conditions shall entitle the Purchaser to cancel the contract and to purchase or authorise the purchase of the stores at the risk and cost of the Contractor, In the event of such cancellation, the stores or parts manufactured in the execution of the contract shall be taken by the Purchaser at such price as he considers fair and reasonable and the decision of the Purchaser as to such price shall be final and binding on the Contractor.

*(To be signed & stamped and submitted along with Techno-commercial Bid Part –I)*

#### **Part II: Additional General Conditions of Contract for specific Types of Tenders in addition / modification to clauses mentioned above:**

##### **36. Disposal / Sale of Scrap by Tender**

**36.1** During the currency of contract, no variation in price or rate shall be admissible.

##### **36.2 Payment and Default**

**36.2.1** Payment may be made in the form of cash or Account Payee Demand Draft drawn on any scheduled commercial bank in India in favour of Bharatiya Reserve Bank Note Mudran Private Limited or through Online Transfer or through other Electronic Mode of Payment as mentioned in the NIT.

**36.2.2** No interest will be paid to the purchaser for the amounts paid or deposited with the BRBNMPL and subsequently found refundable to the purchaser under any of the conditions of the contract.

**36.2.3** If the purchaser fails to deposit sale value for a sold lot within the allowed period as per relevant clause BRBNMPL may forfeit the security deposit. Requests for an extension of this period, made by the purchaser may be considered by the BRBNMPL and may at its discretion, on the merits of the case, allow further time not excluding 50 days from the date of the contract. Interest shall be leviable on such amount at a rate 2% per annum higher than the PLR of State Bank of India, from the date of expiry of the payment date to actual date of payment (actual date of payment inclusive).

**36.2.4** The lot or lots in respect of which forfeiture has been made, shall be deemed to have been abandoned by the purchaser to all intents and purposes and may be re-sold or otherwise disposed of at the discretion of the BRBNMPL without reference to the purchaser concerned and without incurring any liability on part of BRBNMPL whatsoever in respect there under.

**36.2.5** In case extension is granted by BRBNMPL and due to late payment of sale amount the delivery cannot be completed by the purchaser, in accordance with the relevant clause of Special Conditions of Tender sale, then ground rent shall also be leviable as per relevant clause of Special Conditions of Tender sale.

**36.2.6** On production of proof of having made payment, nominated authority shall issue a delivery order authorizing the purchaser to take delivery of the Scrap Materials.

##### **36.3 Deliveries, Delays and Breach of Contract**

**36.3.1** The Title of goods or material sold shall not be deemed to have been passed to the Purchaser / Bidder until and unless the full and final payment has been made by the purchaser, in accordance with the contract to the BRBNMPL and the authorized Officer has issued the Delivery Order in favour of the purchaser. The materials sold may be removed from the premises only on production of the cash receipt for the payment and a delivery order from the Officer authorized by the BRBNMPL.

**36.3.2** Unless specified otherwise in SIT, delivery period for lifting of material shall be within 60 days from the date of finalization of contract agreement.

**36.3.3** The work of delivery will be supervised by Stock Holder or his authorized representative, representative of accounts Department and Security Staff duly authorized by BRBNMPL for the propose of delivery. Delivery will be allowed during working hours.

**36.3.4** No delivery of or materials sold shall be given on Sundays, Gazetted holidays and other shall holidays observed by BRBNMPL. The delivery of the goods or material shall be effected from the premises concerned only during its normal working hours. In order to complete the delivery within the working hours all loading must cease half an hour before the normal closing time of the concerned premises. The decision of the BRBNMPL with regard to the working hour shall be final and binding on the purchaser. Purchaser will not be allowed to lift the Scrap Material from more than one location at a time.

**36.3.5** The purchased stores will be carried away by the purchaser at his risk and no claims against the BRBNMPL will be entertained for shortage in weight which may be discovered after the materials have left the premises wherefrom delivery is taken. If required the purchaser shall provide his own bags, cases or other receptacles for the removal of the scrap.

36.3.6 The BRBNMPL shall not be responsible for any accident that may occur to purchaser's labours/servants for any reasons whatsoever. The purchaser will himself have to ensure the safety of his workers and shall be liable to pay claims, whatsoever if any. BRBNMPL will not carry any responsibility of such payments. The purchaser will be responsible to supply personal protection equipment to his labour/servant and staff and no additional charges are admissible for the same.

36.3.7 The materials sold, shall be removed by the purchaser within the period specified in relevant clause of Special Condition of Sale.

36.3.8 If due to any default on the part of the BRBNMPL, the purchaser is unable to remove the materials sold within the specified period, the BRBNMPL may extend the period therefore and in such an event purchaser will be entitled to take delivery of the goods or the materials sold within such extended Delivery period.

36.3.9 If Contractor fails to lift sold scrap within the specified period, penalty shall be levied at the rate of 0.5% per day of the value of un-removed Scrap. Moreover, the material shall remain at the purchaser's risk until removal thereof. Further BRBNMPL will be entitled to charge the ground rent as stated in relevant Para of SCC, for the area in which the materials sold are kept or stored - which would be recovered by the BRBNMPL from the Purchaser before removal of the material and in the event of default in payment thereof, the BRBNMPL at may its discretion shall be entitled to order the re-sale of such materials and forfeit the Security deposit or sale amount or both, paid by the purchaser.

36.3.10 If the purchaser makes slow progress with his contract and the BRBNMPL is of opinion that he may fail to fulfil the contract within the time specified in the conditions of sale, it will be lawful for the BRBNMPL to cancel the whole contract or such portion thereof as may not have been completed and the BRBNMPL shall

be at liberty to dispose of the goods in any manner at the risk and expense of the purchaser.

36.3.11 The purchaser will have to comply with the provisions of the Contract Labour (Regulations and Abolition Act 1970 and Central Rules 1971 and obtain license from the Assistant Labour Commissioner or the competent authorities empowered to issue such license. Any failure on the part of the purchaser in this regard will be at his risk and consequences. He shall comply with Workman's Compensation Act 1923, Payment of Wages Act 1936, and Minimum Wages Act 1948 and all the other related statutory and legal provisions and obligations, the purchaser shall also indemnify the BRBNMPL against any claim / liabilities that may occur to the Contractor's labours and servants due to any reasons whatsoever.

36.3.12 If the purchaser makes default in complying with any of the condition of the contract, the sale of lot or lots in respect of which such default is made may be cancelled and such lot or lots may be put up again for sale and in such an event if a lower price is offered and accepted for such lot or lots then the purchaser shall be liable to pay the difference in price thereof together with all expenses occasioned by such resale in default to the BRBNMPL provided further that the purchaser in default shall not be entitled to claim any profit which may arise from such resale.

*(To be signed & stamped and submitted along with  
Techno-commercial Bid Part –I)*

### **Section V: Special Conditions of Contract (SCC)**

The following Special Conditions of Contract (SCC) will apply for this Contract. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below. These Special Conditions will modify / substitute / supplement the corresponding (GCC) clauses.

Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

(Clauses of GCC listed below include a possibility for variation in their provisions through SCC. There could be other clauses in SCC as deemed fit)

S. No.	GCC Clause No.	Topic	SCC Provision
1.	5	Country of Origin	Applicable. In addition, A bidder is permitted to procure raw material, components, subassemblies etc. from the vendors from countries which share a land border with India. Such vendors will not be required to be registered with the Competent Authority as it is not regarded as "sub-contracting" However, in case a bidder has proposed to supply finished goods procured directly / indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
2.	6	Performance Bond/ Security	<p><b>Security Deposit (SD)/Performance Bond:</b></p> <p>SD shall be 10% of the Contract Value.</p> <p>Before the commencement of work, SD @ 5% of the Contract Value to be deposited by the Contractor within twenty-one (21) days from the date of issue of Notification of Award of Contract (NoA)/ Letter of Intent (LoI) by BRBNMPL by way of Online Payment/DD/BG. In case, SD is submitted through BG, the BG should be valid up to Sixty days after date of completion of all contractual obligations, including warranty period and/or DLP Period.</p>

			<p>The balance 5% of SD shall be deducted from each running bill of the Contractor till the sum amounts to 10% of the value of work done.</p> <p>Failure of the successful tenderer in providing Performance Security within 21 days of receipt of Notification of Award and / or returning of duplicate copy of Notification of Award/ LOI duly signed shall make the tenderer liable for suspension for time period as specified in Annexure-D: Bid Security Declaration.</p>
3.	10	Terms of Delivery	As applicable. See Note A
4.	12	Insurance	As applicable.
5.	14	Incidental Services	Not applicable
6.	15	Distribution of Dispatch Documents for clearance / Receipt of Goods	As applicable
7.	16.2	Warranty Clause	Applicable, <b>01 year</b> from the date of completion of the work
8.	18	Sub-Contracts	<p>Applicable, The successful bidder shall not be allowed to sub-contract works to any Contractor from a country which shares a land border with India unless such Contractor is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).</p> <p>1. "Bidder from a country which shares a land border with India" means: -</p> <p>a. An entity incorporated, established or registered in such a country; or</p> <p>b. A subsidiary of an entity incorporated, established or registered in such a country; or</p> <p>c. An entity substantially controlled through entities incorporated, established or registered in such a country; or</p>

			<p>d. An entity whose <i>beneficial owner</i> is situated in such a country; or</p> <p>e. An Indian (or other) agent of such an entity; or</p> <p>f. A natural person who is a citizen of such a country; or</p> <p>g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above</p> <p>2. The <i>beneficial owner</i> for the purpose of 4 above will be as under:</p> <p>vi. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation—</p> <p>c. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;</p> <p>d. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder agreements or voting agreements;</p> <p>vii. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;</p> <p>viii. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;</p> <p>ix. Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;</p>
--	--	--	--

			<p>x. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.</p> <p>3. An “Agent” is a person employed to do any act for another, or to represent another in dealings with third person.</p>
9.	19.3	Option Clause	Applicable.
10.	20.1	Price Adjustment Clause	Not applicable
11.	21.2	Taxes and Duties	As applicable
12.	22	Terms and Mode of Payments	See Note B.
13.	23	Delay in the supplier’s performance	As applicable
14.	24	Quantum of LD	As specified
15.	25	Bank Guarantee and Insurance for Material loaned to Contractor	Not applicable
16.	33	Resolution of Disputes	Clause 33.2 Place of arbitration proceeding shall be Kolkata.
17.	36	Disposal / Sale of Scrap by Tender	Not applicable

**A-: SCC Provision in addition to GCC Clause 10: Terms of Delivery**

SI. No.	Topic	SCC Provision
1.	Tools & Tackle	No tools, machines, fabric, manpower or otherwise required in the satisfactory execution of contract shall be provided by BRBNMPL, Salboni. Contractor shall bring all required resources on his / her own and nothing extra is payable on this regard.
2.	Responsibility Against Damage	The Contractor shall be responsible for any damage caused to the existing system/ property due to (i) Negligent Act (ii) Wrong Operation (iii) Mishandling by Contractor’s employees and Contractor has to pay



	Caused	the entire amount / charges for repair / replacement.
3.	Refusal of Work	If the bidder fails or refuses to take up the job after opening the quotation and becoming successful bidder, due to any reason whatsoever or left the work in incomplete condition after starting the work, Security Deposit will be forfeited and the party shall not be allowed for any tendering for a period as decided by the Company.
4.	Action for non-compliance as per WO.	Suitable deduction and actions as deemed fit shall be taken for non-compliance in executing schedule of works as in Section-XI.

## **B. Payment Terms and Conditions:**

- 1. Detailed procedure for payment of bills:** The procedure for maintenance of records of detailed measurements and payment of bills shall be as below:

The payment for all works done shall be made on the basis of detailed measurements recorded in accordance with the stipulations spelt out in the relevant I.S. Codes. The measurements shall be recorded very carefully and accurately and the recorded measurements shall be maintained and preserved carefully as per extant instructions of EIC (Engineer-in-charge).

- 2. Measurements:**

- a)** Mode of measurements for all items of work shall be as per IS 1200 – Method of Measurement for Building and Civil Engineering Work. Measurement for the work done shall be taken jointly with Architect and EIC in the prescribed format (Measurement Book).
- b)** The measurements for every completed stage of work shall be taken jointly by the Representative of the Contractor and the technical representative / / Resident Engineer of the Architect / Consultant at site. Such measurements shall be taken in accordance with the Standard Mode of measurements as detailed in the relevant I.S. Codes. The measurements shall be submitted to the technical representative / Resident Engineer of the Architect / Consultant in the prescribed format by the Contractor under his signature for checking.
- c)** All measurements of work or materials supplied shall be recorded in measurement sheets, serially numbered Measurements of different trades in a bigger project shall preferably be recorded in separate groups of serially numbered measurement sheets.
- d)** All measurements shall be recorded by the authorized technical representative of the Architect / Consultant, jointly with the authorized representative of the Contractor.
- e)** All measurements of work or supplies made shall be recorded at the earliest on the spot under the full signature of the recording official with date of recording measurements.
- f)** All measurements shall be written in ink on the original sheets. Duplicate and triplicate copies shall be copies of the original sheets.
- g)** When any entry/measurement is cancelled, the reason for doing so shall be recorded in the Measurement sheets under the dated signature and designation of the official cancelling the

entry/measurement.

- h)** No overwriting or erasing of any kind shall be permitted. Mistakes shall be corrected by cancelling the incorrect entry and writing the correct figures just above the cancelled figures.
- i)** All the corrections in the Measurement sheets shall be carried out and duly authenticated by initialling/signing only by the person recording the measurements.
- j)** While recording measurements, the Bill Number, Name of Work, Name of Agency, Work order reference, item number, page number of the relevant contract document together with full description (as written in contract document) of the concerned item of work shall be written in the Measurement sheets.
- k)** While recording abstract of cost, the Bill Number, Name of Work, Name of Agency, Work order reference, item number, page number of the relevant contract document together with short description of each item of work, total quantities (including the quantities brought forward from previous measurement), approved rates, units and the total amount shall be recorded with the dated signature and designation of the recording official.
- l)** Allowances for shrinkage and interstices shall be made by separate entries. Full measurements shall be first recorded and deductions in the measurements for shrinkage and interstices shall be recorded thereafter.
- m)** The Contractors' dated signatures shall be obtained for each set of measurements and abstract of cost as a token of their acceptance of the same.

### **3. Hidden measurements:**

All hidden measurements (items of work which cannot be subsequently checked) recorded shall be checked in full and not less than 25% of all other measurements (to be determined based on value) shall be test checked by a Technical person of the Architect / Consultant. Not less than 10% of all other measurements (to be determined based on value) will be further test checked by the senior level technical person of the Architect / Consultant before certifying the bill of the Contractor for payment.

### **4. Running Account Bills:**

- a)** The minimum value of interim bill/monthly bill/progressive running account (R/A) bill shall not be less than Rs.40 lakhs (Forty Lakhs) as mentioned in the tender form. The Contractor has to submit the final bill within two months from the date of completion of work
- b)** The Contractor shall prepare the bill on the basis of the item wise abstract of the total measured quantities as recorded in the Measurement Sheets. The tender items shall be serially reproduced verbatim in the bill. The extra or variation items which have been sanctioned and for which Variation Orders have been issued shall only be included in the bill. Such extra items shall be shown in the bill in a separate sub-head along with references to the Variation Order number and date thereof. The Contractor shall submit the bill in triplicate and the same will be forwarded to the Architect/ consultant for necessary certification.
- c)** The bill, after due verification and check of arithmetical calculations and after incorporating necessary corrections wherever required, shall be certified by the Architect/Consultant by

recording following certificate under their full signature and date. "The quantities, rates and amount verified. The materials supplied and work done confirm to the specifications in the Tender or Variation Order. Measurements have been recorded in Measurement Sheets bearing page nos. \_to\_.".

- d)** Such certificate shall be recorded at the end of the abstract of the bill as well as in the Measurement Sheet containing the abstract.
- e)** The bill in triplicate after due certification shall be sent to the EIC along with the enclosures as directed by the Architect / EIC.
- 5. Final Bill:** Final Bill should be submitted within Two months from the date of Completion of Work, in triplicate to after completion of Work and complying the following:
  - (i) No Claim Certificate including no claim from the vendors/suppliers and compensation to the labour engaged for the works,
  - (ii) Deviation Statement vis-à-vis BOQ.
  - (iii) Certification of the Architect
  - (iv) Any other document required by BRBNMPL,
  - (v) Site clearance,
  - (vi) Undertaking for statutory compliance shall be submitted along with the Final bill.
  - (vii) Copy of Latest GST-R1.
- a)** Bill shall be accompanied with detailed measurement sheet & Abstract of Cost. Measurement shall be given in the standard measurement sheet only with abstract for each Bill and final bill in the Soft copy as well as in the hard copy.
- b)** The value of work done, less recovery, if any will be payable as per progress of work as running account bills subject to satisfactory completion of work as per Joint measurements entered in the Measurement Book (MB) and the same entered in excel sheets to be submitted for certification to BRBNMPL Officer. Deductions will comprise the deductions as stipulated including statutory deduction.
- c)** All progress payments made / R/A bills paid shall be regarded as payment by way of advance against final payment only, and not as payment for the work completed.
- d)** The Contractors must finally complete the work strictly in accordance with the specifications and drawings, if required, by reconstructing or rectifying faulty work.
- e)** All R/A bills / invoices for progress payments as well as for final payments shall be submitted in prescribed computerized forms supported by detailed measurement of items of work as per measurement books.
- f)** The Contractor shall not be entitled for the payment for the quantities beyond the tendered quantities unless ordered for by specific written instructions from BRBNMPL.
- g)** The Bidder shall submit the final bill within 2 (two) months from the date of completion of the works. The final bill submitted by the Bidder shall be processed for payment only after receipt of "No claim certificate" and the clearance of site of all rubbish, debris, vats, tanks, materials, temporary structures, Township and machinery and handing over the site in a tidy

and clean condition to the BRBNMPL and any other document required by BRBNMPL.

- h)** All payments to the Bidder shall normally be made by Account Payee Cheques/Electronics clearing facility. All Bank charges in connection with payment by way of Demand Draft on specific request of the Bidder shall be borne by the Bidder /RTGS on submission of the request by the bidder as per Finance Department requirement.

**6. Other Payment Terms & Conditions:**

- a)** The Contractor shall not be paid any mobilization advance or any secured advance.
- b)** Bill should be submitted to EIC with latest copy of GST return.
- c)** Bill should have PAN, GST number printed over it.
- d)** Payment will be done as per actual work carried out.
- e)** No payment shall be released against the extra materials brought to the site.
- f)** Undertaking for statutory compliance shall be submitted along with the Final bill.
- g)** Statutory Deduction of taxes including ITDS shall be made at source as per rule and provisions.
- h)** Suitable deduction as deemed fit will be made for non-compliance in executing works as per schedule. Such amount shall be decided by the BRBNMPL and shall be binding on the Contractor.
- i)** GST, taxation shall be calculated as per the new rules and will be paid as per actuals. Statutory Deductions as applicable shall be made from the gross bill amount.
- j)** DD/RTGS/NEFT charges shall be borne by you. For RTGS/NEFT payment you may forward your Bank Mandate and other details along-with your invoice & copy of your latest GST returns for immediate e-payment.
- k)** Bidder has to furnish the price-break-up including the tax components.
- l)** Any revision (increase/decrease) in Statutory rates after opening the tender till the original Contract Period will be paid at actuals on producing the documentary evidence.
- m)** Any increase in statutory duties beyond scheduled delivery is not attributable to BRBNMPL and the same will have to be borne by the Contractor.

- 7. Defects Liability Period: ONE (01) year** from the date of completion of the work. Any defects recorded during the Defects Liability Period i.e. ONE **(1) year** from the date of completion of work, shall be rectified / replaced by the Contractor without any extra cost to BRBNMPL. If the Contractor fail to do so, within (02) Two Weeks after information, BRBNMPL reserve the right to rectify the same through another agency & the cost incurred thus shall be recovered from the Contractor.

**(02) Two Weeks** resolution time for the Contractor for the resolution of the Complaint during the DLP (Defect Liability Period) beyond which the Company (BRBNMPL) will be free to get the problem / defect repaired / rectified engaging third party and the expenditure incurred on rectification of the defect/s may be recovered from the Contractor.

**C. Security Norms, Rules and regulations:**

1. BRBNMPL is a Security Organization and the premise is declared as 'Prohibited Area' by the Govt. of West Bengal. Hence, the Contractor has to abide by the security rules of the Company. The Contractor has to ensure the character and antecedent of the persons deployed. The Contractor must be in a position to produce such documents, whenever he is asked to do so. Any employee of the Contractor, if found by the Company as unsuitable or having doubtful integrity, shall be removed from the premises at the risk and cost of the Contractor. The Contractor shall vouch for the integrity of the employees engaged by the Contractor.
2. While applying for pass, Contractor must enclose copy of address proof (Aadhar Card or Voters ID card or Ration Card or Driving License or Passport etc., for all the workers for which Gate Pass has been requested. The details shall be submitted in the prescribed format as given below.

Sl. No.	Name of Persons	Father's name	Age	Present Address	Identification mark	Signature of the individual

**D. Liquidated Damages:** If the Contractor fails to deliver any or all of the goods/services/construction within the time frame (s) [delivery schedule] incorporated in the contract, BRBNMPL shall, under the contract deduct from the contract price, as liquidated damages, a sum equivalent to the 0.5% of the contract value for each week of delay or part thereof until actual completion, subject to a maximum deduction of 10% of the contract value. [Please refer GCC Clause 24 under Section IV].

**E. Statutory Compliances:**

1. Compliance of all statutory obligations, as applicable from time to time, as per
  - The West Bengal Co-operative Society Act 2006
  - The Contract Labour (Regulation & Abolition) Act 1970 and Central Rules 1971.
  - The Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996"
  - The Employees State Insurance Act 1948, Rules and regulations 1950.
  - The Professional Tax Act
  - The Labour Welfare Act
  - The Payment of Wages Act 1936
  - The Minimum Wages Act 1948, M.P. Rules 1958
  - The Bonus Act 1965
  - The EPF & MP Act 1952,

- The Workman's Compensation Act 1923,
- Contractor's All Risk (CAR Policy),
- The Child Labour (Prohibition & Abolition Act) 1986
- The Construction and Demolition Waste Management Rules, 2016
- The Solid Waste Management Rules, 2016
- The Environment Protection Act 1986
- The Motor Vehicles Act 1988, The Motor Vehicle (Amendment) Act 2019
- The Goods and Services Act 2017
- and its amendments (if any)
- and/or any other relevant Act(s)

will be deemed to be part of this contract and the Contractor shall be directly responsible to the authorities there under for compliance of the provisions under the aforesaid Acts. In case of any breach of any law, rules, notifications applicable to the employees of the Contractor, the Contractor alone shall be responsible and liable for any act(s) of omission and/or commission committed by any employee, agent, representative, attorney, person(s) engaged/employed by him for discharging the obligations under this Agreement.

2. The Contractor shall obtain appropriate license under the Contract Labour (Regulation and Abolition) Act, 1970 and the Central Rules as amended up to date and shall comply with all terms and conditions thereof strictly, and shall keep such license duly validated and/or renewed from time to time throughout the currency of this Agreement.
3. The Contractor shall not appoint any Child Labour.
4. **ESI / Workmen Compensation, BOCW Cess and suitable Medical Insurance Policy:**  
The Contractor should cover its employees/workmen under the ESI. In the absence of ESI for non-implemented area, the Contractor should undertake Workmen Compensation Insurance to take all the liability under the Workmen Compensation Act. 1923. The total premium shall be borne by the Contractor. The Contractor will submit the relevant document pertaining to the payment of premium along with a copy of Insurance Policy to us within fifteen days from the placement of our work order and also an undertaking towards payment of BOCW cess, wherever applicable.

#### **F. RESPONSIBILITIES OF THE CONTRACTOR:**

1. The Contractor shall obtain all registration(s)/permission(s)/license(s), etc., which are/may be required under any labour or other legislation(s) for providing the services under this Agreement.
2. The Contractor undertakes to comply with the applicable provision of all welfare legislations and more particularly with the Contract Labour (Regulation and Abolition) Act, 1970, if applicable, for carrying out the purpose of this Agreement. The Contractor shall further observe and comply with all Government Laws concerning pay all sums of money to such staff as may be required to be paid under such laws. It is expressly understood that the Contractor is fully responsible to ascertain and understand the applicability of various Acts and take necessary action to comply with the requirements of Law.

3. The Contractor shall all times indemnify and keep indemnified the Company against any/all claims of/by its employees including but not restricted to the claims under the Workmen's Compensation Act 1923; Payment of Wages Act 1923, Payment of Bonus Act 1965; Employees' Provident Funds & Miscellaneous Provisions Act 1952; the Minimum Wages Act 1948, Employees' State Insurance Act 1948, The Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996" and its amendments (if any) or any other Act(s) or statutory modifications thereof or otherwise for or in respect of any claim for damage or compensation payable in consequence of any accident or injury sustained by any worker or other personnel of the Contractor or in or any other laws or rules made there under, by any person whether in the employment of the Contractor or not, who provided or provides the said services under the Agreement.
4. It is clearly understood by the Contractor that the persons employed by the Contractor for providing services as mentioned herein, shall be the employees of the Contractor and not of BRBNMPL. The number of persons to be employed and the individual person to be employed for providing the said services shall be decided by the Contractor who shall be liable to make payments to its said employees towards their monthly wages/salaries and other statutory dues like EPF, ESI, minimum wages, Bonus, Gratuity, uniform, PPE, etc.
5. That the employees/personnel of Contractor rendering the services under this Agreement, shall never be deemed to be the employees of BRBNMPL in any manner whatsoever and shall not be entitled for employment, salary/wages, damages, compensation or anything arising from their deployment by Contractor for rendering the said services.
6. The services to be rendered by the Contractor under the Agreement will be under close supervision, co-ordination & guidance of BRBNMPL. The Contractor shall frame appropriate procedure for taking immediate action as may be advised by BRBNMPL from time to time.
7. BRBNMPL shall always have the right to conduct a search of the Contractor's employees/agents and/or any of their vehicles used for transportation of materials, while entering/going out of the factory premises or inside the premises.
8. If BRBNMPL notices that the personnel of the Contractor has/have been negligent, careless in rendering the said services, the same shall be communicated immediately to the Contractor who will devise corrective steps immediately to avoid recurrence of such incidents and report to BRBNMPL its action plan.
9. If any of the personnel of the Contractor indulges in theft or any illegal/irregular activities, misconduct, the Contractor will take appropriate action against its erring personnel and intimate accordingly to BRBNMPL.
10. The employees/agents of the Contractor shall never be considered to enjoy any right to enter the premises of BRBNMPL by virtue of this Agreement or otherwise at any time except with the permission of BRBNMPL.
11. In the event of failure of the Contractor to provide the services or part thereof, as mentioned in this Agreement for any reasons whatsoever, BRBNMPL shall be entitled to procure services from other sources and the Contractor shall be liable to pay forthwith to the BRBNMPL the difference of payments made to such other sources, besides damages at double the rate of payment for the period of failure in providing the services or part thereof.

12. If, at any time, during the operation of this Agreement or thereafter BRBNMPL is made liable in any manner whatsoever by any order, direction or otherwise of any Court, Authority or Tribunal, to pay any amounts whatsoever in respect of or to any of the present or ex-personnel of the Contractor or to any third party, the Contractor shall immediately pay to BRBNMPL all such amounts and costs also and in all such cases/events the opinion of BRBNMPL shall be final and binding upon the Contractor. BRBNMPL shall be entitled to deduct any such amounts as aforesaid, from the Security Deposit and/or from any pending bills of the Contractor and if such amount is not fully recovered, BRBNMPL shall be entitled to recover the balance amount through legal recourse.
13. The Contractor should agree to absolve BRBNMPL from all the liabilities in regard to any statutory enactments to the extent applicable to the service provided by the Contractor. It is clearly understood that should BRBNMPL be called upon to make any payment to any authority, the Contractor shall reimburse such amounts to BRBNMPL whether such liability arises during the currency of this agreement or after expiry of the period of this agreement. If there would be any claim on BRBNMPL for any default of the Contractor or its employees committed during the operation of this Agreement, the Contractor shall pay such amount on demand without protest.
14. If Contractor commits breach of any covenant or any clause of this agreement, BRBNMPL may send a written notice to the Contractor to rectify such breach within the time limit specified in such notice. In the event the Contractor fails to rectify such breach within the stipulated time, the Agreement shall forthwith stand terminated and the Contractor shall be liable to BRBNMPL for losses or damages on account of such breach.
15. The Contractor shall give the services on all days during the period of contract as per the BRBNMPL's requirement.
16. All the above services and any other work of similar nature, which will be entrusted to the Contractor from time to time by BRBNMPL, are to be rendered without causing any hindrance or disturbance to any staff member of BRBNMPL working during the normal working hours. The work shall be carried out efficiently, in consonance and in conformity with the standards of neatly and hygienically maintained premises.

#### **G. Materials:**

1. All materials are subject to inspection and approval of BRBNMPL. BRBNMPL shall reserve the right to reject any material when found not in conformity with specifications and terms and conditions of the Work Order/Contract Agreement in all respect.
2. Contractor has to submit copy of Challan, Invoice as a proof of purchase of items, as & when asked for.

#### **H. Safety Measures:**

1. The Contractor should scrupulously confirm to the safety and security norms as stipulated by BRBNMPL while working in the security area.
2. The Contractor shall take all the precaution while executing this work. Protective Gear such as Safety Helmets, Boots, Belts, Gloves etc. shall be provided by the Contractor at his own cost to all his workers at site. It shall be the responsibility of the Contractor to ensure that such Protective Gear is worn at all times by all personnel working at site. BRBNMPL shall have the right to stop any person not wearing such Protective Gear from working on the site.



**I. Other conditions:**

1. The Contractor shall furnish all tools & tackles, instruments, qualified supervisory personnel, labour, materials, consumables and everything necessary, whether or not such items are specifically stated herein for completion of the job in accordance with the requirements of the contract.
2. The entire work should be completed in all respect as per the schedule of items and to the satisfaction of the BRBNMPL Officers.
3. Quoted rates shall be firm and binding and also inclusive of all taxes & charges.
4. Statutory deduction of taxes shall be made at the source.
5. The Contractor has to arrange all the required materials, labour, transportation etc., at his own cost.
6. The Contractor has to strictly follow the safety norms during his work & also take care for BRBNMPL property.
7. The Contractor should understand the scope of work before quoting and inspect the site accordingly.
8. The Contractor shall afford every reasonable facility for the carrying out of all works relating to civil works and other ancillary works in the manner laid down in the said conditions, and shall make good any damages done to walls, floors etc. after the completion of such works.
- 9. BRBNMPL reserves to itself the right of altering the nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.**
- 10. BRBNMPL also reserves the right to increase or decrease the quantities and even omit any item of work after the order is placed and the Contractor shall execute the same. In this context, the rates quoted for each item must be self-supporting and relevant. The Schedule of probable quantities is liable to alteration by omissions, deductions or addition at the discretion of BRBNMPL.**

**J. Incompletion /Discontinuation of work:**

1. If the work is not completed in all aspects or delayed beyond reasonable time or the Contractor discontinues the work abruptly, then BRBNMPL reserves the rights to get the remaining work/uncompleted work done through any other agencies at the risk and cost of the Contractor. In such cases, the pending claims and Security Deposit of the Contractor shall be forfeited.
2. The Engineer-in-Charge may, without prejudice to his any other rights or remedy against the Contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:
  - a. If the Contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.

- b. If the Contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- c. If the Contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- d. If the Contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.

**K. Legal jurisdiction:**

The court of Kolkata (WB) only shall have jurisdiction to deal with and decide any legal matter of dispute whatsoever arising out of any work order placed by us.

**L. Accommodation / Office:**

On specific request from the Contractor, subject to the availability BRBNMPL may provide space at a prescribed rent & other charges like Electricity, garbage cleaning etc. in accordance with the prevailing rules of BRBNMPL to allot such accommodation. A separate agreement has to be executed in this regard. The Contractor must always be in a position that whenever any directive for vacating of said premise is issued, he shall, without raising any objection, peacefully vacate the same. The Contractor is liable for any misconduct by residing persons, cleanliness and damage of the property.

**M. Cleanliness:**

The Contractor is required to ensure complete cleanliness at the site. Debris, residue, etc. generated during the day's work should be disposed of at a place outside the premises and Land (Property) of BRBNMPL, Salboni immediately to the satisfaction of BRBNMPL.

**N. Responsibility of the Contractor:**

- 1. Storage and security of materials: Contractor is responsible for storage and security of their material brought to the site. Any temporary structure, if required will be constructed by the Contractor at his own cost. The temporary structure will be demolished after completion of Contract or when asked for and the Contractor will dispose of all debris at their own cost.
- 2. Execution of the work: The Contractor shall arrange competent persons for execution, supervision and measurement of the work to the satisfaction of Architect and EIC.

\*\*\*\*\*

### Section VI: List of Requirements

Schedule No.	Brief description of goods and services (Related specifications etc. are in Section-VII)	Accounting Unit & Quantity	EMD/Bid Security	Remarks
<b>01</b>	<b>Construction of Nursery School Building at BRBNMPL Salboni</b> <b>Non-Splittable (Cannot be Split)</b> [As per Section VI: List of Requirements, Section VII: Technical Specifications, Section VIII: Quality Control Requirements/Declaration by Tenderer and Section XI: Price Schedule]	As per BOQ at Section XI: Price Schedule	<b>NIL, Annexure-D: Bid Security Declaration to be submitted.</b>	<b>Estimated Value including GST @18%:</b> Rs.3,87,08,000/- (Rupees Three Crore Eighty Seven Lakh Eight Thousand only) Approx.

\* The schedule of items & quantities to be executed is an indicative one. Any /all item(s) may/ may not be operated. Contractor shall not have any claim for the same.

*Note:*

*The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, the cost of visiting the site shall be at the Bidder's own expense.*

- 1. Company's Background:** Bharatiya Reserve Bank Note Mudran Private Limited (BRBNMPL), an ISO 9001-2015 and ISO 14001-2015 Company, is a wholly owned subsidiary of Reserve Bank of India and is currently engaged in the business of printing bank notes for the Reserve Bank of India. The Corporate Office of the Company is at Bangalore and its printing units are at Mysore (Karnataka) and Salboni (West Bengal).
- 2. Project Brief & Background:** BRBNMPL Salboni intends to take up the Construction of Nursery School Building for Blossom Nursery School within the BRBNMPL Township Premises. The new school building shall have Classrooms, Principal's room, Staff Room, Library, Activity Room, Audio-Visual Room, Meeting Room, Assembly Hall and Play Ground.

The New School Building is proposed to be built in the area between the existing K V School and Health Centre spread across an approx. area of 1,624 Sq-mt. It will be a permanent building along with services like water supply, sanitary, electrical and other allied connections.

One Architect Firm has been appointed for "Comprehensive Architectural & Engineering Consultancy Services for Construction of School Building for Blossom Nursery School at BRBNMPL, Salboni". Supervision of Construction Work is entrusted to the Architect. The details of Architect Firm and

BRBNMPL's Engineer-in-charge (EIC) shall be shared with the successful bidder at the time of award of Contract.

### **3. Short Description and Scope of Services:**

The work has to be executed as mentioned in the BOQ, as per the IS, CPWD and WBPWD specifications, and to the satisfaction of the Architect and EIC. The general character and the scope of the works shall be as illustrated and defined in, Specifications, Schedule of Quantities, and other Contract Documents.

#### **Scope of Work**

- a) Construction of framed structure like R.C.C footing, Columns, beams and slab
- b) Landscaping including various Shrubs
- c) EPDM flooring for Landscape area
- d) Kota stone and Double charged vitrified flooring for the flooring area in corridors and class rooms
- e) UPVC windows for all the windows
- f) Pre-fabricated elastomeric water proofing membrane with APP for roof water proofing
- g) EWC, Wash Bain, Urinals for toddlers
- h) Other usual items required for any educational/ institutional buildings

The scope of work includes supply of materials and Construction of Blossom Nursery School at BRBNMPL Salboni, complete in all respect according to the intent and meaning of specification and description referred to the Price Schedule.

The schedule of items carried out is an indicative one. Any /all item(s) may/may not be operated. Contractor shall not have any claim for the same.

Works with item(s) not covered in the above schedule/ BOQ will be carried out as per the rates available in prevailing West Bengal PWD/CPWD, Schedule of Rates/ Derived from such rates.

For the Electrical works, design, manufacture, construction & testing shall be as per the norms of the code of practice/standards & shall also meet the regulations & requirements of Electricity Supply Authorities & Electrical Inspectorate.

#### **The broad scope of works is as follows**

**Civil works :** R.C.C Framed structure, Flooring, Finishing, Wooden & PVC doors and UPVC Windows, Waterproofing etc.,

**Sanitary Plumbing works:** Water closets, Urinals, wash basins, water supply and Sanitary lines and fixtures etc.

**Electrical works :** Energy meters, panel boards, MCB's, wiring, Modular switches and sockets, ceiling fans, LED lightings, Electric poles with fittings, XLPE cables, Garden Lights, provision for AC and telephones points, earthing etc.,

Any further specification would be covered in the Good for construction drawing itself which will be self-explanatory.

**4. Period / Tenure of Contract:** The works shall have to be completed within 12 months from the date of issue of LoI / NoA / Work Order / Contract whichever is issued earlier. However, BRBNMPL reserves the right to terminate the contract at any point of time without any financial compensation or assigning any reason thereof. Failure to execute the assigned Contract due to reason whatsoever will result in forfeiture of Security Deposit. The entire work should be completed in all respects as per the Specifications, Activity Schedule, Price Schedule and Scope of Works and to the satisfaction of the BRBNMPL authority.

**5. BOQ (Bill of Quantities): As per Section XI: Price Schedule.** The schedule of items & quantities to be executed is an indicative one. Any /all item(s) may/ may not be operated. Actual quantity may vary from the B.O.Q., Contractor shall not have any claim for the same.

**6. Deliverables / Outcomes and Timelines (Frequency) thereof:**

- a) As soon as the contract is awarded, a suitable programme of work, preferably in the form of a BAR/PERT/GANTT Chart, shall be drawn up for completion of the different stages of work so as to ensure its completion within the allotted period of time i.e. 12 months from the date of issue of LoI / NoA / Work Order / Contract, whichever is issued earlier. This programme shall be drawn up by the respective Contractors in consultation with Architects and EIC / Competent Authority.
- b) The scheduled programme of work as well as the actual progress at appropriate percentage of the total work for each completed month shall be shown on the Bar Chart and submitted to Architect and EIC by 5<sup>th</sup> of the Succeeding Month. A Fortnightly Progress Report shall also be sent by the Site Engineer to the Architect and EIC.

**7. Commencement of the Work:**

- a) Immediately on issue of the work order, Construction purpose Drawings shall be issued to the Contractor with detailed instructions for commencing work forthwith.
- b) The date of commencement of the work shall be taken as the 10<sup>th</sup> day after the date of issue of work order or as provided in the contract.
- c) Before start of work, the ground levels of the plot shall be taken jointly by the Contractor, Resident Engineer and the Site Engineer at three metres interval or at closer interval as required and plotted on tracing sheets. The levels shall be entered in the Level Book by the Site Engineer. The levels and drawings shall be designed by the Contractor or their authorized representative and Architect / EIC and copy of such drawings shall be sent to Architect/EIC for record.

d) The layout of the buildings shall be done by the Contractor at site with respect to the approved layout plan and shall be got cleared from the Architect/EIC before proceeding with the construction work. In case of any discrepancies which require the intervention of Architects/ EIC, the same may be immediately brought to the notice for corrective action. In such cases, work shall be allowed to be taken up, only when the layout is cleared by the Architects/EIC, as the case may be.

8. **Extension of Time:** This project is to be completed strictly within the Scheduled Time. There will be no extension. However, if the Contractor feels necessity of any extension of time due to any valid reason beyond control of the Contractor for completion of work on grounds of their having been unavoidable hindrances in execution or any other ground, they must apply in writing immediately after the occurrence of the hindrance. Such application shall contain complete details of hindrances, which hindered the Contractor in the execution of the work and reference to record of entry in the Hindrance Register.

9. **Site Office:** The Contractor shall provide and maintain adequate Site Office accommodation including light, fans, and attendant, drawing accessories etc. for the Site Office of the Contractor's Engineers or Architect's Resident Engineer. Site Office is to facilitate the following:

- Supervision and execution of the project work in accordance with drawings, terms and conditions of the contract.
- Arranging for controlled or basic stores.
- Co-ordination of the various agencies at site.
- Approval of materials and workmanship and to ensure carrying out of the necessary tests.
- Recording of instructions issued by EIC and Architects/Consultants during their visits to site for their prompt implementation.
- Conveying to the Contractors, instructions of higher authority and ensuring their compliance.
- Pointing out defects in works to the Contractors in writing at appropriate time and ensuring their rectifications in time.
- Measurement of the work.
- Compliance with the Time and Progress Charts, suggestions for revisions, removing bottlenecks in progress and reporting to higher authority.
- Scrutiny of all bills.
- Security of work and materials and safety of life and property.
- Compliance of Local Labour Regulation Act etc.
- Handing over of the completed project with relevant records to the Local Office.

10. **Maintenance of Records:**

The Site Engineer of Contractor shall record and maintain the under noted registers at site of work:

- a) Daily Progress Record
- b) Site Order Book
- c) Building Materials Record
- d) Concrete Cube Test Record/Slump Test Record
- e) Record of Drawings and Working Details
- f) Record of Defects
- g) Test Reports for Building Materials / Materials of Other Subsidiary trades
- h) Daily Labour Register
- i) Measurement Record
- j) Hindrance Register

#### **11. Facilities and Utilities at Site:**

- a) **Electricity:** Depending upon the requirement of Electric Power, the Contractor may be allowed to draw power from a prescribed point. However, necessary arrangement for drawing the same to work site including Cables, Energy Meter, Circuit Breakers, Display Lamps etc. shall be borne by the Contractor at his own cost. Electricity will be charged at prevailing commercial rate of BRBNMPL.
- b) **Water for Construction Purposes:** The Contractor shall make his own arrangements for construction water. However, based on availability, Reject Water of WTP or STP may be issued to the Contractor on specific request to EIC. The necessary arrangement and expenses to take the issued water up to Site shall be borne by the Contractor. Due care should be taken to minimise wastage of Water.
- c) **Water for Drinking Purposes:** The Contractor shall make arrangement for Temporary Storage, Dispensing of Drinking Water to Labour, Engineers, and Workers at site. Drinking Water may be drawn from nearest available point on prior permission from EIC.
- d) **Sanitation Facilities:** The Contractor shall make arrangement for Urinals/Toilets/Sanitation to keep the Site and Nearby Areas Open-defecation Free (ODF).

#### **12. Required Destination:**

Bharatiya Reserve Bank Note Mudran Private Limited,  
P.O. RBNML, Salboni,  
District Paschim Medinipur  
West Bengal – 721132

## Section VII: Technical Specifications

### **TECHNICAL SPECIFICATIONS**

#### FOR INTERIOR WORKS

#### CARPENTRY AND JOINERY

##### 1. GENERAL:

##### 1.1. General Requirement.

This section of the specifications shall be read in conjunction with the drawings and other contract documents and other sections of this specification which shall be deemed complimentary with one another. The contractor shall be responsible for providing all plant, tools, materials and all things necessary for the proper storage of materials, execution, completion and maintenance of the works.

##### 1.2. Delivery and Storage.

All timber delivered to the site shall be carefully stored above ground in such a manner as to provide proper drainage, ventilation and protection from the weather and shall be stored in a proper manner according to each material type.

##### 1.3. Definition of carpentry.

The definition of carpentry work shall be deemed to include fixing clips, blocking grounds, fittings, sub-frames, rough frames and wood framing members, as per relevant IS Codes.

##### 1.4. Moisture content of timber.

Timber shall be well seasoned and clean dried with a moisture content of 12% nominal+2% for teak wood. The contractor should get it tested for moisture content of wood at their own cost as per the direction of the Architects/Engineer in charge and produce the certificate to Indian Oil Corporation Ltd for approval.

##### 1.5. Protection, Delivery & Storage.

All timber shall be treated with preservatives before delivery to site.

All joinery and joinery timber shall be wrapped in polythene before and during transport and delivery to site.

While remaining in polythene wrappers the timber shall be protected from extremes of temperature and direct sunlight. Internal joinery and joinery timber shall be kept in its original polythene wrappers before working fixing and installing on site. Polythene wrapping to external joinery and timber shall be removed on delivery to site or as previously specified.



### 1.6.Timber.

Timber shall be of the species stipulated in the schedules of rates. It shall be thoroughly seasoned, free of defects which would affect strength and shall be flat, straight, non-splitting and dressed on all sides. The timber shall be free from decay, fungal growth, bored heart, pitch pockets or streaks on the exposed edges, splits and cracks. Knots should be avoided. Seasoning of timber shall be approved as per IS: 1141 (specification for code practice for seasoning of timber) and code of practice for prevention of timbers as per IS: 401.

### 1.7.Timber Fixing.

The carpentry timber shall be fixed with nails, spikes, bolts, screws, hangers, stirrups, anchors, ties or any other accessories which are suitable to develop the full strength of the member.

### 1.8.Fixing.

Carpentry timber fixed to solid masonry or concrete shall be secured with expansion bolts or other positive method of mechanical fastening. Carpentry timber where fixed into hollow masonry shall be secured with toggle bolts and steel with bolts, nuts & washers as per instruction of Engineer.

### 1.9.Fiber plugs.

Fixing by means of well-seasoned and preservative treated wooden plugs will be permitted only where it is required.

### 1.10.Fastening.

Power driven fasteners may be used for fastening to steel, concrete and brick masonry as approved by Engineer.

## 2. PROTECTION AND RETARDANTS:

### 2.1.Organic protection-timber generally.

The contractor shall make his own investigation to guard against local sources of attack and damage and take all necessary precautions for protection.

All timber shall be protected with an organic solvent water repellent wood preservative to give a highly efficient protection against termite, spider, worm, all insect and insect and fungus and attack and shall where exposed, enhance the appearance of the timber, colour of the product shall be such as to bring out the natural colour of the respective timber.

The preservative shall penetrate deeply into the timber, shall protect against blue stain, rot, fungus & termite, spider, work & all insects attack and shall contain a resin which fixes the preserving agent and protects them against leaching and evaporation. The protection shall also be water repellent, weather proof and proof against peel, crack or blister of approved quality. Preservative treatment of timber shall be done as per IS: 401.

## 2.2.Fire Retardant.

Fire retardant treatment of timber shall be applied by vacuum/pressure impregnation or manually and shall comply with the requirement of ISI code of practice and local fire requirements. The fire retardant effect shall be produced by the generation of water vapour and inert gases and the production of hard crystalline charcoal which acts a heat barrier.

## 3. JOINERY.

### 3.1.Timber veneers.

- a) Timber veneers shall be of the timber species shown on drawings. Veneers are to be kept in sequence as it is being out from wood and supplied as such to the site for accurate matching of figuring.
- b) Adhesives for using fixing veneers shall be in accordance with the manufacturer's recommendations and as approved by engineer-in-charge.
- c) If adhesives other than contract type are required then bonding shall be in presses.
- d) The veneer shall be finished as specified and shall be equal or superior quality to the laid down in IS: 1659-1960 or as approved.
- e) The contractor shall submit a one square meter sample of each finished veneer type for approval. The size of such sample shall be one square meter unless otherwise specified.
- f) Adhesive used for bonding BWP grade of plywood Boards shall be BWP type synthetic resins conforming IS: 848 respectively.

### 3.2.Plywood.

- a) Plywood shall be a product of a balanced construction made of piles assembled by gluing, the chief characteristics being the crossing of alternate piles improve the strength properties and minimize movement the plan of board.
- b) Plywood shall be of best quality close grained plywood suitable for veneering, painting or bonding plastic laminate. It shall be a resin bonded, water proof band. Exposed edges shall be finished with an edge strip of solid teak wood tongued and grooves & glued or as detailed.
- c) The manufacturer and reference for plywood suitable shall be subject to approval. The thickness shall be in accordance with the drawings.
- d) Plywood shall be of BWP grade or BWP type synthetic resin conforming IS: 848.

### 3.3.Particle board.

- a)Wood band particle board shall be a board made from wood particles bonded with a synthetic resin and/or other organic bonder. Thickness shall vary as shown on drawings. Particle board shall comply with SI 12823.
- b) Interior grade particle board shall be used externally or internally with damp surroundings.
- c)Manufacturer and reference for particle board shall be subject to approval.
- d) Adhesive used for bonding shall be conforming IS: 848.

### 3.4.Block board / Lamine board(solid).

- a) Block boards have a solid core made up of uniform strips of wood each not exceeding 25mm in length, laid separately, or spot glued, or otherwise joined to form a slab which is glued.

Between two or more outer veneers. In any one block Board, the core strips shall be of one species of timber only. Face veneers may be decorative or commercial on both faces or decorative on one face only and or commercial on the other. Block Boards shall be grade I (Exterior grade) as per IS: Code 1659.

- b) Manufacturer and reference of block board/shall be subject to approval.
- c) Adhesive used for bonding shall be conforming IS: 848.

### 3.5.Storage of sheet materials.

Sheet materials shall be transported and stored flat, with sufficient support of prevent bowing and wrapping and to prevent damage to edges and corners. Sheet materials shall be protected from weather and kept off the ground and in dry, well ventilated condition.

### 3.6. Sample:

The contractor shall submit sample of all materials including large samples of veneer assemblies for approval. All materials pre-fabricated, delivered and assembled shall be in accordance with the approved sample as per instruction of Engineer.

### 3.7.Shop drawings-Cabinet joinery:

The contractor shall submit for approval shop drawings for all cabinet joinery. Shop drawing shall relate to site measurement and show in detail the construction of the various parts of the work, the method of jointing, the thickness and type of material, the finishes to be applied to the various exposed surfaces, details of anchoring, joints, welds, fastening and all other relevant information.

## 4. JOINERY—GENERAL:

### 4.1. General.

Joinery shall be carried out strictly in accordance with the drawings where joints are not specifically indicated recognized forms of joints shall be used.

Where no dimensions are specified or shown on drawings, the contractor shall space fixing battens, fillets, ground studs and the like, in accordance with the recommendation of the manufacturer.

## 5.TIMBER VENEERED AND LAMINATED PLASTIC PANEL:

### 5.1.General.

Reference should be made to section of this specification which relate to timber and plastic laminate veneer.

a)The panels shall be factory made and shall be selected timber veneer or plastic laminate veneer glued to water proof plywood (as per IS Code) the edge of which shall be finished with hardwood lipping. The size and finishes of the panels shall be in accordance with the drawing and schedules instruction of Engineer.

## 5.2.Fire Rating.

Panels shall be rendered fire retardant and to conform to local fire regulations of concerned Authorities.

## 5.3.Protection and Storage.

- a)Panels shall delivered to site in perfect condition and in their original protective coverings.
- b)Panels shall be stored flat and stacked evenly in such a manner as to allow air to circulate around them freely and shall be protected from damp, direct sunlight and all other damage.

## 5.4.Installation .

- a)Panels shall not be installed until all plastering work is dry.
- b)Panels shall be installed according to the drawing & schedules and to the manufacturer's recommendations.
- c)Panels are to be securely fixed to wall with screws on painted mild steel Z clips at 600 mm centers horizontally and 1200 mm centers vertically and shall be installed true and plumb on hardwood packing pieces as necessary.
- d)Panel edges cut on site shall be scaled and made good with a veneer edging strip to match the factory finish.
- e)On, completion of installation the panels shall be left to perfect condition and properly protected against damage, damp excessive heat, dirt and direct sunlight.

## 5.5.Samples.

The contractor shall submit a sample of each type of veneer/laminate panel for approval before general fabrication is put in hand.

6.Great care must be exercised in cutting the RCC slabs/beams to located suitable reinforcement for welding the MS flats to be provided for suspension of false ceiling system. The damage to the RCC member shall be made good with cement mortar 1:3(1cement:3coarse sand). The projecting portion of the MS flat below the RCC member and any other steel member in the false ceiling system shall be painted with one coat of red oxide paint.

## 2.ALUMINIUM GLAZED PARTITION / DOORS / WINDOWS:

### 2.1.General specification, materials & erection.

Anodised tubular aluminium sections for doors, windows partition frames shall be of INDAL/JINDAL or approved equivalent make and shall be of size and design as per relevant drawings.

All moving and fixing frames shall be manufactured from Aluminium alloy conforming to IS IIE 9 WP. The alternate vertical frames shall be taken up beyond false ceiling upto main RCC ceiling/beam and shall taken up beyond false ceiling upto main RCC ceiling/beam and shall be properly screwed with main RCC ceiling/beam by way of raw/plugs/flats/deats etc completed.

The door shutter section shall be 5.5 mm thick plain glass fixed with necessary gasket and snap fit aluminium beading strip. The glazing for shutters shall be 5.5 mm thick laminated safety glass or as specified.

The door shall be provided with one security 6 lever lock. The shutters shall be provided with anodized aluminium butterfly door handles inside and outside.

The average thickness of anodized coating shall not be less than 15 microns (IS:1968) or as specified. The glazed partition frames shall be provided with approved anchors @ 90 cm c/c maximum for fixing. The bottom rail shall be fixed by way of bolts/screws to the false flooring.

## 2.2.Payment.

Payment including cost of labour, materials, taxes, carriages etc. shall be made on square meter basis of finished work. Fixed glazed partition shall be measured deducting the shutter within it and upto false ceiling only. Nothing extra shall be paid for taking vertical frame members upto main ceiling/RCC slab or beam. Door shutter shall be paid extra on square meter basis. Only clear opening or area for open able shutter left within the glazed partition shall be measured for payment.

## **STANDARD TECHNICAL SPECIFICATIONS FOR PAINTING JOB**

### 1.PAINTING.

#### 1.1. Materials

Paint, oils varnishes etc of approved brand and manufacturer shall be used synthetic enamel paint as received from the manufacturer without any admixture shall be used. (Conforming to IS: 2932)

Approved paints, oil or varnishes shall be brought to the site of work by the contractor in their original containers in sealed condition. The empty tins shall not be removed from the site of work till the relevant item of work has been completed and obtained from the Engineer-in-charge.

#### 1.2. Commencing Work

1.3. Painting shall not be started until the Engineer-in-charge has inspected the items of work to be painted, satisfied himself about their proper quality can give his approval to commence the painting work.

#### 1.4. Preparation of Surface

The surface shall be thoroughly cleaned and dusted. All rust, dirt scales, smoke and grease shall be thoroughly removed before painting is started. The prepared surface shall have received the approval of the Engineer-in-charge after inspection.

#### 1.5. Application

Before pouring into smaller containers for use, the paint shall be continuously stirred in the small containers so that its consistency is kept uniform.

The painting shall be laid on evenly and smoothly by means of crossing and laying off, the later in the direction of the grain of wood. The crossing and lying off consists of covering the area over with paint, brushing the surface hard for the first time over and then brushing alternately in opposite direction, two or three times and then finally brushing alternately in opposite direction, two or three times and then finally brushing lightly in a direction at right angles to the same. In this process no brush marks shall be left after laying off is finished. The full process of crossing and laying off will constitute one coat.

Where so stipulated, the painting shall be done with spray, spray machine used may be high pressure type of or a low pressure type, depending on the nature and location of work to be carried out. Skilled and experienced workmen shall be employed for this class of work. Paint used shall be brought to the requisite consistency by adding a suitable thinner as recommended by the paint manufacturers.

Spraying shall be done only when dry condition prevails.

Each coat shall be allowed to dry out thoroughly and rubbed smooth before the next coat is applied.

Each coat except the last coat, shall be lightly rubbed down with sand paper or fine pumice stone and cleaned off dust before the next coat is laid.

No left over paint shall be put back into the stock tins.

No hair marks from the brush or legging of paint particle in the concern of panels, angles of molding etc shall be left on the work.

In painting steel work, special care shall be taken while painting over bolts, nuts, rivets, overlaps etc.

The additional specification for primer and other coats of paints shall be as according to the detailed specifications under the respective headings.

#### 1.6. Brush And Containers

1.7 After work, the brushes shall be completely cleaned from paint and linseed oil by rising with turpentine. The containers, when not is use, shall be kept closed.

#### 1.8. Measurement

The units of measurement for painting except where otherwise stated shall be given in "Sq meter" painting of rain water, soil, waste, vent pipes, etc shall also be measured in "Sq meter".

#### 1.9 Precautions

All furniture, fixtures, glazing, floors etc shall be protected by covering and stains, smear, splashing if any shall be removed and damage done shall made good by the contractor at his cost.

#### 1.10 Rate

Rate shall include cost of all labour and materials, taxes, carrying, cleaning of surface after painting involved in all the operation described above and in the particular specifications given under the several items. It shall also include cost of scaffolding.

## 2 PAINTING PRIMING COAT ON WOOD, IRON SURFACE

### 2.1 Materials

The priming coat for woodwork or iron work shall be as specified in the description of the item. It shall be ready made primer of approved brand and manufacture. IT shall be brought to site in their original packings in sealed condition.

### 2.2 Preparation of Surface

#### 2.2.1. Wood work

The woodwork to be painted shall be dry and free from moisture.

The surface shall be thoroughly cleaned. All unevenness shall be rubbed down smooth with sand paper and shall be well dusted. Knots, if any, shall cover with preparation of red lead made by grinding red lead in water and mixing with strong glue size and used hot.

The surface treated for knotted shall be dry before painting is applied. After the priming coat is applied, the holes and identifications on the surface shall be stopped with glazier's putty or wood putty. Stopping shall be done before the priming coat is applied.

#### 2.2.2 Iron and steel work

All rust and seals shall be removed by scrapping or by brushing with steel wire brushes. Hard skin or oxide formed on the surface of wrought iron during rolling which becomes loose by rusting, shall be removed.

All dust and dirt shall be thoroughly wiped away from the surface. If the surface is wet, it shall be dried before priming coat is undertaken.

#### 2.2.3 Application

The shall be applied with brushes, worked well into the surface and spread even and smooth. The painting shall be done by crossing and laying off described.

## 3 PAINTING WITH SUPERIOR QUALITY SYTHETIC ENAMEL PAINT

### 3.1 MATERIAL

#### a)Wood Work

The superior synthetic enamel paint of the following brand and manufacture shall only be used.

a)"Luxol High gloss Synthetic Enamel" of Berger Paints.

b)"Apcolite" of Asian Paints (India) Limited.

### 3.2 PREPARATION OF SURFACE

#### a) Wood Work

The surface shall be cleaned and all unevenness removed as in para 2.2.1. Knots if visible, shall be covered with a preparation of red lead as in para 3.2..1. Holes and indentation on the surface shall be filled in and surface prepared as in 2.2.1.

#### b) Iron and Steel work

The priming coats shall have dried up completely before painting is started. Dust and scaling shall be carefully removed by scrapping or by brushing with steel wire thoroughly wiped.

### 3.3. APPLICATION

The number of coats shall be as stipulated in the item. One coat of the specified paint shall be applied and allow to dry overnight. It shall be rubbed next day with the finest grade of wet adhesive paper to ensure a loose particles dusted off.

Next coats shall be applied after the first coat is thoroughly dry. Additional coats shall be applied if found necessary to ensure properly uniform glossy surface, free from streaks, blistered etc., in all the cases paint manufacturer's instruction shall be followed meticulously.

## 4 PAINTING WITH WALL PAINT

4.1 The wall paint shall be of following brand and manufacturer:

a) "LUXOL" Silk Acrylic Emulsion paints of Berger paints or approved equivalent. The paint shall be of approved shade.

#### 4.2 "Preparation of Surfaces"

The surface shall be thoroughly cleaned of dust, old white or colour wash or other wall finish by washing with water and scrubbing such removal of white wash, colour washing etc will be paid for separately. The surface shall then be sand papered to give a smooth and even surface.

Scratches, holes etc shall be made good by applying putty, made of plaster of paris mixed with water on the surface and then sand papering the same after it is dry.

The wall surface which will be painted with wall paint shall be made smooth by applying a putty made of plaster of paris mixed with water on the entire surface including filling up the undulations and then sand papering the same after it is dry such application of plaster of paris will not be paid separately.

#### 4.3 Material.

Cement primer of approved brand and manufacture shall be used.

#### 4.4 Application



On properly prepared and primer surface, wall paint shall be applied in the usual manner with brush or roller.

The number of coat shall be as stipulated in the item.

When painting inside a wall ventilated room, the second coat can be applied one hour after the first.

The thinning of paint is to be done with water. The quantity of thinner to be added for first and second coat shall be as per manufacture's instructions.

The surface on finishing shall present a flat velvety smooth finish and uniform appearance. If necessary more coats will be applied till the surface present, uniform appearance. In all cases the manufacturer's instructions shall be followed meticulously.

4.5 Other details these shall be as per specification for painting (general) as for they are applicable.

## 5 French Spirit Polishing.

5.1 Pure shellac varying from pale orange to lemon yellow colour, free from resin or dire shall be dissolved in methylated spirit. Suitable pigment shall be added to get the required shade.

5.2 The surface shall be cleaned. All unevenness shall be rubbed down smooth with sand paper well dusted. Knots of visible shall be covered with a preparation of red lead and glue size laid on while hot. Holes and indentations on the surface shall be stopped with glazier's putty. The surface shall then be given coat of wood filler made by mixing whiting in methylated spirit at the rate of 1:5 kg of whiting per liter of spirit. The surface shall again be rubbed down perfectly smooth with glass paper and wiped clean.

5.3 The number of coats of polish to be applied shall be as descried in the item a pad of woolen cloth covered by a fine cloth shall be used to apply the polish. The pad shall be moistened with the polish and rubbed hard on the wood, in a series of overlapping circles applying the mixture sparingly but uniformly over the entire area to give an level surface. Traces of linseed oil on the face of the pad facilities this operation. The surface shall be allowed to dry and the remaining coats applied in the same way. To finish off, the pad shall be covered with a fresh piece of clean fine cloth, slightly and quickly with methylated spirit and rubbed lightly and quickly with circular motions. The finished surface shall have a uniform texture of high gloss.

5.4 Other details shall be as per the specification for painting (general) as for as they are practicable.

## 6 VITRIFIED FLOOR TILES

6.1 Work included The tenderer shall furnish materials, labour. Plant, equipment and tools to complete the work as specified and or as shown in the drawing.

### 6.2 Materials

- a) Vitrified tiles shall be flat and unglazed on the top surface. They shall be generally 600 X 600 mm in size with a thickness as approved by the Engineer. They shall conform to IS: 15622 of approved make and colour. The tenderer shall submit to the Engineer for his approval samples of tiles which he proposes to use in the work and all tiles used shall be similar to the approved samples. Water absorption's less than 0.08% of above quality of tiles.
- b) Ordinary or White Portland Cement:
  - 1) Cement: Ordinary Portland Cement shall conform to IS: 8112
  - 2) White Portland Cement: White Portland Cement shall conform to IS: 8042
  - 3) Sand: The sand used shall be of approved river or pit sand, conforming to IS: 383-1970
  - 4) Water: Water used shall be clean and potable quality as per clause 4.3 of IS: 456-2000

### 6.3 Workmanship

Tiles shall be laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand) including grouting the points with white cement and matching pigments as approved by Engineer. The fixing shall be done from bottom upwards. Each tile shall be fixed as close as possible to the one adjoining and any thickness of the tiles shall be evened out in the cushioning mortar so that all the tiles faces are set in conformity with one another. After finishing above job surface shall be cleaned and cured.

## **PLASTERING & POINTING**

### **1.1 Materials**

#### **1.1.1 Cement:**

Cement shall conform to "Specification no. 6-68-02 'Material' Clause No. 1.0" of "Technical Specification for Civil and Structural Works" unless otherwise specified.

#### **1.1.2 Sand:**

Sand for plastering and pointing shall conform to IS 1142. Sand shall be hard, durable, clean and free from adherent coatings and organic matter and shall not contain any appreciable amount of silt, clay balls or pellets. Sand shall not contain harmful impurities such as iron pyrites, coal particles, lignite, mica shale etc.

Sand whose grading falls outside the limits of IS 460 due to excess or deficiency of coarse or fine particles shall be processed to comply with the standards. Fine sand shall be obtained from river beds not affected by tidal water of the sea and shall be clean, sharp and free from excessive deleterious matter. The sand shall not contain more than 8 percent of mud and slit as determined by field test with a measuring cylinder.

#### **1.1.3 Water:**

Water for plastering and pointing shall conform to 'Specification No. 6068-02 'Material', clause No. 2.0 of "Technical Specification for Civil and Structure Works".

#### **1.1.4 Cement Mortar**

Preparation of cement mortar shall conform to "Specification No. 6-68-09 'Brick Masonry', clause no. 3.0" of 'Technical Specification of Civil and Structural Work' unless otherwise mentioned.

### **1.2 Workmanship**

#### **1.2.1 Preparation of background surface**

The surface shall be cleaned off all dust, loose mortar droppings, traces of algae, efflorescence and other foreign matter by water or by brushing. Smooth surface shall be roughened by wire brushing or hacking for non-hard and hard surfaces respectively. Projections on surfaces shall be trimmed wherever necessary to get even surfaces. In case of brick/stone masonry, raking of joints shall be carried out wherever necessary. The masonry shall be allowed to dry out for sufficient period before carrying out the plaster work. The masonry shall not be soaked but only damped evenly thereafter before applying the plaster.

In case of concrete work, projecting burrs of mortar formed due to the gaps of joints in shuttering shall be removed. Such surface shall be scrubbed clean with wire brushes. The surface shall be pock marked with a pointed tool at spacing of not more than 10mm. centers, the pocks being made not less than 3 mm. deep to ensure a proper key for the plaster. The surface shall be washed off and cleaned of all oil, grease etc. and well wetted before the plaster is applied.

### 1.3.2 Sequence of Operations:

For external plaster, the plastering operations shall be started from the top floor and carried downwards. For internal plaster, the plastering may be started wherever the building frame, roofing, and brick work are ready.

The surfaces to be plastered, shall first be prepared as described in 'Preparation of background surface' in clause 1.3.1.

The first underlay shall then be applied to ceilings. After the ceiling plaster is complete and scaffolding for the same removed, plastering on wall shall be started.

After a suitable time interval as detailed under various types of plaster in subsequent paras, depending upon the type of mortar, the secondary layers if required shall be applied. After a further suitable time interval as detailed under various type of plaster in subsequent paras, the finishing coat shall be applied first to the ceiling and then to the walls.

Plastering of cornices, decorative features, etc. shall be completed before the finishing coat is applied. Unless otherwise specified corners and edges shall be rounded off to a radius of 21mm. such rounding off shall be completed along with the finishing coat to prevent any joint marks showing out later.

### 1.3.3 Scaffolding/Staging:

Scaffolding/staging for plastering/pointing shall be as 'Specification No. 6-68-09. Brick Masonry, clause no. 1.0' of 'Technical Specification for Civil and Structural Works'.

### 5.3.4 Damage Rectification:

Any cracks, damages, any part of work which sound hollow when tapped or found damaged or defective otherwise shall be cut in rectangular shape and redone as directed by Engineer-in-Charge.

## 1.4 Plain Cement Plaster

### 1.4.1 Preparation of Mortars:

The mortars of specified mix. shall be used as per the Specifications of 'Cement Mortar' in Clause No. 1.1.4.

### 1.4.2 Application of Plaster

1.4.2.1 One layer plaster work to ensure even, specified thickness, plaster of 110mm x 110mm shall be first applied horizontally and vertically at not more than 2 meter interval over the entire surface to serve as gauges. The surface of these gauged areas shall be truly in the plane of the finished plaster surface. The mortar shall be brought to true surface by working with a wooden straight edge reaching across the gauges with small upward and sideways movements at a time. Finally the surface shall be finished off true with a trowel or wooden float to obtain a smooth texture.

Excessive toweling or overworking the float shall be avoided. All corners, arises, angles and junctions shall be truly vertical/ horizontal and shall be carefully finished. Rounding or chamfering of corners, arises, junction etc. shall be carried out with proper templates to the size required.

In suspending the work, the plaster shall be left, cut clean to line, both horizontally and vertically. When recommencing the plastering, the edge of the old work shall be scrapped clean and wetted before plastering the adjoining area. Plastering work shall be closed on the border of the wall and nearer than 110mm. to any corners or arises and shall not be closed on the body of the features such as plaster bands, cornices nor at the corners or arises.

#### 1.4.3 Curing

Curing shall be started 24 hours after finishing the plaster. The plaster shall be kept wet for a period of 7 days. During this period the plaster shall be suitably protected from all damages at the contractor's expense by such means as approved by the Engineer-in-Charge. The date of execution of plastering shall be marked on the plastering to ensure the proper duration of curing.

### 1.8 Measurement and Rate

1.8.1 The description of each item, unless otherwise mentioned includes wherever necessary all material, conveyance and delivery, handling, loading/unloading, storing, fabrication, all labour for finishing the work, preparation of background surface, staging/scaffolding, application, finishing, removal of staging/scaffolding, curing and other incidental charges. The rate shall be for all heights and all heights of work.

#### 1.8.2 Plastering

Thickness of the plaster shall be the minimum thickness at any point on a surface and shall be exclusive of the key i.e. grooves or open joints in masonry. No extra payment shall be allowed for extra thickness of plaster done by contractor, drip moulds, rounding of edges etc.

All plastering/pointing shall be measured in square meters unless otherwise specified. Length breadth and height shall be measured correct to 0.1 meters. Soffits of stairs shall be measured as plastering on ceiling. Ceiling with projected beams shall be measured over beams and plastered side of beam shall be measured and added on ceiling.

Deductions and additions shall be made in the following manner:

- a) No deductions shall be made for end of joists, beams, posts, openings not exceeding 0.1sqm. area and no addition shall be made for reveals, jambs, soffits etc. of these openings not for finish to plaster around ends of joints, beams, posts etc.
- b) Deductions for openings exceeding 0.1sqm. but not exceeding 3sqm. each shall be made as follows and no addition shall be made for reveals, jambs, soffits etc. of these openings.

- i) When both faces of wall are plastered with same type of plaster, deduction shall be made for one face only.
- ii) When two faces of wall are plastered with different types of plasters or if one face is plastered and the other pointed, deduction shall be made from the plaster or pointing on the side of frame for door, windows etc. on which width of reveals is lesser, but no deduction shall be made on the other side. Where widths of reveals on both faces of wall are equal, deduction of 10% of area of opening on each face shall be made.
- iii) When only one face is plastered, full deduction shall be made from plaster if width of reveal on plastered side is lesser. But if widths of reveal on both sides are equal or more on plastered side, no deduction shall be made.
- c) In case of openings of area above 3 sqm. each, deduction shall be made for openings but jambs, sills, and sills shall be measured.

## **ELECTRICAL TECHNICAL SPECIFICATIONS**

### **1.0 SPECIFICATION OF WORK, MATERIALS, TOOLS AND EQUIPMENT:**

The Contractor shall supply all materials, tools, plants and instruments necessary for the efficient execution of the work to complete within the stipulated time.

The materials specified in the schedule of Rates will only be used, other than the specified make written approval from Engineer-in-Charge is to be taken for issuing these materials. And a copy of the approval is to be furnished to Technical Services Department before using these materials.

All materials brought to site shall be approved by Engineer-in-Charge. Materials which are sub-standard shall be rejected. The substandard materials brought to site or used in the work shall be removed by the Contractor within 24 hours on receipt of the notice to that effect from the Site Engineer. Decision of the Engineer-in-Charge in regard to quality of materials will be final & binding.

- i) Indian Electrical Act. 1910.
- ii) Indian Electricity Rules 1956 and regulations framed there under.
- iii) The rules and bye laws of the local Electric supply Authorities.
- iv) Standards & Practices maintain by Indian Oil.

Good and skilled workmanship is as essential as the good quality of materials. Where the workmanship is not considered to be approved standard, the work should be dismantled and redone as directed by the Engineer-in-Charge or by the Site Engineer. This will, however, be decided during the progress of work or within one month from the date of completion of the work. The of the Engineer-in-Charge will be final.

#### **1.1 GENERAL**

Work under this contract shall be executed as given in this tender document and as required at site whether specifically shown or not. The contractor shall carry out and complete the work under this contract in every respect in conformity with the contract documents and as per directions of and to the satisfaction of the engineer –in –charge / owners.

#### **1.2 SYSTEM**

All equipment to be supplied as a part of contract and the installation works shall be suitable for 415V, 3 ph, 4 wire system, as specified.

#### **1.3 SITE CONDITIONS**

All equipment shall be suitable for satisfactory operation at the following site conditions  
 Ambient Conditions  
 Max 46 deg C 92% relative Humidity.  
 Min 05 deg C 92% relative Humidity

### **2.0 POINT WIRING**

#### **2.1 General**

Technical specifications in this section cover the internal wiring installation comprising of:

- Point wiring for lights,
- Point wiring socket outlets etc. including circuit wiring in concealed / surface conduit as mentioned in drawings.
- Point wiring for telephone outlets
- Sub-main wiring in concealed / surface conduits
- Supply, installation of the light fixtures
- Supply, installation of the distribution boards and the final sub distribution board for the entire building.
- Marking earth stations.

## **2.2 Standards and Codes**

All equipment, components, materials and entire work shall be carried out in conformity with applicable and relevant Bureau of Indian Standards and codes of practice, as amended up to date and as below. In addition, relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended up to date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and / or IEC Standards shall be applicable.

Equipments certified by Bureau of Indian standards shall be submitted, as required.

It is to be noted that updates and current standards shall be applicable irrespective of dates mentioned along with ISS's in the tender documents.

## **2.3 CONDUITING**

### **2.3.1 PVC Conduits**

All conduits used in the contract shall be ISI embossed. The conduits shall have perfectly circular and smooth tubing.

### **2.3.2 Sheet metal outlet / draw / inspection / junction boxes**

Outlet boxes shall be of required sizes and shall be fabricated from 1.6mm thick MS sheets excepting ceiling fan outlet boxes which shall be fabricated from minimum 2 mm thick sheets. Outlet boxes shall be provided with minimum 16 mm projected threaded collars. The outlet boxes shall be of approved quality, finish and manufacture. All outlet boxes shall be provided with an earth stud. The boxes shall be protected from rust by zinc phosphate primer process. For concealed conducting work, boxes with primer only could be embedded For surface conducting work, the boxes shall be finished with minimum one coat of enamel paint of approved colour. Alternatively these boxes could be galvanized and painted if so stipulated. The outlet boxes shall be so protected at the time of fixing that no mortar finds its way inside during concrete filling or plastering. For concealed conduiting work, outlet boxes shall be completely embedded in walls / ceilings leaving edges flush with finished wall / ceiling surface.

#### **2.3.4.1 Outlet boxes for light fittings**

This shall be minimum 75mm X 75mm deep and provided with one or two threaded collars of conduit entry as required. For ceiling mounted florescent fittings, the boxes shall be provided 300 mm off center for a 1200 mm fitting and 150 mm off center for a 600mm fitting so that the wiring is taken directly to the down rod. 3mm thick Perspex / hylem sheet cover of matching colour shall be provided.



**2.3.4.2 Ceiling fan outlet boxes**

Outlet boxes for ceiling fans shall be fabricated from min. 2mm thick ms sheet steel. The boxes shall be hexagonal in shape of min. 100mm depth and 60mm sides. Each box shall be provided with one U shaped 15mm dia rod tied to the top reinforcement of the concrete slab for a length of min. 150mm on either side. 3mm thick hylem sheet cover of matching colour shall be provided.

**2.3.4.3 Switch boxes**

Switch boxes suitable to house plate type switches of required rating and fan regulator as required shall be provided. In case of no. of switches in one box is not tallying with that available in standard manufacturer, the box accommodating the next higher no. of switches shall be provided without any extra cost. In case fan regulator / regulators is / are to be provided at a later date, suitable provision for accommodating such regulator shall be made in the switch boxes and are blank off covers shall be provided without any extra cost.

Switch boxes shall be so designed that accessories are mounted on a grid plate with tapped holes for brass machine screws leaving ample space at the back and on the sides for accommodating conductors, check nuts and brass brushes at conduit entries. The grid plate and MS boxes shall be fitted with a brass earth terminal. Boxes shall be attached to conduits by means of check nuts on either side of their walls. No timber shall be used for any supports. Switch boxes shall be located with bottom at 1200 mm above floor level unless otherwise indicated.

**2.3.4.4 Socket outlet boxes**

Outlet boxes shall be suitable for housing switch socket outlets, telephone outlets and any other outlet as required. These shall be so designed that accessories are mounted on a grid plate with tapped holes for brass machine screws leaving ample space at the back and on the side for accommodating conductor, check nuts and brass bushes at conduit entries. The grid plate and ms boxes shall be fitted with brass earth terminal. These shall be attached to conduits by means of check nuts on either side of their walls. No timber shall be used for any supports. Boxes shall be located with bottom at 1200 mm above floor level unless otherwise indicated.

**2.3.4.5 Draw boxes**

Draw boxes of minimum 75mm X 75mm X 50mm Deep or larger as required shall be provided at convenient location to facilitate drawing of long runs of conductors / wires. These shall have screwed covers of 3mm thick hylem sheet.

**2.3.4.6 Inspection boxes / junction boxes**

Inspection boxes of minimum 75mm X 75mm X 50mm or larger as required shall be provided at suitable location in conduit runs to permit inspection and maintenance. These shall have screwed covers of 3mm thick hylem sheet.

**2.3.5 Cross Section**

The conduit shall be of ample sectional area to facilitate simultaneous drawing of wires. In no case shall the total cross section of wires measured overall be more than half the area of conduit. Max. no. of wires permissible in various sizes of conduits shall be as below.

As per IS		
Size of Wire Cu. Conductor	Diameter of conduits	
	19	25
1.5 sq.mm	5	10
2.5 sq.mm	5	8
4.0 sq.mm	4	6
6.0 sq.mm	3	5
10.0sq.mm	2	3

### 2.3.6 Laying of conduits

Conduits shall be laid either concealed in walls and ceiling or on surface on walls and ceiling or partly concealed and partly on surface as required. The surface of the wall must be finished and painted to match the other part of the room in case of conceal wiring, PATCH MARKS MUST NOT BE VISIBLE. For surface Conduiting the works to performed in highly professional manner with high quality of workmanship to maintain the aesthetic look of the conduit with sufficient no.s of 16 SWG GI saddles with bases. No Flexible conduits will be acceptable in Conduiting works. In case it becomes necessary to use flexible conduits then only flexible GI conduits or Wire Centered PVC conduits are acceptable that too with prior approval of Site Engineer. All the conduits must be threaded at the end and tightly fixed with boxes, conduits, bends, nipples etc. with proper check nuts/ coupler.

Same rate shall apply for concealed and surface conduiting in this contract.

#### 2.3.6.1 Concealed Conduiting

Concealed conduits in concrete members shall be laid before casting in the upper portion of slab or otherwise as may be instructed so as to embed the entire run of conduits and ceiling outlet boxes with a cover of min. 12 mm concrete. Conduit shall be adequately tied to the reinforcement to prevent displacement during casting at interval of max. 1 min. No reinforcement shall be cut to fix the conduits. Suitable flexible joints shall be provided at all locations where conduits cross expansion joints in the building.

#### 2.3.6.2 Surface Conduiting

Wherever so desired, conduit shall be laid in surface over finished concrete and / or plaster brick works suitable cast aluminum spacer saddles of approved make and finish shall be fixed to the finished structural surface along the conduit route at interval not exceeding 600 mm. Holes in the concrete or brick works the saddles shall be made neatly by electric drills. Conduit shall be fixed on the saddles by means of good quality heavy duty ms clamps screwed to the saddles.

#### 2.3.6.3 Painting of conduits and boxes

All draw/switch/junction/fan hook boxes shall be galvanized/CD plated/painted with red oxide in their manufactured form. All ungalvanised/ unplated boxes shall be again painted with red oxide paint as required before fixing. Boxes fixed on surface shall, in addition, the painted with finished paint of approved color and finish. Before laying conduits shall be painted at such places where paint has been damaged.

#### 2.3.6.4 Protection of conduits

To safeguards against filling up with mortar/plaster etc. All the outlets and switch boxes shall be provided with temporary covers and plugs which shall be replaced by sheet/plate cover as

required. All screwed and socketed joints shall be made fully water tight with white lead paste.

#### CLEANING OF CONDUITS RUNS

The entire conduit system including outlets and boxes shall be thoroughly cleaned after completion of erection and before drawing in of cables.

### **2.3.6.5 Earthing**

Continuous of wires shall be provided for all points, outlets. Earthing terminal shall be provided inside all switch boxes, outlet boxes and draw boxes etc. Earth wire for concealed conduits shall in variably be provided by means of bare copper wire draw inside the conduit and connected to earth stud of all outlet boxes, switch boxes and draw boxes etc. Earth wire for surface conduit shall be by means of bare wire as for concealed conduit or bare copper earth wire taken outside the conduit as per schedule of quantities. Connection with conduit shall be made by suitable screwed clamp, paint or conduit being removed for making effective electrical connection.

### **2.4 WIRING**

Wiring shall be carried out with PVC insulated 660V grade unsheathed single core wires with electrolytic annealed stranded copper (unless otherwise stated) conductors and conforming to IS 694 / 1990. All wires shall be ISI embossed. All wires shall bear manufacturer's label and shall be brought to site in new and original packages. Manufacturer's certificate, certifying that wires brought to site are of their manufacturer shall be furnished as required. All the wires must be FRLS type.

Final connection to light fitting / appliance from termination of point wiring in ceiling / wall light outlet boxes shall be made with 660V grade stranded Cu. Conductor unsheathed PVC flexible cords conforming to IS 694/1990 and having a cross-sectional area not less than 0.75 sq.mm

#### **2.4.1 Bunching of wires**

Wires carrying current shall be so bunched in conduits that the outgoing and return wire are drawn into the same conduit. Wires originating from two different phases shall not be run in the same conduit.

#### **2.4.2 Drawing of wires**

The drawing of wires shall be done with due regard to the following precautions:

No wires shall be drawn into any conduit until all work of any nature that may cause injury to wire is completed. Care shall be taken in pulling the wire so that no damage occurs to the insulation of the wire. Screwed buses shall be provided at conduit terminations. Before the wires are drawn into the conduits, conduits shall be thoroughly cleaned of moisture, dust, dirt or any other obstruction by forcing compressed air through the conduits if necessary.

#### **2.4.2 Termination / jointing of wires**

Sub circuit wiring shall be carried out in loping system. Joints shall be made only at distribution board terminals, switches / buzzers and at ceiling roses / connectors / lamp holders terminals for lights / fans / socket outlets. No joints shall be made inside conduits or junction / draw / inspection boxes. Switches controlling lights, fans or socket outlets shall be

connected in the phase wire of the final sub circuit only. Switches shall never be connected in the neutral wire.

Wiring conductors shall be continuous from outlet to outlet. Joints where unavoidable, due to any special reason shall be made by approved connectors. Specific prior permission from Engineer-in-charge in writing shall be obtained before making such joint.

Insulation shall be shaved off for a length of 15 mm at the end of wire like sharpening of a pencil and it shall not be removed by cutting it square or wringing.

Standards of wires shall not be cut for connecting terminals. All stands of wires shall be soldered at the end before connection.

Ends of PVC insulated aluminum conductor wire ends before connection shall be properly soldered (at least 15 mm length) with suitable soldering material.

Conductors having normal cross sectional area exceeding 4 sq. mm shall always be provided with crimping sockets.

At all bolted terminals, brass flat washer of large area and approved steel spring washers shall be used.

Brass nuts and bolts shall be used for all connections.

The pressure applied to tighten terminal screws shall be just adequate, neither too much nor too less.

Switches controlling lights, fans, socket outlets etc. shall be connected to the phase wire of circuits only.

Only certified wiremen shall be employed to do wiring / jointing work.

#### **2.4.4 LOAD BALANCING**

Balancing of circuits in three-phase installation shall be planned before the commencement of wiring and shall be strictly adhered to.

#### **2.4.5 COLOUR CODE OF CONDUCTORS**

Colour code shall be maintained for the entire wiring installation – red, yellow, blue for three phases, black for neutral and green for earth.

### **2.5 SWITCHES AND ACCESSORIES**

#### **2.5.1 SWITCHES**

All 6 and 16 amps switches shall be of the modular flush mounting type unless otherwise stated, suitable for 250 volt AC supply, best quality and of approved make. The switch moving and fixed contacts shall be of silver nickel and silver graphite alloy and contact tips

coated with silver. Housing of switches shall be made from high impact resistant, flame retarding and ultra violet stabilized engineering plastic material.

### **2.5.2 FAN REGULATORS**

Fan regulators shall be fixed inside the switch boxes on grid plates with tapped holes and brass machine screws unless otherwise stated, leaving ample space at the back and sides for accommodating wires. If fan regulator is to be fixed at the later date by Owners, provision for such fixing in the switchbox shall be provided and a blank of plate over the space meant for regulator shall be provided without any extra cost.

### **2.5.3 SOCKET OUTLETS**

6/16 amps socket outlets shall be of modular flush mounting type, unless otherwise stated, and shall be switched, three pin type and fitted with automatic linear safety shutters to ensure safety from prying fingers. Un switched 6/16 amp socket outlets where called for shall also be of three pin type socket outlets shall be made from high impact resistant, flame retarding and ultra violet stabilized engineering plastic material.

Switches and sockets shall be located in the same plate. Plates for 6 amp switched / un switched power and telephone outlets shall be of the same size and shape.

An earth wire shall be provided along the wires feeding socket outlets for electrical appliances. The earth wire shall be connected to the earthing terminal screw inside the box. The earth terminal of the socket shall be connected to the earth terminal provided inside the box.

### **2.5.4 FLUSH PLATES**

Switches, socket outlets, receptacles, and telephone outlets etc. in walls shall be provided with moulded cover plates of approved colour, shape and size made from high impact resistant, flame retarding and ultra violet stabilized engineering plastic material, and secured to the box with counter sunk / round head chromium plated brass screws unless otherwise stated. Where two or more switches are installed together, they shall be provided with one common switch cover plate as described above with notches to accommodate all switches either in one, two or three rows.

One and two gang switch cover plate, telephone outlet cover plate, 6 and 16 amps switched / un switched outlet plates, shall have the same shape and size. Three and four gang switch cover plates shall have the same shape and size. Six and eight gang switch cover plates shall have the same shape and size. Nine and twelve switch cover plates shall have the same shape and size. Whenever five switches, seven switches, ten switches and eleven switches are to be fixed the next higher size of gang switch cover plate to be used and extra openings shall be provided with blank-offs.

### **2.5.5 OUTDOOR SWITCHES**

Switches located outdoors shall be, of required size, type and rating and shall be provided in weather proof enclosures, with weather proof gasket covers. The MCS's/ uses for all outdoor switches shall be separate and of required rating.

### **2.5.6 LIGHTING FIXTURES, FANS AND EXHAUST FANS**

Light fixtures and fittings shall be assemble and installed complete as required and make ready for service, in accordance with drawings, instructions and as offered by Engineer-in-charge.

Wires brought out from junction boxes shall be encased in flexible conduits of make and quality approved by Engineer-in-charge for connecting to fixtures concealed in suspended ceilings. Flexible conduits shall be provided with a check nuts at both ends.

Pendant fixtures specified with overall lengths are subject to change and shall be checked with site conditions and installed as required.

All suspended fixtures shall mounted rigid and fixed in position in accordance with drawings, instructions and as approved by Engineer-in-charge.

Fixtures shall be suspended true to alignment, plumb, level and capable of resisting all lateral and vertical force.

All suspended light fixtures, fans etc. shall be provided with concealed suspension arrangement in the concrete slab / roof members. Making adequate provision for such arrangements at the appropriate stage of construction is deemed to be included in Contractors' scope.

Exhaust fans shall be fixed and locations shown on the drawings. They shall be wired to a plug socket at a convenient location near the fan in flexible conduits.

All switch and outlet boxes, and fan regulators shall be bonded to earth with bare copper wire or equivalent as required.

Wires shall be connected to all fixtures through connector blocks.

Down rods of ceiling fans shall be minimum 19 mm dia class B GI pipes. These shall be rigidly connected to the ceiling fan in an approved manner and shall be connected to the concealed hook in the ceiling by means of standard shackle arrangement as approved by Engineer-in-charge.

## **2.6 MEASUREMENT AND PAYMENT OF WIRING**

Wiring for lights, fans, socket outlets, telephone outlets etc., carried out as per tender specifications shall be measured and paid on point basis only unless otherwise specifically stipulated. The point wiring basis shall assume average wiring length and average conduiting length per point base on parameters stipulated in paragraph below. The average wiring length and average conducting length forming the basis of point wiring payment, shall take the electrical layouts of the entire project into consideration. Tenderers are advised to seek clarifications, if they so desire, on this aspect before submitting their tenders. No claim for extra payment on account of electrical layouts in parts of the project requiring larger average wiring and conduiting length per point whether specifically shown in tender drawings or not shall be entertained after the award of contract.

### **2.6.1 POINT WIRING**

Point wiring shall be carried out as per following parameter.

In concealed / surface conduit system unless otherwise stipulated.

Only looping system of wiring shall be adopted throughout.

All accessories shall be flush types unless otherwise stated.

For estimation of load, following loads per point shall be assumed.

Light points	100 Watts
6 amps socket outlet points	100 watts
Fan points	60 watts
Exhaust fan points	300 Watts or as specified
16-amp socket outlet points	1000 watts.

Light points, fan points and 6 amp socket outlet points may be wired on a common final such circuit. Such circuit shall not normally have more than a total of ten light, fan or socket outlets or a load of 800 watts. Wiring from DB to the first switch in each first sub-circuit is defined as circuit wiring which shall be wired with on size higher wire.

Power circuits shall normally have maximum one 16 amps socket outlet unless otherwise stated. Separate circuit shall be run for each geyser, kitchen equipment, window air conditioners and similar appliances.

Point wiring rates shall include painting of conduits and other accessories as required. Point wiring rates shall include cleaning of dust, splashes of colour wash or paint from all fixtures, fans, fittings etc. at the time of taking over of the installation.

### **2.6.2 LIGHT POINT**

Light point wiring shall commence at the distribution board terminals and shall terminate at the terminate at the ceiling rose/connector in ceiling box/lamp holder via the control switch. Rates quoted shall be deemed to be inclusive of the cost of entire materials and labour required for completion of point wiring thus defined including: a) concealed/surface conducting system complete with all accessories, junction/draw/inspection boxes, screwed brass bushes, check nuts etc complete as required, b) wiring with stranded copper(unless otherwise stated) PVC insulated 660Volt grade wires for point wiring including circuit wiring(wiring from distribution board terminals to the first switch in the circuit) and terminals etc. complete as required), control switch with switch box and cover plate of specified type including fixing screws, earth terminal etc. complete as required) loop earthing with bare copper wires.

### **2.6.3 CEILING FAN POINT**

Point wiring for ceiling fan points shall be same as for light points in para 6.3 above and shall in addition, include ceiling outlet box with recessed fan hoods and provision in the switch box for mounting the fan regulator.

Switch socket shall be earthed with bare copper wires as required.

### **2.6.4 EXHAUST FAN POINT**

Point wiring for exhaust fan point shall be same as for light point above and shall in addition include socket outlet near the exhaust fan and control switch with regulator at a convenient location complete as required.

#### **3 PINS 5 AMPS SOCKET OUTLET POINT (LIGHTING)**

Point wiring for lighting convenience socket outlet points shall be same as for light points above and shall in addition include 3 pin 5 a control switch of specified type mounted in a ms box with cover as required and 3<sup>rd</sup> pin earthed with bare Cu wire as specified

#### **3 PINS 16 AMPS SOCKET OUTLET POINT (POWER)**

Point wiring for lighting convenience socket outlet points shall be same as for light points above and shall in addition include 3 pin 5 a control switch of specified type mounted in a ms box with cover as required and 3<sup>rd</sup> pin earthed with bare Cu wire as specified

### **2.6.5 CIRCUIT WIRING**

Wiring from DB to the first switch in any sub circuit is defined as circuit wiring min. size of PVC insulated Cu conductor wires for all circuit wiring for light, exhaust fan, ceiling fan, and lighting convenience outlet point shall be 2.5sq.mm unless otherwise specified. Circuit wiring shall not be separately measured and paid for point wiring rates shall include the cost of providing circuit wiring as required.

#### **SUB MAIN WIRING**

Sub main wiring shall comprise of stranded Cu conductor PVC insulated 660V grade wires in ms conduits including loop earthing, termination etc complete as required. Sizes of conduits, no. / type / size of wires and loop earthing shall be as stipulated in the schedule of quantities and / or drawings.

Wires shall be drawn in the concealed or surface conduits as required, without being damaged. For this purpose draw boxes shall be located at convenient locations.

Every sub mains shall run in an independent conduit with an independent earth wire of bare Cu as specified running along the entire run of conduit. For 1 Ph. One earth wire and for 3 ph. 2 earth wire shall run.

Necessary provision of wire lengths entering and emerging from the conduit shall be made for connection. Measurement shall be taken of the actual conduit run containing the wires from one point to another.

### **3.0 MEDIUM VOLTAGE CABLES**

Specifications for cables will be as per enclosed.ES: 8160

### **4.0 MEDIUM VOLTAGE FINAL DISTRIBUTION BOARDS**

#### **STANDARDS AND CODES**

Indian Standard Specifications and codes of practice will apply to the equipment and the work covered by the scope of this contract. In addition the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall apply.

#### **MINIATURE CIRCUIT BREAKER**

The MCB's shall be of the completely moulded design suitable for operation at 240 / 415 V 50Hz system. The MCB's shall have a rupturing capacity of 10 KA at 0.5 pf. The MCB's shall have inverse time delayed thermal overload and instantaneous magnetic short circuit protection. Type test certificates from independent authorities shall be submitted with the tender.

#### **FINAL DISTRIBUTION BOARDS**

Final distribution boards shall be flush mounting, today enclosed, dust and vermin proof and shall comprise of miniature circuit breakers, earth leakage circuit breakers neutral link etc. as detailed in the schedule of quantities. The distribution equipment forming a part of the distribution board shall comply with the relevant standards and codes of the bureau of Indian Standards and as per detailed specification included in this tender document. The board shall be fabricated from 14 gauge CRCA sheet steel and shall have a hinged lockable spring loaded cover. All cutouts and cover shall be provided with synthetic rubber gaskets. The entire construction shall have IP54 degree of protection. The bus bar shall be of Cu having a maximum current density of 1.6 A / sq.mm and PVC insulated throughout the length. All the internal connection shall be with either solid Cu PVC insulated or Cu conductor PVC insulated wires of adequate rating. All the internal connection shall be concealed by providing a hinged protective panel to avoid accidental contact with live points. All outgoing equipment shall be



concealed direct to the bus bar on the live side. The equipment shall be mounted on a frame work for easy removal and maintenance. The sheet steel work shall undergo a rigorous rust proofing process, two coats of filter oxide primer and final powder coated paint finish. All the circuit shall have an independent neutral insulated wire, one per circuit, and shall be numbered and marked as required by the Engineer –in-charge. A sample of the completed board is to be got approved by the Engineer-in-charge before commencement of supply and erection.

### **SHEET STEEL TREATMENT AND PAINTING**

Sheet steel materials used in the construction of these units should have undergone a rigorous rust proofing process comprising of alkaline degreasing, de-scaling in dilute sulphuric acid and recognized phosphate process. The steel work shall receive two coats of oxide filler primer before final painting. All the sheet steel shall after metal treatment is given powder coating finish painted with two coats of shade 692 of IS-5 on the outside and white in the inside. Each coat of the paint shall be **properly stove** and paint thickness shall not be less than 50 micron.

### **NAME PLATES AND LABELS**

Suitable engraved white on black nameplate and identification labels of metal for all switch board shall be provided. These shall indicate the feeder no. and feeder designation.

## **5.0 MEDIUM VOLTAGE SWITCHBOARD**

Specifications for switchboard will be as per enclosed **ES : 8060**

## **6.0 MUSIC SYSTEM**

Supply, installation & commissioning of customised music cum audio system, amplifier with MP3/CD/DVD/BLU RAY/USB player & cassette player, fm radio facility etc. Make: PHILLIPS/ SONY/ KENWOOD with flush mounted on the false ceiling with proper clamping arrangement. Supply, installation & commissioning of PHILLIPS/ SONY/ KENWOOD make music speaker point wiring for music system: supply & installation of point wiring for music cum pa system comprising of 2x 1.5 sqmm standard, copper conductor, flexible PVC insulated & PVC sheathed wire pulled through 20mm dia PVC heavy gauge conduits and looped from one speaker to other hand to the volume control switch wherever applicable & finally terminated & tag block.

All necessary materials/works which is required for commissioning of customised audio/music system to be supplied by the contractor as per direction of EIC.

## **7.0 ADDRESABLE FIRE ALARM DETECTION SYSTEM**

Supply, installation & commissioning of addressable low-profile photoelectric smoke detector with base(make Honeywell or equivalent as per direction of EIC), low-profile photoelectric heat detector with base(make Honeywell or equivalent as per direction of EIC), addressable manual call point(make Honeywell or equivalent as per direction of EIC), addressable loop isolation module(make Honeywell or equivalent as per direction of EIC), addressable intelligent wall mounted strobe cum sound recorder of (make Honeywell or equivalent as per direction of EIC), supply of necessary 2x1.5 sqmm ( should FR type & make of polycab or equivalent) cable for wiring of necessary sensing device to the addressable standalone fire alarm control panel with adequate size PVC casing/pipe with all sort of fixing materials and accessories required to complete this job in all respect. Supply , installation & commissioning of addressable standalone fire alarm control panel, 198 points (99 detectors & 99 devices),

intelligent 80- character LCD display with backlighting , detector sensitivity test capability (NFPA 72 complaint) history file with 1000- event capacity with facility of maintenance alert. Entire system should be integrated with existing system and commissioning to be done in all respect.

Wiring for fire detection and alarm system shall comprise of connecting main fire alarm system in existing fire station building with fire alarm and annunciation panel in the renovated canteen building, complete wiring for smoke detectors , heat detectors, response indicators, manual call points, electronic hooters etc. inside the building including supply, erection , installation , testing and commissioning the system. Incoming supply from main fire alarm panel to 10 zone fire alarm and annunciation panel in the canteen building should be done with 6 core X 2.5 sq.mm. PVC insulated armoured Cu cable. Internal wiring for fire detection system inside the new building shall be done with 2 C X 1.5 sq.mm. PVC insulated Cu wire laid in Heavy duty 16 SWG MS conduits. This wiring shall include interconnection of smoke detectors, heat detectors response indicators manual call points, electronic hooters and 10 zone fire alarm panel. Smoke detectors shall be Ionisation type complete with LED indicators and mounting base. Heat detector shall be ROR cum fixed temperature type with LED indicator complete with mounting base. Response indicators shall be with Red LEDs and complete with MS housing and anodized Aluminium cover plate etc. Manual call points shall be of glass break type complete with MS housing, Hammer and chain arrangement. Electronic hooters shall be dual tone type. Fire alarm and annunciation panel shall be 10 zone type panel with window type annunciation to indicate fire and fault through suitable indicator, audio alarm unit complete with push buttons for acknowledge / test / reset with main power supply block backed by 24 V 60 AH battery backup including built in battery charger. Complete installation shall be done as shown in the GA drawing.

The Fire detection & Alarm System shall be a system comprising of automatic sensor e.g. smoke & heat detectors, main panel, zonal panel, hooter, battery charger and other hardware. The system shall be designed to provide audio-visual indication at the main panel to be located in fire station and zonal panel in control rooms.

Electrical siren shall be provided to cover entire plant area.

Hooters and exit lights shall be provided at required location in the buildings.

Panel design and component selection shall be done for future extension up to 10% of specified zone or one zone, whichever is maximum in each panel. The design of common facility and hardware shall be provided for future extension of zones.

Annunciation with accept/reset push button is to be provided in control room/panel.

Area wise grouping shall be done in parallel connection of each smoke detector contacts of particular.

It should meet with standard fire code of the India.

Fire alarm system employing intrinsically safe circuit and shall operate a 24 V DC supply.

## **8.0 EARTHING**

### **General**

All non-current carrying metal parts of electrical installation shall be earthed properly. All metal conduits, trunking, cable sheaths, switchgears, distribution fuse boards, light fittings

and all other parts made of metal shall be bonded together and connected by means of specified earthing conductors to an efficient earthing system. All earthing shall be in conformity with Indian Electricity Rules.

The earthing system shall comprise of-

- a) Earth electrode
- b) Earthing leads
- c) earth conductor

All three-phase equipment shall have two separate and distinct body earth and single phase equipment shall have single body earth.

#### EARTHING MATERIAL

Materials of which the protective system is composed shall be resistant to corrosion or be adequately protected against corrosion. The material shall be as specified in the schedule of quantities and shall comply with the following requirements:

1. Copper – When solid or stranded copper wire is used it shall be of the grade ordinarily required for commercial electrical work generally designated as being of 98% conductivity when annealed, conforming to Indian standard specifications.
2. Galvanised Steel – Galvanised steel used shall be thoroughly protected against corrosion by hot dipped Zinc coating. The material coating shall withstand the test specified in IS2309: 1969.
3. The strips to be used shall be in maximum lengths available as manufactured normally avoiding unnecessary joints.

#### EARTHING CONDUCTORS

Earthing conductors shall form the earthing network throughout the installation for earthing of all non-carrying metal parts.

#### CONNECTION OF EARTHING CONDUCTORS

Main earthing conductors shall be taken from the earth connections at the main switch boards to all distribution boards in the network.

Metal conduits, cable sheathing and armouring shall be earthed at the ends adjacent to switch boards at which they originate, or otherwise at the commencement of run by an earthing conductor in effective electrical contact with cable sheathing, Switches, accessories, lighting fitting etc. shall be effectively connected to the loop Earthing conductors. These through rigidly secured in effective electrical contact with a run of metallic conduit shall not be considered earthed, even though the run of metallic conduit is earthed.

#### EARTHING CURRENT INSTALLATION

The earthing conductors inside the building wherever exposed shall be properly protected from mechanical injury by running the same in GI pipe of adequate size.

Joints shall be reverted and brazed in approved manner.

Sweated lugs of adequate size shall be used for termination. Lugs shall be bolted to the equipment body to be earthed after the metal body is cleaned of paint and other only substances and properly tinned.

#### PROHIBITED CONNECTION

Neutral conductor, pipes conveying water, gas or inflammable liquid, structural steel work, metallic enclosures, metallic conduits and lighting protection system conductors shall not be used as a means of earthing an installation or even as a link in an earthing system.

**RESISTANCE TO EARTH**

No earth electrode shall have a greater ohmic resistance 3ohms as measured by an approved earth testing apparatus. In rocky soil, the resistance may be up to 1 ohm. The electrical resistance measured between earth connection at the main switch board and any other point on the completed installation shall be low enough to permit the passage of current necessary to operate fuses or circuit breakers and shall not exceed 1 ohm.

**9.0 ROUTING AND COMPLETION TESTS****INSTALLATION COMPLETION TESTS**

At the completion of the work, the entire installation shall be subject to the following tests—

1. Wiring continuity test
2. IR test
3. Earth continuity test
4. Earth resistivity test

Besides the above any other test specified by the local authority shall be carried out. All tested and calibrated instruments for testing, labour, materials and incidentals necessary to conduct the above tests shall be provided by the contractor at his own costs.

**Wiring Continuity Test**

All wiring systems shall be tested for continuity of circuits, short circuits and earthing after wiring is completed and before installation is energized.

**Insulation Resistance Test**

The insulation resistance shall be measured between earth and the whole system conductors, or any section thereof with all fuses in place and all switches closed and except in concentric wiring all lamps in position of both poles of the installation otherwise electrically connected together, a direct current pressure of not less than twice the working pressure provided that it does not exceed 660 volts for medium voltage circuits. Where the supply is derived from AC three phase system, the neutral pole of which is connected to earth, either direct or through added resistance, pressure shall be deemed to be that which is maintained between the phase conductor and the neutral. The insulation resistance measured as above shall not be less than 50 megohms divided by the number of points provided on the circuit the whole installation shall not have an insulation resistance lower than one megohm.

The insulation resistance shall also be measured between all conductors connected to one phase conductor of the supply and shall be carried out after removing all metallic connections between the two poles of the installation and in those circumstances the insulation shall not be less than that specified above.

The insulation resistance between the frame work of housing of power appliances and all live parts of each appliance shall not be less than that specified in the relevant Standard specification or where there is no such specification, shall not be less than half a megohm or when PVC insulated cables are used for wiring 12.5 megohms divided by the number of outlets. Where a whole installation is being tested a lower value than that given by the above formula subject to minimum of 1 Megohms is acceptable.

#### Testing of Earth Continuity Path

The earth continuity conductor including metal conduits and metallic envelopes of cable in all cases shall be tested for electric continuity and the electrical resistance of the same along with the earthing lead but excluding any added resistance of earth leakage circuit breaker measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

#### Testing of Polarity of non-linked Single Pole Switches

In a two-wire installation, a test shall be made to verify that all non-linked single pole switches have been connected to the same conductor throughout, and such conductor shall be labeled or marked for connection to an outer or phase conductor or to the non-earthed conductor of the supply. In the three or four-wire installation, a test shall be made to verify that every non-linked single pole switch is fitted to one of the outer or phase conductor of the supply. The entire electrical installation shall be subject to the final acceptance of the Engineer-in-charge as well as the local authorities.

#### Earth Resistivity Test

Earth resistivity test shall be carried out in accordance with IS Code of Practice for earthing IS 3043.

#### Performance

Should the above tests not comply with the limits and requirements as above the contractor shall rectify the faults until the required results are obtained. The contractor shall be responsible for providing the necessary instruments and subsidiary earths for carrying out the tests. The above tests are to be carried out by the contractor without any extra charge.

#### Tests and Test Reports

The contractor shall furnish test reports and preliminary drawings for the equipment to the Engineer-in-charge for approval before commencing supply of the equipment. The Contractor should intimate with the tender the equipment intended to be supplied with its technical particulars. Any test certificates etc., required by the local Inspectors or any other Authorities would be supplied by the Contractor without any extra charge.

### **10.0 LICENCED SUPERVISOR AND WORKMAN:**

It is obligatory under the IE Rules that all electrical installation works shall be executed under qualified electrical Supervisor holding Electrical Supervisor's Certificate of Competency, granted by the State Licensing Board. The Contractor will decide in consultation with the Engineer-in-Charge on the number of Electrical Licensed Supervisors to be engaged on the job. If the volume of work is such that it requires more than one such supervisor, and than employ such number.

The Contractor may employ artisans and wiremen but must also have sufficient number of highly skilled licensed electricians and workmen for the installation of switch fuses, distribution board, HT & LT switch gears, underground cable work etc.

The Contractor will remove any such workmen from the site of work who in the opinion of the Site Engineer is not sufficiently efficient or otherwise unsuitable for any reason whatsoever,

upon receipt of intimation in writing by Engineer-in-Charge. The decision of Engineer-in-Charge shall be final.

#### **11.0 INFORMATION TO BE FURNISHED BY TENDERER:**

The tenderer shall furnish the following information along with the tender:

1. Contractor's License Number and :  
next date of renewal.
2. Name of Electrical Supervisor with :  
registration Number.
3. Parts in which Electrical supervisor's :  
certificate of Company has been issued  
by the Licensing Board.
4. Next Date of renewal of supervisor's :  
certificate.

The owner in case the above information is not furnished may reject the tender without assigning any reason whatsoever.

#### **12.0 TEST REPORT AND BILLS:**

Within 15 days from the date of completion of prior to the date of final measurement of work, whichever is earlier the Contractor will furnish the installation test report, of which all tests must be carried out in presence of the Site Engineer and Contractor's Supervisor and signed by both of them. First and final bill shall not be paid to the Contractor unless a complete and satisfactory test report is received by the Engineer-in-Charge on the installation.

#### **13.0 TESTING AND COMMISSIONING OF INSTALLATION:**

After satisfactory completion of the job, the contractor should apply to the AT&T or networking Contractor of IOCL for approving the networking work. The owner will assist the Contractor for get the installation approved before commissioning the installation.

#### **14.0 COMPLETION TEST:**

On completion of wiring (or an extension to an installation) a certificate will be furnished by the Contractor in a prescribed form duly signed by the certified supervisor under whose direct supervision of the installation was carried out. The certificate will obtain the following main points.

- a) Continuity test for each circuit.
- b) Physical verification for ferruling, numbering and no damage.
- c) Megger value of all cables, circuits etc.
- d) Earth resistance value of earth stations.
- e) Any other routine test specified by the engineer in charge.

The contractor will be supplied with one copy of the drawing. On completion of the work, he will submit the drawing therein:

- a) Circuit routes and points.
- b) Schedule of wires.
- c) DB details.
- d) Schedule of DBs.
- e) All drawing as required by the Engineer in charge after completion.

## **SAFETY MANAGEMENT SYSTEM**

### **1. SAFETY, FIRE & SECURITY REGULATIONS:**

#### **1.1 No smoking:**

- 1.2 The Contractor shall instruct his personnel/ employees NOT TO SMOKE except at the prescribed places. The contractor shall be responsible for all defaults of his workers in this regard and Engineer-in-Charge / site Engineer reserves the right to TERMINATE the work of the contractor and forfeit any or all the amounts which may be due to him

#### **1.3 Operational Area:**

- 1.3.1 The Engineer-in-Charge reserves the right to terminate the contract and forfeit any or all amounts due to him in case he finds that the precautions written on the permit are not strictly adhered to by the Contractor.
- 1.3.2 The Contractor shall take all necessary safety precautions and obtain required certificates/ fire permits / safety / work permits etc. from the competent authority before carrying out any hot works during execution of the entire works covered by this tender. Safety barricade wherever necessary are to be put up at his own cost.
- 1.3.3 Contractor's employee shall abide by the Fire & Safety rules and regulations. The Contractor shall ensure smooth construction activities / hot works may be suspended temporarily as per the instruction of the Engineer-in-Charge /Site Engineer. Any extra claim for whatsoever reasons for such suspension of the work will not be entertained.
- 1.3.4 The Contractor shall make his own arrangements of Gate Pass with photo for his employees as prescribed and instructed by the Security Deptt. i.e. CISF, BRBNMPL, SALBONI at his own cost each gate pass has to be endorsed by the Security Officer of the BRBNMPL before the pass be used by any employee. In case of termination of the service of any of his employee during the contractual period, the contractor shall have to surrender the Gate Pass issued to the employees to the Security Deptt. At the end of the project all the gate passes endorsed by the Security Deptt. for use of the contractor's employee shall have to be returned.
- 1.3.5 For any damage done by the contractor's employees to the existing facilities of the BRBNMPL, the contractor shall be solely responsible to make good as per the instruction of the Engineer-in-Charge at his own cost.
- 1.3.6 For any hazardous / overhead work contractor has to arrange necessary safety belt for his workman at his own cost.

### **2. SPECIAL CONDITION OF CONTRACT ON SAFETY REGULATIONS**

- 2.1 The following is a list of Rules and Regulations which must be observed by the contractor working in the BRBNMPL.

#### **2.2 Safety:**



2.2.1 The contractor shall ensure that their workmen / supervisors shall not move to other places other than their work premises without proper permission/ authorization.

2.2.2 The contractor shall ensure verification of antecedents of the labourers/ supervisors from Polices/ Sarpanch / other officials before they are engaged by him. No person having adverse antecedent shall be employed by the contractor. The contractor shall be held responsible for all the acts carried out by his workmen.

2.2.3 The contractor / his workmen / supervisor shall fully adhere to the security instructions issued by Management from time to time.

2.2.4 Persons below the age of 18 (Eighteen) will not be employed in any part of the BRBNMPL.

### **2.3 Work Permit:**

2.3.1 Any work involving open flames and spark such as welding, gas cutting, soldering, grinding, concrete breaking, use of hurricane lamps and internal combustion driven vehicles / equipment.

2.3.2 Use of gasoline, diesel or electrical power engines or tools.

2.3.3 Open fire such as burning of wood, coal etc. is strictly prohibited inside the BRBNMPL.

2.3.4 While carrying out the hot job, the contractor and his workmen must ensure the following safety measures and job should not be carried out without these:

- Valid hot jobs permit.
- Availability of Tested and proper Fire Extinguisher at the work places.
- Provision of running fire water hose at the work place.

2.3.5 All Flammable / combustible materials should either be removed from the work place or should be properly protected.

### **2.4 Safety Permits:**

2.4.1 The contractor must obtain the safety permit from the Engineer-in-charge, prior to the starting of the job as stated below.

### **2.5 Working at Heights:**

While working at height, at more than 3 meters from floor level, following safety precautions has to be followed

- (i) Proper type of scaffolding / platform/ ladder should be made to facilitate the job at height. Minimum 2 nos. of ladders should be provided at opposite sides.

- (ii) Use of bamboo scaffolding is strictly prohibited inside the BRBNMPL. Only steel scaffolding shall be used for work inside the BRBNMPL. The steel scaffolding material and its erection shall be done as per relevant IS specification.
- (iii) The contractor shall ensure the use of safety belts by the person who is working at heights. Safety belt to be used should be of good quality (IS marked) and shall be hooked up with firm support.
- (iv) Safety nets also to be used as per site conditions.
- (v) Before starting the job, scaffolding shall be inspected by competent person and a record of the same shall be kept at site.

## **2.6 Working with Electrical System:**

2.6.1 Contractor or his nominated subcontractor should have valid electrical contractor's license for working in West Bengal State. Contractor shall furnish a copy of the same to Engineer-in-Charge before commencement of any work pertaining to Electrical System. In any case, no work shall be permitted to be executed at site without a valid Electrical Contractor License, and the decision of the Engineer-in-Charge in this regard shall be final and binding and no claim/ compensation whatsoever shall entertain on this account.

2.6.2 While working on electrical system, the contractor and his workmen shall ensure that the following safety measures are in place:

- The cables are properly insulated and are without any temporary joint.
- All Flammable / combustible materials should either be removed from the work place or should be properly protected.
- Suitable Earth leakage Circuit Breaker (ELCB) is provided for incoming and all outgoing feeders.
- Proper earthing is provided to distribution board and other electrical equipment's like welding machines & grinding machines etc.
- Pipe sleeves are provided for road crossing of temporary cables laid by the contractor for his work.
- The power connection should not be overloaded and suitable overload protection should be provided.
- The tools used by the contractor personnel should be properly insulated and in good condition.
- The grinding machine & other power tools should have proper guard.

## **2.7 Use of Company Facilities:**

Under no condition shall any contractor personnel temper with or use any property belonging to the BRBNMPL, Salboni without obtaining prior sanction from the supervisor of area concerned.

## **2.8 Compressed Gas Cylinders:**

2.8.1 Compressed gas cylinders should be used in upright position. They must be firmly located on the ground or to a sturdy stand and the cylinder should be chained to prevent accidental fall.

- 2.8.2 Rolling or throwing of cylinders is strictly prohibited. Cylinders shall be handled carefully and transported through hand trolleys.
- 2.8.3 Cylinders shall be stacked properly. Empty cylinders shall be stacked separately and filled cylinders separately. After completion of the job, all cylinders must be removed.

## **2.9 Housekeeping:**

- 2.9.1 Good House Keeping must be practiced by the contractor personnel at all times while the BRBNMPL, Salboni. During and after completion of the work, they are to ensure that their work area is kept clean and tidy. Materials and equipment should be stored in a safe and orderly manner so that they will not block exist to roads, buildings, aisles, passage and approach to firefighting equipment such as fire hydrants, fire hose and fire extinguishers or area where emergency safety showers, electrical switch panels and switch rooms are located.
- 2.9.2 The work/ construction sites are to be cleaned daily and all debris / scrap generated is to be kept at the designated place only every day by the contractor as direct by the Engineer-in-Charge. The scrap/ debris so generated shall disposed off to the designated places once a week as per the direction of Engineer-in-Charge.
- 2.9.3 A job will not be considered completed until all surplus materials, scrape and debris/ rubbish are removed from the job site.
- 2.9.4 Any failure by the contractor in maintaining good house-keeping / clearing the site as above shall be recorded in the performance report of the contractor.

## **2.10 Personal Protective Equipment:**

- 2.10.1 For the safe conduct of any job, contractor has to arrange personnel protective equipment's for his personnel as per requirement. The equipment's shall be approved type, good condition and adequate numbers. Use of PPE such as safety belt, safety goggles, etc. is a must BRBNMPL; Salboni shall not provide any personal protective equipment.
- 2.10.2 Contractor shall arrange all Non- Respiratory Type of Personal Protective Equipment (PPE) (e.g. Safety Goggles, Welding Helmets, Belts etc.) at their own cost and shall ensure use of these PPE by their workmen / personnel during execution of the job as per Fire& Safety Rules and Regulations of the BRBNMPL, Salboni and as directed by the Site Engineer-in-Charge.
- 2.10.3 Special precautions and personal protection shall be taken as per Safety Regulation during the following jobs:
- Cleaning /handling of oily sludge.
  - Welding/ Grinding/ Gas cutting jobs.
  - Radiography of Mechanical jobs.

**2.11 Personal Conduct:**

2.11.1 Working under influence of alcohol/ narcotics and entering the BRBNMPL, Salboni premises while in the influence of alcohol / narcotics is strictly forbidden. The contractor should ensure compliance of above by him and all his workmen.

**2.12 Horseplay:**

- (i) Fooling on the job, mock fighting within the BRBNMPL, Salboni premises will not be tolerated.
- (ii) Gambling within the BRBNMPL premises is strictly forbidden.
- (iii) Entering the BRBNMPL while in possession of weapons such as knives etc. is prohibited.
- (iv) Contractor personnel shall not pick up quarrel or get into arguments with BRBNMPL personnel or act in any manner, which is in violation of plant discipline. In case of any misunderstanding, such problems should be referred to appropriate BRBNMPL official /Engineer-in-charge.

**2.13 Driving of Motor Vehicles:**

2.13.1 Contractor shall ensure that all state traffic rules and regulations are complied with while motor vehicles are driven inside the BRBNMPL ` Centre premises. In addition, the following points are also outlined for compliance:

- (i) Speed Limit: Speed limit within the BRBNMPL 20-KMPH. In any case, vehicle drivers should take cognizance of road, weather and vehicle condition and adjust their driving accordingly. All vehicles must be mechanically sound and have an efficient exhaust silencer, horn, breakers and fuel cap.
- (ii) Parking: Park vehicles only in approved area. Vehicles must be parked in such manner that they will not move while unattended.
- (iii) Vehicles driven inside the BRBNMPL premises should have effective brake horns, lights, and mufflers.
- (iv) Vehicles shall carry only the number of passengers or weight of load it is authorized to carry as per law. Loads carried in trucks shall be properly secured so that they will not accidentally fall off while vehicle is in motion.
- (v) Any kind of repair work on Contractor's vehicle is not allowed inside the BRBNMPL, Salboni.

**2.14 Use of heavy equipment:**

2.14.1 If hoists, cranes, derrick, mixer machine, pumps etc. are used by the contractor, the following are to be ensured by the contractor and his workmen:

- Testing of crane for its capacity.
- Inspection & Maintenance logs.
- Crane operation logs.

- Safety latch is provided on the hooks.
- Overhead power cables is removed or kept at a safe distance.
- The exhaust of machines should have a proper flame arrester.
- No change of boom length beyond permissible limit.

## **2.15 Fire Protection Equipment:**

2.15.1 The BRBNMPL center will provide fire protection equipment wherever it is required Contractor personnel who are working on such jobs will be instructed by the concerned department about the operation of such stand by fire protection equipment. In the event of an accidental fire, it is expected of such personnel to make efforts to extinguish the fire with the stand by equipment made available and the contractor personnel should immediately get in touch with concerned BRBNMPL personnel. In all cases, accidental fires shall be reported to the supervisor of the area concerned.

2.15.2 All efforts should be made by contractor personnel to prevent occurrence of any unwanted fire, Gasoline driven engines, trucks, tractors etc. shall not be filled with fuel while the motor is still running.

2.15.3 Gasoline, naphtha, benzene or toluene must not be used as a cleaning

## **2.16 Report on Accidents:**

2.16.1 All accidents such as personal injuries sustained by contractor personnel and damage to vehicle and property, no matter how slight they are, shall be immediately reported to the engineer-in-charge in writing. It is the responsibility of the contractors to fulfill all legal formalities.

2.16.2 Medical treatment for injured contractor personnel will be entirely the responsibility of contractors.

## **WHITE WASHING, COLOUR WASHING, DISTEMPERING, PAINTING AND POLISHING**

### **1.0 Painting of wall and ceiling surface**

#### **1.1 Preparation of surface**

Preparation of surface shall be thoroughly brushed free from mortar droppings and foreign matters and prepared Satisfaction of Engineer in charge. The surface shall be vetted with clean water before the paint is applied.

#### **1.2 Preparation of paint**

Waterproof cement paint of approved make shall be mixed with water and stirred to obtain a thick paste which shall then be diluted to brushable consistency. the Proportion of mixture shall be as manufacturer's recommendation. The paint shall be mixed in such quantity which can be used up within an hour of mixing to avoid setting and thickening of the paint.

### 1.3 Application of paint

The surface shall be treated with minimum two coats of waterproof cement paint. No less than 24 hours shall be applied only after the preceding coat become hard to resist marking by subsequent brushing.

The finished surface shall be even and uniform in shade without patches brush marks paint drops etc. Cement paints shall be applied with a brush with relatively short stiff hog or fibre bristles.

### 1.4 Curing

Curing shall be started after the paint has hardened. Curing shall be done by sprinkling with water two or three times a day. This shall be done between coats and for at least two days following the final coat.

## 2.0 **Painting of steel and other metal surface**

### 2.1 General

Reference shall be made to the following Indian Standards: IS 2524, IS 1447.

### 2.2 Preparation of surface

The surface, before painting, shall be cleaned of all rust, scale, dirt and other foreign matter with wire brushes, steel wood, scrappers, sand paper etc. The surface shall then be wiped finally with mineral turpentine which shall then be removed of grease etc. The surface then shall be allowed to dry.

In case of GI surface, surface so prepared shall be treated with Mordant solution (5 liters for about 100 Sq. m.) by rubbing the solution generously with brush. After about half an hour, the surface if Required shall be retouched and washed down Thoroughly with clean cold water and allowed to dry.

### 2.3 Application of priming paints

Approved quality primer and paint in specified no. of coats shall be applied as per manufacturer's Recommendations either by brushing or spraying. Each subsequent coat shall be applied only after the preceding coat is dried.

### 2.4 Measurement and rate

All work shall be measured in areas. Areas shall be worked out to the nearest 0.01 sq. m. and all dimensions to the nearest 0.01 metre.

Deductions shall be made in accordance with Specification no. 6-75-05.

The rate shall include the cost of all materials, labour, scaffolding, protective measures etc. and all works involved in specification. The rate shall also include, if not mentioned otherwise, conveyance, delivery, handling, unloading, storing etc.

## **GENERAL SPECIFICATIONS**

### **GENERAL PARTICULARS AND REQUIREMENTS**

#### 1.0 General

1.1 The Conditions of Contract, schedule of quantities and the drawings shall be read in conjunctions with this specification and matters referred to shown or described in any of the former are not necessarily repeated in the latter.

The work under this contract shall be carried out in accordance with general conditions of contract, special conditions of contract, specifications drawings, schedule of quantities forming part of this contract and the latest Indian standard specifications and codes of practice referred to in this specifications.

#### 1.2 Discrepancy between drawings & specifications and schedule of quantities.

1.2.1 In the event of any discrepancy between this specification and the latest Indian standard specifications/codes of practice the provisions in this specifications shall take precedence over the other specifications.

1.2.2 In case of any discrepancy between specifications, schedule of quantities and contract drawings or such other drawings as may be issued during progress of works, the matter shall be referred to the engineer in charge for clarification and decision. The contractor shall execute the work in accordance with the decision the Engineer in charge. And under no circumstance whatsoever, the contractor shall carry out the works on the basis of his own interpretation and understanding of the apparent discrepancy. It will however be deemed that the contractor has quoted on the basis of the description of the B.O.Q including preamble.

#### 1.2.3 Protection to work from weather

The contractor shall cover up and protect all the works from weather and shall suspend all the wet operations during a weather which, in the opinion of the engineer in charge will be to the work.

#### 1.2.4 Dimension in drawings

Figured dimensions are to be follows in all cases and in no case shall they be sealed, large scale details take precedence over shall scale drawings. In general, drawings shall indicate dimensions, positions and type of constructions, the specifications shall indicate the quality, standard and methodology of work and the schedule of quantities shall indicate the estimated approximate quantities and brief description of item.

#### 1.2.5 Method of Measurement

Unless otherwise described in the preamble to the schedule of quantities, the method of measurement shall be as described in Method of measurement "of building and civil engineering works IS 1200 (part – I to XV) latest edition of bureau of Indian standards.

#### 1.3 Materials

All materials/fitting/equipments supplied and incorporated in the work shall comply with the requirements for relevant Indian standards (latest applicable standards) and also shall meet approval of Engineer in charge.

1.3.1 The Contractor shall produce samples of all materials / fittings of sizes/number as required by the engineer in charge before incorporation of these materials/ fittings in the work prior approval of the engineer in charge. The approved sample shall remain in custody of engineer in charge till expire of defect liability period and returned thereafter. Samples of consumables, tiles, sand aggregate will however, not be returned. Bulk procurement of materials shall not be commenced until the samples are duly approved in writing. The materials/fittings to be provided by the contractor shall conform to or shall be superior to the samples approved.

#### 1.4.1 Contract price

The contract price quoted by the contractor shall be deemed to include for any details of construction which are obviously and fairly intended and which are incidental to the item but may not have been clearly shown and or specified.

#### 1.4.2 Notice of operation

No important operation shall be commenced nor shall work outside the usual working hours be carried out without the consent in writing of the engineer in charge or without full and complete notice.

#### 1.4.3 Sequence of works

The sequence in which the works are to be carried out shall be to the approval of the engineer in charge and shall be such as to suit the detailed method of construction adopted by the contractor. The works shall also be carried out so as to enable the other contractors to work concurrently for early completion of the works.

#### 1.4 Setting out the work

1.4.1 The contractor shall set out and measure up all the works in accordance with the contract documents and for this purpose he shall appoint technical and other category staff and also provide for all necessary assistants needed.

The Contractor shall be entirely responsible for the accurate and perfect setting out of all works, whether such setting out be executed by his own staff or not, and notwithstanding that the engineer in charge may furnish bench marks and set out or give the necessary directions for setting out the work, the contractor must satisfy himself as to the accuracy of these and shall , at his own cost rectify and make good any and all defects which may arise from errors in the lines and levels, and no inaccuracy in the setting out and in the construction of the works shall be founded on by the contractor as a reason for any claim against the owner by the corporation.

#### 1.8 Responsibility for carrying out works



1.8.1 The responsibility for carrying out the works and the methods to be adopted under this contract shall rest solely with the contractor subject always to the approval by the engineer in charge of the contractor's proposals. Such approvals shall not , however relieve the contractor in any way of his responsibility for the proper execution of works in accordance with the contract.

#### 1.9 Construction equipment, works, building materials etc.

1.9.1 The Contractor's attention is specially directed to the fact that the requirements of the specification are general and applicable to all the works.

1.9.2 In addition, the following general requirements given in sub pars 1.9.2 (i) to 1.9.2 (iii) shall also be held to apply to every part of works where applicable

##### (i) Use of plant, materials etc for safe construction

All the labour, constructional plant, machinery, tools, instruments, tackle and equipment temporary offices, workmen's sanitary and welfare arrangement and other buildings, temporary structures, works, services and operations materials , stores and things of whatever description necessary to construct, complete and maintain the whole of the works, temporary or permanent , or to fulfill the requirements specified in the contract shall be provided and used by the contractor, and the constructional plant, equipment, materials , temporary building , works, services etc. shall be of a type , capacity power or quantity , strength, design and construction and erected in such position or used or executed at such times and in such manner as are specified in the contract and as re most efficient and suitable for the proper and safe execution of the work to be under taken under this contract.

##### (ii) Utilities to be provided by contractor

The contractor shall make his own arrangements and except where otherwise indicated shall at all points where they are required such supplies of water, fuel, light and power as he may require for all the operations under the contract, and shall also provide and use all the necessary appliances, works, services and other things necessary to distribute the supplies to the various parts of the works.

##### (iii) Furnishing information to engineer in charge

The Contractor shall when required by the Engineer in charge furnish all information as to quality, weight, constituent substances, dimensions, levels, strength and description of the materials and works and give the Engineer –in charge such other particulars as may be required.

#### 1.10 Names of manufacturers and copies of orders

Before ordering any material of any description of the permanent works the contractor shall submit for the approval of the Engineer in charge, the names of the makers and suppliers proposed and any other detail required by the engineer in charge and shall afterwards send to the Engineer in charge, copies in quadruplicate, of the orders given by the contractor for the materials. All materials shall be suitable for local climatic conditions.

1.11 Manufacturers' name sizes catalogue numbers and / or samples of all materials shall be submitted for approval.

#### 1.12. Proprietary Materials

1.12.1 Proprietary materials to be used in the works and shall when brought to site be not inspected by the engineer in charge. The contractor shall, on demand, produce to the Engineer in charge original Receipts/vouchers/invoices in respect of the Supplies.

#### 1.13 Test Certificates

1.13.1 All manufacturer's certificates of test proof, sheets, mill sheets, etc. showing that the materials have been tested in accordance with the requirements of the appropriate Indian standard, other relevant standard specification or this specification, are to be supplied free of charges, on request to the engineer in charge.

#### 1.14 Storage of Materials

1.14.1 All materials used in the permanent works shall be stored on racks supports, in bins under cover etc. as appropriate to prevent deterioration or damage from any cause whatsoever to the entire satisfaction of the engineer in charge and as amplified in the succeeding clauses.

#### 1.15 Records and usage of materials

1.15.1 The contractor shall maintain a detailed record of all materials received on the site or in his stores or storage and working areas in the vicinity of the site and shall make such records available to the engineer in charge. At such times as the latter may reasonably require.

#### 1.16 Forming holes & making good

1.16.1 All holes shall be left or provided in concrete including reinforced cement concrete, brick work and in any other situations as required for or directed by the engineer in charge and shall be made good, in the same mortar mix as specified for that portion of the work .No extra payment on this account will be made to the contractor.

#### 1.17 Keeping site clean

1.17.1 The contractor shall at all-time keep the site free from all surplus materials, rubbish and offensive matter which shall be disposed of in a manner to be approved by the Engineer in charge.

#### 1.18 Safety precautions

The contractor shall take all necessary safety precautions to prevent the possibility of accidents which may be caused mechanically electrically or otherwise during the course of the works. The works shall include the provision and fixing of detachable guards of approved design to cover all moving machine parts wherever they may be located and whether they are intended to be permanent or temporary and in such manner as to comply with the appropriate statutory requirements it shall also include such step down transformers as at be used for potable electrical tools.

#### 1.19 Maintenance of Finishes

The contractor shall cover up and protect the various works and portions thereof from all damage due to unconsidered or rough treatment, dust grit or damage in other ways. All bright parts of fittings shall be covered with transparent polyethylene sheeting and shall be cleaned and polished before being handed over wherever is required.

## **GENERAL\_SCOPE**

1. These specifications establish and define the material and constructional requirements for CIVIL and STRUCTURAL WORKS.
2. Method of measurements are indicated in these specifications, where not so specified, latest revision of IS:1200 shall be applicable.
3. Providing and operating necessary measuring and testing devices and materials including all consumables are included in the scope of work. No separate measurement or payment for testing the work shall be made but rates quoted for various items shall be deemed to include the cost of such tests which are required to ensure achievement of specified quality.
4. All materials shall be of standard quality, manufactured by renowned concerns conforming to Indian Standards or equivalent and shall have IS mark as far as possible unless otherwise approved by the Engineer-in-Charge. The contractor shall get all materials approved by the Engineer-in-Charge prior to procurement and use. The contractor shall furnish manufacturer's certificates for the materials supplied by him when asked for. Further to that he shall get the materials tested from an approved test house if asked for by the Engineer-in-Charge. The cost for all the tests and test certificates shall be borne by the Contractor. No separate payment shall be made for the testing. The Engineer-in-Charge shall have the right to determine whether all or any of the materials are suitable. Any materials procured or brought to site and not conforming to specifications and satisfaction of the Engineer-in-Charge shall be rejected and the contractor shall have to remove the same immediately from site at his own expense and without any claim for compensation due to such rejection.
5. Wherever referred to in this tender document, only the latest revision which shall be in force till the completion work, of specifications, codes of practice and other publications of Bureau of Indian Standards shall be applicable.
- 6.0 Wherever the Contractor executes civil and structural works involving buildings, equipment foundations, supporting structures pipe racks, etc., the following works are deemed to have been included in the quoted rates for various works.
- 6.1 Marking of centre lines of foundations.
- 6.2 Marking of top levels of foundations, floors etc. and establishment of reference lines, bench marks on various floors, platforms etc.

6.3 Preparations of "as built" scheme of structural foundations, equipment foundations etc. indicating designed and achieved levels, centre lines and dimensions of pockets, position and level of anchor bolt etc.

7.0 The provisions of schedule of rates, specifications and drawings shall be read in conjunction with each other and in case of conflict amongst them, the clarification shall be obtained from the Engineer-in-Charge whose decision shall be final and binding. However, the following procedure may generally be followed.

7.1 Description of items in schedule of rates shall be followed when provisions therein are different from those in specifications.

7.2 Where the description of item does not call for some specific requirement but the same is given in specifications, the specifications shall be followed in addition to the requirement given in description of item.

7.3 Where drawings call for requirements different from or additional to those given in item description and specifications, the decision of the Engineer-in-Charge shall be obtained as to what shall be followed.

\*\*\*\*\*

## EARTH WORK

### 1.0 SCOPE

This specification deals with earthwork in excavation and filling.

### 2.0 CLASSIFICATION\_OF\_SOIL

#### 2.1 Soft/Loose Soil

Generally any soil which yields to the ordinary application of pick and shovel or to pharaoh, rake or other ordinary digging implement; such as vegetable or organic soil, turf, gravel, sand, silt, loam, clay, peat etc.

#### 2.2 Hard/Dense Soil

Generally any soil which requires the close application of pick, or jumper or scarified to loosen such as stiff clay, gravel and cobble stone.

#### 2.3 Soft/Disintegrated rock

Rock or boulder which may be quarried or split with crowbar. This will also include literate and hard conglomerate.

#### 2.4 Hard\_Rock(Requiring\_Blasting)

Any rock or boulder for the excavation of which blasting is required.

#### 2.5 Hard\_rock(Requiring\_Controlled\_Blasting)

Due to any reason, if general blasting is prohibited, then for excavating these rocks, controlled blasting as approved by the Engineer-in-Charge shall be used.

#### 2.6 Hard\_Rock(Blasting Prohibited)

Hard rock requiring blasting as described under 2.4 but where blasting is prohibited for any reason and excavation has to be carried out by chiseling, wedging or any other agreed method.

### 3.0 BACKFILLING MATERIAL

3.1 Backfilling material shall be as approved by the Engineer-in-Charge.

3.2 Back filling of excavations in trenches, foundations and elsewhere shall consists of one of the following materials as the Engineer-in-Charge may direct in each location.

- (i) Soil
- (ii) Selected earth from heaps or brought from borrow areas.
- (iii) Stone/gravel
- (iv) Sand
- (v)Leanconcrete

3.3 The material shall be free from rubbish, roots, hard lumps and any other foreign organic material.

#### 4. SETTING OUT

4.1 The Contractor shall be responsible for the true and proper setting out of the work in relation to original points, Lines and levels of reference and for the correctness of the levels, dimensions and alignment of all parts of the work and for the provision of all necessary instruments, appliances and labour in connection therewith. If at any time during progress of the work any error appears or arises in the position of level, dimension, or alignment of part of the work, the Contractor at his own expense shall rectify such errors to the satisfaction of the Engineer-in-Charge. The checking of any line or level by the Engineer-in-Charge shall not in any way relieve the Contractor of his responsibilities.

4.2 The Contractor shall lay out one or more permanent benchmarks in some central place before the start of the work, from which all important levels for the excavations will be set. The Contractor shall provide all labour and materials for setting at his own cost.

These permanent bench marks shall consist of masonry pillars with top neatly plastered and leveled as per the directions of the Engineer-in-Charge. Benchmarks shall be well connected with triangular grid system or any other benchmark approved by the Engineer-in-Charge.

#### 5.0 EARTHWORK\_IN\_EXCAVATION

5.1 Excavation shall be carried out in any material met on the site to the lines, levels and contours shown on the detailed drawings and the Contractor shall remove all excavated materials to soil heaps on site or transport for use in filling on the site or stack them for reuse as directed.

5.2 Excavated material shall not be deposited within 1.5M from the top edge of the excavation.

5.3 The sides of the excavation may be cut sloping or shored and strutted to hold the face of earth as per site requirements and as directed by the Engineer-in-Charge.

The Contractor shall remove all vegetation, shrubs etc. encountered during excavation.

5.4 Foundation pits/trenches shall not be excavated to the full depth unless construction is imminent. The last fifteen (15) cm depth of the excavation shall not be removed until concreting work is imminent. The full depth may at the discretion of the Engineer-in-Charge be excavated and the bed covered with a seventy five(75)mm(minimum) thick (or as indicated on drawing) layer of lean concrete 1:5:10 mix(1 cement:5 Coarse sand:10 Crushed Stone Aggregates) or as specified in schedule of rates, after watering if required, and consolidating the bed.

5.5 The Contractor shall provide suitable drainage arrangement to prevent surface water from any source entering the foundation pits at his own cost.

5.6 If the bottom of any excavation has been left exposed by the Contractor and in the opinion of the Engineer-in-Charge, that has become badly affected by the atmosphere or by water, then the Contractor shall remove such portions of the deteriorated material as the Engineer-in-Charge may direct and shall make good with lean concrete 1:4:8 mix (1 Cement: 4 Coarse Sand : 8 Crushed Stone Aggregate). All expenses for such additional concrete and excavation shall be borne by the Contractor. The cement used for making good the above shall be taken into account for reconciliation purposes only.

5.7 Where excavation is made in excess of the depth required, the Contractor shall, at his own expenses, fill up to required level with lean concrete 1:5:10 mix (1 Cement: 5 Coarse Sand: 10 Crushed Stone Aggregates) or as decided by Engineer-in- Charge.

5.8 The Contractor shall make all arrangements for dewatering the accumulated water from any source including subsoil water in the excavated pits/trenches and keeping the surface dry for subsequent works at his own cost.

5.9 Lowering of water table by well point pumping shall be paid separately.

5.10 The Contractor shall make necessary arrangements for lighting, fencing and other suitable measures for protection against risk of accidents due to open excavation at his own expense.

5.11 Where the excavation is to be carried out below the foundation level of an adjacent structure, the precaution to be taken such as under pinning, shoring and strutting etc. shall be determined by the Engineer in Charge. No excavation shall be done unless such precautionary measures are carried out as per directions of the Engineer in Charge. The payment for such precautionary measures shall, however, be made separately unless the rate for such measures are specifically included in the rates for items of excavation.

5.12 Loose or soft bed ground encountered in excavation at the required depth shall on the Engineer' in Charge instructions be excavated to a firm bed and difference made up to the required level with lean concrete 1:5:10 mix (1 Cement :5 Coarse Sand : 10 Crushed Stone Aggregates) or as decided by the Engineer in Charge.

5.13 In those cases where during excavation side slips occur for reasons not attributable to the Contractor (e.g. side slips which take place on their own but not due to surcharge of earth kept near the edge of excavation and cracking of excavation top strata due to clay drying out leading to collapse of excavation sides), the Engineer in Charge shall admit payment at his discretion.

5.14 Any obstacle encountered during excavation shall be reported immediately to the Engineer in Charge and shall be dealt with as instructed by him. Removal of buried pipes or cables shall not be done without prior permission of the Engineer in Charge and the Contractor shall provide all measures to protect the same. Cost of such protective measures are deemed to be included in the rates for various items of excavation.

5.15 The Contractor shall not undertake any concreting in foundation until the excavation pit/trench is approved by the Engineer in Charge.

5.16 The specification for earth work shall also apply to excavation in rock in general. The excavation in rock shall be done such that extra excavation beyond the required width and depths as shown in drawing is not made. If any extra excavation particularly in depth is made by the contractor during the excavation operation, the Contractor shall make up such extra excavations with concrete 1:5:10 mix (1 Cement :5 Coarse Sand : 10 Crushed Stones Aggregates) to the required levels and shape at no extra cost to the Owner.

5.17 Payment:

5.17.1 Payment for earth work in excavation shall be made on cubic meter (M3) basis on the measurement of volume of pit / trench of excavation with working space as per IS:1200 and slopes/stepping as permitted by the Engineer in Charge. The rate shall include cost of all the operations of blasting with explosives & accessories, making of all arrangements for dewatering the accumulated water from any source in the excavated pit or trench, removal and disposal of surplus excavated soil within a lead of 100M from construction areas. The rate shall also include setting out and line out work Required for the excavation.

## 6.0 BACK\_FILLING\_AROUND\_FOUNDATIONS\_AND\_PLINTH

6.1 Back filling around completed foundations, structures, trenches and in plinth shall be done to the lines and levels shown on the drawings including any trimming of the surfaces, as may be necessary. This shall be done with selected and approved earth from excavation or otherwise with materials described under clause 3.2 as directed by the Engineer in Charge. Where sufficient suitable material is not available from the excavation, the Engineer in Charge may direct to import suitable earth from other sources. The filling shall be done in layers of thickness not exceeding 15 cm with watering, rolling and ramming by manual methods / mechanical compactors to specified grade and level to obtain 90% laboratory maximum dry density or as specified in schedule of rates.

6.2 The Contractor shall not commence filling in and around any work until it has been permitted by the Engineer in Charge.

### 6.3 Payment

Payment for backfilling with earth shall be based on volume in cubic meters(M3)of consolidated fill. This volume shall be derived from the difference between the volume of excavation and structure or trenches as the case may be. The rate shall include cost of extracting suitable approved earth from available excavated soil from spoil heaps within a lead of 100M, placing, watering, rolling, ramming compacting in layers, trimming and dressing finished surface and disposal of surplus materials up to a lead of 100m. However backfilling done with materials other than earth shall be paid separately under relevant items.

## 7.0 TRANSPORTATION OF SURPLUS EARTH

7.1 Surplus earth and soil from excavation shall be remove from construction area to the area demarcated by the Engineer in Charge.

### 7.2 Payment

7.2.1 Payment shall be made only for the lead beyond initial 100M from construction area. Rate shall include re-excavation, loading, transportation, dumping, stacking or spreading (as per directions of the Engineer in Charge) the surplus earth and the soil in the area demarcated by the Engineer in Charge. Payment shall be made on cubic meter (M3) basis on the difference of measurements of the volumes of the excavated pits and the measurement of the back filling. Quantity generated due to voids in back filled volume of earth shall also be removed by the Contractor at no extra cost and this disposal of earth shall not be measured and paid under any item.



7.2.2 In exceptional circumstances the Engineer in Charge may direct the Contractor to remove surplus earth, concrete debris or any other waste material from site to the areas disposal on the basis of truck measurement. In such cases volume of material shall be calculated on the basis of truck volume reduced by 30% for voids in case of soft/hand soils and 50% for soft/hand rock. All other provisions of disposal such as spreading, leveling, grading shall apply in this case also.

## 8.0 SAND\_FILLING\_IN\_PLINTH/FOUNDATIONS

8.1 Sand supplied by the Contractor for filling shall be medium hard, strong, clean, free from dust, organic and deleterious matter and approved by the Engineer in Charge.

8.2 Filling shall be carried out in layers not exceeding 15cms and shall be compacted mechanically or by saturation to specified grade and level and to obtain 90% laboratory maximum dry density or as specified in schedule of rates.

8.3 Compaction by flooding may be accepted at the discretion of the Engineer in Charge provided the required compaction is achieved.

8.4 The Contractor shall not commence filling and around any work until it has been permitted by the Engineer in Charge.

### 8.5 Payment

Payments shall be made on cubic meter (M3) basis of the finished compact volume. The rate shall include cost of sand for any compacted thickness, wastage if any, all handling, transport for all leads, tamping, watering, flooding, dressing etc. Any brick work required for pending shall be paid separately under relevant item.

## 1.1 BRICK WORK

### 1.1.1 QUALITY

#### 1.1.2 Bricks

Bricks shall be of 1st class quality and conform to the latest Indian standard specification no. 1077-57. Bricks shall be whole, sound well burnt, free from cracks to ring when struck and not to crack or break when soaked in water, regular in shape and uniform in size. They shall be of the best of description. class designation obtainable in the market , and of the best quality and colour, and in every respect to be approved by the Engineer – in-charge unless otherwise specified. They shall be of F.P.S bricks of sizes 22.5 x 11.1 x 7.0 cm No. bricks to absorb water more than one fifth of their own weight when dry for use in load bearing walls, for bricks used in panel walls, the water absorption shall not exceed one fourth of their dry weight. Bricks to be thoroughly cleaned, well wetted or soaked in fresh water before being used on the work and no broken bricks to be used except as closures. Specified brick quality shall be sampled as per IS: 5454-1978 and tested as per IS: 3495-1976. The bricks shall meet the criteria as per IS: 1077 –1976 when tested as mentioned herein.

#### 1.1.1.3 Brick bats

Brick bats shall be obtained from well burnt bricks.

#### 1.1.1.4 Classification

The common burnt clay bricks shall be classified on the basis of their minimum comprehensive strength as given in the table below:

CLASSIFICATION OF BRICKS		
Class designation	Average compressive strength Kg/square cm)	Not more than Not less than
75	75	100
50	50	75
45	45	60
35	35	50

#### 1.1.1.5 Sampling:

For carrying out compressive strength, water absorption efflorescence and dimensional tests, the samples of the bricks shall be taken at random according to the size of the lot as specified in this document and samples thus taken shall be stored in a dry place until the tests are made.

#### 1.4.2 SOAKING OF BRICKS:

Bricks required for masonry in cement mortar shall be thoroughly soaked in clean water before use for at least six hours and until air bubbles cease to come out. The soaked bricks shall be kept on wooden planks or bricks platform to avoid earth being smeared on them. Bricks required for masonry with mud or flat lime mortars shall not be soaked.

#### 1.4.3 MORTAR:

All brickwork shall be laid with specified mortar to be prepared in specified proportion described in the relevant items of schedule of Quantities. It shall

Be of cement and coarse sand and shall be made in small quantities so as to be used up within 30 minutes. Then it shall be mixed to a sufficiently thick consistency as required by the Engineer-in-Charge. No left over mortar shall be used. The proportion to be used shall be as specified in the relevant items.

#### 1.4.4 LAYING

##### 1.4.4.1 General

Brickwork shall be carried out as per IS 2212. Brick work shall be laid in English Bond unless otherwise specified. Half or cut bricks shall not be used except when needed to complete the bond. Each course shall be perfectly straight horizontally and transverse. The walls be taken up truly plumb. If battered, the batter is to be truly maintained. The plumb of the brick work in vertical walls shall be checked up at every one meter interval.

Bricks shall be laid with frogs upward. While laying, bricks shall be the roughly bedded and flushed in mortar and tapped into position with a wooden wallet and the superfluous mortar removed.

#### 1.4.4.2 Raking back of walls at angle:

Walls of all structures shall be carried up regularly in all cases, leveling no part, one meter lower than another. If this cannot be adhered to, the brick work shall be raked back at an angle not more than 45 degree so as to maintain a uniform and effectual bond but raking back should not start within 60 centimeter of a corner.

#### 1.4.4.3 Buttresses, counter forts, etc.

In all cases returns, buttresses, counterfeits etc. are to be built up course-by-course carefully bound into the main walls.

#### 1.4.4.4 Junction of walls

At all angles forming the junction of any two walls, the brick shall, at each alternate course, be carried into each of the respective walls so as to thoroughly unit the work. The brickwork shall not be raised more than courses per day.

#### 1.4.5 JOINTS:

Joints shall be restricted to 1.0 cm for brickwork with bricks of any class designation (unless any wider vertical joints upto 10 mm is necessary to give the required thickness of the wall). All bed joints shall be normal to that pressure upon them i.e horizontal in vertical walls, radial in arches and at right angles to the face in battered retaining walls. The vertically joints in alternate course shall come directly one over the other and shall be truly vertical. Care shall be taken that all joints are fully filled with mortar (proportion as specified in bill of Quantities) well flushed up and in case where struck as the work proceeds. The joints in faces, which are to be plastered or pointed, shall be squarely raked out to a depth of 12mm while the mortar is still green. The raked joint shall be well brushed to remove loose particles. After the work, the faces of the brickwork shall be cleaned with wire brush so as to remove any splash of mortar during the course of raising the brickwork. Before jointing the brick work with new brick work, old brick surface shall be raked brushed, cleaned and soaked with water.

#### 1.4.6 FIXTURES TO BE PROVIDED:

All iron fixtures, pipes, conduits, drains, sleeve, bolts, holdfasts of doors and windows and other inserts of services and all other trades of works etc. which are required to be built in walls, shall be embedded in cement mortar 1:3 (1 cement : 3 sand or in cement concrete 1:3:6 (1 cement : 3 sand : 6 coarse aggregate ) as per requirement to suit site conditions in their correct position as the work proceeds.

#### 1.4.7 BRICK COPING AND CUT CORNERS:

The top courses of all plinth, parapet, steps and top wall below RCC shall be laid with brick on edge, unless specified otherwise care shall be taken than the bricks forming the top courses and ends of walls are properly radiated and keyed in to position.

#### 1.4.8 PROTECTION AND CURING:

Green work shall be protected from rain by suitable covering. The work shall also be suitably protected from damage, mortar dropping. Brick work as it progresses shall be kept thoroughly well watered on all faces for at least 10 days after completion. Proper watering cans with nozzles must be used for this purpose. The top of brickwork shall be left flooded at the close of the day by forming fillet of mortar 40 mm high round the edges of top courses and filled with water.

#### 1.4.9 SCAFFOLDING:

Double scaffolding sufficiently safe and strong so as to withstand all loads likely to come upon it and having two sets of vertical supports shall be provided. Where two sets of supports are not possible the inner end of the horizontal scaffolding pole shall rest in hole provided in the header course only. only one header for each pole shall be left out. Such holes however shall be filled up immediately after removal of scaffolding properly.

### PLAIN AND REINFORCED CEMENT CONCRETE

#### 1.0 SCOPE

This specification establishes the materials, mixing, placing, curing etc. of all types of cast in situ and precast concrete used in foundations, underground and over ground structures, floors etc. Any special requirements as shown or noted the drawings shall govern over the provisions of this specification.

1.1 Apart from this specification, construction of plain and reinforced concrete works shall be in accordance with the Indian Standard Code practice for "Plain and Reinforced Concrete" IS:456 and other relevant codes mentioned therein.

1.2 In case of conflict between the clauses mentioned in this specification and those in the Indian Standards, this specification shall govern.

#### 2.0 GRADES OF CONCRETE

Unless otherwise specified on drawings or called for in the schedule of rates, the grades of concrete shall generally be as per Table 1.

TABLE - 1

Grade Designation	Specified Characteristic Compressive Strength of 15cm. cube at 28 days [N/mm <sup>2</sup> ]
M15	15
M20	20
M25	25
M30	30
M35	35
M40	40

The characteristic strength is defined as the strength of material below not more than five (5) percent of the test results are expected to fall.

### 3.0 TYPE OF CONCRETE MIX

3.1 The concrete shall be either nominal mix concrete or design mix concrete as defined in IS:456. Unless otherwise specified or given in schedule of rates, all lean and structural concrete shall be nominal mix and design mix types respectively.

#### 3.2 Nominal Mix Concrete

This concrete shall be made ( without preliminary tests) by adopting nominal concrete mix with proportions of materials as specified in Table 1A. All the relevant requirements for this type of concrete as given in IS:456 shall apply.

TABLE - 1A

PROPORTIONS FOR NOMINAL MIX CONCRETE

Grade of concrete	Total quantity of dry aggregates by mass per 50 kg of cement, to be taken as the sum of the individual masses of fine and coarse aggregates (max)	Proportion of fine aggregate to coarse aggregate (by weight)	Quantity of water per 50 kg of cement (max.)
	Kgs		Liters
M 5	800	Generally 1:2 but	60
M 7.5	625	subject to an upper	45
M 10	480	limit of 1:1 1/2	34
M 15	350	and lower limit of	32
M 20	250	1:2 1/2	30

Note: The proportions of the fine to coarse aggregates should be adjusted from upper limit to lower limit progressively as the grading of the fine aggregates becomes finer and the maximum size of coarse aggregate becomes larger. Graded coarse aggregates shall be used.

### 3.3 Design Mix Concrete

The mix shall be designed to produce the grade of concrete having the required workability and characteristic strength not less than appropriate values given in Table - 1.

### 4.0 PROPORTIONING

Proportioning, as used in this specification, shall mean the process of determining the proportions of the various ingredients to be used to produce concrete of the required strength, workability, durability and other properties.

The Engineer-in-Charge shall verify the strength of the concrete mix, before giving his sanction of its use. However, this does not absolve the Contractor of his responsibility as regards achieving the prescribed strength of the mix. If during the execution of the work, cube tests show lower strengths than required, the Engineer-in-Charge shall order fresh trial mixes to be made by the Contractor. No claim to alter the rates of concrete work shall be entertained due to such changes in mix variations. Any variation in cement consumption shall be taken into consideration for material reconciliation. Preliminary mix designs shall be established well ahead of start of work.

#### 4.1 Maximum Density

Suitable proportions of sand and the different sizes of coarse aggregates for each grade of concrete shall be selected to give as nearly as practicable the maximum density. This shall be determined by mathematical means, laboratory tests, field trials and suitable changes in aggregate gradation.

#### 4.2 Water Cement Ratio

Once a mix, including its water cement ratio, has been determined and specified for use by the Engineer in Charge, that water cement ratio shall be maintained. The Contractor shall determine the water content of the aggregates frequently as the work progresses, and the amount of mixing water shall be adjusted so as to maintain the specified water cement ratio.

#### 4.3 Consistency

The concrete shall have a consistency such that it shall be workable in the required position and when properly vibrated it flows around reinforcing steel, all embedded fixtures etc.

#### 4.4 Workability

4.4.1 The concrete mix proportion so should be such that the concrete is of adequate workability for the placing condition and can be properly compacted with the means available.

4.4.2 The suggested ranges of values of workability of concrete measured in accordance with IS:1199 are indicated in Table 2.

TABLE-2

Placing Conditions	Degree of Workability	Values of Workability
Concreting of shallow sections with vibration	Very low	20-10 seconds, vee-bee time  or 0.75-0.80, compacting factor
Concreting of lightly reinforced sections with vibration	Low	10-5 seconds, vee-bee time  or 0.80-0.85, compacting factor
Concreting of lightly reinforced sections without vibration, or  heavily reinforced sections with vibration	Medium	5-2 seconds, vee-bee time  or 0.85-0.92, compacting factor  or 25-75 mm, slump for 20 mm* aggregate
Concreting of heavily reinforced sections without vibration	High	Above 0.92, compacting factor  or 75-125 mm, slump for 20 mm* aggregate.

\*For smaller aggregate the values will be lower.

## 5.0 BATCHING

In proportioning concrete, the quantity of both cement and aggregate should be determined by weight. Where the weight of cement is determined on the basis of weight of cement per bag,

a reasonable number of bags should be weighed periodically to check the net weight. Where the cement is weighed on the site and not in bags it should be weighed separately from the aggregates. Water should be either measured by volume in calibrated tanks or weighed. Any solid admixtures that may be added, may be measured by weight; liquid and paste admixtures by volume or weight. Batching plant, where used, shall conform to IS:4925. All measuring equipment shall be maintained in a clean serviceable condition, and their accuracy periodically checked.

5.1 Except where it can be shown to the satisfaction of the Engineer in Charge that supply of properly graded aggregate of uniform quality can be maintained over the period of work, the grading of aggregate should be controlled by obtaining the coarse aggregate in different sizes and blending them in the right proportions when required, different sizes being stacked in separate stock piles. The grading of coarse and fine aggregate shall be checked frequently, the frequency for a given job being determined by the Engineer in Charge to ensure that the specified grading is maintained.

5.2 Under special circumstances, change from weight batching to volume batching may be permitted by Engineer in Charge on specific request from the Contractor.

5.3 The amount of the added water shall be adjusted to compensate for any observed variations in the moisture contents in both fine and coarse aggregates. For the determination of moisture content in the aggregates IS:2386 (part-III) may be referred to. To allow for the variation in weight of aggregates due to variation in their moisture content, suitable adjustments in the weights of aggregate shall also be made. In the absence of exact data, only in the case of nominal mixes, the amount of surface water may be estimated from the values given in Table 3 below:-

TABLE-3  
SURFACE WATER CARRIED BY AGGREGATE

Aggregate	Approximate quantity of surface water	
	Percentage by Weight	Liter/M <sup>3</sup>
Very Wet Sand	7.5	120
Moderately Wet Sand	5.0	80
Moist Sand	2.5	40
Moist Gravel or Crushed Rock	1.25 - 2.5	20 - 40

5.4 No substitutions in materials used on the work or alterations in the established proportions, except as permitted in 5.3 shall be made without additional tests to show that the quality and strength of concrete are satisfactory.



## 6.0 CONCRETE MIXING

6.1 The mixing of concrete shall be strictly carried out in an approved type of mechanical concrete mixer. The mixing shall be continued until there is a uniform distribution of the material and the mass is uniform in colour and consistency. If there is segregation, after unloading from the mixer, the concrete shall be remixed.

### 6.2 Mixer

6.2.1 Good running condition Mini Batching Machine of standard make like Universal or equivalent of suitable Batch capacity 450 Liters -750 Liters, having inbuilt atomized Digital Water feeding system with inbuilt Load cell based Digital Weighing System for the bins should be used. The plant shall comply with IS:1791 and shall be maintained in satisfactory operating condition. Mixer drum shall be kept free of hardened concrete and blades shall be replaced when worn down more than ten percent (10%) of their depth. Should any mixer at any time produce unsatisfactory results, leak mortar or cause waste of materials, its use shall be promptly discontinued until it is repaired/replaced.

#### 6.2.2 Mixing Time

Mixing time shall be as indicated in the following table. Excessive mixing requiring additions of water shall not be permitted. Time shall start when all solid materials are poured in the revolving mixer drum, provided that all of the mixing water shall be introduced before one fourth of the mixing time has elapsed. The Engineer-in-Charge may, however, direct a change in the mixing time, if he considers such a change necessary.

Capacity of Mixer	Minimum Mixing Time
2 Cu.M or less	1-1/2 Minutes.
3 Cu.M	2-1/2 Minutes.
5 Cu.M	3 Minutes.

All records and charts for the batching and mixing operations shall be prepared as specified and as per the instructions of the Engineer in Charge.

### 6.3 Hand Mixing

Normally, hand mixing of concrete shall not be permitted. However this may be allowed by the Engineer in Charge in special cases (such as far away isolated places). Ten percent (10%) extra cement shall have to be added to the normal mix when mixed by hand. It shall be carried out on a water tight platform and care shall be taken to ensure that mixing is continued until the mass is uniform in colour and consistency. No extra payment shall be made to the Contractor for mixing by hand or for using extra cement due to hand mixing. However, extra cement consumed shall be considered for reconciliation purpose.

## 6.4 Admixtures

Admixtures shall be used in concrete only with the approval of the Engineer in Charge.

## 7.0 TRANSPORTATION, PLACING AND COMPACTION

### 7.1 General

Before any concrete is placed the entire placing programmed and transporting arrangement showing deployment of equipment, layout, proposed procedures and methods shall be submitted in writing to the Engineer in Charge 24 hrs. prior to concreting for approval. No concrete shall be placed until his approval has been received. The Engineer's-in-Charge approval for pouring concrete shall be taken as conveyed when concrete pour card is signed.

#### 7.1.1 Chuting

The use of long troughs, chutes and pipes for conveying the concrete from the mixer to the forms shall be permitted only on written authorization from the Engineer-in-Charge. In case an inferior quality of concrete is produced by the use of such conveyors, the Engineer-in-Charge may order discontinuance of their use and the substitution of a satisfactory method of placing. Open troughs and chutes shall be equipped with baffles and be in short lengths to avoid segregations. Chutes shall be designed so that the concrete is to some extent remixed at the lower end by passing down through a funnel shaped pipe or drop chute. Alternatively they should discharge into a storage hopper from which the concrete should be transported to the point of placing by wheel barrows or other means. Where drop chutes are used, a sufficient number must be provided so that the concrete discharged from the chust is not required to flow laterally more than 1.0M. Where a drop chute is swung from the vertical, the bottom two sections must be maintained in a vertical position to avoid segregation. The addition of water at any point in the system of transportation, to facilitate the movement of concrete shall not be permitted. All chutes, troughs and pipes, shall be kept clean and free from coatings of hardened concrete by thoroughly flushing them with water after each run; water used for fishing shall be discharged clear of the structure. Concrete shall not be permitted to fall freely from a height of more than 1.5M nor to strike the forms at an angle.

#### 7.1.2 Vibrators

Concrete shall be compacted with mechanical vibrating equipment supplemented, if necessary to obtain consolidation by hand spading, ridding and tamping. The vibrators shall be immersion type with operational frequency ranging between 8000 to 12,000 vibrations per minute. Vibrators shall be used in sufficient number of units and power to properly consolidate all concrete.

Immersion type vibrators shall be inserted in a vertical position at intervals of about 600mm, depending upon the mix, the equipment used, and continued experience on work. The

vibrators shall be withdrawn slowly. The pacing shall provide some overlapping of the area vibrated at each insertion. In no case shall vibrators be used to transport concrete inside the forms. Over vibration shall not be permitted. Hand tamping in some cases may be allowed subject to be approval of the Engineer-in-Charge.

In placing concrete in layers which are advancing horizontally as the work progresses, great care shall be exercised to ensure adequate vibration, bonding and molding of the concrete between the succeeding batches.

The vibrators shall penetrate the layer being placed and also penetrate the layer below while the under layer is still plastic to ensure good bond and homogeneity between the two layers and prevent the formation of cold joints.

Care shall be taken to prevent contact of vibrators against reinforcement steel. Vibrators shall not be allowed to come in contact with forms.

The use of form work vibrators shall not be permitted for compaction of in-situ concrete without specific authorization of the Engineer-in-Charge.

The use of surface vibrators of screed board type shall not be permitted for consolidation of concrete under ordinary conditions. However for thin slabs (of thickness less than 200mm) surface vibration by such vibrators may be permitted, upon approval of the Engineer-in-Charge.

## 7.2 Transportation

All concrete shall be conveyed from the mixer to the place of final deposit as rapidly as possible in suitable buckets, dumpers, containers or conveyors which shall be mortar leak tight. Care shall be taken to prevent the segregation or loss of the ingredients and maintaining the required work ability. During hot or cold weather shall be transported in deep containers. Other suitable methods to reduce the loss of water by evaporation in hot weather and heat loss in cold weather may also be adopted. All equipment used for transporting and placing of concrete shall be maintained in clean condition. All buckets, hoppers, chutes, dumpers and other equipment shall be thoroughly cleaned after each period of placement.

## 7.3 Placing and compaction

- 7.3.1 Before placing concrete all soil surface upon which or against which concrete is to be placed shall be well compacted and free from standing water, mud or debris. Soft or yielding soil shall be removed and replaced, with lean concrete or with selected soils and compacted to the density as directed by Engineer-in-Charge. The surface of absorption soil (against which concrete is to be placed) shall be moistened thoroughly so that moisture is not drawn from the freshly placed concrete.

Concrete shall not be placed until the formwork, the placement of reinforcing steel, embedded parts etc. have been inspected and approved by the Engineer-in-Charge. Any accumulated water on the surface of the bedding layer shall be removed by suitable means before start of placement. No concrete shall be placed on water covered surface.

7.3.2 Concrete shall be discharged by vertical drop only and the drop height shall be not exceed 1.5M thorough out all stages of delivery until the concrete comes to rest in forms.

7.3.3 Concrete shall be deposited as near as practicable in its final position to avoid remanding. Concrete shall be placed in successive horizontal layers. The bucket loads, or other units of deposit, shall be spotted progressively along the face of the layer with such over-lap as will facilitate spreading the layer of uniform depth and texture with a minimum of hand shoveling. Any tendency to segregation shall be corrected by shoveling stones into mortar rather than mortar on the stones. Such a tendency for segregation shall be corrected by redesign of mix, change in process or other means, as directed by the Engineer-in-Charge.

All struts, stays and braces (serving temporarily to hold the forms in correct shape and alignment pending the placing of concrete at their locations) shall be removed when the concrete placing has reached an elevations rendering their service unnecessary. These shall not be buried in the concrete. Concrete shall be thoroughly compacted with vibrators and fully worked around the reinforcement, embedded fixtures and into corners of formwork before setting commences. In no case this shall be subsequently disturbed. Methods of placing shall be such as to preclude segregation. The formation of stone pockets or mortar bondage in corners and against face forms shall not be permitted. Should these occur, they shall be dug out, performed and refilled to sufficient depth and shape for thorough bonding as directed by the Engineer-in-Charge. Care shall be taken to avoid displacement of reinforcement or movement of formwork.

7.3.4 Unless otherwise approved, concrete shall be placed in single operation to the full thickness of slabs, beams and similar members. Concrete shall be placed continuously until completion of the part of the work between construction joints or as directed by the Engineer-in-Charge.

7.3.5 The method of placing and compaction employed in any particular section of the work shall be to the entire satisfaction of the Engineer-in-Charge.

7.3.6 During hot weather (atmospheric temperature above 40oC) or cold weather(atmospheric temperature below 5oC), the concreting shall be done as per the procedure setout in IS:7861.

7.3.7 Concrete that has been left standing and become stiffened shall not be deposited in the work.

#### 7.4 Items Embedded in Concrete

7.4.1 Concreting shall not be started unless the electrical conduits, pipes, fixtures etc., wherever required, are laid by the concerned agency. The Contractor shall afford all the facilities and maintain co-ordination of work with other agencies engaged in electrical and such other work as directed by the Engineer-in-Charge.

7.4.2 Before concreting, the Contractor shall provide, fabricate and lay in proper position all metal inserts, anchor bolts, pipes etc. (which are required to be embedded in concrete members) as per relevant drawings and directions of Engineer in Charge.

#### 8.0 CONSTRUCTION JOINTS

8.1 Construction joints shall be provided in position as shown or described on the drawings or as directed by the Engineer-in-Charge. Such joints shall be kept to the minimum. These shall be straight and at right angles to the direction of main reinforcement.

8.2 In a column, the joint shall be formed about 100mm to 150mm below the lowest soffit of the beams framing into it. Concrete in a beam and slab shall be placed throughout without a joint but if the provision of a joint is unavoidable, the joint shall be vertical and located within 1/3 to 1/4 of the span.

8.3 When stopping the concrete on a vertical plane in slabs and beams, an approved stop board shall be placed with necessary slots for reinforcement bars. The construction joints shall be keyed by providing a triangular or trapezoidal fillet nailed on the stop board. Inclined joints shall not be permitted. Any concrete flowing through the joints of stop board shall be removed soon after the initial set. When concrete is stopped on a horizontal plane, the surface shall be roughened and cleaned after the initial set.

8.4 When the work has to be resumed on a surface which has hardened, such surface shall be roughened to expose the tips of the coarse aggregate. It shall then be swept clean and thoroughly wetted. For vertical joints neat cement slurry shall be applied on the surface before it is dry. For horizontal joints the surface shall be covered with a layer of mortar about 10 to 15mm thick composed of cement and sand in the same ratio as the cement and sand in concrete mix. This layer of cement slurry or mortar shall be freshly mixed and applied immediately before placing the concrete.

8.5 Where the concrete has not fully hardened, all laitance shall be removed by scrubbing the wet surface with wire or bristle brushes, care being taken to avoid dislodgement of particles of aggregate. The surface shall be thoroughly wetted and all free water removed. The surface shall then be coated with neat cement slurry. On this surface, a layer of concrete not exceeding 150mm in thickness shall first be placed and shall be well rammed against old work, particular attention being paid to corners and close spots; work thereafter shall proceed in normal way.

## 9.0 SEPARATION JOINT

Separation joint shall be obtained by using an approved alkathene sheet struck on the surface against which concrete shall be placed. Adequate care should be taken to cause no damage to the sheet.

## 10.0 EXPANSION JOINTS

Expansion joints in structures shall be formed in the positions and to the shapes shown in the relevant drawings. Joints shall be filled with joint filling material as stipulated in the drawings/schedule of rates.

## 11.0 WATER STOPS

The water stops shall be of G.I./PVC/Rubber as specified in the relevant drawings. G.I. water stops shall be fabricated from "22" gauge sheets of specified width and bent, folded to shape, soldered and fixed as per the drawings. The G.I. sheets shall have medium coating of zinc as

per IS:277. The PVC and rubber water stops shall be of ribbed/serrated type with central bulb and of minimum thickness 6 mm.

Water stops shall be accurately cut, fitted and integrally joined as per manufacturer's specifications to provide a continuous, watertight diaphragm at all points.

The water stops shall be located and embedded at expansion/construction joints as indicated in the drawings.

Adequate provision shall be made for the support and protection of water stops during the progress of the work. Damaged water stops shall be replaced and / or repaired as directed.

## 12.0 PROTECTION OF FRESHLY LAID CONCRETE

Newly placed concrete shall be protected by approved means from rain, sun and wind. Concrete placed below the ground level shall be protected from falling earth during and after placing. Surface shall be kept free from contact with such ground or with water draining from such ground during placing of concrete for a period of at least 3 days unless otherwise directed by the Engineer in Charge. The ground water around newly poured concrete shall be kept to an approved level by pumping or other approved means of drainage and adequate steps shall be taken to prevent floatation and flooding. Steps shall be taken to protect immature concrete from damage by debris, loading, vibration, abrasion, mixing with deleterious materials that may in the opinion of the Engineer in Charge impair the strength and / or durability of the concrete.

## 13.0 CURING

13.1 Curing of concrete shall be in accordance with IS:456. Concrete shall be cured by keeping it continuously moist wet for the specified period of time to ensure complete hydration and hardening. Curing shall be started after 8 hours of placement of concrete and hot weather after 4 hours.

Curing shall be assured by use of an ample water supply under pressure in pipes, with all necessary appliances such as hose, sprinklers etc. A layer of sacking, canvass, hessian, or other approved material which will hold moisture for long periods and prevent loss of moisture from the concrete shall be used as covering. Type of covering which would stain, disfigure, or damage the concrete during and after the curing period shall not be used. Only approved covering shall be used for curing.

Exposed surfaces of concrete shall be maintained continuously in a damp or wet condition for at least for at least the first 7 days after placing except that high early strength concrete shall be so maintained for at least the first 3 days. For other types of concrete using low heat or supersulphated or high alumina cement etc., curing period shall be as directed by the Engineer in Charge.

The Contractor shall have all equipment and materials required for curing on hand and ready to use before concrete is placed.

For curing the concrete in pavements, floors, flat roofs or other level surfaces the ponding method of curing is preferred after the expiry of first 24 hours during which (i.e. first 24 hours)

the concrete shall be cured by use of wet sacking, canvass, Hessian etc. The minimum water depth of 25 mm for pending shall be maintained. The method of containing the pounded water shall be approved by the Engineer-in-Charge. The pounded areas shall be kept continuously filled with water and leaks, if any, shall be promptly repaired.

Approved curing compounds may be used in lieu of moist curing with the permission of Engineer-in-Charge. Such compounds shall be applied to shall exposed surfaces of the concrete as soon as possible after the concrete has set.

#### 14.0 DAMP PROOF COURSE (DPC)

The 40 mm thick Damp proof course shall consist of plain cement concrete of nominal mix 1:1-1/2:3 by volume (1 Cement : 1-1/2 Coarse Sand : 3 Crushed Stone Aggregates ) with 10 mm and sown size graded aggregate, unless otherwise specified.

The Damp proof Course shall be laid at plinth level of brick walls, flush with the floor surface and shall not be carried across doorways.

Before laying, the top surface of wall shall be thoroughly cleaned and watered. The D.P.C. shall be laid in layers of 20 mm thickness retaining the edges by necessary formwork and shall be well tamped and trowel led to smooth finish.

The layer shall be cured by keeping the surface wet for 40 hours and after it has dried, two coats of hot bitumen of grade A90/S90 conforming to IS:73 shall be applied over it at the rate of 1.7Kg/M<sup>2</sup>. Over this, the second layer of 20 mm thick concrete shall be laid and cured as described in case of the first layer and two coats of hot bitumen at the rate of 1.7 Kg / M<sup>2</sup> shall be applied again in a similar manner. Over this, dry sharp sand shall be sprinkled evenly.

#### 15.0 FIELD\_TESTS

##### 15.1 Grading Test

Grading test on coarse and fine aggregates shall be carried out as per IS:2386 at intervals specified by Engineer-in-Charge.

##### 15.2 Vee-Bee Test/Slump Test of Concrete

At least one Vee-Bee Test/Slump Test shall be made for every compressive strength test carried out. More frequent tests shall be made if there is a distinct change in working conditions or if required by the Engineer-in-Charge.

##### 15.3 Strength Test of Concrete

15.3.1 Samples from fresh concrete shall be taken as per IS:1199 and cubes shall be made, cured and tested at 28 days in accordance with IS:516.

In order to get a relatively quicker idea of the quality of concrete, optional tests on beams for modulus of rupture at 72" +2 hours or at 7 days, or compressive strength tests at 7 days may be carried out in addition to 28 days compressive strength tests. For this purpose, the values

given in Table - 4 may be taken for general guidance in the case of concrete made with ordinary Portland cement. In all cases, the 28 days compressive strength specified in Table -I shall be the criterion for acceptance or rejection of the concrete. If, however, from tests carried out in a particular work over a reasonably long period, it has been established to the satisfaction of Engineer-in-Charge that a suitable ratio between 28 days compressive strength and the modulus of rupture at 72 +2 hours or compressive strength at 7days may be accepted, the Engineer-in-Charge may suitable relax the frequency of 28 days compressive strength specified in Cl.16.3.4 provided the expected strength values at the specified early age are consistently met.

TABLE - 4

## OPTIONAL TESTS REQUIREMENT OF CONCRETE

Grade of Concrete	Compressive strength on 15cm. cubes, min. at 7 days	Modulus of rupture by beam test, min. at 72+2 hrs. at 7 days	
	(N/mm <sup>2</sup> )	(N/mm <sup>2</sup> )	(N/mm <sup>2</sup> )
M 15	10.0	1.5	2.1
M 20	13.5	1.7	2.4
M 25	17.0	1.9	2.7
M 30	20.0	2.1	3.0
M 35	23.5	2.3	3.2
M 40	27.0	2.5	3.4

15.3.2 Procedure: A random sampling procedure shall be adopted to ensure that each concrete batch shall have a reasonable chance of being tested, that is the sampling should be spread over the entire period of concreting and cover all mixing units.



15.3.3 Frequency\_ of\_ sampling: The minimum frequency of sampling of concrete for each grade shall be in accordance with the following:

Quantity of concrete in Number of samples the work 3	
1 - 5	1
6 - 15	2
16 - 30	3
31 - 50	4
51 and above	4 Plus one additional sample for each additional 50 M3 or part thereof.

NOTE: At least one sample shall be taken frame each shift.

15.3.4 Test Specimen: Three test specimens shall be made from each sample for testing at 28 days. Additional cubes may be required for various purpose such as to determine the strength of concrete at 7 days or at the time of sticking the formwork, or to determine the duration of curing, or to check the testing error. Additional cubes may also be required for testing cubes by accelerated methods as described in IS: 9013. The specimen shall be tested as described in IS: 516.

15.3.5 Test Strength of Sample: The test strength of the sample shall be the average of the strength of three specimens. The individual variation should not be moa than +” 15 percent of the average.

#### 15.3.6 Standard Deviation

i) Standard deviation based on test results:

a) Number of test results: The total number of test results required to constitute an acceptable record for calculation of standard deviation shall be not less than 3C. Attempts should be made to obtain the 30 test results, as early as possible, when a mix is used for the first time.

b) Standard deviation to be brought up to date: The calculation of the standard deviation shall be brought up to date after every change of mix design and least once a month.

ii) Determination of Standard Deviation:

a) Concrete of each grade shall be analyzed separately to determine its standard deviation.

b) The standard deviation of concrete of a given grade shall be calculated using the following formula from the results of individual tests of concrete of that grade obtained as specified in 15.3.5.

Estimated standard deviation(s) = Where  
= deviation of the individual test strength from the average strength of n samples

n = number of sample test results.

c) When significant changes are made in the production of concrete batches (for example changes in the materials used, mix design, equipment of technical control), the standard

deviation value shall be separately for such batches of concrete.

iii) Assumed Standard Deviation: Where sufficient test results for a particular grade of concrete are not available, the value of standard deviation given in Table - 5 may be assumed.

TABLE – 5

## ASSUMED STANDARD DEVIATION

Grade of concrete	Assumed standard deviation (N/mm <sup>2</sup> )
M 15	3.5
M 20	4.6
M 25	5.3
M 30	6.0
M 35	6.3
M 40	6.6

However, when adequate past records for a similar grade exist and justify to the designer a value of standard deviation different from that shown in Table - 5, it shall be permissible to use that value.

## 15.3.7 Acceptance Criteria

15.3.7.1 The concrete shall be deemed to comply with the strength requirements if:

- a) every sample has a test strength not less than the characteristic value; or
- b) the strength of one or more samples though less than the characteristic value, is in each case not less than the greater of :

- (i) the characteristic strength minus 1.35 times the standard deviation; and

- (ii) 0.80 times the characteristic strength;  
and the average strength of all the samples is  
not less than the characteristic strength plus

$$\left\{ \frac{1.65}{\sqrt{n}} \right\}$$

$$\left\{ 1.65 - \frac{1.65}{\sqrt{n}} \right\} \text{ times the}$$

{Number of Samples} standard deviation.

15.3.7.2 The concrete shall be deemed not to comply with the strength requirements if:

- a) the strength of any sample is less than the greater of:

- b)
  - i) the characteristic strength minus 1.35 times the

Standard deviation; and

ii) 0.80 times the characteristic strength; or

b) the average strength of all the samples is less than

the characteristic strength plus

(            3            )

( 1.65 - -----) times the standard

Number of samples) deviation)

15.3.7.3 Concrete which does not meet the strength requirements as specified in 15.3.7.1 but has a strength greater than that required by 15.3.7.2 may, at the discretion of the Engineer-in-charge be accepted as being structurally adequate without further testing.

15.3.7.4 If the concrete is deemed not to comply pursuant to

15.3.7.5 the structural adequacy of the parts affected shall be investigated as stipulated in Clause 16.0.

15.3.7.5 Concrete of each grade shall be assessed separately.

15.3.7.6 Concrete shall be assessed daily for compliance.

15.3.7.7 Concrete is liable to be rejected if it is porous or honey-combed; its placing has been interrupted without providing a proper construction joint; the reinforcement has been displaced beyond the tolerances specified; or construction tolerances have not been met. However, the hardened concrete may be accepted after carrying out suitable remedial measures to the satisfaction of the Engineer-in-Charge.

## 16.0 INSPECTION\_OF\_STRUCTURES

Immediately after stripping the formwork, all concrete shall be carefully inspected and any defective work of small defects either removed or made good before concrete has thoroughly hardened.

### 16.1 Testing of structures or parts of structures

16.1.1 In case the results of work test cubes do not comply with the specified strength requirements of there is reasonable doubt regarding the strength of concrete used either due to poor workmanship or materials, the Engineer-in-Charge may instruct the Contractor to perform additional tests based on EIL Guideline 8-68-4008 (Quality Assessment Test of Hardened Concrete) and/or load test (as per the method and manner specified in Clause 16.2.2) to ascertain the quality of concrete. These tests shall also be required to be carried out in the event the Engineer-in-Charge is doubtful regarding the adequacy of strength of the structure sue to suspected overloading during construction, premature removal and non-conformance

to specification of formwork, improper curing or any other reason.

The number and type of tests to be carried out shall be determined by the Engineer-in-Charge whose decision shall be final and binding on the Contractor.

#### 16.1.2 Load\_Test

Load test shall be carried out as soon as possible after expiry of 28 days from the time of placing of concrete. The structure shall be subjected to a load equal to full dead load of the structure plus 1.25 times the imposed load for a period of 24 hours and then the imposed load shall be removed. The deflection due to imposed load only shall be recorded. If within 24 hours of removal of the imposed load the structure does not recover at least 75 percent of the deflection under superimposed load, the test shall be repeated after a lapse of 72 hours. If the recovery is less than 80 percent, the structure shall be deemed to be unacceptable. If the maximum deflection in mm, shown during 24 hours underload is less than  $40 L^2/D$ , where L is the effective span in meters and D the overall depth of the section in mm, it is not necessary for the recovery to be measured and the recovery provision as given above shall not apply.

### 17.0 FINISHING\_OF\_CONCRETE

17.1 On striking the formwork, all surface defects such as bulges, ridges and honey-combing etc. observed shall be brought to the notice of the Engineer-in-Charge. The Engineer-in-Charge may, at his discretion allow rectification by necessary chipping and packing or grouting with concrete or cement mortar. However, if honey-combing or sagging are of such extent as being undesirable, the Engineer-in-Charge may reject the work totally and his decision shall be binding. No extra payment shall be made for rectifying these defects, demolishing and reconstructing the structure. All burrs and uneven faces shall be rubbed smooth with the help of carborandum stone.

The surface of non-shuttered faces shall be smoothed with a wooden float to give a finish similar to that of the rubbed down shuttered faces. Concealed concrete faces shall be left as from the formwork except that honey-combed surface shall be made good as specified above. The top faces of slabs not intended to be covered shall be levelled and floated to a smooth finish to the levels or falls shown on the drawings or as directed. The floating shall not be executed to the extent of bringing excess fine materials to the surface. The top faces of slabs intended to be covered with screed, granolithic or similar finishes, shall be left with a rough finish.

#### 17.2 Repair\_and\_ Replacement of Unsatisfactory Concrete

Repairs shall be made as soon as possible after the forms are removed and before the concrete becomes too hard. Stone pockets, segregation patches and damaged areas shall be chipped out and the edges undercut slightly to form a key. All loose material shall be washed out before patching. No excess water shall be left in the cavity, but the concrete shall be damp while remaining some of its natural suction.

A good bond between the patch and parent concrete shall be obtained by sprinkling dry cement on the wet surface or by throwing mortar with force on to the wetted concrete, or by brush in a coat of thick cement grout of about 1:1 (1 Cement :1 Sand) just before applying the patching material. Before this has dried, the remainder of the patch shall be filled with mortar or concrete, depending on the extent of the repair.

Cement concrete/mortar used in repair of exposed surface shall be made with cement from the same source as that used in concrete and blended with sufficient amount of white Portland cement to produce the same colour as in the adjoining concrete. The proportions of ingredients shall be same as those used in parent concrete. The mortar shall be as dry as possible and well compacted into the cavity. All filling shall be tightly bonded to the concrete and shall be sound, free from shrinkage cracks after the filling has been cured and dried.

For larger repairs to hardened concrete, necessary formwork bearing tightly at the edges of the cavity shall be provided. Concrete shall be chipped out to a depth of at least 100 mm and preferably 150 mm. Mortar shall be scrubbed into all surfaces with a wire brush before placing the concrete. Damaged reinforcement shall be adequately spliced with new steel so as to maintain the original strength. Additional reinforcement, if required in the patch, shall be provided as per the instructions of Engineer-in-Charge.

### 17.3 Curing of Patched Work

Immediately after patching is completed, the patched area shall be covered with an approved non-staining water saturated material which shall be kept wet and protected against sun and wind for a period of 12 hours. Thereafter, the patched area shall be kept continuously wet by a fine spray or sprinkling for not less than 10 days.

17.4 The use of an epoxy, for bonding fresh concrete used for repairs shall be permitted at the discretion of the Engineer-in-Charge. Epoxy shall be applied in strict accordance with the instructions of the manufacturer.

### 18.0 CEMENT\_WASH

If instructed by the Engineer-in-Charge, the Contractor shall provide one coat of cement wash over the concrete surfaces of foundation, pipe racks, column, walls etc. which are not plastered. Cement used by the Contractor for providing the cement wash shall be taken into account for material reconciliation purposes.

### 19.0 FORM\_WORK

19.1 Forms for concrete shall be of plywood or steel or as directed by the Engineer-in-Charge and shall give smooth and even surface after removal thereof.

If it is desired by the Engineer-in-Charge, the Contractor shall prepare, before commencement of actual work, design and drawings for formwork and get them approved by the Engineer-in-Charge. The form work shall conform to the shapes, lines and dimensions as shown on the drawings within the tolerances given below:

a) Deviation from specified dimensions of cross - 6 mm

section of columns and beams. +12 mm

b) Deviation from dimensions of footings (see note).

(1) Dimensions in plan	- 12 mm
	+ 50 mm

(2) Eccentricity	0.02 times the width of the footing in the direction of deviation but not more than 50 mm.
------------------	--

(3) Thickness	+0.05 times the specified thickness.
---------------	--------------------------------------

NOTE: Tolerances apply to concrete dimensions only, not to positioning of vertical reinforcing steel or dowels.

## 19.2 Form Requirement

The formwork shall be true, rigid and adequately braced both horizontally as well as diagonally. The forms shall have smooth and even surface and be sufficiently strong to carry without deformation the dead weight of the green concrete, working load, wind load and also the side pressure exerted by the green concrete. As far as practicable, clamps shall be used to hold the forms together. Where use of nails is unavoidable minimum number of nails shall be used and these shall be left projecting so that they can be easily withdrawn.

Where the rods are used to hold the forms, provision shall be made for removal of a part of each rod at the surface of concrete for a depth of approximately 50mm. The cavities so caused shall be filled and finished with cement mortar in the manner specified in clause 17.

Tie wires shall be permitted only upon approval of the Engineer-in-Charge and shall be cut off flush with the face of the concrete or counter sunk, filled and finished in the manner specified in clause 17.

From joints shall not permit any leakage. The formwork shall be strong enough to withstand the effect of vibrations practically without any deflection, bulging, distortion or loosening of its components. Forms for beams and slabs (span more than 6.0 m) shall have camber of 1 in 500 so as to offset the deflection and assume correct shape and line after desposition of concrete. For cantilevers, the camber at free end shall be 1/100 th of the projected length. Where architectural considerations and adjunctive work are critical, smaller form cambers shall be adopted as decided by the Engineer-in-Charge.

All vertical wall forms may be designed and constructed for the following minimum pressure. The pressure listed in Table - 6 are intended as guide only and the Contractor shall ensure that the formwork is adequately strong and sturdy.

TABLE - 6

Rate of pour in Meter/hour	Pressure Kg/Sq.M	
	100"	240C
0.6	3600	2900
0.9	4000	3200
1.2	4400	3500
1.5	4600	3700

### 19.3 Inspection of Forms

Temporary openings shall be provided at the base of column and wall forms and other places necessary to facilitate cleaning and inspection. Before concrete is placed, all forms shall be carefully inspected to ensure that they are properly placed, sufficiently rigid and tight, thoroughly cleaned, properly treated and free from foreign material. The complete form work shall be inspected and approved by the Engineer-in-Charge before the reinforcement bars are placed in position. When forms appear to be unsatisfactory in any way, either before or during the placing of concrete as per the instructions of the Engineer-in-Charge.

### 19.4 Treatment of\_ forms

The surfaces of forms that would come in contact with concrete shall be treated with approved non-staining release agents such as soft soap, oil, emulsions etc. Care shall be taken that such release agents are kept out contact with the reinforcement.

### 19.5 Chamfers and\_ fillets

All corner and angles shall be formed with 450" moldings to form chamfers or fillets on the finished concrete. The standard dimensions of chamfers and fillets, unless otherwise detailed or specified shall be 25 x 25 mm. For heavier work chamfers or fillets shall be 50 x 50 mm. Care shall be exercised to ensure accurate mouldings. The diagonal face of the moulding shall be planed or surfaced to the same texture as the forms to which it is attached.

### 19.6 Reuse of forms

Before reuse, all forms shall be thoroughly scrapped, cleaned, examined and when necessary repaired and retreated before resetting. Formwork shall not be reused, if declared unfit or unserviceable by the Engineer-in-Charge.

#### 19.7 Removal of Forms/Stripping Time

In the determination of time for removal of forms, consideration shall be given to the location and character of the structures, the weather and other conditions including the setting and curing of the concrete and material used in the mix.

Forms and their supports shall not be removed without the approval of the Engineer-in-Charge. Methods of form removal likely to cause overstressing or damage to the concrete, shall not be adopted. Supports shall be removed in such a manner as to permit the concrete to uniformly and gradually take the stresses due to its own weight.

In normal circumstances and where ordinary Portland cement is used, forms may generally be removed after expiry of following periods.

- |   |   |
|---|---|
| (a) Walls, columns and vertical faces of all structural members | 24 to 48 hrs as may be decided by the Engineer-in-Charge.   |
| (b) Slabs ( props left under)      3 days.                      |   |
| (c)          Beam          Soffits(props left under)            | 7          days.  |
| (d) Removal of props under slabs:                               |   |
| 1. Spanning up to 4.5 M - 7 days.                               |   |
| 2. Spanning over 4.5 M - 14 days.                               |   |
| (e) Removal of props under beams and arches:                    |   |
| 1. Spanning upto 6 M - 14 days.                                 |   |
| 2. Spanning over 6 M and upto 9 M - 21 days.                    |   |
| 3. Spanning over 9 M - 28 days.                                 |   |
| (f) Cantilever Construction                                     | Formwork shall remain till structures for counter acting or bearing down have been erected and have attained sufficient strength (minimum 14 days). |

#### Notes:

1. For rapid hardening cement, 3/7 days of the above mentioned period shall be considered subject to a minimum of 24 hours.



2. For other cement, the stripping time recommended for ordinary Portland cement shall be suitably modified as per the instructions of the Engineer-in-Charge.

3. The number of props left under, their sizes and disposition shall be such as to be safely carry the full dead load of the slab, beam or arch as the case may be together with any live load likely to occur during curing or further construction.

4. Where the shape of the element is such that the formwork has re-entrant angles, the form work shall removed as soon as possible after the concrete has set, to avoid shrinkage cracking occurring due to the restraint imposed.

## 19.8 Staging/Scaffolding

Staging/scaffolding shall be properly planned and designed by the Contractor. The Contractor shall get it reviewed by Engineer-in-Charge before commencement of work. Double scaffolding sufficiently strong so as to withstand all loads likely to come upon it and having two sets of vertical supports, shall be provided. Where two sets of supports are not possible, the inner end of the horizontal scaffolding member shall rest in a hole provided in the header course only. Only one header for each member shall be left out. Such holes however shall not be allowed in pillars under one meter in which or immediately near the skew backs of arches. Such holes shall be filled up immediately after removal of scaffolding/staging. The following measures shall be considered while designing and erecting of scaffolding/staging.

- a) Sufficient sills or under pinnings in addition to base plates shall be provided particularly where scaffoldings are erected on soft grounds.
- b) Adjustable bases to compensate for uneven ground shall be used.
- c) Proper anchoring of the scaffolding/staging at reasonable intervals shall be provided in each case with the main structure wherever available.
- d) Horizontal braces shall be provided to prevent the scaffolding/staging from rocking.
- e) Diagonal braces shall be provided continuously from bottom to top between two adjacent rows of uprights.
- f) The scaffolding/staging shall be checked at every stage for plumb line.
- g) Wherever the scaffolding/staging is found to be out of plumb line it shall be dismantled and re-erected afresh and effort shall not be made to bring it in line with a physical force.
- h) All nuts and bolts shall be properly tightened.
- i) Proper and effective supervision of the erection work shall be ensured by the Contractor.
- j) Erection work of a scaffolding/staging under no circumstances shall be left totally to semi-skilled or skilled workmen and shall rather be carried out in the presence of technically qualified civil engineer of the Contractor.
- k) Wherever steel tubes are used care shall be taken that all the clamps/couplings are firmly tightened so as avoid any slippage.

## 20.0 REINFORCEMENT

20.1 Reinforcement shall be cut, bent to shape and dimensions as shown in the bar bending schedules/drawings. In normal course the bar bending schedule shall be supplied to the Contractor, however, in case, bar bending schedule is not provided, the Contractor shall develop the same at no extra cost to the Owner and get it reviewed by the Engineer-in-Charge. The Contractor shall check the bar bending schedule (issued by the Owner) prior to fabrication and satisfy himself

about the correctness of the same.

20.2 Straightening, Cutting and Bending: Procedure for cutting and bending shall be as given in IS: 2502.

Cold twisted deformed bars shall be bent cold. Bars larger than 25 mm in size (except cold twisted deformed bars) may be bent hot at cherry red heat to a temperature not exceeding 850°C as per the instructions of the Engineer-in-Charge. The bars shall be allowed to cool gradually without quenching.

Bars shall be bent in slow and regular movement to avoid fractures. Bars which develop cracks or splits after bending shall be rejected. A second bending of reinforcement bars shall be avoided but when reinforcement bars are bent aside at construction joints and afterwards bent back into their original position, care should be taken to ensure that at no time is radius of the bend less than 4 x bar diameter for plain mild steel or 6 x bar diameter for deformed bars. Care shall also be taken when bending back bars to ensure that concrete around the bars is not damaged. All bars shall be properly tagged for easy identification.

### 20.3 Placing and Fixing

All reinforcement shall be cleaned to ensure freedom from loose mill scale, loose rust, oil, grease or any other harmful material before placing them in position.

All reinforcement shall be fixed in the correct position and shall be properly supported to ensure that displacement will not occur when the concrete is placed.

The reinforcement bars shall be tied at every intersections by two strands of 16 SWG black sqft annealed binding wire. Crossing bars shall not be tack welded for assembly of reinforcement. The reinforcement bars shall be kept in position by using the following methods.

a) In case of beam and slab construction, precast cover blocks (having the same cement sand contents as the concrete which shall be placed) of size 40 x 40 mm and thickness equal to the specified covers shall be placed firmly in between the bars and forms so as to secure and maintain the specified covers over the reinforcement.

When reinforcement bars are placed in two or more layers in beams, the vertical distance between the horizontal bars shall be maintained by introduction spacer bars at 1 to 1.2m Centre to Centre.

b) In case of thick rafts & pile caps having two or multi layers of reinforcement, the vertical distance between the horizontal bars shall be maintained by introducing suitable chairs, spacers, etc.

c) In case of columns and walls, the vertical bars shall be kept in position by means of timber templates with slots accurately cut in them. The templates shall be removed after the concreting has been done it.

d) Exposed portions of reinforcement bars shall not be subjected to impact or rough handling and workman will not be permitted to climb on extending bars until the concrete has attained sufficient

strength so that no movement of the bars in the concrete is possible.

#### 20.4 Splicing/Overlapping

Only bars of full length shall be used as shown in the drawings. But where this cannot be done, overlapping of bars shall be done as directed by the Engineer-in-Charge.

Where practicable, the overlapping bars shall not touch each other, but these shall be kept apart by 25 mm or 1.25 times the maximum size of the coarse aggregate whichever is greater. But where this is not possible, the overlapping bars shall be tied with two strands of 16 SWG black soft annealed binding wire. The overlaps shall be staggered for different bars and located at points along the span where neither shear nor bending moment is maximum.

#### 20.5 Welded Joints

Welding of reinforcing bars shall not be permitted without the written permission of the Engineer-in-Charge. Where welding is permitted, it shall be in accordance with the recommendations of IS: 2751 and IS: 9417. Welded joints shall be located at suitable staggered positions. Tests shall be made to prove that the joints are of the full strength of the bars.

#### 20.6 Mechanical Connections:

The mechanical splices in reinforcement by means of couplers, clamps etc. shall be used (as per manufacturer's specifications) with the written approval of the Engineer-in-Charge. However, tests shall be made to prove that the connections are of the full strength of the bars.

20.7 Tolerances: Unless otherwise specified by the Engineer-in-Charge, reinforcement shall be placed within the following tolerances:

- (a) For effective depth 200mm or less +10 mm
- (b) For effective depth more than 200 mm +15 mm

The cover shall in no case be reduced by more than one third of specified cover or 5 mm whichever is less.

#### 20.8 Substitution

When specified diameter of reinforcement bars is not available, the Contractor shall use other diameter of reinforcement bars on written approval of the Engineer-in-Charge.

#### 20.9 Cover

Cover to reinforcement shall be as indicated on the drawings and in their absence as directed by the Engineer-in-Charge.

#### 21.0 PRECAST\_CONCRETE

21.1 Specifications contained in clauses above regarding concrete, formwork and reinforcement shall apply in addition to the clauses given as under. The Contractor shall be get the precasting bed approved by the Engineer- in-Charge prior to the start of work.

21.2 Necessary lifting hooks of 12 mm diameter M.S. rounds shall be provided for handling as indicated in drawings or as directed by the Engineers-in-Charge.

21.3 Unless otherwise specified, the exposed surface of precast members shall be finished smooth with 1:3 (1 Cement: 3 sand) cement mortar. Surface used as walkways shall be given a non-skid finish.

21.4 The precast concrete units shall be marked clearly on top surface with the letter "T" for identification of surfaces at the time of erection and shall be stored until required for erection. The precast units shall be handled and erected by methods approved by Engineer-in-Charge to protect them from damage.

21.5 The Contractor shall take all necessary precautions for safe handling during the course of erection. The Contractor shall replace at his own expense all such units which are damaged during the course of erection. Cement used for a damaged/rejected precast elements shall not be taken into account for material reconciliation.

## 22.0 PAYMENT

### 22.1 Plain and Reinforced Concrete

22.1.1 Payment for plain and reinforced cement concrete(cast in- situ) shall be made on cubic meter [M3] basis of the volume of the actual finished work done or as per approved construction drawings, whichever is less and shall be inclusive of providing pockets, openings, recesses of all sizes, chamfers, fillets construction joints, cement wash, curing etc. The rates shall be deemed to include complete cost of taking and testing concrete cubes and carrying out other tests as per specifications and as directed by Engineer-in-Charge.

22.1.2 The rate shall however be exclusive of reinforcement metal inserts, pipe sleeves, formwork and bars. Where the strength of concrete mix (nominal or design) as indicated by tests, lies in between the strengths of any two grades given in clause 2.0 and it is accepted by the Owner/Engineer-in-Charge, such concrete shall be classified as a grade belonging to the lower of the two grades between which it lies. In case the cube strength shows higher results than those specified for the particular grade of the concrete, it shall not be placed in the higher grade nor shall the Contractor be entitled for any extra payment on such account. The concrete giving lower strength than specified may be accepted at reduced rates after satisfying the safety of the structure by checking it with devices such as impact hammer, load test etc. or rejected entirely at the discretion of the Engineer-in-Charge. The rejected concrete shall be dismantled at no extra cost to the owner and no payment shall be made for the concrete so rejected and the formwork and reinforcement used for the same. In case the concrete of lower strength can be improved by carrying out some strengthening measures entirely at the discretion of the Engineer-in-Charge, then the said measures shall be carried out by Contractor at his own cost. If the Contractor is able to make up the strength to the required grade by such improvement measures, payment shall be made for the grade achieved.

However, if the strength of concrete is not made up to the strength of required grade, then no payment whatsoever shall be made for any improvement measures undertaken by the Contractor and payment shall be made only for the lower strength if accepted by the Engineer-in-Charge.

22.1.3 Deductions for openings, pockets etc. shall be as specified in relevant Indian Standard Codes.

## 22.2 Form Work

Unless otherwise specified, payment for form work shall be on square meter [M3] basis of the actual area in contact with the concrete cast. The rates shall be inclusive of keeping the formwork for the full period as specified in the above clauses and removing the same after the period is over. No extra payment shall be made for providing scaffolding/staging.

Superior quality form work for exposed/architectural concrete work shall be measured and paid separately under the relevant item in the schedule of rates.

## 22.3 Reinforcement

22.3.1 Payment for plain round mild steel reinforcement bars and high yield deformed bars shall be on the basis of weight in metric tons. The weight shall be derived from the sizes and corresponding unit weights given in handbook of Bureau of Indian Standards. Standards hook lengths, chairs, spacer bars and authorized laps only shall be included in the weight calculated. Binding wire shall not be weighed nor otherwise measured. Measurements for weight shall not include cutting allowance, etc.

22.3.2 Rate quoted for reinforcement should include cost of supplying decoying, straightening, cleaning, cutting, bending, placing, binding, welding if required and Providing necessary cover blocks of concrete.

22.3.3 Payment for mechanical threaded couplers shall be made on number basis (each).The rate shall include supply of complete assembly, fixing, testing etc.

## 22.4 Damp proof Course(D.P.C)

22.4.1 Payment shall be made on square meter basis of the area laid inclusive of form work, curing, providing and applying bitumen, supplying and spreading sand over bitumen etc.

**Abbreviations / Definitions:**

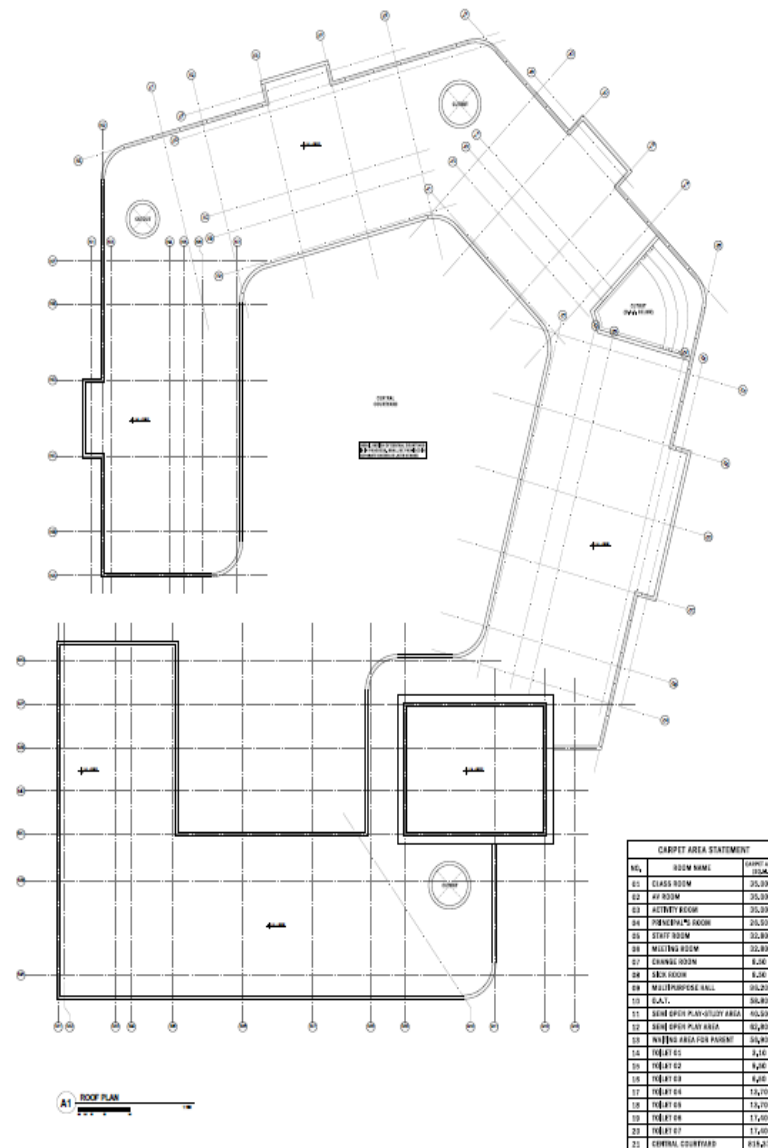
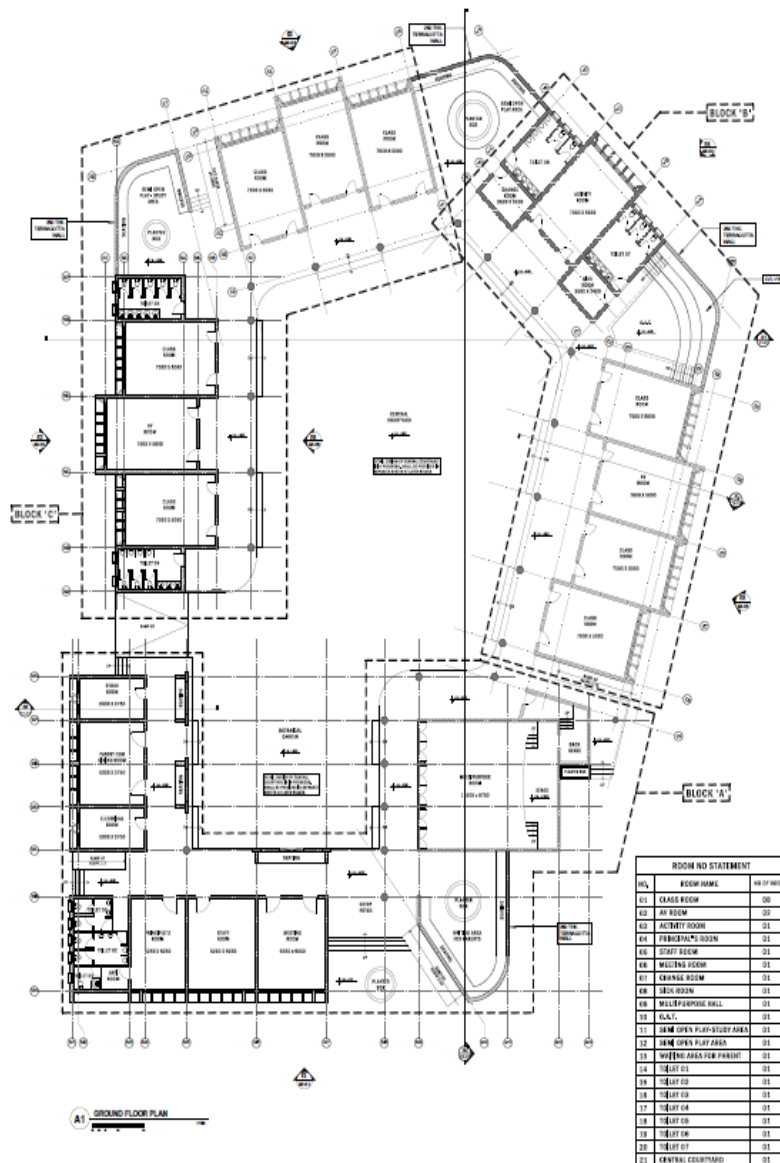
- a) BRBNMPL: Bharatiya Reserve Bank Note Mudran Private Limited
- b) BOQ: Bill of Quantities
- c) CPWD: Central Public Works Department
- d) WBPWD: Public Work Department, Government of West Bengal
- e) Dia: Diameter
- f) DPR: Daily Progress Report
- g) DRG: Drawings
- h) FL: Floor Level
- i) GL: Ground Level
- j) IS: Indian Standard
- k) ISI: Indian Standard Institute
- l) KG: Kilogram
- m) M: Meter
- n) MB: Measurement Book
- o) e-MB: Electronic Measurement Book (MS Project or Excel in a format Approved by EIC)
- p) PCC: Plain Cement Concrete
- q) RCC: Reinforced Cement Concrete
- r) WO: Work Order
- s) Local Office: BRBNMPL Salboni
- t) Engineer-in-charge: Official of BRBNMPL Salboni duly authorized by The General Manager for Execution of Project (Construction of Nursery School Building).
- u) Architect/s: Person/s or Firm/s entrusted for the work of "Comprehensive Architectural & Engineering Consultancy Services for Construction of School Building for Blossom Nursery School at BRBNMPL, Salboni"
- v) Resident Engineer: Architects' Representative deputed at Site of Work for Executing Responsibilities assigned to Architects' Firm
- w) Site Engineer: Contractor's Representative for Supervision of Work
- x) Contractor/Supplier: The Successful Bidder of this Tender.

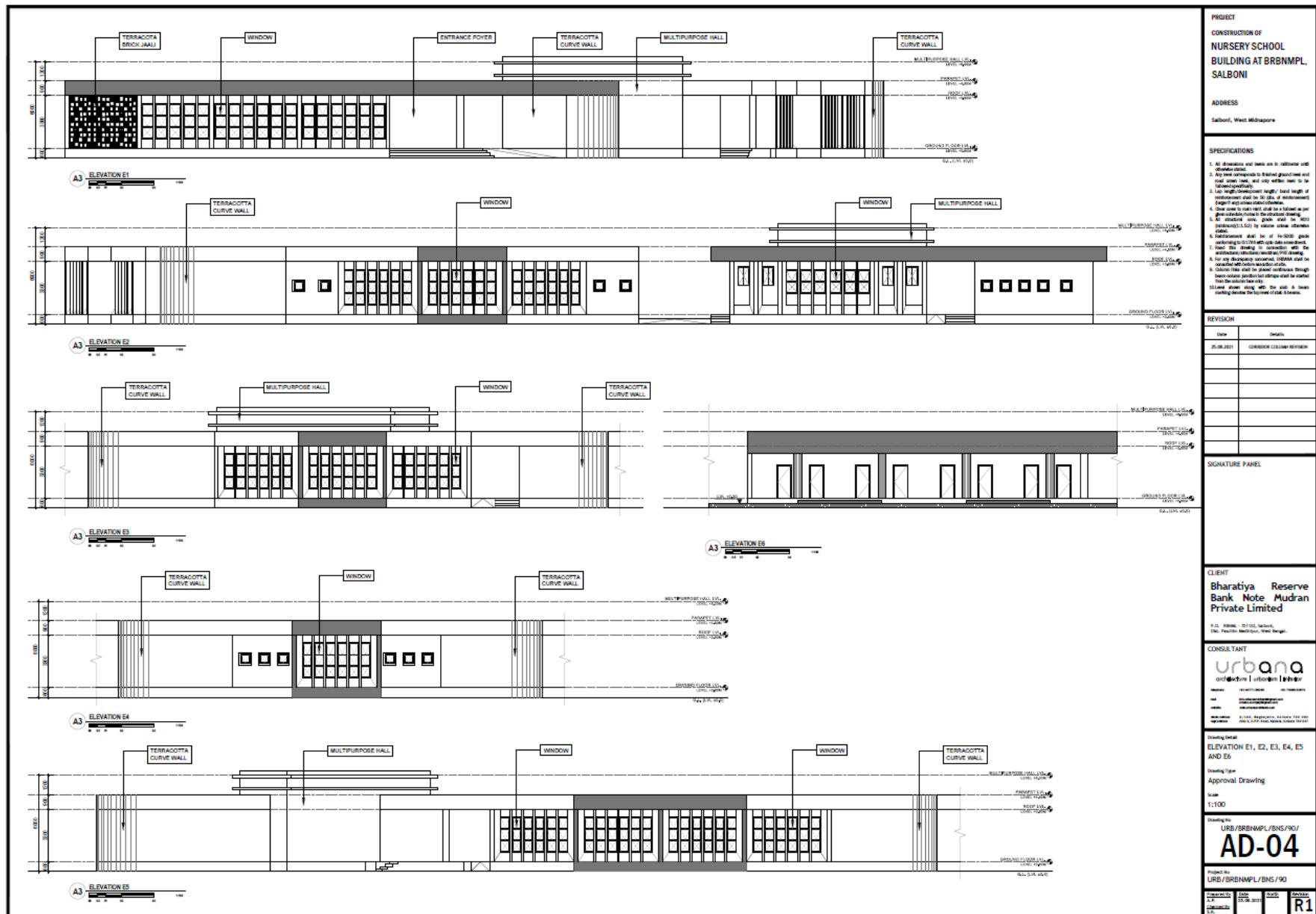
**Drawings:** Bidders may go through the four (04) drawings as detailed below before quoting.

- a) Civil Drawings (03 Nos.)
- b) Electrical Drawing (01 No.)

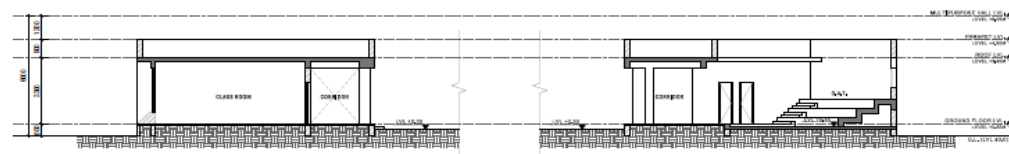
DRAWING DETAIL	DRAWING NUMBER
GROUND FLOOR PLAN & ROOF PLAN	URB/BRBNMPL/BNS/90/AD-01
ELEVATION E1, E2, E3, E4, E5 AND E6	URB/BRBNMPL/BNS/90/AD-04
SECTION S1, S2, S3 AND S4	URB/BRBNMPL/BNS/90/AD-05
Electrical Layout	URB/BRBNMPL/BNS/90/AD-21

***"The drawings uploaded are for 'Tender Purposes Only'. However, the Good For Construction (GFC) drawings shall be issued to the successful bidder before the start of work."***

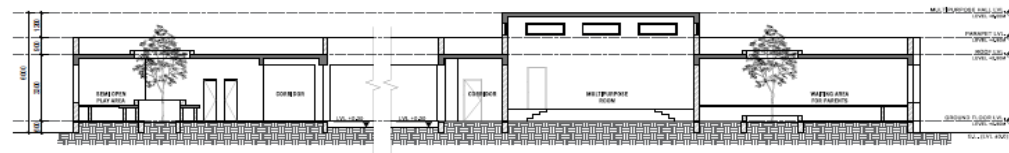
[illegible]



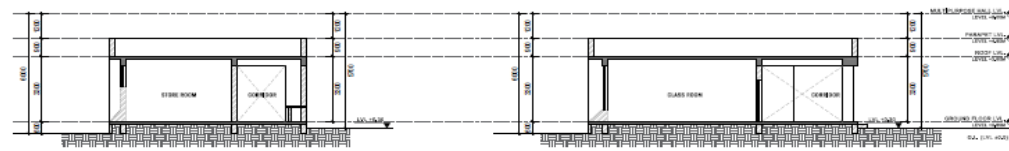




SECTION X1-X1 (B1)



SECTION X2-X2 (B2)



SECTION Y1-Y1 (B3)

SECTION Y2-Y2 (B4)

**PROJECT**  
CONSTRUCTION OF  
NURSERY SCHOOL  
BUILDING AT BRBNMPL,  
SALBONI

**ADDRESS**  
Salboni, West Medinipur

**SPECIFICATIONS**

1. All dimensions and levels are in millimeter and absolute datum.
2. All work shall comply to Indian Standard Code and local laws, and only when not in the Indian Standard Code.
3. All height dimensions shall be from top of foundation and be 100% of dimensions.
4. All work to be done shall be in accordance with the specifications given in the contract documents.
5. All structural work shall be 100% in accordance with the specifications given in the contract documents.
6. Reinforcement shall be of Fe 500 grade and shall be 100% in accordance with the specifications given in the contract documents.
7. All work shall be done in accordance with the specifications given in the contract documents.
8. For any discrepancy concerned, the contractor shall be responsible and liable for the same.
9. All work shall be done in accordance with the specifications given in the contract documents.
10. All work shall be done in accordance with the specifications given in the contract documents.
11. All work shall be done in accordance with the specifications given in the contract documents.
12. All work shall be done in accordance with the specifications given in the contract documents.
13. All work shall be done in accordance with the specifications given in the contract documents.
14. All work shall be done in accordance with the specifications given in the contract documents.
15. All work shall be done in accordance with the specifications given in the contract documents.
16. All work shall be done in accordance with the specifications given in the contract documents.
17. All work shall be done in accordance with the specifications given in the contract documents.
18. All work shall be done in accordance with the specifications given in the contract documents.
19. All work shall be done in accordance with the specifications given in the contract documents.
20. All work shall be done in accordance with the specifications given in the contract documents.

**REVISION**

DATE	REVISION
25.08.2021	CORRECTION OF DRAWING

**SIGNATURE PANEL****CLIENT**

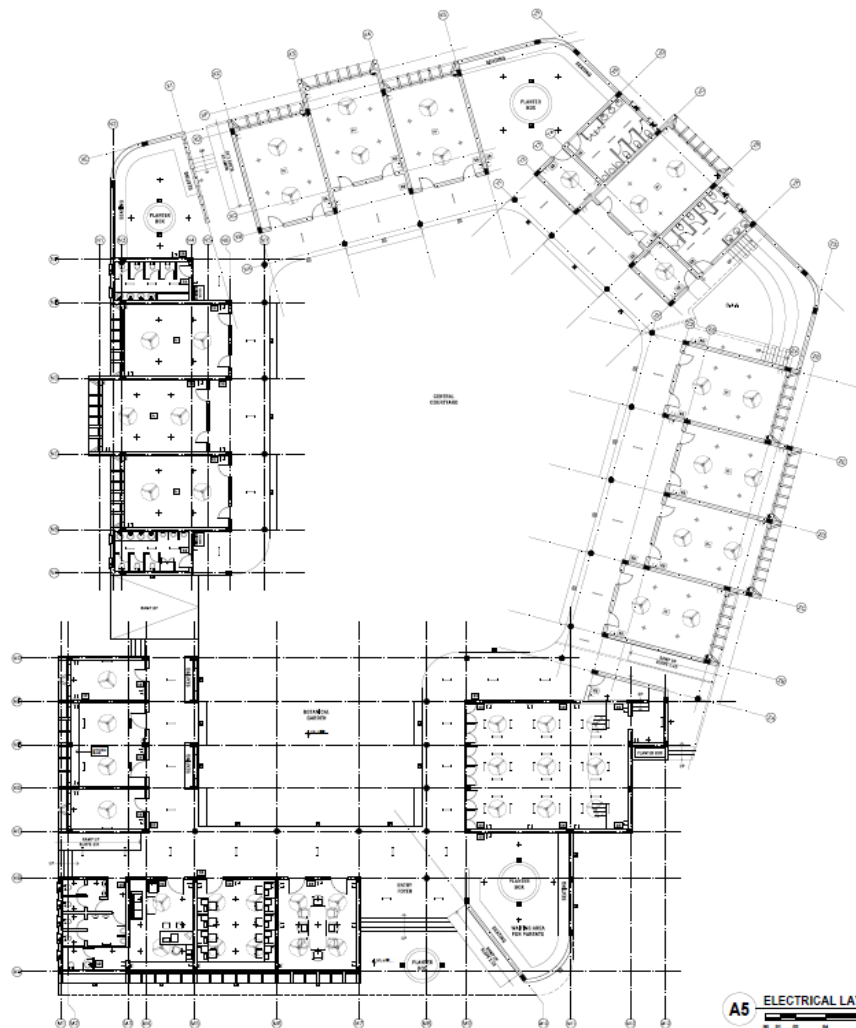
Bharatiya Reserve  
Bank Note Mudran  
Private Limited

P.O. BOX - 10101, New Delhi,  
Dist. New Delhi, India, New Delhi.

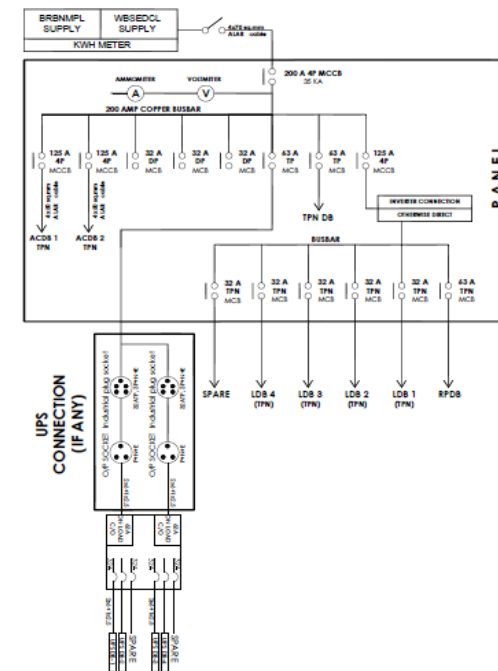
**CONSULTANT**

**urbana**  
architects & interior designers













Address: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997



## A5 ELECTRICAL LAYOUT



**A5** SINGLE LINE DIAGRAM OF DISTRIBUTION

ELECTRICAL FITTINGS INDEX	
	SWITCH BOARD AT 5' FROM FTL
	CEILING LIGHT (1.5 W)
	20 W FTL LIGHT
	CEILING FAN
	EXHAUST FAN
	WALL BRACKET LIGHT 2'00 MM FROM PP
	SPOT LIGHT
	PROJECTOR SOCKET
	5 AMP SWITCHED SOCKET
	15 AMP SWITCHED SOCKET
	POWER SOCKET AC, GEYSER, REFRIGERATOR
	ELECTRIC PANEL

PROJECT  
CONSTRUCTION OF  
NURSERY SCHOOL  
BUILDING AT BRBNMPL,  
SALBONI

Salboni, West Midnapore

## SPECIFICATIONS

- All dimensions and levels are to coincide with other dimensions.
- Any steel reinforcement to be placed around base and round steel base, and any other steel work to be fabricated accordingly.
- Any length dimension length, height or length of dimension shall be 50 (five) ft. minimum except if noted otherwise.
- Clear zone to exist north, shall be a minimum as per given station notes in the stationing drawing.
- All station notes, grade shall be M-20 pavement (1.5-2.0) by select natural aggregate class 2.
- Foundation shall be of 16-10000 grade corresponding to 151750 with up to date amendment.
- Read this drawing in accordance with the mathematical/technical specification drawing.
- All dimensions and elevations shall be in accordance with before mentioned data.
- Column labels shall be placed vertically through down-sloping junction but always shall be drawn from the column face only.
- Stairs shall extend along with the slab to base.

## REVISION

[illegible]

**SIGNATURE PANEL**

1

CLIENT  
Bharatiya Reserve  
Bank Note Mudran  
Private Limited

P.O. BOX 96 - 721122, Salted,  
DNL Paschim Medangpur, West Bengal.

CONSULTANT

urbana

architecture | urbanism | interior


Electrical Layout

Drawing Type  
Approval Drawing

Scale  
1:200Drawing No  
URB/BRNMPL/BNS/90/

AD-21

Project No.  
URB/BRBNMPL/BNS/90

Prepared By A. P.	Date 27.09.2021	Month 	Page 1
----------------------	--------------------	--	-----------

**GENERAL**

- a. The materials and workmanship shall satisfy the relevant Indian Standard, WBPWD/CPWD specification, most specifications and the Specifications contained herein and codes referred to. Where the Specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall be approved by the Engineer – in – charge. In case of any ambiguity, sound engineering practices shall prevail and the decision of engineer in charge in such matters shall be final.
- b. The detailed specifications given hereinafter are for the items of works described in the schedule of quantities attached herein, and shall be guidance for proper execution of work to the required standards. It may also be noted that the specifications are of generalized nature and these shall be read in conjunction with the description of item in schedule of quantities.
- c. **The schedule of items & quantities to be executed is an indicative one. Any /all item(s) may/ may not be operated. Actual quantity may vary from the enclosed B.O.Q, Contractor shall not have any claim for the same.**
- d. Unless specifically otherwise mentioned, all the applicable codes and standards published by the Indian Standard Institution and all other standards which may be published by them before the date of receipt of tenders, shall govern in all respects of design, workmanship, quality and properties of materials and methods of testing, methods of measurements etc.
- e. Wherever any reference to any Indian Standard Specifications occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revision thereof, if any, **up to the date of receipt of tenders.**
- f. The Contractor shall take instructions from the Architect and Engineer-in-charge regarding collection and stacking of materials in any place. Unserviceable materials shall be stacked such that it does not hamper the day-to-day movement of people/office staff/ visitors etc.
- g. The Contractor in all respects shall organize his work, systems, environment, process control documentation, tools, plant, inspection, measuring and testing equipment's etc. as per instructions of Architect and Engineer-in-charge.
- h. The Contractor shall also comply with applicable legislation and regulations with regards to Health, safety and environmental aspects for minimizing risk arising from occupational health, safety hazards, controlling pollution and wastage.
- i. BRBNMPL shall depute their representative for checking and supervision of important stages of work. The Contractor shall be required to provide all facilities for inspection of works at no extra cost to BRBNMPL. Any defect in quality of work or deviations from specifications pointed out during such inspection shall be made good by the Contractor in the same way as if pointed out by the Engineer, without any cost implication to BRBNMPL.
- j. All works shall be taken over by BRBNMPL in part or in full when it has been completed in all respects and /or can be put to use satisfactorily. The complete work under the contract shall be taken over only after completion of all pending work, rework wherever required, site clearing and reconciliation of materials.

- k. The guarantee period shall start only after the complete work under the contract has been taken over by BRBNMPL.
- l. Suitable action as deemed fit shall be taken by BRBNMPL for non-adherence to the issued schedule / requirement.
- m. The rate quoted for the items in the schedule/ BOQ shall include scaffolding works at all height.
- n. The Contractor has to arrange for deputation of suitable quality inspector from manufacturer (as advised by EIC) as and when required to ensure execution quality with respect to Manufacturer's specification (*If required*)
- o. Supplied material, if found unsatisfactory by Architect / EIC / Site Engineer, will be liable for rejection and CONTRACTOR has to replace the same immediately with new material up to satisfaction of Architect / EIC/ Site Engineer without any extra cost.
- p. The bidders to note that the execution jobs shall be given as and when required by BRBNMPL. However, upon intimation by the EIC, Contractor has to mobilize at site promptly to take up the jobs. Idling charges, on any account under the provision of contract, is not admissible.
- q. The Contractor has to maintain Daily Progress Register for the job.
- r. BRBNMPL reserves the right to interpolate or extrapolate the rate for any new item of work, not covered in Schedule of Rates, from the similar items already available in schedule of rates.
- s. In case of any class or work for which there is no specification supplied by BRBNMPL, such work shall be carried out in accordance with Indian Standard specifications and if the Indian Standard specifications do not cover the same, the work shall be carried out as per Standard Engineering practice subject to written approval of the EIC through Architect.
- t. Unless otherwise expressly stipulated in the specifications, all mode of measurement shall be as laid down in IS Codes.
- u. Wherever any dispute regarding mode of measurement arises between *Site Engineer and / or Architect*, the decision of the EIC in writing will be final and binding on Contractor.
- v. Unless otherwise mentioned specifically in the description of item itself, the rate for any item of work will apply for any position and up to any height.
- w. Unless otherwise mentioned elsewhere in the tender document, all scaffolding required for carrying out the works shall be provided by the Contractor within the quoted rates.
- x. All the precautions such as covering windows by plywood/tin sheets & tying stitched Hessian / fishing net to external face of the scaffolding shall be taken. The debris shall be taken down & stacked or carted away as directed. Necessary barricades shall be provided to obstruct entry of public to avoid accidents.
- y. **Predatory pricing:** The bidder shall specifically take note that "Predatory Pricing" will not be accepted and such Bids not meeting even the Basic Cost of the work i.e., quoting unreasonably low prices to undercut and obtain the Contract are liable to be ignored / rejected, in order to obtain Quality, Products/Services. If the bid of the successful bidder is seriously unbalanced in relation to the company's estimate of the cost of the work to be performed under the contract, the employer may require the bidder to produce detailed price analysis for any or all items of the bill of quantities, to demonstrate the internal

consistency of those prices with the methods and scheduled prices. The assessment of the BRBNMPL about the Predatory Pricing will be final.

**SITE ENGINEER QUALIFICATIONS AND EXPERIENCE CRITERIA:**

"B.E. or B.Tech. in Civil Engineering with Minimum 5+ years of Post Qualification Experience of Civil Works or 3 (Three) Years' Diploma in Civil Engineering with 10+ years' Post Qualification Experience of Civil Works must be deputed for supervision for works. The testimonials and experience certificate of the site engineer/ supervisor shall be submitted before starting the work.

**Materials:**

- a. Materials shall comply with respective IS Specification and shall be got approved from EIC before using at site. Contractor will have to make necessary arrangement for testing of materials at his own cost, if required.
- b. BRBNMPL shall reserve the right to reject any materials if it is found not in conformity with specification and terms and conditions of the order in all respect. The materials should be as per specification.

**Section VIII: Quality Control Requirements/Declaration by the tenderer**

*[Contractor/Bidders shall fill the following format and submit along with bid]*

**COMPLIANCE STATEMENT FOR "CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI"**

Schedule No.	Goods/Service/Work Description	Quantity with Unit	Schedule / Items quoted for (Bidders to write <b>YES or NO</b> in the applicable box)
<b>I</b>	<b>CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI</b> <b>Non-Splittable (Cannot be Split)</b> As per Section VI: List of Requirements, Section VII: Technical Specifications, Section VIII: Quality Control Requirements/Declaration by Tenderer and Section XI: Price schedule.	As per BOQ at Section XI: Price Schedule	

Sl. No.	Parameters	Required specifications, Terms & conditions	Offered (Yes/No)	Deviation, If any.
1.	<b>Specification</b>	It is confirmed that I/We shall carry out the works as per Technical Specification, Scope of Work and Tender Conditions.	YES	
2.	<b>Price Bid to be submitted against the Tender</b>	Price BID has been submitted as per given format (Section XI: Price Schedule Bid) in separate sealed envelope exactly as per the prescribed format with no conditions/counter conditions and no information on price should be mentioned in Techno-commercial bid.	YES	
3.	<b>Variation in Specifications</b>	I /we, also confirm that No material without conforming to the Specifications in the Contract will be used for the Works without prior written approval and instruction of the Architect/Engineer-in-charge. We understand that if our specifications do not meet your requirements, our offer will not be considered in deciding L1 (Lowest Bidder).	YES	

4.	<b>Requirement of Quantity</b>	We understood that the requirement of quantity mentioned in the tender is only indicative and BRBNMPL reserves the right to increase or decrease the quantity depending upon their actual requirement.	Accepted	
5.	<b>Seal/Signature</b>	All pages of the Tender Documents are sealed/signed & submitted.	YES	
6	<b>Delivery Schedule</b>	The works shall have to be completed as per bill of quantities and scope of work within 12 months from the date of issue of LoI / NoA / Work Order / Contract whichever is issued earlier.	Accepted	
7.	<b>Special Conditions of Contract</b>	As per section – V	Yes	
8.	<b>Inspection of the Material</b>	As per Tender terms & conditions.	Yes agreed	
9.	<b>Rejection of materials</b>	As per Tender terms & conditions.	Accepted	
10.	<b>Bid Security / EMD</b>	<b>Annexure-D: Bid Security Declaration has been submitted on letterhead.</b>	YES	
11.	<b>Payment terms</b>	Payment terms as per the tender terms and conditions is accepted.	Accepted	
12.	<b>Performance Security</b>	As per Tender terms & conditions.	YES	
13.	<b>Liquidated Damages</b>	Refer Clause 24 of GCC of Section IV	Yes, Accepted	
14.	<b>GST</b>	Acceptance of GST Clause of Section III of Special Instructions to Tenderers (SIT) of as referred against GIT Clause 12.8.	Yes, Accepted	
15.	<b>Counter conditions</b>	We have gone through entire tender document thoroughly including GIT (Section II – General Instructions to Tenderer), GCC (Section IV – GENERAL CONDITIONS OF CONTRACT), SIT & SCC <u>and confirm that we don't have counter conditions.</u> We also understand that offer with counter conditions is liable for rejection.	YES	
16.	<b>No. of pages</b>	Total number of pages in Techno-commercial Bid (Part-1)		

**OFFERED MAKE/MODEL/BRAND****A. CIVIL WORK**

<b>Sl. No.</b>	<b>Materials</b>	<b>Preferred Manufacturers</b>	<b>Offered / Quoted Make/ Model/ Manufacturer</b>
1.	Grey Cement (43 or 53 Grade) White Cement Putty	A.C.C, Ultra Tech, Ambuja, Shree Cement or equivalent  Birla White, J.K. Birla White Putty or equivalent	
2.	Steel (Thermo Mechanically Treated Steel) High strength deformed bars or mild steel reinforcement	TATA, SAIL, RINL or equivalent	
3	Clay Bricks	Good quality locally available material approved by Engineer / Architect	
4	Pressed Steel frames for Doors Pressed Steel frames for Aluminium- Windows, Ventilators.	Fabricated P.S. frames approved by Engineer/Architect. Indal / Jindal / 25 microns approved by Engineer / Architect.	
5	Flush Door Shutters	Century/ Archid / Green / Kajaria / Satabdi or equivalent	
6	Particle Boards/Block Boards (Storage Shutters and Kitchen Cabinets on with Laminates )	Century/ Archid / Green / Kajaria / Satabdi or equivalent	
7	Glass (Plain / Pin Headed) and Glass Tinted	Modi Float / Triveni / Hindustan Pallington / Asahi / Saint Gobain or equivalent	
8	Aluminum Hardware/fittings	Argent / Classic / Shalimar or equivalent	



9	Brass Mortice Locks & Latches	Godrej / Ultra / Ebco or equivalent	
10	Latches with Internal locks	Godrej / Ultra / Ebco or equivalent	
11	Floor Type Hydraulic door closer (Floor spring)	Everite / Hypper / Hemco or equivalent	
12	Aluminum door, window and ventilator sections.	Jindal / Indal / Hindalco or equivalent	
13	Water proofing material / compound.	CICO – I / Roff, Sika, Dr. Fixit, Pedilite or equivalent	
14	Glazed Tiles	Johnson / Cera / Nitco / Regency / RAK/ Kajaria or equivalent	
15	Ceramic Tiles (Non-Skid)	Johnson / Cera / Nitco / Regency / RAK/ Kajaria or equivalent	
16	Cement Concrete (Chequered) Tiles	Nitco / Bharat / Johnson & Johnson or equivalent	
17	Vitrified Tiles	Johnson / Cera / Nitco / Regency / RAK/ Kajaria or equivalent	
18	Glass Mosaic Tiles	Italia / Nitco / Regency or equivalent	
19	Synthetic Enamel Paint	Dulux / Asian / Nerolac / Berger or equivalent	
20	Oil Bound Distemper	Dulux / Asian / Nerolac / Berger or equivalent	
21	Plastic Paint	Dulux / Asian / Nerolac / Berger or equivalent	
22	Paneled Doors	National / Century / Swastik / Kitply or equivalent	
23	P.V.C. Doors	Sintex / Mihir / Fixopan or equivalent	

24	Rolling Shutter & Grills	Good quality locally available material As approved by Architect / Engineer	
25	Hardeners	Good quality locally available material As approved by Architect / Engineer	
26	Red Oxide	Asian / Berger / Dulux or equivalent.	
27	Waterproof cement paint / acrylic paint	Snocem India, Nerolac, Nitcocem or equivalent.	
28	Glazing	Hindustan Pilkington, Tiveni, Modi or equivalent	
29	Water seal (Epoxy-sterarate) compound.	Good quality locally available material As approved by Architect / Engineer	
30	Medium density fiber-board in lieu of partitions paneled doors and flush doors.	Nuwood, mangalam, Amulya or equivalent	
31	Screws	GKM, mettler fold, Ebco or equivalent	
32	Brass Hinges	Reliance / Punit heavy duty / GKM or equivalent	
33	ironmongeries and brass fittings	Jiranna / CIEF/ Shalimar / Everite.	
34	Drawer sliding fitting	Earl bhihari, Ebco, Godrej or equivalent	
35	Hardware	Shalimar, Everite, Reliance Brass powder coated	
36	Drawer Shutter Lock	Vijayan/Godrej, Ebco (3 set of keys or equivalent)	

37	Ball Catch	Magnetic (M-2) / Brass / Caterpillar or equivalent	
38	Veneer	Achor / Kitply / Uro / Durian / Century or equivalent	
39	Adhesive	Fevicol (SH) , Araldite of Hindustan Ciba Geigy Ltd. , Dendrite	
40	Polish	French/Zinc Oxide / Melamine (Asian) or equivalent	
41	Wood Preservative	Asian paint / British paint / PKU Vernish or equivalent	
42	Sun control film	Garware, China, Vista or equivalent	
43	Polyurethane foam	Good quality locally available material As approved by Architect / Engineer	
44	UPVC Windows	Kommerling, Fenesta, Felton or equivalent	

**B. PLUMBING WORK**

<b>Sl. No.</b>	<b>Materials</b>	<b>Preferred Manufacturers</b>	<b>Offered / Quoted Make/ Model/ Manufacturer</b>
1	Vitreous china sanitary ware (ISI mark)	Hindware / Parryware / Cera / Somany / Kajaria or equivalent	
2	Seats & Covers solid (W.C.)	Hindware / Parryware / Cera / Somany / Kajaria or equivalent	
3	PVC Low level flushing cisterns	Hindware / Parryware / Cera / Somany / Kajaria or equivalent	
4	C P Fittings / Toilet Accessories ISI Marked	Jaquar / Aquel / ESS ESS / Marc / Somany or equivalent	
5	UPVC Pipes ( S/W/R Pipes)	Ashirbad / Supreme / Finolex / Prince/ Astral or equivalent	
6	Centrifugal cast CI Pipes & Fittings	TATA / RIF / Neco or equivalent	
7	G.I. Pipes ( B-Class)	ITC / Tata / Zenith or equivalent.	
8	G.I. Fittings (ISI Brand)	Unik / AMCO / Tata or equivalent.	
9	Gunmetal valves (Full way, check and globe valves)	Leader / Zoloto (with ISI mark) / Sant or equivalent.	
10	S.W. Pipes / Fittings & Gully traps	Perfect / Tirmurti / Bharat or equivalent.	
11	Ball valves	Voltec / Zoloto or equivalent.	
12	Stainless steel sinks	Kajaria / Jhonson / Nirali / Neelkanth or equivalent.	
13	HDPE Tanks	Sintex / Polycon / Unitank /Patton or equivalent.	
14	Mirrors	Modiguard / Saingobain / Unimirror or	

		equivalent.	
15	C.I. Manhole Cover	RIF / BIC / Neco or equivalent.	
16	Concrete Man holes SFRC	CICO / Everest / SIP or equivalent.	
17	Hydropneumatic Systems	Grund Fos / Crompton / KSB or equivalent.	
18	Water lifting Pump	Grund Fos / Crompton / KSB or equivalent.	
19	Submersible Pump	Grund Fos / Crompton / KSB or equivalent.	
20	Chemical Doser	Asia Lmi / Prominent / Ion Exchange or equivalent.	
21	Pressure Gauge	H. Guru or equivalent.	
22	Level Indicator	Dasmesh / Capstain / Kaycee or equivalent.	
23	Air Relief Valves	RB / Zolto / Kirloskar or equivalent.	
24	Water Meter	Dasmesh / Capstain / Kaycee or equivalent.	
25	PVC Encapsulated footrest.	KGM / Unik / AMCO or equivalent approved make	
26	C.I. Sluice valves	Kirloskar, Leader or equivalent with ISI mark on the.	
27	A.C. Pipes	Everest / Ramco / Badani or equivalent	
28	R.C.C. Pipes	Indian Hume pipe or equivalent	
29	Brass & Gun metal globe, gate valves, foot valves	Leader NETA or equivalent with ISI marking on the body.	
30	Sanitary Fixture	Hindware / Parryware / Cera / Somany / Kajaria or equivalent	

31	Storage Heaters	Recold, Spherehot, dofoldo or equivalent.	
32	Fire Hydrant	Approved by local fire Bridges Authority	
33	Sand cast soil pipes and fittings	NECO sand cast / B.I.C. or equivalent.	
34	Bracket supports	Hi-tech/MS brackets as per drawings	
35	Towel rail / ring	Jaquar / ESS ESS / Cera or equivalent.	
36	Connection pipe-PVC	Kohinoor/Viking/Tata or equivalent.	
37	Butterfly valve	Good quality locally available material As approved by Architect / Engineer	
38	PVC Fittings (Moulded)	Clarion / Finolex / Prince or equivalent.	
39	Non-return valve	Good quality locally available material As approved by Architect / Engineer	
40	Marble Mosaic Tiles	Nitco / Bharat / Himalayan or equivalent	
41	Fire Door	RDG / Shakti / Metdor or equivalent	
42	RCC pipe	Indian Hume Pipe Co. / Spun Pipe Co. or equivalent	
43	Stoneware Pipe and fittings	Trimurti / Perfect Potters / Bharat	

**C. ELECTRICAL WORK**

<b>Sl. No.</b>	<b>Materials</b>	<b>Preferred Manufacturers</b>	<b>Offered / Quoted Make/ Model/ Manufacturer</b>
1	11 KV CIRCUIT BREAKER PANEL	ABB / SEIMENS / AREVA	
2	11 KV / 0.4 KV TRANSFORMERS	CROMPTON / KIRLOSKER / AREVA / SEIMENS	
3	BATTERY CHARGING PANEL	KELTRON / NELCO / EXIDE	
4	BATTERIES	EXIDE / AMCO / STANDARD / PANASONIC	
5	11 KV Isolator and D O Fuses	AMEI / ELLPRO / STERLING	
6	Capacitor	L & T / DUCATI / EPCOS	
7	APFC relay	L & T KHATAU / DUCATI / SYNTRON	
8	M.C.B. / RCCB / RCBO	LEXIC / HAGER / ABB / MDS	
9	Distribution Boards	LEXIC / HAGER / ABB / MDS	
10	Switch Fuse Units With HRC fuses	GE / L&T / ABB	
11	Moulded Case Circuit Breaker (MCCB)	ABB (T max) / L & T (D sine) / SIEMENS	
12	Air Circuit Breakers	ABB (EMEX/L&T(C POWER) / SIEMENS	
13	Current Transformer / Meters / Voltage Transformers / Relays / Starters / Contactors / Selector Switch / Indicating Lamps	L & T / SIEMENS / AUTOMATIC ELECTRIC / CONTROL & SWITCH GEARS / ABB	
14	Change Over Switches	GE / L&T / HH ELCON /	

		HAVELLS	
15	Cable Glands and Sockets	SIEMENS / JAINSON / COMET	
16	PVC insulated Copper conductor wires	FINOLEX / RR / POLYCAB	
17	Telephone Wires and cables	FINOLEX / (RPG/BIRLA ERICSSON POLYCAB	
18	Television Coaxial cable	FINOLEX / RR /RPG / L&T	
19	PVC / XLPE Insulated 11 KV / 1.1 KV Cables	UNIVERSAL /FORT CLOSTER / NICCO / FINOLEX/POLYCAB	
20	Switches and Sockets outlets (Conventional piano type)	ANCHOR/ HAGER / ABB	
21	Switches and Sockets outlets (Modular type)	LK Fuga / MK / MDS-MOSAIC	
22	Industrial outlet	LEXIC / HAGER / ABB	
23	MIS Conduits and Accessories	B.E.C./AKG/MK	
24	PVC Conduits and accessories	AKG/BEC/CAP/SEIKO / PRECISION	
25	Fluorescent Tube Fitting	PHILIPS / HAVELLS / WIPRO	
26	LED Light Fitting	PHILIPS / HAVELLS / WIPRO	
27	Hpmv/hpsv/ halogen Lamp	PHILIPS / WIPRO / BAJAJ / CROPTON GREAVES	
28	Ceiling Fans / Exhaust Fans	CROMPTON / BAJAJ / USHA / KHAITAN	
29	Floor / Wall Raceways to date	MK/ LK/ MDS	
30	Computer networking - outlet	AMP/SYSTEMAX / LUCENT	
31	Electronic Energy Meters	SECURE / L&T / ENERCON	
32	UPS	EMERSON /	



		POWERWARE / TATA LIBERT / DB ELECTRONICS	
33	Ceiling Rose holders	ANCHOR/ HAGER / ABB	
34	Buzzers/Bell Push bell	ANCHOR/ HAGER / ABB	
35	MCB Distribution Board	MDS/LEGRAND/SIEMENS /HAGER	
36	HRC Switch Fuse nits	SIEMENS ABB/GE/L&T	
37	Cable Glands/Lugs	SIEMENS/DOWELLS/ABB	
38	Electronic Regulator	MK/ANCHOR/ROMA/LEG RAND/MDS	
39	Contractors	SIEMENS/L&T/ABB/SCHN IEDER	
40	Geysers/water/heater	SPHERE HOT /RACOLD/USHA	

**MANDATORY DETAILS:**

Sl. No.	Particulars	To be furnished [please attach the copies]
1.	GST No.	
2.	PAN No.	
3.	HSN Code	
4.	PF Registration No.	
5.	ESIC Registration No.	
6.	Professional Tax Registration No.	
7.	MSME Registration, if any	Valid till:
8.	NSIC Registration, if any	Valid till:

**Note: Techno-commercial bid without Copies of documents in support of eligibility criteria etc. as mentioned in tender, Annexure-D: Bid Security Declaration, Cost of tender form, Compliance Statement / Declaration by Tenderer & Copy of complete set of tender documents duly signed with seal affixed, is liable to be rejected**

( )

Name

Seal

Signature with date

*(To be filled, signed & stamped and submitted along with Techno-commercial Bid Part-I)*

## **SECTION IX: QUALIFICATION/ ELIGIBILITY CRITERIA**

### **I. Experience, Duration of Past Experience and Manufacturer's Authorization:**

The Contractor should have Minimum seven (07) years' experience of having successfully completed works of Similar Nature. Proof of the same has to be submitted.

**Similar work means "Construction of School building, office buildings, institutional buildings, Civil building construction works & allied civil works etc."**

Copy of Credentials in the form of Work Order/s for compliance as proof of having successfully completed similar works along with the work orders should be performance Certificate / Completion Certificate indicating a) Name of Work, b) Name of Client, c) Value of work, d) Scheduled date of completion, e) Actual Value of works on completion f) Actual date of completion g) Any other information. This should be of last 7 years ending last day of the month previous to the one in which tenders are invited as per either of the following:

Three similarly completed works each costing not less than the amount of value of 40% of estimated value **(i.e., Rs.154.83 Lakh)** in the last 7 years up to 30/11/2021.

**OR**

Two similarly completed works each costing not less than the amount of value of 50% of estimated value **(i.e., Rs.193.54 Lakh)** in the last 7 years up to 30/11/2021.

**OR**

One similarly completed works each costing not less than the amount of value of 80% of estimated value **(i.e., Rs.309.66 Lakh)** in the last 7 years up to 30/11/2021.

The completion certificates of works shall be issued by Executive Engineer or equivalent in case of CPWD / PWD or Asst. General Manager or equivalent level in case of Government Department / PSU or any commercial Bank. Any deviation in the certificates may not be accepted.

**Relaxation for MSE's/Start-up for the above will be given as per Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 along with amendments, if any, notified by Govt. of India.**

### **II. Financial Standings:**

#### **a) Average Annual Turnover:**

- i.** Proof of Average annual financial turnover of firm during the last 3 years ending 31/03/2021 should be 30% (i.e., Rs.116.12 Lakh) of estimated value or more.

- ii. The bidders applying under **MSE's/Startups w.r.t. relaxation norms** in public procurement regarding **prior turnover** refer SIT provision for GIT clause No. 31 under Section III: Special Instructions to Tenderers (SIT).
- b) **Net worth:** The net worth of the firm should not be negative and should not have eroded by more than 30% year-on-year in the last 3 years ending 31/03/2021.
- c) In the case of bidders/companies which are restructured by Banks, Financial standing criteria will be completely relaxed.

**Note:** For the purpose of financial analysis of **Turnover and Net worth:** Where financial standing of the Bidder Company is not strong enough to meet its obligations under the tender and it has taken support from its Holding Company for participating in the tender, the Holding Company shall give its support by way of Bank Guarantee to cover the obligations of the bidder under the tender in case of any default. Further, the Financial Standing Credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary Bidding Company, with appropriate legal documents providing such ownership. The amount of Bank Guarantee by Holding Company shall be equal to the amount of Bank Guarantee prescribed in the tender for the bidders. This guarantee will be in addition to the one to be submitted by the bidders. Bidders shall submit the formats of Performance Bank Guarantee issued on behalf of Holding Company and undertaking to provide financial support which are to be obtained from the **Holding/ parent Company** are enclosed as **Annexure - F & Annexure - G.**

**However, the bidder is required to qualify in all other criteria like experience, past performance and capacity/capability as specified in the tender.**

#### **Statement of Financial Standing:**

To be submitted by all bidders (Since, the total Turnover requirement to qualify for bid is less than Rs.5 Crore) as part of Pre-Qualification Criteria (Section IX of tender). Following documents are required to be submitted along with the bid.

- a) The bidders will be required to submit a self-certified statement of their turnover and net worth details to be filled **as per "Annexure-H"**.
- b) The bidders are also required to submit the **self-certified** Income Tax Return (IT) copies of Financial year 2018-19, 2019-20 & 2020-21 along with copy of Acknowledgement.  
Further, it is clarified that Medium, Small and Micro Enterprises (MSME), having a turnover upto Rs.5 crore, are not required to submit their audited books of accounts applicable from the AY 2020-21 onwards. However, easing of this compliance burden will be available only to those MSMEs which carry out less than 5% of their business transactions in cash which include all receipts and payments done by the MSMEs. **Hence, MSMEs not fulfilling the above criteria, are required to submit their audited books of accounts if their turnover is more than Rs. 1 crore.**

**Relaxation for MSE's/Start-up for the above will be given as per Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 along with amendments, if any, notified by Govt. of India.**

### III. General

- The tenderer should have valid Professional Tax Registration, PF, ESIC registration no. The copy of the same should be submitted along with Part I (Techno-Commercial Bid) of tender.
- The tenderer shall enclose a declaration regarding their blacklisting / debarment, if any, by BRBNMPL/Government of India/PSU in the past 5 years and "Confidentiality statement" duly signed and stamped as per Annexure-A.
- NEFT Mandate form as per Annexure-B with copy of cancelled cheque.  
[NOT APPLICABLE FOR EXISTING SUPPLIERS].
- Authorization with the seal of the Company in the name of the person signing the Tender Documents.
- For tenderers registered with NSIC/MSME, a separate undertaking (Format as per Annexure C) is to be furnished for payment of SD in case they become L1 firm in bidding process.
- Declaration and Undertaking to be submitted by Micro & Small Scale Enterprises/Start-up Companies as per Annexure – E (if applicable).
- Bidder should attach **Current and Valid GST registration certificate & PAN copies** along with GST supplier's Certificate as per Annexure-I.

**\*\*\*\*\***

## **SECTION X: TENDER FORM**

Date .....

To,

The General Manager

Bharatiya Reserve Bank Note Mudran Private Limited

P.O. RBNML - 721132, Salboni,

Dist. Paschim Medinipur, West Bengal

Ref: Your Tender document No. 016/SAL/MMD-CIVIL/2021-22 dated 23/12/2021

We, the undersigned have examined the above-mentioned tender enquiry document, including amendment No. ...., dated ..... (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver **CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI** (description of goods and services) in conformity with your above referred document for the sum as mentioned in financial bid, attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 6, read with modification, if any, in Section V - "Special Conditions of Contract", for due performance of the contract.

We agree to keep our tender valid for acceptance for a period upto as required in the GIT clause 19, read with modification, if any in Section - III - "Special Instructions to Tenderers" or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender upto the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

Dated this \_\_\_\_\_ day of \_\_\_\_\_

For & on behalf of.....

.....  
(Signature with date)

.....  
(Name and designation)

Duly authorized to sign tender for and on behalf of

**SECTION XI: PRICE SCHEDULE**  
**PART-II BID**

From

To,  
 The General Manager  
 Bharatiya Reserve Bank Note Mudran Private Limited  
 P.O. RBNML - 721132, Salboni,  
 Dist. Paschim Medinipur, West Bengal

Dear Sir,

**SUB:** Tender Notice for “CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI”

**REF:** Your Tender Enquiry No: **016/SAL/MMD-CIVIL/2021-22**

With reference to your Tender enquiry cited above, we are pleased to enclose the following as our Price Bid (Part-II) in separate sealed cover for your kind consideration.

**Part-A: Civil Works**

SL. NO.	DESCRIPTION	QUANTITY	UNIT	QUOTED UNIT RATE (Rs.)	AMOUNT (Rs.) = QUOTED UNIT RATE X QUANTITY
<b>A</b>	<b>Civil Works</b>				
<b>1</b>	Surface Dressing of the ground in any kind of soil including removing vegetation inequalities not exceeding 15 cm depth and disposal of the rubbish within a lead upto 75 m as directed.	2500	sq-mt		
<b>2</b>	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete.				
	Depth of excavation not exceeding 1,500 mm.	505	cu-mt		

<b>3</b>	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) With earth obtained from excavation of foundation.	350	cu-mt		
<b>4</b>	With earth obtained by fresh excavation (including cost of excavation upto 1,800 mm. depth) from land arranged by the Deptt. within a lead of 100 m.	105	cu-mt		
<b>5</b>	With carried earth arranged by the Contractor within a radius exceeding 3 km. but not exceeding 5 km. including the cost of carried earth.	250	cu-mt		
<b>6</b>	Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on asurement of finished quantity)	105	cu-mt		
<b>7</b>	Hire and labour charges for shoring work (including necessary close plank walling, framing, Eucalyptus/Jhou bulla piling, strutting etc) complete as per direction of the Engineer-in-charge for foundation excavation (vertical surface are in contact with supported earth is to be measured.) (This item should be executed on specific direction of the Engineer in charge).				
	Depth upto 1.5 m.	100	sq-mt		
<b>8</b>	Dismantling all types of plain cement concrete works, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m (In ground floor including roof)	10	cu-mt		
<b>9</b>	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steel bars.	7	cu-mt		
<b>10</b>	Removal of rubbish, earth etc. from the working site and disposal of the same beyond the compound, in conformity with the Municipal / Corporation Rules for such disposal, loading into truck	410	cu-mt		



	and cleaning the site in all respect as per direction of Engineer in charge.				
11	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	1675	sq-mt		
12	Brick work with 1st class bricks in cement mortar (1:6)				
	In superstructure, Ground Floor	510	cu-mt		
13	125 mm. thick brick work with 1st class bricks in cement mortar (1:4) in ground floor.  In foundation, plinth and ground floor	690	sq-mt		
14	75 mm. thick brick work with 1st class bricks in cement mortar (1:4) in ground floor.  In foundation, plinth and ground floor	47	sq-mt		
15	Jaffri brick work 125 mm. thick with 1st class bricks in cement mortar (1:4) including 15 mm. thick cement plaster (1:4) in all faces in ground floor.	110	sq-mt		
16	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes. a) Pakur Variety <b>(as per instruction of EIC/Architect)</b>	150	cu-mt		
17	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. <b>(as per instruction of EIC/Architect)</b>	110	cu-mt		
18	Controlled Cement concrete with well graded stone chips (20 mm nominal size) excluding shuttering and reinforcement with complete design of concrete as per IS : 456 and relevant special publications, submission of job mix formula after preliminary mix design after testing of concrete cubes as per direction of Engineer-in charge. Consumption of cement will not be less than 300 Kg of cement with Super plasticiser per cubic meter of controlled concrete but actual consumption will be determined on the basis of preliminary	725	cu-mt		

	test and job mix formula. In ground floor and foundation.[using concrete mixture] <b>M 25 Grade with a proportion of 1:1:2 (as per instruction of EIC/Architect)</b>				
<b>19</b>	Hire and labour charges for shuttering with centering and necessary staging upto 16 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) Steel shuttering or 9 to 12 mm thick approved quality ply board shuttering in any concrete work.	1825	sq-mt		
<b>20</b>	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. using Tor steel/Mild Steel of make SAIL/TATA/RINL	84	Mt		
<b>21</b>	Supplying, fitting and fixing Fan Hook for ceiling with 1 metre long 16mm. dia rod complete including mending damages. Payment for damage and repair to be made separately.	50	each		
<b>22</b>	40 mm. thick damp proof course with cement concrete (1:1.5:3) (with graded stone chips 20 mm nominal size) with water proofing compound of approved brand @ 0.2% weight of cement including cost of materials over two coats of non toxic acrylic polymer modified cementitious waterproofing slurry coat complete [cost of water proofing compound and non toxic paint to be paid separately) for underground water retaining structures.	60	sq-mt		

23	Artificial stone in floor, dado, staircase etc with cement concrete (1:2:4) with stone chips, laid in panels as directed with topping made with ordinary or white cement (as necessary) and marble dust in proportion (1:2) including smooth finishing and rounding off corners including raking out joints or roughening of concrete surface and application of cement slurry before flooring works using cement @ 1.75 kg/sq.m all complete including all materials and labour. <b>35 MM THICK</b>	550	sq-mt		
24	Supplying, fitting and fixing Black Stone slab used in Kitchen slab, alcove, wardrobe etc. laid and jointed with necessary adhesive Cement mortar (1:2) including grinding or polishing as per direction of Engineer-in -Charge in Ground Floor. <b>Slab Thickness above 25 mm and upto 37.5 mm</b>	14	sq-mt		
25	18 mm. to 22 mm. thick, kota stone slab set in 20 mm thick (avg) cement mortar (1:4) in floor, stair & lobby including pointing in cement slurry with admixture of pigment matching the stone shade, including grinding & polishing as per direction of Engineer - in - charge to match with the existing work. [Slurry for bedding @ 4.4 kg/Sq.m and pointing @2.0 kg/Sq.m]	760	sq-mt		
26	Extra cost of labour for grinding Kota Stone Floor in treads and riser of Steps.	80	sq-mt		

27	Supplying, fitting & fixing granite slabs 15mm to 18 mm. thick with uniform texture & without decorative veins in columns, wall, facia, rise etc. with 15 mm thick [avg] cement mortar (1:2) including making suitable arrangements to hold the stones properly by brass / copper hooks including pointing in cement mortar (1:2) (1 white cement : 2 marble dust) with admixture of pigment matching the stone shades all complete as per direction of the Engineer-in-charge including cost of all materials, labours, scaffolding, staging, curing and roughening of concrete surface complete. [Using cement slurry at back side of granite @ 4.4 kg/sq.m & white cement slurry for joint filling @ 1.8 kg/sq.m] In ground floor <b>Area of each Granite slab above 1.00 Square meter.</b>	40	sq-mt		
28	Supplying, fitting & fixing 1st quality Ceramic tiles in walls and floors to match with the existing work & 4 nos. of key stones (10mm) fixed with araldite at the back of each tile & finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive & grout materials etc. With Sand Cement Mortar (1:3) 15 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.m & joint filling using white cement slurry @ 0.20kg/Sq.m. (b) Area of each tile above 0.09 Sq.m (i) Coloured decorative				
	in wall	110	sq-mt		
	in floor	90	sq-mt		

29	<p>Supplying and laying true to line and level Double Charge Vitrified Tiles of approved brand conforming to IS 15622: 2006 (Group B I a) and tested as per IS 13630:2006 (relevant parts) [Non-modular sizes for tiles with Water Absorption (av.) <math>\leq 0.08</math> %] in floor, skirting etc. using polymerised adhesive of 6mm thick layer applied directly over finished artificial stone floor/Mosaic etc without any backing course and joints grouted with admixture of white epoxy grout materials of approved brand including spacer -2mm as directed and removal of wax coating of top surface of tiles with warm water and polishing the tiles using soft and dry cloth upto mirror finish complete including the cost of materials,labour and all other incidental charges complete as per direction of Engineer-in-Charge. (Note: This work should not be executed without specific permission of Superintending Engineer)In Ground Floor:(size not less than 600mmX 600 mm X 9.5 mm thick)With Polymerised Adhesive [6 mm thick] &amp; epoxy grouting materials for filling joints including spacer-2 mm [Applied directly over finished artificial stone floor/ mosaic etc.]</p>	920	sq-mt		
30	<p>Supplying, fitting &amp; fixing true to line and level digital elevation Ceramic tiles of approved brand conforming to IS:15622:2006 Group B III and tested as per IS:13630:2006 as ornamental cladding on external wall in natural stone, brick, wood, bamboo pattern/ design fixed with adhesive 4.5 mm thick at the back of each tile &amp; finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive &amp; grout materials etc. With polymerised adhesive and epoxy grout pointing including spacer - 2mm (When tiles are laid over existing hard ready surface) all complete as per direction of Engineer-in-charge.</p>	70	sq-mt		

31	50 mm thick interlocking designer concrete paver block M- 30 grade for non-traffic zone, buiding premises, garden, parks, domestic drive as per IS: 15658-2006 (over 20-30 mm medium sand bed on 200mm thk bound gnaular /granular base course including cost of sand for sand bed but excluding cost of base course & subgrade preparation.) <b>Coloured Decorative</b>	122	sq-mt		
32	M.S. structural works with hollow sections (square or rectangular shape) conforming to IS: 806-1968 & IS:1161-1998) connected to one another with bracket, gusset, cleat as per design, drawing & direction of Engineer-in-Charge complete including cutting to requisite shape & size, fabrication including metal arc welding conforming to IS: 816-1969 & IS: 9595 using electrodes of approved make and brand conforming to IS:814- 2004, haulage, hoisting and erection all complete. The rate includes the cost of all M.S. Hollow section, all consumables such as electrodes, gas and hire charges of all tools and plants and labour required for execution and all incidental chages (such as electricity, labour insurance) etc. complete. Payment to be made on the basis of calculated weight of structural memebrs of MS Holow Section as specified in relevent IS code in finished work. Payment for gusset, bracket, cleat may be made by adding the actual weight of such items with weight of finished structural members. The rates are considered for a hight of erection 8 m. / 2nd floor level from the ground. Add 1.5 % extra over the rate for each additional floor or 4m. beyond the initial 8 m. or part thereof. Span upto 12.00 mtr.	1.2	MT		
33	M.S. gate of Jail type as per approved design made of strong M.S. frame work, intermediate stiffeners and round / square bars or angles. M.S. sheet (not less than 14 gauge) gussets, cleats etc. including necessary riveting, bolting, welding, locking and hanging	16	qntl		

	arrangements, fitting and fixing complete as per direction of the Engineer-in -charge.				
<b>34</b>	Collapsible gate with 40mm x 40mm x 6mm Tee as top and bottom guide rail, 20mm x 10mm x 2mm vertical channels 100mm apart in fully stretched position 20mm x 5mm M.S. flats as collapsible bracings properly rivetted and washered including 38mm steel rollers including locking arrangements, fitted and fixed in position with lugs set in cement concrete and including cutting necessary holes, chasing etc. in walls, floors etc. and making good damages complete.	36	sq-mt		
<b>35</b>	Wood work in door and window frame fitted and fixed in position complete including a protective coat of painting at the contact surface of the frame excluding cost of concrete, Iron Butt Hinges and M.S clamps. (The quantum should be corrected upto three decimals). Make: SAL (LOCAL)	1.2	cu-mt		
<b>36</b>	Providing and fixing PVC Door Frame of size 50x47mm with a wall thickness of 5mm ( $\pm 0.2$ mm) made out of single piece extruded PVC profile, with mitred cut joint and joint with 2 nos. of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 mm x 15 mm & self driven self tapping screws, the vertical door profiles to be reinforced with 40x20mm M.S. rectangular tube of 0.8 mm, including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5 mm PVC frame strip with PVC solvent cement on the back of the profile. The doorframe to be fixed to the wall using 8 x100mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in- charge.	138	mtr		

37	<p>Supplying solid flush type doors of commercial quality, the timber frame consisting of top and bottom rails and side styles of well seasoned timber 65mm wide each and the entire frame fitted with 37.5mm wide battens places both ways in order to make the door of solid core and internal lipping with Garjan or similar wood veneers using phenol formaldehyde as glue etc. complete, including fitting, fixing shutters in position but excluding the cost of hinges and other fittings in ground floor.</p> <p>(a) 35mm thick.</p>	90	sq-mt		
38	<p>Supplying, Fitting &amp; Fixing 30 mm thick Factory made solid Panel PVC Door Shutter consisting of outer frame made out of M.S. tubes of 19 gauge thickness and size 19 mmx19 mm for styles, top and bottom rails, M.S. frame shall have cost of steel primers of approved make and manufacture, M.S. frame covered with 5 mm th. heat moulded PVC “C” channel of size 30 mm th, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on either sides forming styles; and 5 mm th. 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm tapered in 45 degree on the inner side to form top &amp; bottom rail and 115 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel with 10 mm (5 mmx2) th.,20 mm wide cross PVC sheet as gap insert for top rail and bottom rail. Paneling of 5 mm th. both side PVC sheet to be fitted in the M.S. frame welded/sealed to the styles &amp; rails with 7 mm (5 mm+2 mm) th.x15 mm wide PVC sheet beading on inner side and joined together with solvent cement adhesive. An Additional 5 mm th. PVC strip of 20 mm which is to be stuck on the interior side of the “C” channel using PVC solvent adhesive etc. complete excluding all necessary</p>	36	sq-mt		



	hardwares as per direction of Engineer-in-Charge.				
39	Supplying, fitting and fixing M.S. clamps for door and window frame made of flat bent bar, end bifurcated with necessary screws etc. by cement concrete(1:2:4) as per direction. (Cost of concrete will be paid separately) 40mm X 6mm, 250mm Length	190	EACH		
40	Iron socket bolt of approved quality fitted and fixed complete.225mm long x 10mm dia bolt.	65	EACH		
41	Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16mm dia rod with centre bolt and round fitting. 300 mm long.	65	EACH		
42	Hydraulic door closer of approved quality as per I.S.I. standard fitted and fixed complete. Heavy type (I.S.I. size 3)	30	EACH		
43	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary (Ground floor).[Excluding cost of chipping over concrete surface] With 1:4 cement mortar.				
	20mm thk cement plaster	1380	sq-mt		
	15mm thk cement plaster	1920	sq-mt		
	10 mm thk cement plaster	992	sq-mt		
44	Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc. NOTE:Cement 0.152 cu.m per100 sq.m.	485	sq-mt		
45	Labour for Chipping of concrete surface before taking up Plastering work.	1950	sq-mt		
46	Rendering the Surface of walls and ceiling with White Cement base WATER PROOF wall putty of approved make & brand.(1.5 mm thick)	7200	sq-mt		
47	Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc.	400	sq-mt		

<b>48</b>	Priming one coat on timber or plastered surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc.	108	sq-mt		
<b>49</b>	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary Two coats (with any shade except white)	420	sq-mt		
<b>50</b>	Applying Exterior grade Acrylic primer of approved quality and brand on plastered or concrete surface old or new surface to receive decorative textured (matt finish) or smooth finish acrylic exterior emulsion paint including scraping and preparing the surface throughly, complete as per manufacturer's specification and as per direction of the EIC. One Coat. (for Application in both Interior and Exterior Walls and as per instruction of EIC/Architect)	7200	sq-mt		
<b>51</b>	Protective and Decorative Acrylic exterior emulsion paint of approved quality, as per manufacturer's specification and as per direction of Engineer-in-Charge to be applied over acrylic primer as required. The rate includes cost of material, labour, scaffolding and all incidental charges but excluding the cost of primer. In Ground floor (Two Coat) Premium 100% Acrylic Emulsion	4200	sq-mt		
<b>52</b>	Supplying best Indian Reinforced wire safety glass 6 mm thick including cutting to required sizes, setting on putty bases and fitted and fixed with teak glazing bead (19mm x 12mm) including putty and nails as necessary complete. (for use in Flush Doors for Viewing purpose)	5	sq-mt		
<b>53</b>	Red oxide wash of approved shade including cleaning and smoothening surface thoroughly (without specific permission from the Engineer-in-charge this item of work must not be done on an old painted surface which has not received such red oxide wash before) :	100	sq-mt		

	External surface (Ground floor) Two coats (on new works only).				
<b>54</b>	Painting with superior quality aluminium paint of approved make and brand including smoothening surface by sand papering etc. on steel surface : (a) One coat	120	sq-mt		
<b>55</b>	Painting with ready mixed Black Japan of approved make and brand including smoothening surface (a) One coat	176	sq-mt		
<b>56</b>	Borders (up to 150 mm. width) with two coats of Black Japan Paint.	800	mtr		
<b>57</b>	Protective and Decorative Acrylic exterior emulsion paint of approved quality, as per manufacturer's specification and as per direction of Engineer-in-Charge to be applied over acrylic primer as required. The rate includes cost of material, labour, scaffolding and all incidental charges but excluding the cost of primer. In Ground floor (Two Coat) Super Protective 100% Acrylic Emulsion	3200	sq-mt		
<b>58</b>	Providing and fixing exterior quality Aluminium Composite Panel (ACP) wall cladding on existing Al. /MS frame work with GI brackets, ACP fixed on the existing frame work by folding the edges of ACP panel ( Engraving the rear surface of ACP sheet) with CP angles, cleats and stainless Steel screws forming groves at the periphery of ACP panel. Such grooves filled with foam and silicon sealant etc. complete with all materials (but including the cost of silicon sealant), labour, scaffolding and all other incidental charges e.g. VAT, Labour cess etc complete in all respect as per specification and direction of Engineer-in-charge. (Mode of payment is on finished surface area of ACP) 3mm thick (0.25mm Al.+2.5mm LDPE +0.25mm Al. PVDF coating )	38	sq-mt		

<b>59</b>	Supplying profiles of required section made of Aluminium Alloy Extrusions conforming to IS: 732-1983 and IS: 1285- 1975; Anodized (with required film thickness and specified colour / natural) matt finished conforming to IS: 1868-1983 for fabrication of composite door, sliding & casement windows, partitions, formed of basic sections of any ISI embossed / certified make and brand as per direction of Engineer - In-Charge. (Payment will be made on finished length of the work).	110	mtr		
<b>60</b>	Protective and Decorative Textured exterior high class matt finish paint of approved quality, composed of special Thermoplastic Resin containing fine crystalline additives derive from Granite as per manufacturer's specification and as per direction of EIC to be applied over acrylic primer as required. The rate includes cost of material, labour, scaffolding and all incidental charges but excluding the cost of primer. Two Coat	350	sq-mt		
<b>61</b>	Designing of different customised curved & plain metal craft by laser cutting on different metal sheets of varying thickness for special architectural application as facade/wall panel/ceiling decoration as per design, drawing or as approved standard by the Engineer-in-charge including transportation. (Mode of measurement - linear /peripheral dimension of laser cut area) (Mild Steel Plate, Aluminium & Stainless Steel)(2mm thk plate)	190	mtr		

62	<p>Providing and fixing of false ceiling with powder coated exposed G.I. grid suspension system (E-Grid U-1520 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c ) consisting of Main Runner 3600 mm long, Cross Tee 1200 mm / 600 mm long and Wall Angle. The Wall Angle shall be fixed on PVC Dash Fasteners on the perimeter of the wall by steel screws with distance 300mm c/c. The Main Runners to be placed @ 1200 mm. The Cross Tee 1200mm will be inserted in the pre-cut slots of Main Runner at a regular interval of 600 mm to form a modular grid of 1200mm X 600mm. Additional Cross Tees of 600 mm shall be placed perpendicular to the Cross Tee 1200 mm long to finally form a grid of 600 mm X 600 mm. Grid of module size 600 mm X 600 mm shall be supported by 6 mm dia G.I. wire from purlins / soffit. 15mm thick OW Acoustic Board (Mineral Fiber Acoustic Ceiling Tiles) of approved pattern and size 595mm X 595mm with NRC value &gt; 0.65 should be placed in the Grid module to form a False Ceiling. All complete as per the drawing &amp; directions of Engineer-in-charge.</p> <p>a) Acoustic False Ceiling (with 15mm thick OW Acoustic Board and E-Grid U- 1520).</p>	80	sq-mt		
----	---	----	-------	--	--

63	M.F. suspended ceiling made with 12.5 mm thick Gypsum plaster board including G.I. perimeter channel of 0.55 mm flush (having two flanges 20 mm and 30 mm respectively and web 27 mm ) along with perimeter of ceiling with G.I. intermediate channel of 0.9 mm thick size 45 mmx15mm placed at 750 mm c/c with G.I. ceiling angle of size 25 mmx10mmx0.55 mm thick fixed to the ceiling with G.I. Cleat and steel expansion fastener ceiling section 0.55 mm thick of size 51.50 mmx26mm fixed to the intermediate channels with the help of connecting clip and in the direction of perpendicular to the intermediate channel of 300 mm c/c 12.5 mm thick Gypsum plastered board are to be fixed under ceiling section as above by machine screws. The boards are to be joined and finished with jointing compound, paper tape and application of top coat etc. as per the direction of Engineer-in-charge. (The rate includes of cost of all materials including taxes, cost of accessories, fittings and fixtures, scaffolding and labour charges etc. complete)	160	sq-mt		
64	Supplying, fitting, Fixing Fly/Mosquito proof nylon net on any type of window, door shutter frame with necessary fixing arrangements complete.	72	sq-mt		
65	Supplying, fitting and fixing in position fibre glass panes of approved quality with resin, nail, clip etc. as per IS:12866-1989. (In all floors for internal wall & upto 6 m height for external wall) 6 mm thk	25	sq-mt		
66	Providing & applying texture wall paint(roller/spray)as per manufacturer's specification of approved colour & brand at all heights in the customer CORNER and as directed by the architect. Before applying textured paint, check if the surface has any holes or damages. Make sure the surface is free from dust. It should be cleaned with the help of broom and cotton cloth.	50	sq-mt		

67	Makeing & placing in position running planter bed of 19 mm thick BWP ply of size 1'-1'-4" wide including 6"high recessed skirting with a projected band of 10" height above it, all finished externally with 1.0mm thk.laminate(2 colours) as directed & inside with aluminium sheet lining. The top edge of the board of the planter bed to have Rubber wood lipping which will conceal the edge of the aluminium sheet, complete as per design.	28	RMT		
68	Supplying & laying 3mm thick pre-fabricated plastomeric water proofing membrane conforming to EN 12311-1 & ASTM D 5147, manufactured with atactic poly propylene (APP) modified premium grade asphalt , specially reinforced with non-woven polyester core with polyester reinforcement @160 gms per sqm & both faces covered with thermo-fusible polyethylene film /Mineral on top face over a coat of primer @ 0.40 lit/sqm of manufacturer's specification on smooth, clean dry surface prepared wherever required. Lap joint shall be provided of 75 mm in longitudinal & 100 mm in transverse direction and fused using LPG/ Propane torch employing extra care ensuring full bondage, complete removal of entrapped air and sealing edges into grooves in appropriate manner as per direction of Engineer-in-charge all complete including materials, labour and applicable taxes. (Payment shall be made on basis of finished surface area.) Membrane Property: Softening Point > 150 deg C, Cold Flexibility < -6 deg C, Tensile Strength, N/cm : 600 (longitudinal), 450 (transverse), Tearing Strength, N: 300 (longitudinal), 200 (transverse)	1750	sq-mt		
69	Supplying 1.5mm thick M.S. sheet fitted and fixed on one or both faces of M.S./ W.I. gate etc. with point welding at not more than 150mm apart complete in all respect as per design including cost of all labour and materials.	12	sq-mt		

70	<p>Providing and fixing of factory made uPVC casement window (White Colour) (U value=1.9-1.3 W/m<sup>2</sup> K, flame resistant, self extinguishing, lead free) comprising uPVC multi-chambered frame, Sash, &amp; Mullion with having wall thickness of 2.3 mm (<math>\pm 0.2</math> mm) duly reinforced with G.I. section 1.6 mm (<math>\pm 0.2</math> mm) made from roll forming process of required length. All corners of frame and sash will be fusion welded. mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's, uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. shall be provided in all frame, sash &amp; mullion, wherever necessary. Thereafter, 5 mm clear annealed glass shall be provided in the sash with the help of uPVC glazing bead and hardware, i.e., stainless steel (SS 304 grade) friction hinges &amp; zinc alloy (white powder coated) casement handles (in window) &amp; 3D Hinges &amp; Multipoint Lock (in door) shall be provided. Window frame shall be fixed to the wall with 100mm long and 8mm dia. Fasteners and after fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size, of approved quality complete in all respect as per approved drawing &amp; direction of Engineer-In- Charge. (Note: Profile manufacturer &amp; Window anufacturer must be one &amp; same, Only manufacturer Warranty is acceptable) a) ii) Casement Window frame of size 65 x 58 mm &amp; Sash / Mullion of size 65 x 80 mm (Window Height above 1200 mm or Building height above 18 mtr ) both having wall thickness of <math>2.3 \pm 0.2</math> mm</p>	130	sq-mtr		
----	--	-----	--------	--	--



71	Supplying, fitting and fixing 8mm thick Laminated wooden Flooring Work conforming to EN13329:2006 with plank size not less than 1200 mm X 190 mm (with unilin/tongue-groove locking arrangement) having 0.2mm thk top abrasive layer over a decorative layer followed by a High-density fibreboard (HDF) having density > 850 kg/m <sup>3</sup> substrate core over a resin saturated backing layer and installing through unilin or tongue-groove system (having locking strength not less than 1000 kg/m) over a 2 mm thk underlayer polyurethane foam on polythene sheet 250 micron, over a smooth, flat, hard subfloor free from moisture (< 8%), grease etc. complete in all respect with requisite accessories like end profile, transition profile, reducer 'T' profile etc. wherever required and preparation of base including all other incidental works as per direction & satisfaction of Engineer in charge. Cost of Laminate Floor Accessories only (Skirting, End edge, T- moulding, Reducer) shall have to be added separately, wherever required. (This work should not be executed without specific permission of Superintending Engineer).	90	sq-mtr		
72	Supplying fitting, fixing decorative lamination conforming to IS: 2046 : 1995 as per approved make, brand, finish and thickness with fitting, fixing the same on Particle/MDF / Ply Boards with recommended / approved adhesive with proper clipping the sides for better attachment as per direction of Engineer-incharge. The rate includes the cost of labour, adhesive and all incidental charges thereof. In ground floor Glossy/Matt/Suede excluding surface texture or metallic lustre. (Thickness 1.00 mm)	180	sq-mtr		
<b>Sub-Total for Part-A: Civil Works</b>					

(.....)  
Name & Signature with date

Seal  
Firm:

**Part-B: Sanitary and Plumbing Works**

SL. NO.	DESCRIPTION	QUANTITY	UNIT	QUOTED UNIT RATE (Rs.)	AMOUNT (Rs.) = QUOTED UNIT RATE X QUANTITY
<b>B</b>	<b>Sanitary and Plumbing Works</b>				
<b>1</b>	Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materails (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete.				
<b>A</b>	<b>UPVC PIPES</b>				
	75 mm dia	156	mtr		
	110 mm dia	120	mtr		
	160 mm dia	140	mtr		
<b>B</b>	<b>UPVC FITTINGS</b>				
<b>a</b>	<b>PLAIN TEE</b>				
	75 mm dia	24	NOS		
	110 mm dia	18	NOS		
	160 mm dia	24	NOS		
<b>b</b>	<b>PLAIN Y</b>				
	75 mm. Dia.	12	NOS		
	110 mm. Dia.	6	NOS		
	160 mm. Dia.	12	NOS		
<b>c</b>	<b>SHOE</b>				
	75 mm. Dia.	12	NOS		
	110 mm. Dia.	6	NOS		
	160 mm. Dia.	12	NOS		

2	<p>Constructing Inspection pit of inside measurement 600mm X 600mm X upto 600mm (depth) with 250 mm thick 1st. class brick work in cement mortar (1 :4) on all sides, bottom of the pit consisting of 100 mm thick cement concrete (1 :3:6) with stone chips over a layer of jhama brickflat soJing, 15 mm thick (1 :4) cement plaster to inside walls and out-side walls upto G.L. and 20mm.thick (1 :4) plaster to bottom of the pit, providing necessary invert with cement concrete(1:3:6) with stone chips as per direction, neat cement finishing to entire internal surfaces, top of the pit covered with 100 mm thick R.C.C. slab (1:1.5:3) with stone chips and necessary reinforcements upto 1% and shuttering including 6 mm thick cement plaster (1 :4) in all external surfaces of the slab and one 560 mm dia. R.C.C. manhole Cover of approved make supplied fitted and fixed in the slab with necessary fittings, necessary earthwork in excavation in all sorts of soil, filling sides of the pit with earth and removing spoils after work complete in all respect with all costs of labour and materials.</p>	18	Nos		
3	<p>Supplying, fitting and fixing yard gully with approved H.C.I. grating complete. (i) 225 mm X 150 mm with 230 mm gratings</p>	18	Nos		

4	Supplying, fitting and fiXing with cement jointing (3: 1) salt glazed stoneware pipe including excavation of earth upto 1.50 metre depth in all sorts of soil both mixed or unmixed and refilling (but excluding concreting at bottom and sides). 150mm Dia.	256	Mt.		
5	Supplying PVC water storage tank of approved quality with closed top with black lid_Multilayer 5000 lit capacity.	2	Nos		
6	Supplying PVC water storage tank of approved quality with closed top with black lid_Multilayer 2000 lit capacity.	6	Nos		
7	Labour for hoisting plastic water storage tank.	8	Nos		
8	Supplying, fitting and fixing 10 litre porcelain low-down cistern of approved make with either side or bottom inlet, side overflow, brackets complete with all internnal PVC fittings. Colour: White	18	Nos		
9	Supplying, fitting and fixing white vitreous china best quality approved make wash basin with C.I. brackets on 75 mm X 75 mm wooden blocks, C.P. waste fittings of 32 mm dia., one approved quality brass C.P. pillar cock of 15 mm dia., C.P. chain with rubber plug of 30 mm dia., approved quality P.V.C. waste pipe with C.P. nut 32 mm dia., 900 mm long approved quality P.V.C. connection pipe with heavy brass C.P. nut including mending good all damages and painting the brackets with two coats of approved paint. <b>450 mm x 300 mm</b>	4	Nos		

<b>10</b>	Supplying, fitting and fixing stainless steel sink complete with waste fittings and two coats of painting of C.I. brackets. <b>(a) Sink only</b> <b>(i) 530 mm X 430 mm x 180 mm</b>	2	Nos		
<b>11</b>	Supplying, fitting and fixing complete Bottle waste trap (Heavy Quality) (a) Chromium plated Bottle trap 32 mm with 190 mm long connecting pipe and wall flange (Equivalent to Code No. 545 & Model - Tropical / Sumthing Special of ESSCO or similar brand).	12	Nos		
<b>12</b>	Supplying, fitting and fixing 15 mm swan neck tap with left & right hand operating nob with aerator (Equivalent to Code No. 510, 510(A) and Model - TROPICAL / SUMTHING SPECIAL of ESSCO or similar brand).	30	Nos		
<b>13</b>	Supplying, fitting and fixing pillar cock of approved make. a) (i) CP Pillar Cock - 15 mm. (Equivalent to Code No. 507 & Model -Tropical / Sumthing Special of ESSCO or similar brand).	30	Nos		
<b>14</b>	Supplying, spreading and compacting Sand to required thickness, in layers not exceeding 150 mm to proper gradient and camber, inundating each layer by water and packing and ramming layer by layer to achieve desired compaction, including lighting, guarding, barricading and making adequate earthen bundh where necessary, curing with water as per direction, mending cracks and depressions by ramming wherever necessary.	175	Cum		

<b>15</b>	Providing and laying water proofing treatment in sunken portion of WCs,bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	150	Sqm		
<b>16</b>	Supplying, fitting and fixing CPVC (Chlorinated Polyvinyl Chloride) pipes of approved make conforming to IS-15778: 2007 . with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrow, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required,jointing materials in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accesories, specials				
<b>16.A</b>	For Exposed Work CPVC Pipes Class-1, SDR-11				
	32 mm dia.	30	Mt.		
	40 mm dia.	240	Mt.		

<b>16.B</b>	For Concealed Work CPVC Pipes Class-1, SDR-11				
	15 mm dia.	250	Mt.		
	20 mm dia.	230	Mt.		
	25 mm dia.	185	Mt.		
<b>17</b>	Supplying, fitting and fixing Peet's valve fullway gunmetal standard pattern best quality of approved brand bearing I.S.I. marking with fittings (tested to 21 kg per sq. cm.).				
	40 mm dia	6	EAC H		
	32 mm dia	6	EAC H		
	25 mm dia	9	EAC H		
	20 mm dia	9	EAC H		
	15 mm dia	15	EAC H		
<b>18</b>	Supplying, fitting and fixing gunmetal wheel valve of approved brand and make tested to 21 kg per sq. cm. (for water lines only). 65 mm dia	3	EAC H		
<b>19</b>	Supplying, fitting and fixing bib cock or stop cock.				
	Chromium plated Bib Cock short body (Equivalent to Code No. 511& Model - Tropical / Sumthing Special of ESSCO or similar brand).	24	EAC H		
	Polythene Bib Cock / Stop Cock (HD) with metal inlet (EMCO / ATLAS or equivalent) 15 mm	6	EAC H		
	Supplying, fitting and fixing alloy iron with brass spindle bib cock/ stop cock of approved brand and make, spray painted and tested to 21 kg per sq. cm. 15 mm	12	EAC H		

20	Supplying, fitting and fixing Shallow water closet Indian pattern (I.P.W.C.) of approved make in white vitreous chinaware in position (excluding cost of concrete for fixing). (i) 580 mm long	2	EAC H		
21	Supplying, fitting and fixing E.W.C. in white glazed vitreous chinaware of approved make complete in position with necessary bolts, nuts etc. (a) With 'P' trap	6	EAC H		
22	Supplying, fitting, fixing Flat back urinal (half stall) in white vitreous chinaware of approved make in position with brass screws on 75 mm X 75 mm X 75 mm wooden blocks complete. (i) 635 mm X 395 mm X 420 mm	6	EAC H		
23	WC for toddlers (Make CERA or Equivalent)	14	EAC H		
24	Wash basin for toddlers (Make CERA or Equivalent)	14	EAC H		
25	Urinals for toddlers (Make CERA or Equivalent)	6	EAC H		
26	Supplying, <b>KSB make submersible pump</b> with motor set Model CORA 18C/14+UMA 100-5.5/22, 7.5 HP, 2900 RPM, 440 Volt, 3Phase motor, Pump having delivery outlet of 65 mm capacity 20M <sup>3</sup> /HR at 56 MTR head with 3mtr. Load cable.	1	Set		
27	Fitting, Fixing and lowering of submersible pump inside the tubewell, complete in all respect	1	L.S.		
28	<b>L &amp; T</b> make submersible panel DOL type	1	Nos.		



29	Construction of circular soak well 2.5 metre deep in all types of sandy soils with dry brick work upto 1.6 metre from the bottom having 150 mm intermediate cement brick work (1:4) band all round and cement brick work (1:4) upto 0.90 metre from top with 20mm thick cement plastering (1:4) to inside face upto the depth of cement brick work, 15mm thick cement plaster (1:4) on outer face from top of the well upto G.L. and 6 mm thick cement plaster (1:4) on top of the R.C.C. cover slab including filling bottom 1.00 metre of inside of the well with brick metal (50 mm to 63 mm size) including R.C.C. cover slab of 100 mm thick with cement conc (1:1.5:3) with stone chips with necessary reinforcement and shuttering including one 560 mm dia. R.C.C. manhole cover (heavy type) of approved make supplied, fitted and fixed in the cover slab with necessary fittings, making necessary arrangements for pipe connections, excavation of well including shoring, dewatering and removing the excess earth from the premises as per direction complete in all respect with all costs of labour and materials. With 250 mm thick dry brick work and 250 mm thick cement brick work (1:6) and 1.00m inside dia. (with SAIL/TATA/RINL reinforcement)	2	Nos		
<b>Sub-Total for Part-B: Sanitary and Plumbing Works</b>					

(.....)  
Name & Signature with date

Seal  
Firm:

**Part-C: Electrical Works**

SL. NO.	DESCRIPTION	QUANTITY	UNIT	QUOTED UNIT RATE (Rs.)	AMOUNT (Rs.) = QUOTED UNIT RATE X QUANTITY
<b>C</b>	<b>Electrical Works</b>				
<b>1</b>	Supply & Fixing of <b>Hylam Board</b> of 18" X 18" size with 1no Fuse of rating 32A for installation of Energy Meter supplied by WBSEDCL/CESC	4	job		
<b>2</b>	Supplying and fixing 415V, TPN SFU open execution in existing SS enclosure/cubical with nuts bolts etc incl. S & F 3 nos. DIN type HRC fuse as per rating. <b>Rating: 200 Amp Make: Siemens or equivalent</b>	2	each		
<b>3</b>	Supply, Installation and connection of <b>3 PHASE ENERGY METER</b> with all accesesaries, and required connection from WBSEDCL	2	each		
<b>4</b>	Electrical Panel Supply and Installation,testing and commissioning of floor mounted panel fabricated with 14SWG CRCA sheet. The panle shall be dust and vermin proof including internal connection with bus bar/cables upto the terminals duly painted with two coats of powder coated paint,danger board etc. and comprising of the following:- <b>i)INCOMING</b> a) 200 amp ,4P ,35KA MCCB with voltmeter(0-500V) with control fuses and VSS,three LEDs R,Y,B.(WBSEDCL) <b>ii)OUTGOING</b> a)200 amp copper busbar(Normal Supply busbar) (i) 02 Nos. 125amp ,4P,MCCB,25KA (AC DB),	2	SET		

	(ii)3 nos 32A DP MCB (iii) 02Nos 63 amp 4P,MCCB ( UPS Supply) b)200 amp copper busbar(Inverter supply) (i) 05 No 32A TPNMCB, 4P,MCB,25KA (for TPN LDB& Spare), (ii)01 No 63A TPNMCB, (For Rawpower DB) <b>MAKE: LEGRAND/ SIEMENCE / HAGER / CRABTREE</b>				
<b>5</b>	Supplying and fixing 250 V, 6-10A per way, (2+12) <b>SPN MCB DB</b> with SS enclosure double-door with IP-42/43 protection with DP Isolators as incomer and SPMCBs ('C' Curve, 10kA) as outgoing, concealed in wall after cutting the wall & mending good the damages to original finish incl. Inter connection with suitable size of copper wire and neutral link & provision for earthing attachment (Enclosure (607712), 63A DP MCB, 12 no. SPMCB) <b>MAKE: LEGRAND/ SIEMENCE / HAGER / CRABTREE</b>	6	each		
<b>6</b>	Cutting channel of 31 mm x 31 mm size on masonry wall incl. S&F heavy gauge polythene pipe dia as stated below, by means of iron hooks and supplying and drawing 18 SWG GI Wire fish wire incl. mending good damages to building works. 13 mm dia 3 mm thick polythene pipe with 1x16 SWG GI earth continuity wire	1200	mtr		

<b>7</b>	Distribution <b>Point wiring</b> in 1.1 KV grade 2x22/0.3 (1.5 sqmm) single core stranded 'FR' PVC insulated & unsheathed copper wire with 1x22/0.3 (1.5 sqmm) single core stranded 'FR' PVC insulated & unsheathed copper wire (Brand approved by EIC) for ECC in 19 mm bore, 3 mm thick polythene pipe complete with all accessories embedded in wall for horizontal & vertical runs and in suitable size PVC casing- capping (Precision make) for ceiling portion only, incl. necy. fittings etc. to light/fan/call bell point with Modular type switch (Brand approved by EIC) fixed on copper bar & earthing attachment flushed in wall incl. mending good damages to original finish [only PVC casing-capping on ceiling and remaining portion concealed]				
<b>7.1</b>	Average run 5 mtr	134	Point		
<b>7.2</b>	Average run 6 mtr	210	Point		
<b>7.3</b>	Average run 9 mtr	90	Point		
<b>8</b>	Distribution wiring in 1.1 KV grade 22/0.3 (1.5 sqmm) single core stranded 'FR' PVC insulated & unsheathed copper wire (Brand approved by EIC) in 20mm size PVC rigid conduit 'FR' (Precision make), with 1.1 KV grade 1 x 22/0.3 (1.5 sqmm) single core stranded 'FR' PVC insulated & unsheathed copper wire as ECC, to 6A 3 pin Modular type plug socket & switch (Brand approved by EIC) on 4 Module GI switch board with 3/4 Module top cover plate on wall incl. necy. connection making earthing attachment, painting and mending good damages to building works.				
<b>8.1</b>	On Board	76	Point		
<b>8.2</b>	Average run 6 mtr	58	Point		

<b>9</b>	Supplying and Drawing 1.1 KV single core stranded 'FR'PVC insulated & unsheathed single core stranded copper wire (Brand approved by EIC) of the following sizes in the prelaiddpolythene pipe and by the prelaidd GI fish wire and making necy. connection as required				
<b>9.1</b>	2x36/0.3 (2.5 sqmm) + 1x22/0.3 (1.5 sqmm) as ECC	200	mtr		
<b>9.2</b>	2x80/0.4 (2.5 sqmm) + 1x84/0.3 (6 sqmm) as ECC	100	mtr		
<b>10</b>	Supplying and Drawing 1.1 KV single core stranded 'FRLS' PVC insulated& unsheathed single core stranded copper wire (approved make) of the following sizes in PVC rigid conduit 'FR', 3mm thick (approved make) on surface/recess incl. necessary fittings by the GI fish wire and making necy. connection with lugs complete as required. Make : L&T / Havells / Polycab / FINOLEX				
<b>10.1</b>	2x1.5 sqmm + 1x1.5 sqmm as ECC	1240	Metre		
<b>10.2</b>	2x2.5 sqmm + 1x2.5 sqmm as ECC	330	Metre		
<b>10.3</b>	2x4 sqmm + 1x4 sqmm as ECC	100	Metre		
<b>10.4</b>	2x6 sqmm + 1x6 sqmm as ECC	100	Metre		
<b>11</b>	Supply & Fixing 240 V, 16 A, 3 pin Modular type plugsocket (Brand approved by EIC) with 16A Modular typeswitch, without plug top on 4 Module GI Modular typeswitch board with top cover plate flushed in wall incl. S&F switch board and cover plate and making necy.connections with PVC Cu wire and earth continuity wire etc.	45	each		

<b>12</b>	Supply & Fixing 240 V, 6 A, 3 pin Modular type plug socket (Brand approved by EIC) with 6A Modular typeswitch, with plug top on 4 Module GI Modular typeswitch board with 3 Module top cover plate flushed inwall incl. S&F switch board and cover plate and making necessary connections with PVC Cu wire and earth continuity wire etc.	64	each		
<b>13</b>	S& Delivery 240V 50 Hz 48" sweep (1200 mm) ceiling fan complete with downrod, Canopy, fork etc. (Make-Orient [ Cat No: Energy Star, 5Star Rating] / or equivalent make of Usha/ CG	52	each		
<b>14</b>	Fixing only ceiling fan complete with blades, canopy, fork, rubber bush etc. incl. S&F connecting wire for down rod upto 30 cm incl. painting the rod with approved paint and making necessary connection as required by 2x1.5 sqmm flexible copper wire.	52	each		
<b>15</b>	Supply & Fixing 240V, Modular Socket (2 Module) type fan regulator (Step type) (Brand approved by EIC) on existing Modular GI switch board with top cover plate incl. making necy. connections etc.	52	each		

<b>16</b>	Supplying & Fixing of Box type fan clamp of 150mm dia & 80mm depth made of 16 SWG CRCA sheet with one end duly sealed by cover, properly welded, incl. S&F 12mm dia 600mm long MS rod duly bent by heat treatment at the centre position of rod to grip fanbobbin properly, incl. binding the rod and fan box with reinforcement by 22 SWG steel binding wire, incl. supplying & covering the box with alkathene sheet, placed in order to prevent concrete from entering the box.	60	each		
<b>17</b>	Supply and Fixing decorated Wall mounted type fittings incl. S & F of 18 W CFL/9 W LED as per the choice of EIC Make Philips/Havells/Wipro.	20	each		
<b>18</b>	Supplying & Fixing 240 V AC/DC superior type Ding-Dong Call Bell (Anchor) on HW board incl. S&F HW board	10	each		
<b>19</b>	S & Delivery 250 V 50 HZ 9" (23 cm) Sweep exhaust fan Make - EPC HEAVY DUTY [for Toilet & Kitchen]	14	each		
<b>20</b>	Fixing only exhaust fan after making hole in wall and making good damages and smooth cement finish etc. as practicable as possible and providing necy. length of PVC insulated wire and making connection for exhaust of following diameter: For 23 cm (9") Exhaust fan	14	each		
<b>21</b>	Supply & Fixing Al louver shutter on wall with necy. bolts & nuts (6 mm dia x 62 mm long) For 23 cm (9") Exhaust fan	14	each		

22	Supply, delivery, erection of swan type G.I pole (Hot Dip) of overall length 9 mtrs planting depth 1.25 mtr, bottom length 114mm OD, middle length 88mm OD & top 76.1 mm OD & bracket of 76.11 mm OD of 1.5 mtr long with approx weight 85 kg along with sundry materials as per direction of EIC (Make calcutta pole/ Ambica pole/BPC)	6	Nos		
23	Erection of H-pole (DP) structure with upto 9 mts. long steel tubular poles (0.9 mt. to 1.5 mt. apart) in CC (6:3:1) foundation (as to similar dimension in item A-1 above) including 600x600x150 mm thick CC (4:2:1) base block below sole plate/pole with hard jhama metal including CC (6:3:1) muffing 0.30 mt. dia & 0.30 mt. above ground level neatly cemented finish 3 mm thick and providing Galv. MS Channels, cross arms and cross bracings made out of Galv. angle, flats etc. anti climbing devices, danger board & earth bolts etc. & carrying of the pole upto 1.6 Km. from Store to work-site including filling up the excavated earth pit with shifted soil and ramming properly.	6	SET		
24	Supply, delivery, fitting fixing of Philips 110 Watt LED Street Light (Cool White) Alternative on non availability: MAGIK/BAJAJ make product (code-SPORT150C0813)	6	Nos		



25	Supply and fixing of feeder pillar box overall approx dimension 1400mmX750mmX525mm fabricated from 3mm and 6mm thick MS Plate in Bricks cement foundation, plastering,net cementing including supply and fixing 250 mm long 16mm dia bolt,nut,washer,back plate etc. as per direction of E.I.C as per KMDA elect schedule vide E-35,item no, 4.1 and also supply fixing iron clad main switch 63A 500TPN/32 TPN MCB, time switch, 25 ATP controller for the automatic switching luminaries and power tools control with 2 no 9 amp Contractor and raise lower push button incoming 35 sq.mm and outgoing 16 and 2.5 sq. mm terminal for LED fitting in the pillar box including earthing attachment painting and making the necessary connection.	1	Nos		
26	Earthing with 50 mm dia. GI pipe 3.64 mm thick x 3.04 Mts. Long and 1 x 4 SWG GI (Hot Dip) wire (4 Mts. Long), 13 mm dia. x 80 mm long GI bolts, double nuts, double washers incl. S & F 15 mm dia. GI pipe protection (1 Mts. Long) to be filled with bitumen partly under the ground level and partly above ground level driven to an average depth of 3.65 Mts. Below the ground level & restoring surface duly rammed as below: For Murrom Soil :By TATA-Medium G.I. Pipe.	4	set		
27	Excavation of soil for installation of Earth Electrode and filling & ramming. For Soft Soil	4	CuM		

28	Supplying & Erection of Galv. 'D' iron complete with suitable pole clamp 75mmx88mm porcelain shackle insulator & 15 mm dia Galv. bolts & nuts. incl. painting	4	each		
29	S&F Tinned copper Earth Bar on insulator (25 mm x6mmx3mm)	4	Nos.		
30	Supply & fixing 4Cx50 sq.mm multistrand flexible PVC insulated copper in flexible MS conduit meter to TPN SFU <b>(Meter loop)</b>	10	Mtrs		
31	Supplying, installing, connection of LED Glow Sign Board (with extruded lettering) as per direction of EIC of 6' x 4' size	2	each		
32	Supply & installation of 1.1 KV Grade PVC insulated and sheathed armoured <b>XLPE cable</b> with 2 nos. 12 SWG GI earth continuity wire by MS bar saddles on wall (GLOSTER/Havells/NATIONAL/R AJNIGANDHA/KEI)				
32.1	4C x 70 sqmm (Aluminium cable)	55	Mtr		
32.2	4C x 50 sqmm (Aluminium cable)	160	Mtr		
32.3	4C x 35 sqmm (Aluminium cable)	50	Mtr		
32.4	4C x 25 sqmm (Aluminium cable)	100	Mtr		
32.5	4C x 16 sqmm (Aluminium cable)	120	Mtr		
33	Supply , laying and interconnection of 660V copper cable of the following size for control wiring(gloster/havells/rajnigandha) (inclusive of VAT and service tax etc)				
33.1	3C x 6 sqmm Copper cable	50	Mtr		
33.2	6C x 1.5 sq-mm copper flexible cable	40	Mtr		
34	End connection of above cable with heavy duty nickle plated brass compression gland crimping type socket insulation tape etc. with all concern.				
34.1	3C x 6 sq mm	4	Nos		

<b>34.2</b>	4C x 50 sq mm	4	Nos		
<b>34.5</b>	4C x 25 sq mm	2	Nos		
<b>35</b>	Supply & installation of wall bracket fan 16" dia(Heavy duty/ high speed) <b>MAKE: / CROMPTON GREAVES/PSPO/HAVELLS</b> (Model Shall be approved by Architect/EIC)	16	Nos.		
<b>36</b>	Supply & installation of ceiling mounted downlighter 15W round, <b>MAKE: PHILIPS/WIPRO 15W LED 6K LHEBJNPZ1W007 / BBS 170 1DLED DOWULIGHTER 5000 PSU WH (Philips Make)</b>	80	Nos.		
<b>37</b>	Supply & installation of 29W 5mtrs length LED strip in the drop celing area with necesarry interconnection	20	Sets		
<b>38</b>	Supply & installation of Garden Pathway Lamp (8watt, 5000/5700K of 500 mm[Model Bamboo/Cone of IP 65 Havells Make)	12	Nos		
<b>39</b>	Supply & installation of Up lighter with Focus lamp fitting ( <b>Model Compacto 30/50watt havells make</b> )	12	Nos		
<b>40</b>	<b>Supply &amp; installation of wall flush light with lamp fitting (50W flood light 24x7 lighting IP 66 30W/50W)</b>	30	Nos		
<b>41</b>	<b>Supply &amp; delivery at site Philips Master LEDTube 1200 mm 18W 840 T8 I W</b> Make: Philips or Equivalent	104	each		
<b>42</b>	<b>Fixing only</b> single /twin fluorescent light fitting complete with all accrs. directly on wall/ceiling/HW round block and suitable size of MS fastener	104	each		
<b>43</b>	Supply & fixing <b>north-west</b> motor starter (AC Starter)11-18 / 25A with plugtop indicator type and socket ( <b>eav legrand/Cabtree.</b> )	9	Nos		

44	Supply and Fixing Double Door SPN DB box (concealed ) with 32 amp MCB in MS Box, with one no.24 Hour digital timer and one 2 pole 20 amp contactor. <b>(for Glow sign board)</b> (Legrand / Hager/Crabtree Xpro/Siemens)	1	Nos.		
45	Supply, lay and connect PVC insulated CU conductor and armoured 20 pair Telephone cable for the following:-	150	Mtr		
46	Telephone point wiring with 2 pair PVC insulated CU conductor (0.5mm) telephone wire drawn through BEMS pipe/conduit	10	Each		
47	Supply and erection of modular type telephone outlet RJ11 mounted on suitable front pale housed in recessed MS box.	10	Each		
48	Supply and erection of 20 pair telephone terminal box (Krone type housed in MS box).	2	Each		
49	Supplying & Drawing LAN cable (CAT6) (Brand approved by EIC) in prelaidd PVC rigid conduit/ in polythene pipe embeded in wall.	100	Mtr		
50	S & I of point wiring for music - cum PA system comprising of 2 x 1.0 sqmm stranded , copper conductor , flexible PVC insulated and PVC Sheathed wire pulled through 20 mm dia .PVC heavy gauge conduits and looped from one speaker to other and to the volume control and control switch wherever applicable and finally terminated at Tag Block.	2	pts		
51	S & I of Philips / Bosch/Ahuja make music speaker (6W) flush mounted on the false ceiling with proper clamping arrangement	2	Nos.		

52	S & I of volume control - cum - ON - OFF switch flush mounted on wall along with other electrical switches .The size and plate of the regulating knob should match with other switches nearby (MK make)	2	Nos.		
53	S & I of 100 Watts BOSCH/Ahuja make Central Music System Amplifier and MP3/CD Player with FM facility of make Samsung/Onida/LG	2	set		
54	S & I of TV socket point flush mounted on wall / partition including cabling till outside the building with connector	4	No.		
55	Supply & Laying of 2 Core 1.5 Sq.mm Un armoured power cable for power supply to Panic Switch,Sensor, Hooters etc.	30	pnts		
56	Supply & Laying of 2 Core 1.5 Sq.mm Armoured cable for Fire Alarm System	30	pts		
57	S&I of Photo electric(Optical) type Smoke Detector with flashing LED Above the false ceiling where ever required as per the IS standard.	16	no.		
58	S&I of Photo electric(Optical) type Smoke Detector with flashing LED Below the false ceiling where ever required as per IS standard.	16	no.		
59	Supply & Laying of 4 Core 14/36 Shielded cable for Security Alarm System for motion sensor and Key pad	32	Pnts		
60	Supply & Installation of Automatic Fire Alarm Control Panel of required capacity	2	Nos		
61	Supplying & laying <b>25mm/32mm alcatene PVC pipe (superior quality)</b> in the excavated earth with 1no 18swg Fish Wire etc.	750	Mtr		

<b>62</b>	Supplying and fixing of cable end box/ adapter box (16 SWG) of suitable size for MCB DB/Main Switch etc. (Maximum Size TPN horizontal MCBDB 12-way)	22	Nos		
<b>63</b>	Supplying and fixing of joint box made with 16 swg GI sheet by providing terminal etc. Maximum Size (450X250X65mm) 18"x10"x2.5"	42	Nos		
<b>64</b>	Supplying and fixing double door Horizontal TPN MCB Distribution board with IP-42/43 protection, concealed in wall after cutting the wall & mending good the damages to original finish incl. Inter connection with suitable size of copper wire and neutral link & provision for earthing attachment. 8 Way Enclosure (607717) Make: Legrand or Eq.	4	Nos		
<b>65</b>	Supplying and fixing 240/415 V MCB Isolator on din rail of existing DBs and necessary connection. 63 Amp DP Make: Legrand or Eq.	4	Nos		
<b>66</b>	Supplying and fixing 240/415 V MCB of Breaking capacity 10kA & C characteristics on din rail of existing DBs and necessary connection 6-32 Amp DP Make: Legrand or Eq.	30	Nos		
<b>67</b>	Supply, Installation, Testing & Commissioning of lightning conductor Air-terminals made of 15 mm dia 1500 mm long GI pipe (ISI Medium) having five prongs of 4 SWG GI (Hot Dip) wire at top with 85 mm dia 6 mm thick GI base plate at bottom incl. necessary holes etc. duly grouted on the parapet etc. in CC mortar (4:2:1)complete as required.	2	No.		

<b>68</b>	Supply & fixing GI (Hot Dip) strips 20 mm x 3 mm thick for horizontal run on the Parapet/Roof/ Wall with GI Saddles 1100 mm apart incl. mending good the damages to building works complete as required.(For horizontal run)	300	Mtr.		
<b>69</b>	Supply & fixing of GI (Hot Dip) strips 20 mm x 3 mm thick for vertical run on wall with GI saddles spaced not exceeding 1000 mm apart incl. mending good damages to building work complete as required.(For vertical run)	100	Mtr.		
<b>70</b>	Fixing of G.I. (Hot Dip) strips 20 mm x 3 mm thick on parapet or surface of wall for lightning conductor by riveting / nut bolting/ sweating and soldering etc as required.(For horizontal run).	20	No.		
<b>71</b>	Fixing of G.I. (Hot Dip) strips 20 mm x 3 mm thick on parapet or surface of wall for lightning conductor by riveting / nut bolting/ sweating and soldering etc as required.(For vertical run).	70	No.		
<b>72</b>	Supply & Fixing of Testing Joints by 20 mm x 3 mm thick GI (Hot Dip) strip 125 mm long grouted on wall having clearance of 6 mm from wall for making connection with thimbles at the end of 7/10 SWG GI (Hot Dip) stranded Wire and 4 SWG GI (Hot Dip) wire of vertical conductor and conductor from earth electrode complete with S & F thimbles, GI bolts, nuts, check-nuts, spring washers etc. as required	4	No.		

73	Supply, Installation, Testing & Commissioning of Maintenance Free Earthing by copper bonded earth electrode of 17.2 mm dia, 3048 mm length and 254 microns of copper bonding thickness, Earth enhancement compound sealed in a bag of 12.5 kg. - 2 bags, Universal clamp made up of stainless steel as termination clamp complete as required.	4	No.		
	<b>Sub-Total for Part-C: Electrical Works</b>				

(.....)  
Name & Signature with date

Seal  
Firm:



**Part-D: Landscape Works**

SL. NO.	DESCRIPTION	QUANTITY	UNIT	QUOTED UNIT RATE (Rs.)	AMOUNT (Rs.) = QUOTED UNIT RATE X QUANTITY
<b>D</b>	<b>Landscape Works</b>				
<b>1</b>	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Depth of excavation not exceeding 1,500 mm.	370	cu-mt		
<b>2</b>	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) With earth obtained from excavation of foundation.	76	cu-mt		
<b>3</b>	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	750	sq-mt		
<b>4</b>	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement,if any, in ground floor as per relevant IS codes. a) Pakur Variety ( <b>as per instruction of EIC/Architect</b> )	72	cu-mt		

5	Controlled Cement concrete with well graded stone chips (20 mm nominal size) excluding shuttering and reinforcement with complete design of concrete as per IS : 456 and relevant special publications, submission of job mix formula after preliminary mix design after testing of concrete cubes as per direction of Engineer-in charge. Consumption of cement will not be less than 300 Kg of cement with Super plasticiser per cubic meter of controlled concrete but actual consumption will be determined on the basis of preliminary test and job mix formula. In ground floor and foundation.[using concrete mixture] <b>M 25 Grade with a proportion of 1:1:2 (as per instruction of EIC/Architect)</b>	26	cu-mt		
6	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to ,correct.shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. using Tor steel/Mild Steel of make SAIL/ TATA/RINL	2	Mt		
7	Brick work with 1st class bricks in cement mortar (1:6)  In superstructure, Ground Floor	8	cu-mt		
8	125 mm. thick brick work with 1st class bricks in cement mortar (1:4) in ground floor.  In foundation, plinth and ground floor	14	sq-mt		

9	18 mm. to 22 mm. thick, kota stone slab set in 20 mm thick (avg) cement mortar (1:4) in floor, stair & lobby including pointing in cement slurry with admixture of pigment matching the stone shade, including grinding & polishing as per direction of Engineer - in - charge to match with the existing work. [Slurry for bedding @ 4.4 kg/Sq.m and pointing @2.0 kg/Sq.m]	210	sq-mt		
10	Extra cost of labour for grinding Kota Stone Floor in treads and riser of Steps.	48	sq-mt		
11	Supplying, fitting & fixing granite slabs 15mm to 18 mm. thick with uniform texture & without decorative veins in columns, wall, facia, rise etc. with 15 mm thick [avg] cement mortar (1:2) including making suitable arrangements to hold the stones properly by brass / copper hooks including pointing in cement mortar (1:2) (1 white cement : 2 marble dust) with admixture of pigment matching the stone shades all complete as per direction of the Engineer-in-charge including cost of all materials, labours, scaffolding, staging, curing and roughening of concrete surface complete. [Using cement slurry at back side of granite @ 4.4 kg/sq.m & white cement slurry for joint filling @ 1.8 kg/sq.m] In ground floor <b>Area of each Granite slab above 1.00 Square meter.</b>	7	sq-mt		

<b>12</b>	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary (Ground floor).[Excluding cost of chipping over concrete surface] With 1:4 cement mortar.				
<b>12.1</b>	20mm thk cement plaster	25	sq-mt		
<b>12.2</b>	15mm thk cement plaster	25	sq-mt		
<b>13</b>	Supplying and stacking of good earth (adequate for horticulture work) at site including royalty (earth measured in stack will be reduced by 20% for payment)	40.5	Cu.M.		
<b>14</b>	Supplying and stacking sludge (adequate for Horticulture work) at site in dry cake form from approved disposal work site including royalty, all lead and lift etc. (Sludge measured in stack will be reduced by 8%).	20.25	Cu.M.		
<b>15</b>	Spreading of sludge, dump manure,/farm yard manure /animal dung manure and good earth in required thickness. This includes supply of labour, tools & plants excluding materials.	300	sq-mt		

16	Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 ( 8 parts of tacked volume of earth after reduction by 20%, one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary watering and finally fine dressing, levelling etc., including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50m lift upto 1.5m complete. This includes supply of labour, tools & plants including materials. Planting hedge plants in two rows at 30cm apart.	285	sq-mt		
17	Maintenance of hedge for one year including application of necessary pesticide, farm yard manure, replacement of damaged hedge plant by new one complete in all respect as per instruction of Engineer-in-charge. This includes supply of labour, tools & plants including materials.	285	sq-mt		
18	Planting of trees (Avenue plants) in 0.60m dia holea, 1m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure. This includes supply of labour, tools & plants including materials but excluding cost of tree.	15	Each		
19	Maintanance of trees for one year (Avenue Plants) including watering, trimming, manuring, spraying insecticide and guarding as required. This includes supply of labour, tools & plants including materials.	15	Each		

<b>20</b>	<b>SHRUBS</b>				
<b>20.1</b>	Acalypha species ( Red/Green) of height 30cm-90cm in earthen pots of size 25cm.	42	Each		
<b>20.2</b>	Bougainvillea (name variety, bushy plants, full bloom) of height 90cm-60cm in cement pots of size 30cm.	42	Each		
<b>20.3</b>	Croton (broad leaves) 3-5 branches of height 90cm-120cm in cement pots of size 30cm.	42	Each		
<b>20.4</b>	Dracaena (Mahatma) of height 30 cm to 90 cm in earthen pots of size 20 cm.	42	Each		
<b>20.5</b>	Supply and stacking of plant Tabernaemontana coronaria (Chandni single) of height 45-60 cm. in earthen pots of size 20 cm as per direction of the officer-in-charge.	42	Each		
<b>21</b>	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and than rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	20	sq-mt		
<b>22</b>	Providing and laying 25 mm Thick EPDM flooring with Top 6 mm EPDM material and Down 19 mm Black Granules (as per design)	710	sq-mt		

23	Supplying & planting <b>Plumeria alba Tree</b> (Plumeria alba is a species of the genus Plumeria (Apocynaceae). This 2-8m evergreen shrub has narrow elongated leaves, large and strongly perfumed white flowers with a yellow center) as per direction of the Architect	8	Nos		
<b>Sub-Total for Part-D: Landscape Works</b>					

(.....)  
Name & Signature with date

Seal  
Firm:

**Summation of Quote:**

<b><u>Sl. No.</u></b>	<b><u>Sub Total for</u></b>	<b><u>Total Amount (Rs.)</u></b>
A	Civil Works	
B	Sanitary and Plumbing Works	
C	Electrical Works	
D	Landscape Works	
	CGST @9%	
	SGST @9%	
	Grand Total Including GST @18%	
Grand Total Amount: In Words Rupees		

**NOTE: Brands / Makes/ Manufacturer of All Items is as quoted in Section VIII at page 63 to 74.**

- i) The tender enquiry will be finalized on Overall Lowest (L1) bidder quoted price basis and as per tender Terms & Conditions for the above-mentioned items/schedules and after considering purchase preference policy for MSE's as mentioned at Section-III of this tender and then Contract will be awarded accordingly.
- ii) We confirm that there would not be any price escalation during the Tenure of Contract.
- iii) We confirm that we will abide by all the tender Terms & Conditions of tender, above scope of work and we do not have any counter conditions.
- iv) We confirm that tendered item will be supplied/executed as per specification and tender conditions.
- v) Bidders are required to quote the price within 2 Decimal Place. Price quoted with more than 2 decimal places will be rounded off to 2 decimal places for evaluation.
- vi) The quoted rates are inclusive of all the supply of materials, labour, transportation, insurance, loading/ unloading, Installation, all applicable taxes like GST as per prevailing rules, Contractor's profit or any other inputs.
- vii) The rates are quoted with all awareness of the site conditions and after going through the tender documents in details.
- viii) Price should be quoted exactly as per the format given above. Multiple rates for single item, would lead to rejection of offer. Omission and/or missing of quote for any item will be treated as incomplete quote and hence will not be considered for Price-Comparison and will be liable for rejection.
- ix) Bidders mentioning the price quoted for offered item/s in any place other than Price – Bid (PART-II) shall be liable for rejection of their bid.
- x) In addition to above in case any additional statutory tax/cess/charges/duties/fees liability arises on the Contractor side during the currency of contract, the same will be accepted by the Contractor.
- xi) We confirm that the Statutory Compliances and Responsibilities of the Contractor mentioned at page 45 to 48 of this tender will be strictly adhered to.

Note : Tender document without signature & essential document is liable for rejection at any stage.

Thanking you,  
Yours faithfully,

(.....)

Name & Signature with date

Seal

Firm:



## **SECTION XII: QUESTIONNAIRE**

The Tenderer should furnish specific answers to all the questions/ issues mentioned below. In case a question / issue do not apply to a tenderer, the same should be answered with the remark "not applicable".

Wherever necessary and applicable, the tenderer shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.

In case a tenderer furnishes a wrong or evasive answer against any of the under mentioned question / issues, its tender will be liable to be ignored.

1. Brief description and of goods and services offered: **CONSTRUCTION OF NURSERY SCHOOL BUILDING AT BRBNMPL, SALBONI**

2. Name and Address of the Firm: .....

3. Nature of the Firm: (Proprietorship/Partnership/Ltd. Company/Co-op. Society).....

4. Offer is valid for acceptance up to: **120 Days from the Date of Opening of Tender.**

5. Your Permanent Income Tax A/c No. as allotted by the Income Tax Authority of Government of India: .....

Please attach certified copy of your latest / current Income Tax clearance certificate issued by the above authority.

6. Your GSTIN (Copy of registration to be enclosed): .....

7. Status:

a) Are you currently registered with the Central Purchase Organization, and/or as a Micro and Small Enterprise (MSE) as defined in MSEs Order 2012 issued by Ministry of Micro, Small and Medium Enterprises (MSME), and/or as a Startup as recognised by Department for Promotion of Industry and Internal Trade (DPIIT) and/or the present BRBNMPL and/or the Directorate of Industries of the concerned State Government for the goods quoted? If so, indicate the date up to which you are registered and whether there is any monetary limit imposed on your registration.

b) Are you currently registered under the Indian Companies Act, 2013 or any other similar Act?

Please attach certified copy(s) of your registration status etc. in case your answer(s) to above queries is in affirmative.

8. Please indicate Name & full Address of your Banker(s)

9. Please state whether business dealings with you currently stand suspended/ banned by any Ministry / Dept. of Government of India or by any State Govt.

.....

(Signature with date)

(Full name, designation & address of the person duly authorized sign on behalf of the tenderer)

For and on behalf of .....

(Name, address and stamp of the tendering firm)

**SECTION XV: BANK GUARANTEE FORM FOR PERFORMANCE  
SECURITY.**

\_\_\_\_\_ [Insert Bank's Name, and Address of Issuing Branch or Office)

Beneficiary \_\_\_\_\_ [Insert Name and Address of BRBNMPL]

Date: -----

Performance Guarantee No. \_\_\_\_\_

Date.....

WHEREAS ..... (name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract no ..... dated ..... to supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract:

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of \_\_\_\_\_ (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract 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 or the sum specified therein.

We hereby waive the necessity of your demanding me said debt from the supplier before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

We undertake to pay BRBNMPL up to the above amount upon receipt of its first written demand, without BRBNMPL having to substantiate its demand.

This guarantee will remain in force for a period of sixty days after the date of all Contractual obligations by the Contractor and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

## **SECTION XVI: CONTRACT FORM**

(Address of BRBNMPL's office issuing the contract)

Contract No ..... dated

This is in continuation to this office' Notification of Award No. .... dated .....

1. Name & address of the Supplier: .....
2. BRBNMPL's Tender document No. .... dated ..... and subsequent Amendment No. .... dated ..... (if any), issued by BRBNMPL
3. Supplier's Tender No. .... dated ..... and subsequent communication(s) No. .... dated ..... (If any), exchanged between the supplier and BRBNMPL in connection with this tender
4. In addition to this Contract Form, the following documents etc, which are included in the documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as part of this contract:
  - a. General Conditions of Contract;
  - b. Special Conditions of Contract;
  - c. List of Requirements;
  - d. Technical Specifications;
  - e. Quality Control Requirements;
  - f. Tender Form furnished by the supplier;
  - g. Price Schedule(s) furnished by the supplier in its tender;
  - h. Manufacturers' Authorisation Form (if applicable for this tender);
  - i. BRBNMPL's Notification of Award

Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under Section - V - 'General Conditions of Contract' of BRBNMPL's Tender document shall also apply to this contract.

5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:
  - a. Brief particulars of the goods and services which shall be supplied / provided by the supplier are as under:

Schedule No.	Brief description of goods / services	Accounting unit	Quantity to be supplied	Unit Price (In Rs.)	Total price

Any other additional services (if applicable) and cost thereof:

Total value (in figure)                      (In words)

(ii) Delivery schedule

(iii) Details of Performance Security

(iv) Quality Control

- (a) Mode(s), stage(s) and place(s) of conducting inspections and tests.
- (b) Designation and address of BRBNMPL's inspecting officer
- (v) Destination and dispatch instructions
- (vi) Consignee, including port consignee, if any
- (vii) Warranty clause
- (viii) Payment terms
- (ix) Paying authority

.....  
(Signature, name and address of BRBNMPL's authorized official)  
For and on behalf of

Received and accepted this contract

(Signature, name and address of the supplier's executive duly authorized to sign on behalf of the supplier)  
For and on behalf of

(Name and address of the supplier)

.....  
(Seal of the supplier)

Date:

Place:

## **SECTION XVII: LETTER OF AUTHORITY FOR ATTENDING A BID OPENING**

(Refer to clause 24.2 of GIT)

To,  
The General Manager  
Bharatiya Reserve Bank Note Mudran Private Limited  
P.O. RBNML - 721132, Salboni,  
Dist. Paschim Medinipur, West Bengal.

Subject: Authorization for attending bid opening on \_\_\_\_\_ (date) in the Tender of \_\_\_\_\_

Following persons are hereby authorized to attend the bid opening for the tender mentioned above on behalf of \_\_\_\_\_ (Bidder) in order of preference given below:

Order of Preference	Name	Specimen Signatures
I.		
II.		
Alternate Representative		
Signature of Bidder or Officer authorized to sign the bid Documents on behalf of the bidder		

Note:

1. Maximum of two representatives will be permitted to attend bid opening. In cases where it is restricted to one, first preference will be allowed. Alternate representative will be permitted when regular representatives are not able to attend.
2. Permission for entry to the hall where bids are opened may be refused in case authorization as prescribed above is not produced.

Signature of bidder with date and seal /Officer authorised to sign bid document on behalf of the bidder

**SECTION XIX: PROFORMA OF BILLS FOR PAYMENT**

(To be submitted by Contractor's on their letter Head)

Name and Address of the Firm:

Bill No:

Dated: ....

To,

The General Manager

Bharatiya Reserve Bank Note Mudran Private Limited

P.O. RBNML - 721132, Salboni,

Dist. Paschim Medinipur, West Bengal.

Invoice / Bill No. & Date	
PAN No.	
GST No.	
BRBNMPL GST No	

Sub: Submission of Bill for payment

S. No.	Work Order No: & Date	Item Description	Quantity	Rate (Rs.)	Amount	Amount in Words
1						
<b>Total (Including all taxes) - A separate Detail measurement sheet is to be attached along with this bill.</b>						
2.	Work order amount: `					
3	Type of bill:					
4	Area of work:					
5	Starting date of work :					
6	Schedule date of completion:					
7	Actual date of completion:					
8	Reasons for delay:					
11	Liquidated damage ( if any ) : (For any delay beyond specified schedule time period)					
12	DLP Period:					
13	EMD :					
14	Security Deposit:					
15	Any other details/Remarks:					

I hereby certify that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.

Signature and Stamp of Contractor

**ANNEXURE – A**  
**UNDERTAKING**

**(To be submitted on Company letter head duly signed by authorized person)**

**To Whomsoever It May Concern**

This is to confirm that we M/s. \_\_\_\_\_ have not been blacklisted / debarred by BRBNMPL/Government of India/PSU in the past 5 years.

This is to inform that we, M/s. \_\_\_\_\_, had been blacklisted / debarred by \_\_\_\_\_ from \_\_\_\_\_ (date) to \_\_\_\_\_ (date) in the past 5 years. We further confirm that we do not stand blacklisted/debarred as on the date of tender opening.

*[Please strikeout whichever statement is not applicable]*

Dated this \_\_\_\_\_ day of \_\_\_\_\_

.....  
(Authorized Signatory of the bidder firm with date)

Name of Authorized Signatory: .....

Designation: .....

**Confidentiality Statement**

“The information, which is contained in this document will not, in whole or in part be reproduced, transferred to other documents/electronic media or disclosed to others without written consent of BRBNMPL”. We shall also undertake to maintenance secrecy, exclusivity and confidentiality of the high security currency printing environment of BRBNMPL.

Dated this \_\_\_\_\_ day of \_\_\_\_\_

.....  
(Authorized Signatory of the bidder firm with date)

Name of Authorized Signatory: .....

Designation: .....

(Seal)

**ANNEXURE – B****NEFT - MODEL MANDATE FORM**

(Investor / customer's option to receive payments through Credit Clearing Mechanism)

Name of the Scheme and the periodicity of payment

1	Investor / Customer's Name		
2	Particulars of Bank account		
	A	Name of the Bank	
	B	Name of the branch	
		Address	
		Telephone No	
		Whether Bank branch is NEFT enabled	
	C	Code number of the bank and branch appearing on the MICR Cheque issued by the bank	
	D	Type of the account (SB, Current or Cash Credit)	
	E	Ledger and Ledger Folio number	
	F	Account number (as appearing on the Cheque book)	
	G	<b>RTGS / IFSC Code No.</b>	
(In lieu of the bank certificate to be obtained as under, please attach a blank canceled cheque or photocopy of a cheque or front page of your Savings bank passbook issued by your bank for verification of the above particulars)			
3	Date of effect		

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under the scheme.

(.....)

Signature of the Investor / Customer

Date:

Certified that the particulars furnished above are correct as per our records.

Bank's Stamp

Date:

(.....)

Signature of the authorized official of the Bank

*(To be filled, signed & stamped and submitted along with Techno-commercial Bid Part -I)*



**ANNEXURE - C**

**TO WHOMSOEVER IT MAY CONCERN**

**This is to confirm that we M/s.\_\_\_\_\_ shall fulfil the Security Deposit formalities as per NIT on becoming L1.**

**For & on behalf of**

**(Seal & signature)**

**(Name and designation)**

**Duly authorized to sign tender for and on behalf of**

**ANNEXURE D**

(To be submitted on the Bidder's Company's Letterhead)

**BID SECURITY DECLARATION IN LIEU OF EARNEST MONEY DEPOSIT**

To,

The General Manager

BRBNMPL, SALBONI.

**Sub:** Submission of Bid Security Declaration in Lieu of Earnest Money Deposit against Tender no. ....for .....

Dear Sir,

1. I/We have downloaded / obtained the tender document for the above mentioned "Tender/Work" from the BRBNMPL Portal.

2. I/We understand that according to terms and conditions of this tender, bid must be supported by a bid security, which may be in the form of Bid Security Declaration.

3. I/We hereby undertake that if in case I/We withdraw or modify my/our Bid during the period of validity or if I/We are awarded the contract and I/We fail to sign the contract (NoA / Lol / P.O. / W.O. / Agreement etc.) or to submit a performance security before the deadline defined in the request for bids document then I/We will be suspended for the period of 1 (ONE) years from being eligible to submit Bids to BRBNMPL, Salboni.

4. I/We understand that this Bid Security Declaration shall cease to be valid under the following circumstances:

- i. I am/we are declared ineligible/ unsuccessful or
- ii. I am/ We are declared as successful bidder and I/we have furnished the Performance Security and Signed the Contract within the stipulated time.

Place: \_\_\_\_\_ Signature: \_\_\_\_\_

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

Designation: \_\_\_\_\_

Authorized Signatories

Seal

*(To be filled, signed & stamped and submitted along with Techno-commercial Bid Part-I)*

**ANNEXURE E****Declaration & Undertaking by Micro & Small Scale Enterprises / Start-up Companies / Entities seeking purchase preference under Make In India Policy / Women entrepreneurs / Registration with TReDS/GeM**

(To be filled in the Company letter head)

Date: .....

Sl No	Particulars	Details
1	Is your organization Proprietary / Partnership / Private Limited Company / Public Limited Company / Others	.....
2	Does your organization belong to Micro / Small scale Industry / Start-up / Class-I local supplier / others  (Please tick mark appropriate box. Bidders may tick more than one, if eligible)	<input type="checkbox"/> Micro <input type="checkbox"/> Small Scale <input type="checkbox"/> Start-up Company <input type="checkbox"/> Class-I local supplier <input type="checkbox"/> Others
3	In case you belong to Micro / Small Scale Enterprises, whether you are a Manufacturer for the tendered items (supply) / Service Provider for the tendered services  (Please tick mark the appropriate box)	<input type="checkbox"/> Manufacturer for supply items <input type="checkbox"/> Service Provider for services <input type="checkbox"/> Trader/dealer/reseller/distributor/ authorized agent <input type="checkbox"/> Non MSE Bidder
4	In case you belong to Micro / Small Scale Enterprises, whether you are registered under SC / ST Category. <i>If yes, valid documentary evidence to be submitted</i> (Please tick mark the appropriate box)	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, whether <input type="checkbox"/> SC <input type="checkbox"/> ST
5	In case you belong to Micro / Small Scale Enterprises, whether your firm/ organization is owned by Women entrepreneurs? <i>If yes, valid documentary evidence to be submitted</i>  (Please tick mark the appropriate box)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Sl No	Particulars	Details
	Are you registered under TReDS (Trade Receivable electronic Discounting System approved by RBI) Applicable for Micro, Small and Medium Enterprises  (Please tick mark the appropriate box)	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes, whether  <input type="checkbox"/> RXIL <input type="checkbox"/> A-Treds <input type="checkbox"/> M1Xchange (Tick agency with whom you are registered along with Regn No.) Regn No. ....
	Has your firm/organization registered your items/services in Government e-Marketplace (GeM)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In case you are both a valid MSE bidder and Class-I local supplier (Make in India Policy), please give your preference. (Please tick any one)	<input type="checkbox"/> MSE <input type="checkbox"/> Class-I local supplier
	In case you are claiming benefits under Make in India Policy, whether you are meeting the minimum local content as mentioned in the tender document/ concerned Ministry guidelines/Policy.	<input type="checkbox"/> Yes, Local Content _____ % <input type="checkbox"/> Not applicable for this tender
<p><b>Declaration:</b> I/We hereby declare that the above data submitted are true and back-up documents are attached as proof of the same. In case any submitted data are found to be incorrect/false, my/our bid is liable to be rejected and I/we am/are liable for suitable actions as per relevant BRBNMPL Policy.</p> <p>I/We also understand that in case I/we am/are not claiming benefits under Make in India Policy, or under MSEs Order as per tender requirements, then purchase preference shall apply to other bidders who have quoted accordingly as per policy.</p>		

#### A. Categorisation of MSE/SC-ST & Women Vendors

1. In case of Micro/Small scale Enterprises, kindly attach Registration Certificate issued by DIC/KVIC/KVIB/Coir Board/NSIC/Directorate of Handicrafts and Handlooms, or any other body specified by MSME for authentication such as Udyog Aadhaar Memorandum/Acknowledgment.
2. SC/ST and Women entrepreneurs registered under MSEs need to submit valid documentary evidence.

**B. Categorisation of Start-up Companies**

Bidder who intends to participate as 'Start-up' Company should enclose the Certificate of Recognition issued by Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India and his eligibility shall be valid as on bid closing date.

**C. Declaration in case of MSE Bidders / Start-up Companies**

In terms of Tender Conditions applicable for Micro & Small Enterprises (MSEs) / Start-ups, we hereby declare as under: -

- a. We are a Micro / Small Enterprise, as on bid closing date of this tender.
- b. We are a Manufacturer of the quoted supply item(s)/service provider for quoted services and valid documentary evidence for same is submitted.
- c. MSE certificate submitted by us is authentic & valid as on bid closing date of this tender.
- d. We are a 'Start-up' Company and we are enclosing copy of certificate of recognition issued by Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India.
- e. We are a Micro / Small Enterprise which is owned by SC-ST/women entrepreneurs and we are submitting valid documentary evidence for the same.

**D. Declaration in case of entities seeking purchase preference under Make in India Policy**

We have read carefully the terms and conditions for availing the benefits of purchase preference under Make in India Policy and we are meeting all the requirements of Local Content and duly certified documents for proving the stipulated local content along with details of the location(s) where local value addition is made as mentioned in this document are enclosed.

We declare the above details are true. In case any of the details are found to be false/untrue, our offer will be liable for rejection /cancellation of order/subjected to appropriate actions as per tender Terms & Conditions.

.....

Authorized Signatory

(With Company Seal & Signature)

**ANNEXURE F****PERFORMANCE BANK GUARANTEE ISSUED ON BEHALF OF HOLDING COMPANY  
FOR SATISFACTORY PERFORMANCE OF CONTRACT BY ITS SUBSIDIARY  
COMPANY**

(Name of the Bank and Address of the issuing branch) Date: \_\_\_\_\_

Name and Address of the Beneficiary:  
 Bharatiya Reserve Bank Note Mudran Private Limited  
 P.O. RBNML - 721132, Salboni,  
 Dist. Paschim Medinipur, West Bengal

Name / Number of Tender/Contract: \_\_\_\_\_

Performance Bank Guarantee No. : \_\_\_\_\_

Performance Bank Guarantee Value: \_\_\_\_\_

Performance Bank Guarantee Validity: \_\_\_\_\_

**WHEREAS,** \_\_\_\_\_ (“**Bidder**”), the wholly owned subsidiary of our constituent \_\_\_\_\_ (“**Holding Company**”) has submitted its offer in response to your *Notice Inviting Tender* bearing no. \_\_\_\_\_ dated \_\_\_\_\_ for supply of \_\_\_\_\_ and has been selected by you as the ‘*successful bidder*’. Subsequently, you have issued a letter of engagement bearing no. \_\_\_\_\_ dated \_\_\_\_\_ to the Bidder.

**WHEREAS,** we have been informed that it has been stipulated by you in the tender documents that the holding Company of the Bidder, shall furnish you with (i) an undertaking to provide ‘*Financial Support*’ to the Bidder; and (ii) an unconditional and irrevocable Bank Guarantee (“**Guarantee**”) by a Scheduled Commercial Bank recognized by you as security by the Holding Company for compliance by the Bidder of its obligations under the contract to be executed between yourselves and the Bidder for supply of \_\_\_\_\_ (“**Contract**”).

**AND WHEREAS,** pursuant to the undertaking bearing reference no. \_\_\_\_\_ dated \_\_\_\_\_ given by the Holding Company, the Holding Company has approached us to provide a Guarantee which we have agreed to, as below:-

**NOW THEREFORE**, we affirm that, we, as the guarantors hereby extend our guarantee and undertake to indemnify you on behalf of the Bidder and the Holding Company, without any demur, cavil or argument up to a sum of \_\_\_\_\_ /- (Rupees \_\_\_\_\_ Only) upon your first written demand declaring the Bidder to be in default under the Contract.

This unconditional Guarantee shall come into full force and effect on the date of execution of the Contract or the date of issue of Notification of Award of Contract, whichever is earlier.

This Guarantee shall apply and be supplemental to the Contract as amended, modified or varied by you and the Bidder from time to time. The Holding Company hereby authorizes the Bidder to agree to any such amendment, modification or variation, the due performance and compliance with which the Bidder is guaranteed herein. The Holding Company's obligations and liabilities under this Guarantee shall not be discharged by any allowance of time or other indulgence whatsoever.

We hereby unconditionally and irrevocably undertake to pay you a sum of Rs. \_\_\_\_\_ /- (Rupees \_\_\_\_\_ Only), upon receipt of your written demand, without you having to substantiate or prove your demand. We further agree that such demand shall be final and binding on us notwithstanding any dispute or suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator.

This unconditional and irrevocable Guarantee shall remain in full force and effect until all of the Bidder's duties, obligations (including warranty obligations) and liabilities under the contract have been discharged, of which you will be the sole judge and for a further period of 90 (Ninety) days thereafter or 90 (Ninety) days from the date of earlier termination of the Contract and any demand in respect thereof should reach the Bank not later than the above date.

Signature of the authorized officer of the Bank

\_\_\_\_\_ (Name)

\_\_\_\_\_ (Designation)

Seal and Address of the Bank

**ANNEXURE G**  
**ON THE LETTER HEAD OF THE HOLDING COMPANY**

Ref. :- \_\_\_\_\_

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

To,

The General Manager  
 Bharatiya Reserve Bank Note Mudran Private Limited  
 P.O. RBNML - 721132, Salboni,  
 Dist. Paschim Medinipur, West Bengal

Dear Sir,

***Undertaking to provide financial support to our wholly owned subsidiary***

We, \_\_\_\_\_ agree to provide financial support to our wholly owned subsidiary, \_\_\_\_\_ ("***Bidder***"), who is participating in the tender floated by you bearing no. \_\_\_\_\_ for the supply of \_\_\_\_\_ ("***Tender***").

We confirm and undertake that our financial standing credentials can be clubbed with that of the Bidder in order to enable it to qualify the financial standing criteria stipulated in the Tender documents. We enclose the necessary documents to enable you to assess and confirm our financial standing.

We further agree and undertake to furnish to you a suitable performance bank guarantee and indemnify you and hold you harmless in the event the Bidder fails to perform its obligations under the Tender.

We, hereby, undertake to make available to the Bidder the required financial resources to enable compliance by the Bidder with the Tender and the contract that may be awarded pursuant to the bid, if successful.

\_\_\_\_\_ (Name)

\_\_\_\_\_ (Designation)

***Enclosures: -***

1. Copy(s) of our Certificate of Incorporation and that of the Bidder;
2. Copy(s) of Form MGT-7 (*i.e. Annual Return*) filed by us and the Bidder for the latest financial year;
3. Copy of our Permanent Account Number Card;
4. Copy(s) of our Consolidated Financial Statement for the last three financial years.
5. Copy of shareholders agreement, if any
6. Copy of Memorandum and Articles of Association/Partnership deed of bidding entity.



## ANNEXURE H

### 1. Financial standings (as per Section-IX):

Sr. No.	Financial Year	Annual Turnover (Rs.)	Net worth (+/-) (Rs.)	Remarks	ITR copy enclosed (Please tick)
a.	2018-19				
b.	2019-20				
c.	2020-21				
Avg. Annual Turnover->					
Required Annual Turnover ->		<b>Rs.116.12 Lakh</b>			

Note (if any) : .....

.....

.....

**ANNEXURE-I**  
**GST Registration details**

<b>GSTIN / UIN</b>	
<b>PAN</b>	
<b>NAME OF THE SUPPLIER</b> (as per PAN / Legal Name of Business)	
<b>TRADE NAME</b> (as per GST certificate)	
<b>ADDRESS</b>	
<b>STATE</b>	
<b>COUNTRY</b>	
<b>PINCODE</b>	
<b>Constitution of Business</b>	
<b>Taxpayer Type</b>	(i) <b>REGULAR</b> (ii) <b>COMPOSITION</b> (iii) <b>CONSUMER</b> (iv) <b>UNREGISTERED</b>
<b>PARTY TYPE</b>	(i) <b>DEEMED EXPORT</b> (ii) <b>SEZ</b> (iii) <b>NOT APPLICABLE (N.A)</b>
<b>IS A e COMMERCE OPERATOR</b> (YES / NO)	<b>YES / NO</b>

ITEM DESCRIPTION	HSN / SAC CODE	SGST / CGST / IGST / UTGST	RATE OF GST %
1.			
2.			

(Authorised Signatory of the bidder firm with date)

(Seal)

## **ANNEXURE-J**

### **Salient features of revised 'Public Procurement (Preference to Make in India) Order, 2017'**

1. As per the revised Order, suppliers have been classified as 'Class-I local supplier', 'Class-II local supplier' and 'Non-local supplier' as defined below *(para 2 of order)*: -
  - 'Class-I local supplier' - supplier or service provider whose Goods, Services or Works has local content equal to or more than 50% - *shall get purchase preference* provided quoted price falling within margin of price preference i.e. within L1 + 20%
  - 'Class-II local supplier' - supplier or service provider whose Goods, Services or Works has local content more than 20% but less than 50% - *shall not get any purchase preference*
  - 'Non-local supplier' - supplier or service provider whose Goods, Services or Works has local content less than or equal to 20% - *shall not get any purchase preference*
2. Other important definitions *(para 2 of order)*: -
  - 'Local content' - means the amount of value added in India i.e. total value of the item (excluding local taxes) minus the value of import content in the item (including customs duty) as a proportion of the total value of the item, in percent
  - 'Margin of purchase preference' – means the maximum extent to which the price quoted by a 'Class-I local supplier' can be above L1 price for the purpose of purchase preference. The margin of purchase preference shall be 20%
3. Different procurement scenarios in procurement of Goods, Services or Works *(para 3 of order)*: -

S/N	Scenario	Tender Type	Tender value	Eligible bidder	Relaxation
1	There <b>is</b> sufficient local capacity and competition	OTE/NCB	Any value	'Class-I local supplier'	Relaxation (as per para 10 (a) and (b) of order)
2	There <b>isn't</b> sufficient local capacity and competition	OTE/NCB	< ₹200 crore	'Class-I local supplier' 'Class-II local supplier'	Relaxation (as per para 10 (a) and (b) of order)
		GTE/ICB	Any value*	'Class-I local supplier' 'Class-II local supplier' 'Non-local supplier'	Relaxation (as per para 10 (a) and (b) of order) to Class-I and Class-II local suppliers

- \* For tender value < ₹200 crore, GTE/ICB shall not be issued except with the approval of Competent Authority as per amended Rule 161 (iv) of GFR 2017

4. Procedure for purchase preference to 'Class-I local supplier' applicable for procurement scenario 2 in para 3 above is explained below in brief *(para 3A (b) and (c) of order)*: -

i. Procurement of Goods and Works which are *divisible* in nature (e.g. consumables): -

- If L1 is 'Class-I local supplier' – 100% awarded to L1
- If L1 is *not* 'Class-I local supplier' – 50% awarded to L1
  - Remaining 50% awarded to lowest bidder among 'Class-I local supplier' falling within L1+20% subject to matching L1 price
  - If unable to match L1 price or accepts less than offered quantity, next lowest 'Class-I local supplier' bidder within L1+20% is invited to match L1 price for remaining quantity and so on and contract will be awarded accordingly
  - If some quantity is left uncovered on 'Class-I local supplier', then such balance quantity can be ordered on the original L1 bidder

ii. Procurement of Goods and Works which are *not divisible* in nature (e.g. Varnish Plant) and procurement of Services where bid is evaluated on price alone: -

- If L1 is 'Class-I local supplier' – 100% awarded to L1
- If L1 is *not* 'Class-I local supplier'
  - Lowest bidder among 'Class-I local supplier' falling within L1+20% is invited to match L1 price – contract awarded subject to matching L1 price
  - If unable to match L1 price, next lowest 'Class-I local supplier' bidder within L1+20% is invited to match L1 price and so on and contract will be awarded accordingly
  - If none of the 'Class-I local supplier' bidder within L1+20% is unable to match L1 price, contract awarded to original L1 bidder

5. **Verification of local content:** Verification of local content will be as per “**para 9**” (a) & (b) of DPIIT order No. P-45021/2/2017-B.E.-II dated 04.06.2020.

The Class-I local supplier/Class-II local supplier at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification (**as per format given below on the manufacturers Company letter head**) that the item required to indicate percentage of the local content requirement for Class-I local supplier/Class-II local supplier as the case may be. They shall also give details of the location(s) at which the local addition is made.

“We \_\_\_\_\_ (Name of Manufacturer/Supplier) undertake that we meet the mandatory minimum Local Content (LC) requirement i.e. \_\_\_\_\_ for claiming purchase preference linked with Local Contents under the Govt. policy against under tender no. \_\_\_\_\_.”

In cases of procurement for a value in excess of Rs.10 crores, the Class-I local supplier/Class-II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the Company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

**6. False declarations (para 9 (f) & (g) of DPIIT order),**

False declarations will be breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities.

**7. Relaxations in Eligibility Criteria (para 10 (a) & (b) of DPIIT order) No. P-45021/2/2017-B.E.-II dated 04.06.2020.**

Bidders under Make in India scheme are exempted to provide any proof of supply in other countries or proof of exports w.r.t. experience and past performance criteria, subject to meeting of quality and technical specifications mentioned in this Tender.

Besides above, the bidders have to submit a declaration and undertaking along with their offer as per *Declaration & Undertaking by Micro & Small Scale Enterprises / Start-up Companies / Entities seeking purchase preference under Make In India Policy / Women entrepreneurs / Registration with TReDS/GeM [as per Annexure-E]*.

## **ANNEXURE-K**

### **Salient features of 'Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012'**

#### **CONDITIONS FOR MICRO AND SMALL ENTERPRISES (MSEs)**

1. MSEs must be registered with any of the following in order to avail the benefits / preference available under MSEs Order, 2012: -
  - District Industries Centers (DIC)
  - Khadi and Village Industries Commission (KVIC)
  - Khadi and Village Industries Board
  - Coir Board
  - National Small Industries Corporation (NSIC)
  - Directorate of Handicraft and Handloom
  - Any other body specified by Ministry of MSME (MoMSME)
  - Udyog Aadhaar Acknowledgment / Udyog Aadhaar Memorandum issued by MoMSME
2. MSEs participating in the tender must submit valid & authorised copy of certificate of registration with any one of the above agencies. In case of bidders submitting DIC registration certificate, they shall attach original **notarised copy of the DIC certificate**.
3. The registration certificate issued from any one of the above agencies must be valid as on Bid closing date of the tender. Bidder shall ensure validity of registration certificate in case bid closing date is extended.
4. The MSEs who have applied for registration or renewal of registration with any of the above agencies/bodies, but have not obtained the valid certificate as on closing date of the tender, are not eligible for exemption/preference. Where validity of such certificates such as NSIC certificate has lapsed, it shall be the responsibility of the bidder to seek renewal from the concerned Govt. agency before such expiry. *However, documentary evidence seeking extension before the lapse of validity of such certificate and an authorization letter from the Govt. agency having received application for renewal submitted before the bid closing date shall be accepted.*
5. **Manufacturer for tendered items / Service provider of tendered services:** The MSE bidder must be Manufacturer of tendered items for procurement / Service provider who is capable of rendering the tendered services by themselves to avail the benefits under MSEs Order, 2012. Traders/dealers/resellers/distributors/authorized agents will not be considered for availing benefits under MSEs Order, 2012 as per guidelines issued by MoMSME.
6. The MSEs registered with above mentioned agencies / bodies are exempted from payment of Earnest Money Deposit (EMD) & Tender fees.
7. **Relaxation of Norms for Micro & Small Enterprises (MSEs):** Pre-qualification criteria with respect to Prior Turnover and Prior experience may be relaxed for Micro & Small Enterprises as per GOI guidelines subject to meeting of quality and technical specifications.
8. However, there may be circumstances like procurement of items/services related to public safety, health, critical security operations and equipment, etc., wherein BRBNMPL reserves the right to not consider relaxation of Prior Turnover and Prior Experience for Micro and Small Enterprises.

9. Items which are reserved for exclusive purchase from MSEs shall be procured from Micro and Small Enterprises as per Public Procurement Policy.
10. Subject to meeting terms and conditions stated in the tender document, *at least 25%* of the total quantity of the tender is earmarked for MSEs registered with above mentioned agencies / bodies.
11. In case MSE bidder is L1, entire value of the tender is to be ordered on the L1 MSE bidder.
12. In tender, participating MSEs quoting price within price band of L1 + 15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply at *least 25%* of the total tendered value (where the tender quantity can be split).
13. In case of more than one such MSEs are in the price band of L1 + 15% and matches the L1 price, the supply may be shared proportionately if the job can be split.
14. In case the tendered quantity cannot be split, MSE shall be allowed to supply total tendered quantity provided their quoted price is within a price band of L1 + 15% and they match the L1 price.
15. If the quantity cannot be split and there are more than one eligible MSE bidders (price band within L1+15%) then the opportunity to match the L1 rate of the tender shall be given first to MSE (who have quoted lowest rate among the MSEs within the price band of L1+15%) and the total quantity shall be awarded to him after matching the L1 price of the tender.
16. If the MSE who have quoted lowest rate among the MSEs in the price band of L1 + 15% do not agree to match the rate of L1 of the tender, then the next ranked MSE bidder who has quoted within the price band of L1 + 15% in order shall be given chance to match the rate of L1 for award of the quantity/order.
17. For more clarity in this regard, following table is furnished: -

Type of Tender	Price quoted by MSE	Finalization of tender
Can be Split	L1	Full order on MSE
	Not L1 but within L1+15%	At least 25% order on MSE subject to matching L1 price
Cannot be split	L1	Full Order on MSE
	Not L1 but within L1+15%	Full Order on MSE subject to matching L1 price

18. The purchase preference to MSEs is not applicable for works contracts where supply of goods not produced by MSEs is also involved.
19. **Special provision for MSEs owned by SC & ST entrepreneurs:** Out of the 25% target of annual procurement from MSEs, 4% shall be earmarked for procurement from MSEs owned by SC & ST entrepreneurs. In the event of failure of such MSEs to participate in the tender process or meet the tender requirements and L1 price, 4% sub-target so earmarked shall be met from other MSEs.
20. To qualify for entitlement as SC/ST owned MSE, the SC/ST certificate issued by District Authority in addition to certificate of registration with any one of the agencies mentioned in paragraph 1 above. Alternatively, the bidder shall be responsible to furnish necessary

documentary evidence for enabling BRBNMPL to ascertain that the MSE is owned by SC/ST entrepreneurs. MSE owned by SC/ST is defined as:

- In case of Proprietary MSE, proprietor(s) shall be SC/ST
- In case of Partnership MSE, the SC/ST partners shall be holding at least 51% shares in the enterprise
- In case of Private Limited Companies, at least 51% share shall be held by SC/ST promoters

21. **Special provision for MSEs owned by women entrepreneurs:** Out of the 25% target of annual procurement from MSEs, 3% shall be earmarked for procurement from MSEs owned by women entrepreneurs *in addition* to 4% earmarked for MSEs owned by SC/ ST entrepreneurs. MSE owned by Women is defined as:

- In case of Proprietary MSE, proprietor(s) shall be Women
- In case of Partnership MSE, the Women partners shall be holding at least 51% shares in the enterprise
- In case of Private Limited Companies, at least 51% share shall be held by Women promoters

22. Micro & Small Scale Enterprises have to submit a declaration and undertaking along with their offer as per *Declaration & Undertaking by Micro & Small Scale Enterprises / Start-up Companies / Entities seeking purchase preference under Make In India Policy / Women entrepreneurs / Registration with TReDS/GeM [as per Annexure-E]*.



**ANNEXURE-L****CONDITIONS FOR START-UP COMPANIES**

1. Subject to meeting of Quality and Technical specifications, BRBNMPL may consider allowing the participation of “Start-up” companies with capability to execute the supply/ services, as per technical specifications / perform the job as per scope of work specified in the tender and subject to meeting extant & relevant guidelines of Government of India. This should be confirmed and substantiated in the techno-commercial bid.
2. The bidder who intends to participate as “Start-up” Company should enclose the Certificate of Recognition issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, Govt. of India during submission of Techno-commercial bid.
3. Start-ups registered with DPIIT are exempted from payment of Earnest Money Deposit (EMD) & Tender fees.
4. Prequalification Criteria with respect to Prior Turnover and Prior Experience may be relaxed for Start-ups as per the GOI guidelines.
5. However, there may be circumstances like procurement of items/services related to public safety, health, critical security operations and equipment, etc. wherein BRBNMPL reserves the right to not consider relaxation of Prior Turnover and Prior Experience for Start-up Companies as per GoI guidelines.
6. Start-up Companies who are also registered as MSEs and wish to avail the benefits as applicable to MSE, shall submit relevant documents covered under Conditions for Micro and Small Enterprises elsewhere in this tender.
7. Start-up Companies have to submit a declaration and undertaking along with their offer as per *Declaration & Undertaking by Micro & Small Scale Enterprises / Start-up Companies / Entities seeking purchase preference under Make In India Policy / Women entrepreneurs / Registration with TReDS/GeM [as per Annexure-E]*.

## **ANNEXURE-M**

### **PROCEDURE TO BE ADOPTED WHEN THE BIDDER QUALIFIES AS BOTH MSE AND CLASS-I LOCAL SUPPLIER**

The option in case of bidders qualifying under both Policies, namely, Public Procurement Policy for MSEs Order, 2012 (MSEs-2012) and Public Procurement (Preference to Make in India) Order, 2017 (MII-2017) shall be exercised as under:

1. The bidder can avail only one out of the two applicable purchase preference policies, i.e., MSEs-2012 and MII-2017. Therefore, bidder will be required to furnish the option under which he desires to avail purchase preference. This option must be declared within the offer and in case bidder fails to do so although he is eligible under both the Policies, BRBNMPL shall evaluate his offer considering MSEs-2012 as the default chosen option.
2. In case a bidder opts for preference under MSEs-2012, he shall not be eligible to claim benefit under MII-2017 (irrespective of the fact whether he furnishes the details of local content in his offer and the same meets the stipulated local content criteria).
3. In case a bidder opts for purchase preference based on MII-2017, he shall not be entitled to claim benefit of purchase preference as applicable for MSE bidders under MSEs-2012. However, the exemptions from furnishing Bid security (EMD) shall continue to be available to such a bidder.
4. In view of the above,
  - a. The bidder's quoted prices against various items of enquiry shall remain valid even in case of splitting of quantities of the items, except in case of items where the quantity cannot be split since these are to be awarded in a Lot or as a package or Group.
  - b. While evaluating the bids, for price matching opportunities and distribution of quantities among bidders, the order of precedence shall be as under:
    - MSE bidder (MSEs-2012)
    - Class-I local supplier (MII-2017)
5. In case the bidder has not declared his status as to whether he is an MSE Bidder or Class-I local supplier during bid submission, then he will be considered as non MII-2017 compliant bidder and evaluated accordingly. No further correspondence will be made in this regard.

#### **Examples of Purchase Preference:**

##### **a. Non divisible item**

- L1 bidder is neither MSE nor Class-I local supplier
- L2 bidder is Class-I local supplier (within L1 + 20%)
- L3 bidder is MSE bidder (within L1 + 15%)

L3 bidder i.e. MSE bidder shall be given preference to match the L1 price. If L3 bidder matches the L1 price, Order shall be placed on him, otherwise, option for matching the L1 price shall be given to L2 bidder (Class-I local supplier)

##### **b. Divisible item**

- L1 bidder is neither MSE nor Class-I local supplier
- L2 bidder is Class-I local supplier (within L1 + 20%)
- L3 bidder is MSE bidder (within L1 + 15%)

MSE bidder shall be given preference to match the L1 price. If L3 bidder matches the L1 price, order shall be placed on him for at least 25% of the tendered quantity. For balance quantity (i.e. 50% of tendered quantity/value), option for matching the L1 price shall be given to L2 bidder (Class-I local supplier). Remaining quantity (25%) shall be awarded to natural lowest bidder. For further clarification, in case an item has quantity 4 nos. then 1 no. (25%) can be given to MSE bidder, 2 nos. (50%) to Class-I local supplier and left out 1 no. to natural L1 bidder.

#### **Note:**

The above two examples are not applicable to the Works Contracts since MSEs Order, 2012 is not applicable to works contracts.

- In case lowest bidder is a MSE bidder, the entire work shall be awarded to him without resorting to purchase preference to bidders complying under MII-2017.

In case lowest bidder is a Class-I local supplier, purchase preference shall be resorted to MSE bidder as per provisions specified in the enquiry document w.r.t. MSEs-2012 only.

**ANNEXURE-N****Minimum Wages Details w.e.f. 01/10/2021**

The details of Minimum Wages in respect of different categories of Contract Workers with effect from October 01, 2021 are given in the table:

<b>Category</b>	<b>Minimum Wages w.e.f. 01/10/2021 (Rs.)</b>
Un-Skilled	437.00
Semi-Skilled	512.00
Skilled	617.00
Highly Skilled	724.00

**ANNEXURE-P****Escalation Matrix to be submitted by Bidder**

Bidder is required to submit the channel for escalation of service request in case of delay or unsatisfactory resolution of request, monitoring of Construction Progress as per Agreement.

<b>Sl. No.</b>	<b>Name &amp; Designation of Contact person</b>	<b>Address with Contact No., Email and Fax No. (If any)</b>	<b>To be contacted on Construction Delay of No. of Days</b>	<b>Any Other Information</b>

**Annexure-Q**

**Undertaking by Bidder for Compliance**

*[Contractor/Bidders shall fill the following format and submit along with bid]*

**TO WHOMSOEVER IT MAY CONCERN**

**This is to confirm that we M/s.\_\_\_\_\_ shall depute Engineers/supervisor satisfying the criteria:**

***““B.E. or B.Tech. in Civil Engineering with Minimum 5+ years of Post Qualification Experience of Civil Works or 3 (Three) Years’ Diploma in Civil Engineering with 10+ years’ Post Qualification Experience of Civil Works”***

**The testimonials and experience certificate of the site engineer/ supervisor shall be submitted before starting the work.**

**For & on behalf of**

**(Seal & signature)**

**(Name and designation)**

**Duly authorized to sign tender for and on behalf of**

*(To be filled, signed & stamped and submitted along with Techno-commercial Bid Part-I)*

**Annexure-R**

(To be submitted on the Bidder's Company's Letterhead)

**DECLARATION REGARDING RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA**

To,

The General Manager

BRBNMPL, SALBONI.

**Sub:** Declaration Regarding Restrictions on Procurement from a Bidder of a Country which shares a Land Border with India

Ref: Tender no.

Dear Sir,

I/We declare that

1. "I/We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I/We certify that M/s .....(Name of Bidder) is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that M/s .....(Name of Bidder) fulfill/s all requirements in this regard and is eligible to be considered.

[Where applicable, evidence of valid registration by the Competent Authority shall be attached.]".

Further I/We declare that

2. "I/We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to Contractors from such countries; I/We certify that M/s .....(Name of Bidder) is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a Contractor from such countries unless such Contractor is registered with the Competent Authority. I/We hereby certify that M/s .....(Name of Bidder) fulfill/s all requirements in this regard and is eligible to be considered.

[Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Place: \_\_\_\_\_ Signature: \_\_\_\_\_

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

Designation: \_\_\_\_\_

Authorized Signatories

Seal

*(To be filled, signed & stamped and submitted along with Techno-commercial Bid Part-I)*