

Tender ID:-	DEL/LHO/P&E/2025-26/14
Date:-	29-01-2026



STATE BANK OF INDIA

INVITES ONLINE PERCENTAGE RATE TENDERS

FOR

COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK'S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN

FROM

THE CONTRACTORS EMPANELLED FOR DELHI CIRCLE UNDER THE CATEGORY OF CIVIL WORKS C-100 (UPTO 100LAKHS)

PART – A (TECHNICAL BID)

Last Date and Time of submission: 10-02-2025 up to 15:00 Hours

TENDER ISSUED TO : _____(Not Applicable)_____

TENDER COST : NIL

CLIENT : State Bank of India, LHO New Delhi

Architect & PMC: M/s Vastu Mandal,
F-328, Old MB Road, Lado Sarai,
Mehrauli, New Delhi-110030

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Tender documents are in two parts (Volumes) i.e. Part – A (Online Technical Bid)
and Part – B (Online Sealed Price Bid based on percentage rate)

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NOTICE INVITING TENDER

State Bank of India invites online Tenders on percentage rate basis from the Bank's Empanelled Contractors / vendors / firm in Delhi Circle of Civil Work- Category C- 100 (i.e up to 100 Lacs) for Complete Renovation Of Guest House Washrooms, External Plastering, Terrace Waterproofing, Terrace Roof Cool Tile and Allied Renovation Works at Bank's Residential Complex, 14 Kalidas Road Dehradun, Uttarakhand. Details of tenders are as under:

1.	Name of Work	Complete Renovation Of Guest House Washrooms, External Plastering, Terrace Waterproofing, Terrace Roof Cool Tile and Allied Renovation Works at Bank's Residential Complex, 14 Kalidas Road Dehradun, Uttarakhand.
2.	Time allowed for completion	04 months from the date of placing Letter / Mail of Acceptance.
3.	Earnest Money Deposit (1% of Estimated Cost)	₹ 89,000/- (Rupees Eighty-Nine Thousand only) through ONLINE mode i.e. Debit Card/ Credit Card/ Net Banking/NEFT/RTGS paid through the portal of e-tendering.
4.	Initial Security Deposit	2% of total contract value including EMD
5.	Total Security Deposit	5% of Total Contract Value
6.	Pre- Bid Meeting	N/A
7.	Last date and time of Submission of Tenders (Technical Bid & online sealed Price Bid)	10-02-2026 up to 3:00 p.m.
8.	Mode of submission of Tenders (Technical Bid & online sealed Price Bid) at www.tenderwizard.com/SBIE TENDER	Technical Bid : Signed and stamped Undertaking (Annexure-A), Signed & stamped Process Compliance Statement (Annexure-B) to be uploaded online as Technical Bid along with payment of EMD through online portal. Price Bid : Price Bid based on percentage rate to be filled Online. Please note that there will be no reverse auction and rates quoted in online sealed price bids will be final.
9.	Date and time of opening of Technical Bid and Online Price Bids.	10-02-2026 at 3:30 p.m.
10.	Date & Time of E-reverse auction	Not Applicable
11.	Authority & Place of opening the Tenders	Asst. General Manager (P&E), State Bank of India, 5 th Floor, P & E Department, Local Head Office, 11 – Sansad Marg, New Delhi – 110 001
12.	Defects Liability Period	12 months from the date of handing over of the project to the satisfaction of Bank.
13.	Validity of Offer	04 months from the date of opening of tenders.
14.	Liquidated Damages	At the rate of 0.5% of the Contract Value per week which subject to a maximum of 5% of the accepted Contract Value.

15.	Rates	This is an Item Rate Tender based on percentage rate. Rates quoted by the bidder shall be including all labour, Materials, Royalties, Octroi, taxes etc. except GST which shall be paid extra at the rate & as per Govt / Statutory guidelines / Rules.
16.	Interval of interim bills.	Minimum 30 days
17.	Minimum Net Amount of Interim Bill as admissible after checking by the Bank.	Minimum Rs 30 Lacs plus GST subject to clause 15 above
18.	Release of Total Security Deposit (EMD, ISD & Retention Money) :-	<p>“50% of the Total Security Deposit (EMD, ISD & Retention Money) shall be refunded to the Contractor on”:</p> <p>i) Issue of Virtual Completion Certificate by the Architect / Banks/ PMC & authentication of the same by the Bank.</p> <p>ii) Contractor’s removal of his materials, equipment, labour force, temporary sheds/ stores etc. from the site, (excepting for a small presence required if any for the Defect Liability Period and approved by the Bank).</p> <p>The remaining 50% of the amount may be refunded 15 days after the end of defects liability period provided he has satisfactorily carried out all the works and attended to all defects to the satisfaction of the Bank and in accordance with the conditions of the contract, including site clearance.</p>
19.	Additional Performance Deposit (ASD) / Additional Performance Guarantee (APG)	<p>ASD/ APG shall be deposited by the bidder whose bid is accepted only if their bid amount is 10% or more below to the estimated cost put to tender.</p> <p>The Amount of such ASD / ASG shall be the difference amount between 90% of the estimated cost and the accepted price / bid FDR (in the name of contractor & SBI) or Bank Guarantee drawn on any other nationalized Bank (except SBI) may also be accepted as ASD / APG. ASD/APG should be deposited/submitted within 15 days of date of issue of letter of Acceptance / work order.</p> <p>ASD shall be returned only after completion of the work to the satisfaction of the Bank.</p>
20.	Note	Contractor shall obtain all the clearances from Municipal Corporation, NDMC, NGT, ASI & other related authorities.

Site Conditions :

It’s absolutely necessary that bidder/s should visit the site and get himself acquainted with the site conditions , working hours, various security aspects, other restrictions, conditions, permissions to be followed / complied with / obtained as per Administrative Authority of the Building / Municipal Corporation etc. The Contractor shall be bound by the terms, conditions & requirements of the Administrative Authority of the Building. It will be duty of the contractor to timely obtain various permissions / pass etc. from the Administrative Authorities of Building and Municipal Corporation.

Mode of Submission of Tender:

Technical bid is to be submitted as per NIT clause no. 8.

The Price Bid in form of percentage rate sealed price bid shall be filled online. First the Technical Bids (Undertaking, Process Compliance Statement and EMD submission) shall be opened and after that the Price Bids of only those bidders shall be opened whose Annexure-A & Annexure-B are found in order and who have submitted valid EMD.

In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next

working day at the same time.

State Bank of India has the right to accept / reject any or all tenders without assigning any reasons.

For E-Tender related queries:

Service provider: M/s Antares Systems Limited, Registered Office at: - #24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Ph: - 080-49352000 / 40482000 Fax: - 080-49352034

Help Desk: 080-40482100 / 1800-3096630 / 9044314492/ 9073677150/ 151 / 152 / 9674758506 / 9674758723 / 26 / 033 4604 6611

Contact Person: Mr. Pravesh, Mob: 9044314492/Mr. Kushal Bose Mo: 9674758719 (On working days-9 am to 6 pm)

E-mail: praveshmani.t@antaressystems.com / kushal.b@antaressystems.com

For any other queries the vendors may contact Assistant General Manager (Civil)- 9810089298 or Manager (Civil)- 7600035933 , **Premises & Estate Department, 5th Floor, Local Head Office, State Bank of India, 11 – Sansad Marg, New Delhi – 110 001.**

Assistant General Manager (P & E),
State Bank of India,
Premises & Estate Dept.
5th Floor, Local Head Office.
11, Sansad Marg, New Delhi -110 001

Date : 29-01-2026

SAMPLE BUISNESS RULE DOCUMENT

COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK'S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN

(A) Business rules for E-tendering:

1. Only Bank's **empaneled Civil contractors** with SBI under appropriate category who are invited by the project Architect/SBI shall only be eligible to participate.
2. SBI will engage the services of an E-tendering service provider who will provide necessary training and assistance before commencement of online bidding on Internet.
3. In case of e-tendering, SBI will inform the vendor in writing, the details of service provider to enable them to contact and get trained.
4. Business rules like event date, closing and opening time etc. also will be communicated through service provider for compliance.
5. Contractors have to send by email, the compliance form in the prescribed format (provided by service provider), before start of E-tendering. Without this the vendor will not be eligible to participate in the event.
6. The Contractors will be required to submit the various documents in sealed Envelope to the office of Bank's Civil Engineer, at the address mentioned hereinbefore by the stipulated date i.e. (1) Demand Draft of specified amount of EMD, (2) Process compliance form dully signed. Contractors not submitting any one or more documents shall not be eligible to participate in the on-line price bidding.
7. E-tendering will be conducted on schedule date & time.
8. **The e-tendering will be treated as closed only when the bidding process gets closed in all respects for the item listed in the tender.**

(B) Terms & conditions of E-tendering:

SBI shall finalize the Tender through e-tendering mode for which **M/s Antares Systems Limited** has been engaged by SBI an authorized service provider. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

1. E-tendering shall be conducted by SBI through **M/s Antares Systems Limited**, on pre-specified date. While the Contractors shall be quoting from their own offices/ place of their choice, Internet connectivity and other paraphernalia requirements shall have to be ensured by Contractors themselves. In the event of failure of their Internet connectivity, (due to any reason whatsoever it may be) it is the bidders' responsibility

In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/alternatives such as back-up power supply whatever required so that they are able to circumvent such situation and still be able to participate in the E-tendering successfully. Failure of power at the premises of Contractors during the E-tendering cannot be the cause for not participating in the E-tendering. On account of this the time for the E-tendering cannot be extended and SBI is not responsible for such eventualities.

2. **M/s. Antares Systems Limited** shall arrange to train you nominated person(s), without any cost to you. They shall also explain you all the Rules related to the E-tendering. You are required to give your compliance on it before start of bid process.
3. **BIDDING CURRENCY AND UNIT OF MEASUREMENT:** Bidding will be conducted in Indian currency & Unit of Measurement will be displayed in Online E-tendering.

4. **BID PRICE:** The Bidder has to quote the rate as per the Tender Document provided by SBI through their appointed Architects.
5. **VALIDITY OF BIDS:** The Bid price shall be firm for a period specified in the tender document and shall not be subjected to any change whatsoever.
6. Procedure of E-tendering:
 - i. **Online E-tendering:**
 - (a) The hard copy of the Technical as well as Price Bid is available on the Bank's website during the period specified in the NIT.
 - (b) Online e-tendering is open to the Empanelled bidders who receive NIT from the Architect and qualified for participating in the price bidding as provisions mentioned hereinabove through SBI approved Service Provider.
 - (c) The Price-Bid shall be made available online by the Service Provider wherein the contractors will be required to fill-in their item- wise rates for each item.
 - (d) The Contractors are advised not to wait till the last minute to submit their online percentage rate quote in the price bid to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.
 - (e) It is mandatory to all the bidders participating in the price bid to quote their rates on percentage above or below the estimated cost put to tender.
 - (f) In case, contractor fails to quote their rates for any one or more tender items, their tender shall be treated as "**Incomplete Tender**" and shall be liable for rejection.
7. **LOG IN NAME & PASSWORD:** Each Bidder is assigned a Unique Username & Password by M/s Antares Systems Limited. The Bidders are requested to change the Password after the receipt of initial Password from M/s Antares Systems Limited. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.
8. **BIDS PLACED BY BIDDER:** Bids will be taken as an offer to execute the work as specified. Bids once made, cannot be cancelled / withdrawn and the Bidder shall be bound to execute the work at the quoted bid price. In case the L1 Bidder backs out or fails to complete the work **as per the rates quoted**, SBI shall have the liberty to take action as deemed necessary including de-paneling such contractors and forfeiting their EMD and imposing heavy penalty to contractor to recover the losses occurred to the Bank.
9. At the end of the E-tendering, SBI will decide upon the winner. SBI decision on award of Contract shall be final and binding on all the Bidders.
10. SBI shall be at liberty to cancel the E-tendering process/tender at any time, before ordering, without assigning any reason.
11. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
12. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.
13. **OTHER TERMS & CONDITIONS:**

- The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers/ bidders.
- The Bidder shall not divulge either his Bids or any other exclusive details of SBI to any other party.
- SBI decision on award of Contract shall be final and binding on all the Bidders.
- SBI reserve their rights to extend, reschedule or cancel any E-tendering within its sole discretion.
- SBI or its authorized service provider M/s Antares Systems Limited shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
- SBI or its authorized service provider M/s Antares Systems Limited is not responsible for any damages, including damages that result from, but are not limited to negligence.
- SBI or its authorized service M/s Antares Systems Limited will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

N.B.

- All the Bidders are required to submit the Process Compliance Statement (Annexure-II) duly signed to M/s Antares Systems Limited.

All the bidders are requested to ensure that they have a valid digital signature certificate well in advance to participate in the online event.

ANNEXURE-A

UNDERTAKING

(The bidders are required to print this on their company's letter head and sign, stamp and upload with technical Bid)

Assistant General Manager (P & E),
State Bank of India,
Premises & Estate Dept.,
5th Floor, Local Head Office.
11, Sansad Marg
New Delhi -110 001

Dear Sir,

COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK'S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN

- I / We refer to the tender notice issued by you for construction & Renovation works of new boundary wall of Residential Complex Dehradun existing premises in connection with the above.
 - I undertake to submit in Hard copy the tender document along with all Terms & Conditions, Specifications, NIT, Instruction to Tenderers etc. as uploaded on the site and subsequent annexure and Corrigendum's duly signed and stamped by authorized representative/ signatory on becoming L1. However we accept all the terms and conditions along with the specifications, Drawings, Layouts etc. defined in the tender documents as uploaded by the on the site of e-Tendering agency.
 - I/ We hereby offer to perform, provide, execute, complete and maintain the works in conformity with the drawings, designs, conditions of contracts, specifications, schedule of quantities relating to the works.
 - I/ We have satisfied myself/ ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions, subject to above, I/ We do hereby agree, should this tender be accepted in whole or in part, to:
 - a. Abide by and fulfill all the terms and provisions of the said conditions annexed here to,
 - Complete the works within the period as mentioned in NIT as per the work programme enclosed with the tender in two or three shifts if considered necessary by the Employer / Consultants at no extra cost to the Employer.
 - I / We have deposited an earnest money as per NIT which, I / We note, will not bear any interest and is liable for forfeiture and I shall not be allowed to participate in any of the tender of SBI for a period of 06 months from the date of opening of this tender
 - If our offer is withdrawn by us within the validity period of acceptance by the Employer.
- Or
- If the contract agreement is not executed by us within 15 days from the date of receipt of the

letter of acceptance.

Or

- If we fail to pay the initial security deposit /ASD / APG as stipulated.
- Or
- If the work is not commenced immediately after issue of Mail / Letter of Acceptance.
 - I / We understand that you are not bound to accept the lowest or any tender you receive.

(Signature of Authorized Person of the Firm)

(Seal of the Firm)

Name of the Signatory :

Date :

Place :

ANNEXURE – B

PROCESS COMPLIANCE STATEMENT

(The bidders are required to print this on their company's letter head and sign, stamp and upload with technical Bid)

To,
M/s. **Antares Systems Limited**

AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE E-TENDER FOR COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK'S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN

This has reference to the Terms, Conditions etc for the E-tendering mentioned in the Tender documents. This letter is to confirm that:

- 1) The undersigned is authorized representative of the company.
- 2) We have studied and understood the Commercial Terms and the Business Rules governing the E tendering of E-Tendering Agency and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the E-tendering Process / Tool and have understood the functionality of the same thoroughly.
- 4) We confirm that SBI and M/s. **Antares Systems Limited** shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the E tendering platform due to loss of internet connectivity, electricity failure, virus attack problems with the PC and / or any other unforeseen circumstances etc. before or during the E-tendering event.
- 5) We confirm that we have a valid digital signature certificate issued by a valid Certifying Authority.
- 6) We, hereby confirm that we will honour the Bids placed by us during the E-tendering process.

With regards.

(Signature of Authorized Signatory)

(Seal of the Company/Firm)

Name :

Date :

Designation :

Address of Company/Organization

FORM OF TENDER

To,
Assistant General Manager (P & E),
State Bank of India,
Premises & Estate Dept.,
5th Floor, Local Head Office.
11, Sansad Marg
New Delhi -110 001

Dear Sir,

COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK'S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN

- I/ We refer to the Notice Inviting Tender issued by you for the captioned work.
- I/ We do hereby offer to perform, provide, execute, complete and maintain the works in conformity with Bill of Quantities, Drawings, Specification, Design, General and Special conditions of Contract, Instruction to tenderers, etc. as contained in the tender documents for the sum as arrived and filled, at the respective rates quoted by me/us in the Schedule of Quantities and/or at any other sum and rate subsequently negotiated and accepted / agreed by the Bank and me/us.
- I/We have satisfied myself / our self as to the site conditions, examined site and drawings, and all aspects of tender documents / conditions and are acceptable to us. I/We do hereby agree, should this tender be accepted in whole or in part, to ,
 - (A) Abide by and full-fill the terms, conditions and provisions of tender documents annexed hereto.
 - (B) Complete the work within stipulated completion time at no extra cost to the Bank.
- I/We have already deposited the Earnest Money Amount as per NIT.
 - I/We are uploading /submitting the Part-A (Technical Bid) with other requisite documents online at designated site.
 - We confirm that I/We will participate in online Indicative (Sealed) Bid and in on- line reverse auction as per schedule.
 - I/We confirm that I/We are duly authorized to participate in the tendering/bidding and understand that my / our tender is liable to be rejected if,
 - At any times it comes to the notice of the Banks that I/We have concealed or / and have given any wrong information.
 - The tender is not duly filed and /or signed and / or is incomplete and/or not kept confidential.
 - The bid contains any condition / alteration / modification and/or any tempering with the tender documents is done at our end.
 - Tender submitted after due date and time

All the pages of the tender documents are affixed with the seal/stamp of my/our company and initialed / signed by the undersigned.

Signature of Tenderer/s
(Duly authorized for tendering)

Seal /stamp of the firm/company

(On Non -Judicial Stamp paper of appropriate value)

ARTICLES OF AGREEMENT

This agreement made theday of between AGM (P&E), State Bank of India, LHO New Delhi (hereinafter called the Bank or SBI) which expression shall include the successors and assigns) of the one part and M/s. company / partnership for registered under the Indian Companies Act/ Partnership Act having its registered office..... (hereinafter called 'the Contractors' which expression shall include the present directors / partners and also the directors / partners from time to time as also their respective heirs, legal representatives, administrators and assigns) of the other part.

WHEREAS the employer is desirous of execution of work i.e. "COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK'S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN" and has caused drawings and specifications describing the works to be done prepared by Project Architects M/s Vastu Mandal having their offices at F-328, Old MB Road, Lado Sarai, Mehrauli, New Delhi-110030 (hereinafter called "the Architect")

AND WHEREAS THE SAID Drawings numbered as mentioned in the tender documents hereinafter mentioned and to be issued from time to time, the specifications and the Schedule of items and quantities have been signed by or on behalf of the parties hereto.

AND whereas the contractors have agreed to execute upon and subject to the condition set forth herein and Schedule of items and quantities, General & special Conditions of Contract, specification etc. contained in the tendered documents including all correspondences exchanged by or between the parties from the submission of tender till the award of work, both letters inclusive, (all of which are collectively hereinafter referred to as "the said conditions"). The works shown upon the said drawing and /or described in the said specification and included in the schedule of Items and Quantities at the respective rates therein set forth amounting to the sum of ____Rs____ (Rupees _____in words_____) as there in arrived at or such other sum as shall become payable there under (hereinafter referred to as " the said Contract Amount".

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said Contract amount to be paid at the times and the manner set forth in the said Conditions, the Contractors shall upon and subject to the said conditions execute and complete the work shown upon the said drawings and described in the said specifications and the schedule of items and quantities.

2. The employer shall pay the Contractors the amount or such other sum as shall become payable, at the times and in the manner specified in the said conditions.

3. The term "the Architect" in the said condition shall mean the said "M/s _____" or in the event of their ceasing to be the Architect for the purpose of this contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Employer, not being a person to whom the Contractor shall object for reasons considered to be sufficient by the Employer provided always that no person or persons subsequently appointed to be Architect under this contract shall be entitled to disregard or over rule any previous decisions or approval or direction given or expressed in writing by the architect for the time being.

4. The said conditions and appendix thereto shall be read and construed as forming part of this agreement, and the parties hereto shall respectively abide by / submit themselves to the said conditions and perform the agreements on their part respectively in the said conditions contained.

5. The plans, agreement and documents mentioned herein shall form the basis of this contract.
6. This contract is neither a fixed Lump sum contract nor a piece work contract but is a contract to carry out the work in respect of the entire project on item rate basis to be paid for according to actual measured quantities at the rates contained in the schedule of quantities and rates or as provided in the said conditions.
7. The Bank / Employer reserves to itself the rights of altering the specifications and nature of work by adding to or omitting any item of work or having portions of the same carried out without prejudice to the contract.
8. Time shall be considered as the essence of this contract and the contractor here by agrees to commence the work soon after the site is handed over to him or from the 14th day after date of issue of formal work order as provided for in the said conditions of contractor whichever is later and to complete the entire work within ____ (period of contract) months subject never the less to the provisions for extension of time.
9. All payments by the Employer under this contract will be made only at _____.
10. Any dispute arising under this Agreement shall be referred to arbitration in accordance with the stipulations laid down in the tender.
11. That all the parts of this contract have been read by the contractor and fully understood by the contractor. They further agree to complete the said work to fullest satisfaction of architect / Employer.
12. IN WITNESS WHEREOF the Employer and the contractors have set their respective hands to these present through their duly authorized official and the said two duplicates hereof to be executed on its behalf of the day and year first herein above written.

Signed on behalf of the

Signed on behalf of the

STATE BANK OF INDIA

CONTRACTORS

In the presence of :

In the presence of :

1. Signature :

Name :

Address :

1. Signature :

Name :

Address :

In the presence of :

In the presence of :

2. Signature :

Name :

Address :

2. Signature :

Name :

Address :

INSTRUCTIONS TO THE TENDERERS

1.0 Scope of Work

“COMPLETE RENOVATION OF GUEST HOUSE WASHROOMS, EXTERNAL PLASTERING, TERRACE WATERPROOFING, TERRACE ROOF COOL TILE AND ALLIED RENOVATION WORKS AT BANK’S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN” all as described in Tender and Drawings inclusive hereto as Specifications.

1.1 Site and its location:

The proposed work is to be carried out at **BANK’S RESIDENTIAL COMPLEX AT 14 KALIDAS ROAD DEHRADUN – 248171.**

2.0 Tender Documents

2.1 The work has to be carried out strictly according to the condition stipulated in the tender consisting the following documents and the most workmen like manner.

- Instructions to tenderers
- General Conditions of Contract
- Special Condition of Contract
- Additional conditions
- Technical Specifications
- Drawings
- Price Bid
- NIT
- Performance Guarantee Agreement

2.2 The above documents shall be taken as complementary and mutually explanatory of one another but in case of ambiguities or discrepancies, shall take precedence in the order given below :

- o Bill of Quantities / Price bid
- o NIT, corrigendum and addendum
- o Additional Conditions
- o Technical Specifications
- o Drawings
- o Special Condition of Contract
- o General Condition of Contract
- o Instructions to Tenderers

2.3 Complete set of tender documents including relative drawings can be downloaded from e-Tendering portal of e-Tendering service provider engaged by SBI

2.4 The tender documents are not transferable.

3.0 Site Visit

3.1 The tenderer must obtain himself on his own responsibility and his own expenses all information and data which may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The tenderer is requested to satisfy himself regarding the availability of water, power, transport and communication facilities, the

character quality and quantity of the materials, labor, the law and order situations, climatic conditions, local authorities requirement, traffic regulations etc; The tenderer will be fully responsible for considering the financial effect of any or all the factors while submitting his tender.

4.0 Earnest Money

4.1 The tenderer are requested to submit the Earnest Money as mentioned in NIT

4.2 EMD in any other form other than as specified above will not be accepted. Tender not accompanied by the EMD in accordance with NIT above shall be rejected.

4.3 No interest will be paid on the EMD

4.4 EMD of unsuccessful tenderer will be refunded within 30 days of award of contract.

4.5 EMD of successful tenderer will be retained as a part of security deposit.

5.0 Initial Security Deposit (ISD)

The successful tenderer will have to submit a sum as mentioned in NIT within a period of 15 days of acceptance of tender.

6.0 Security Deposit (TSD)

6.1 Total Security Deposit shall be as per NIT which is including ISD. Balance difference of TSD & ISD shall be deducted from the running bill of the work at the rate of 10% of the respective running account bill i.e. deduction from each running bill account will be 10% till total 5% of contract value is reached. 50% of the total security shall be paid to the contractors on the basis of architect's certifying the virtual completion. The Balance 50% would be paid to the contractors after successful completion defects liability period as specified in the contract.

6.2 No interest shall be paid on the amount retained by the Bank as Security Deposit.

7.0 Signing of contract documents

The successful tenderer shall be bound to implement the contract by signing agreement and conditions of contract attached herewith within 30 days from the receipt of intimation of acceptance of his tender by the Bank. However, the written acceptance of the tender by the Bank will constitute a binding agreement between the Bank and successful tenderer whether such formal agreement is subsequently entered into or not.

8.0 Completion period

Time is essence of the contract. The work should be completed in all respects in accordance with the terms of contract within a period as specified in the **NIT** from the date of handing over of site or from the date of Letter of Acceptance whichever is later.

9.0 Validity of tender

Tenders shall remain valid and open for acceptance for a period as mentioned in the NIT (validity of Offer) from the date of opening of price bid. If the tenderer withdraws his/ her offer during the validity period or makes modifications in his/her original offer which are not acceptable to the Bank, without prejudice to any other right or remedy, the Bank shall be

at liberty to forfeit the EMD.

10.0 Liquidated Damages

The liquidated damages shall be as mentioned in the NIT.

11.0 Rate and prices:

11.1 In case of item rate tender

11.1.1 The tenderers shall quote their rates on percentage basis above or below the estimated cost both in words and figures. In case of discrepancy between the rate quoted in words and figures the percentage rate quoted in words will prevail. The rate and amount of each item shall be calculated based on the item rates quoted and the requisite total is given.

11.1.2 The tenderers need not quote their rates for which no quantities have been given. In case the tenderer quote their rates for such items those will be ignored and will not be considered during execution.

11.1.3 The tenderers should not change the units as specified in the tender. If any unit is changed the tenders would be evaluated as per the original unit and the contractor would be paid accordingly.

The tenderers should not change or modify or delete the description of the item. If any discrepancy is observed he should immediately bring to the knowledge of the Architect/ Bank.

11.1.4 Each page of the BOQ shall be signed by the authorized person and cutting or overwriting shall be duly attested by him

11.1.5 Each page shall be totaled and the grand total shall be given.

11.1.6 The rate quoted shall be firm and shall include all costs, allowances, taxes, levies, labour cess, statutory charges, local municipal charges, liassioning charges etc. unless otherwise specified to be paid extra in these tender documents. Only GST will be paid extra as applicable.

GENERAL & IMPORTANT NOTES

1 GENERAL NOTES:

- (i) Unless otherwise specified in these tender documents mode of measurements specifications etc. shall be as per relevant IS codes.
- (ii) Source of materials / samples / brands / makes etc. shall be got approved from the Architects / Bank before using. In case of deviations, decision of the Bank shall be final and binding and shall not be open for arbitration.
- (iii) The Architects have their specific role / duties / rights as defined in these tender documents. However in the event of any dispute arising out of differences between the opinions of the Architects and also their role/ duties/rights, the Banks' decision shall be final & binding on the Architects and the Contractor and shall not be open to arbitration.
- (vi) The Contractor will extend full co-operation, support and all required assistance to Architect / Bank for discharging their duties and responsibilities efficiently and effectively.
- (vii) The contractor has to supply and adhere to the specific makes and specifications of all the items, which are mentioned in the separate list of approved makes. Any work found not as per the tender specifications and list of approved the contractor has to replace the same without any delay. The contractor is instructed of get approval of all the materials to be used on this site before starting the work. He should provide different sample of material for approval, before execution of work.
- (viii) All quantities indicated in the tender are approximate & are likely to change. The contractor must take actual measurement at site and billing shall be done as per the actual measurement of the work done at site.
- (ix) Work has to be got executed at site in coordination with various agencies working at site.
- (x) The contractor is instructed to get the approval of the materials to be used on this site before starting the work. He shall provide different sample of materials for approval before execution of the work
- (xi) All material have to be used in full size/length only. Joints should be avoided as far as possible.
- (xii) Any item mentioned in the BOQ with "TO THE SHAPE" will have measurement of onsite executed to the shape area only.
- (xiii) Making various levels & line out for total layout on site for the items in scope of the work shall be done by the contractor at his own cost.
- (xiv) MTC (Manufacturer Test certificate) Where ever applicable shall be arranged & submitted by the contractor. Testing of wood for moisture, knot % etc. shall be carried out by the contractor at his own cost.

2. IMPORTANT NOTES:

- (i) The contractor's qualified & authorized representative shall remain on site during the entire execution process for coordination with various agencies / Architect / Bank & execution of work.
- (ii) If the assigned work is in running/working Branch, the contractor should have executed the site erection work in odd hours, Holidays and Sundays.
- (iii) The contractor shall prepare all loose furniture items at his workshop only & deliver the same to

the site at appropriate time as instructed by the Architect/BMs/Bank Officials.

(iv) The site shall be cleaned on day-to-day basis & all debris shall be disposed away at the location beyond the limit as approved by the local authority.

(v) Hidden measurements:- It is contractor's responsibility to get the measurement checked immediately on completion of such items. This shall be done before finishing the same. The Architect / Bank shall be provided with such details well in advance so that the other work is not held up due to last moment action.

(vi) Before starting the work at site, the contractor shall mark out the plan & levels of the false ceiling, partitions etc. in coordination with other agencies on site.

vii) The rates quoted shall be inclusive of all taxes, Duties, Octroi, Transportation, Delivery, Installation, Testing, Commissioning etc. complete at the site. No extra will be paid for any kind of taxes. However, the GST will be paid extra as applicable as per actual.

viii) The entire job shall be executed in total coordination with the other agencies working on the project & also with landlord, Branch Manager and Bank officials etc.

ix) Architect of the project shall be kept informed about the progress of the work at various stages.

x) The contractor shall arrange on his own for lighting & plug point with socket & electrical wiring, DB's etc. required during entire execution process. However supply at point shall be provided by the bank / landlord

(xi) Any Hidden item MUST be photographed and need to be sent via e- mail or CD to Architect / Bank

xii) BILLING PROCESS:

The contractor/Architect should take care of the following while submitting the final Bill

The Final Bill Should Contain:-

a) Abstract in tender BOQ format only.

b) Schedules for detailed measurement sheet for all items (in detailed break up).

c) Original insurance policies as per tender terms and conditions.

d) Completion certificate issued by the concerned Architect.

e) Inspection & completion certificates for all types of false ceiling.

f) Test report for Toughened Glass.

g) Copy of LOA etc.

h) All documents shall carry contractor's signature & seal with address. - All documents shall be submitted in 1 + 1 copies.

i) The contractor shall also provide all measurement sheet in soft copy (in Excel format).

j) The contractor shall submit the purchase bill copy of major items used in the project.

k) That extension of time, if any, beyond scheduled date of completion has been granted by the Competent Authority.

- l) Original receipt of purchase of Corian/plywood/ Gypboard and other major materials used in the work from the original manufacturer/authorized dealers/distributors.
- m) If any advances paid during the execution of the work.
- n) Acceptances form the contractor that "Accepted as full and final settlement of all claims"
- o) The total cost of work should be within the sanction amount, If not, revised sanction taken from the Competent Authority to be attached with the Final Bill

IMPORTANT: ALL DOCUMENTS SHALL BE SUBMITTED AT ONCE (NOT IN PIECEMEAL MANNER) ALONG WITH FULL&FINAL BILL &SHALL BE DULY SIGNED BY PUTTING COMPANY'S ADDRESS SEAL

GENERAL CONDITIONS OF CONTRACT

1.0 Definitions:-

“Contract means the documents forming the tender and the acceptance thereof and the formal agreement executed between SBI (client) and the contractor, together with the documents referred there in including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Architects / Bank and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

In the contract the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

1.0.1 ‘SBI shall mean SBI having its Office at Fifth Floor, SBI, LHO, New Delhi and includes the client’s representatives, successors and assigns.

1.0.2 ‘Architects/ Consultants’ shall mean the person or agency engaged by the Bank for Architectural / PMC services. The whole work, measurements shall be carried out under his supervision.

1.0.3 ‘Site Engineer’ shall mean an Engineer appointed by the SBI at site as their representative for day-to-day supervision of work and to give instructions to the contractors.

1.0.4 ‘The Contractor’ shall mean the individual or firm or company whether incorporation, undertaking the works and shall include legal personal representative of individual or the composing the firm or company and the permitted assignees of individual or firms of company.

The expression ‘works’ or ‘work’ shall mean the permanent or temporary work description in the “Scope of work” and/or to be executed in accordance with the contract includes materials, apparatus, equipment, temporary supports, fittings and things of kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the contract.

1.1.11 ‘Engineer-in-charge’ shall mean the Bank’s Civil/Electrical Engineer in-charge of the Project, as nominated by the AGM (P&E) / AGM Civil.

1.0.5 ‘Drawings’ shall mean the drawings prepared by the Architects and issued by the Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time Contract value shall mean value of the entire work as stipulated in the letter of acceptance of tender subject such additions there to or deductions there from as may be made under the provide herein after contained.

1.0.6 Specifications’ shall mean the specifications referred to in the tender and modifications thereof as may time to time be furnished or approved by the Architect/Consultant.

1.0.7 “Month” means calendar month.

1.0.8 “Week” means seven consecutive days.

1.0.9 “Day” means a calendar day beginning and ending at 00 Hrs and 24 Hrs respectively.

1.0.10 The following shall constitute the Joint Project Committee (herein under referred to as JPC) for assessing and reviewing the progress of the work on the project and to issue instructions or directions from time to time for being observed and followed by the Architects Site Engineer / PMC and other consultants / contractors engaged in the execution of the project.

- i) Assist General Manager – (P &E)
- ii) Assist General Manager – (Civil)
- iii) SBI Engineer (Civil and Electrical) in-charge of the Project.

CLAUSE

1.0 Total Security Deposit:

Total security deposit shall be 5% of contract value. Deduction from each running bill account (if permitted) will be @ 10% till Total Security Deposit (TSD) reaches to 5% of contract value. The 50% of the Total Security Deposit shall be paid to the contractor on the basis of Architect's certifying the virtual completion. The balance 50% would be paid to the contractors after completion Defects Liability Period as specified in the contract/WORK ORDER.

1.1 Earnest Money Deposit-

As per NIT. The EMD/ any other amount with the Bank shall stand absolutely forfeited if the tenderer revokes his tender after acceptance of rate at any time the period when he is required to keep his tender open acceptance by the SBI or after it is accepted by the SBI , the contractor fails to enter into a formal agreement or fails to commence the work within the stipulated time.

1.2 Initial Security Deposit (ISD): Additional Security Deposit as per NIT.

1.3 Retention Money:

The Retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the Total Security Deposit plus Retention Money shall both together not exceeding 5% of the contract value including EMD. The 50% of the total security deposit shall be refunded to the contractor without any interest on issue of Virtual Completion certificate by the Architect/consultant. The balance 50% of the total security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects in accordance with the conditions of contract including site clearance.

2.0 Language:

The language in which the contract documents shall be drawn shall be in English.

3.0 Errors, omissions and discrepancies:

In case of errors, omissions and/ or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications etc., the following order shall apply.

- i. Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.
- ii. Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the former shall be taken as correct.
- iii. Between written description of the item in the specifications and descriptions in bills of quantities of the same item, the former shall be adopted:
- iv. In case of difference between rates written in figures and words, the rate in words shall prevail.
- v. Between the duplicate / subsequent copies of the tender, the original tender shall be taken as correct.

4.0 Scope of Work:

The contractor shall carryout complete and maintain the said/awarded work in every respect strictly accordance with this contract and with the directions of and to the satisfaction Bank to be communicated through the architect/consultant. The architect/consultant at the directions of the SBI from time-to-time issue further drawings and / or write instructions, details directions and explanations which are here after collectively references to as Architect's / consultant's instructions in regard to the variation or modification of the design, quality or quantity of any work or the addition or omission or substitution work. Any discrepancy in the drawings or

between BOQ and / or drawings and/or specifications. The removal from the site of any material brought thereon by the Contractor and any substitution of any other materials therefore the removal and/or re- execution of any work executed by him. The dismissal from the work of any person engaged the re upon.

5.0 i) Letter of Acceptance:

Within the validity period of the tender the SBI shall issue a letter of acceptance directly or through the architect by registered post or otherwise depositing at the of the contractor as given in the tender to enter into a Contract for the execution of the work as per the terms of the tender. The letter of acceptance shall constitute a bind contract between the SBI and the contractor.

ii) Contract Agreement:

On receipt of intimation of the acceptance of tender from the SBI /Architect the successful tenderer shall be bound to implement the contract and within fifteen days there of shall sign an agreement in a non-judicial stamp paper of appropriate value.

6.0 Ownership of drawings:

All drawings, specifications and copies thereof furnished by the SBI through its Architect / consultants are the properties of the SBI They are not to be used on other work.

7.0 Detailed drawings and instructions:

The SBI through its architects / consultants shall furnish with reasonable proper additional instructions by means of drawings or otherwise necessary for the execution of the work. All such drawings and instructions shall be consistent with contract documents, true developments thereof and reasonably inferable there.

The work shall be executed in conformity there with and the contractor prepare a detailed programme schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI through the architect/consultant

7.1 Copies of agreement:

Two copies of agreement duly signed by both the parties with the drawings shall be handed over to the contractors.

8.0 Liquidated damages:

If the contractor fails to maintain the required progress in terms of clause 6.0 of GOC or to complete the work and clear the site including vacating their office on or before the contracted or extended date or completion, without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the SBI on account of such breach to pay a liquidated damages at the rate of 0.50% of the contract value which subject to a maximum of 5% of the contract value.

9.0 Materials, Appliances and Employees:

Unless or otherwise specified the contractor shall provide and pay for all materials, labour, water, power, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work. Unless or otherwise specified all materials shall be new and both workmanship and materials shall be best quality. The contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Workman whose work or behavior is found to be unsatisfactory by the SBI /Architect/ consultant he shall be removed from the site immediately.

10.0 Permits, Laws and Regulations:

Permits and licenses required for the execution of the work shall be obtained by the contractor at his own expenses. The contractor shall give notices and comply with the regulations, laws, and ordinances rules, applicable to the contract. If the contractor observes any discrepancy between the drawings and specifications, he shall promptly notify the SBI in writing under intimation of the Architect/ Consultant. If the contractor performs any act, which is against the law, rules and regulations he shall meet all the costs arising the reform and shall indemnify the SBI any legal actions arising there from.

11.0 Setting out Work:

The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the architect / consultant before proceeding with the work. If at any time any error in this respect shall appear during the progress of the works, irrespective of the fact that the layout had been approved by, the architect / consultant the contractor shall be responsible for the same ad shall his own expenses rectify such error, if so, required to satisfaction of the SBI

12.0 Protection of works and property:

The contractor shall continuously maintain adequate protection. of all his work from damage and shall protect the SBI's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss, except due to causes beyond his control and due to his fault or negligence.

He shall take adequate care and steps for protection of the adjacent properties. The contractor shall take all precautions for safety and protections of his employees on the works and shall comply with all applicable provisions of Govt. and local bodies' safety laws and building codes to prevent accidents, or injuries to persons or property on about or adjacent to his place of work. The contractor shall take insurance covers as per clause at his own cost. The policy may be taken in joint names of the contractor and the SBI and the original policy may be lodged with the SBI

13.0 Inspection of work:

The SBI / Architect / Consultant or their representatives shall at all reasonable times have free access to the work site and / or to the workshop, factories, or other places where materials are lying or from where they are obtained and the contractor shall give every facility to the SBI/Architect/consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the SBI/ Architect /Consultant except the representative of Public authorities shall be allowed on the work at any time. The proposed work either during its construction stage or its completion can also be inspected by the Chief Technical Examiner's Organization a wing of Central Vigilance commission.

14.0 Assignment and subletting:

The whole of work included in the contract shall be executed the contractor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or share there of or interest therein without the written consent of the SBI through the Architect and no undertaking shall relieve the contractor from the responsibility of the contractor from active & superintendence of the work during its progress.

15.0 Quality of materials, workmanship &Test:

All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Architect/consultant instructions and shall be subject from time to time to such tests as the architect/consultant may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor shall provide such assistance,

instruments, machinery, labor, and materials as are normally required for examining measuring sampling and testing any material or part of work before in corporation in the work for testing as may be selected and required by the architect/consultant.

ii) Samples:

All samples of adequate numbers, size, shades & pattern as per specifications shall be supplied by the contractor without any extra charges. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site detailed literature / test certificate of the same shall be provided to the satisfaction of the Architect/consultant before submitting the sample/literature the contractor shall satisfy himself that the material / equipment for which he is submitting the sample / literature meet with the requirement of tender specification. Only when the samples are approved in writing by the architect/consultant the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by the Architect / Consultant for identification and shall be kept on record at site office until the completion of the work for inspection / comparison at any time. The Architect/Consultant shall take reasonable time to approve the sample. Any delay that might occur in approving the samples for reasons of its not meeting the specifications or other discrepancies inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment etc. shall be to the account of the contractor.

iii) Cost of tests:

The cost of making any test shall be borne by the contractor if such test is intended by or provided for in the specification or BOQ.

iv) Costs of tests not provided for:

If any test is ordered by the Architect/ Consultant which is either

a) If so intended by or provided for or (in the cases above mentioned) is not so particularized, or though so intended or provided for but ordered by the Architect / Consultant to be carried out by an independent person at any place other than the site or the place of manufacture or fabrication of the materials tested or any Government / approved laboratory, then the cost of such test shall be borne by the contractor.

16.0 Obtaining information related to execution of work:

No claim by the contractor for additional payment shall be entertained which is consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the work nor any misunderstanding or the obtaining incorrect information or the failure to obtain correct information relieve him from any risks or from the entire responsibility for the fulfillment of contract.

17.0 Contractor's superintendence:

The contractor shall give necessary personal superintendence during the execution the works and as long, thereafter, as the Architect/Consultant may consider necessary until the expiry of the defects liability period, stated hereto.

18.0 Quantities:

The bill of quantities (BOQ) unless or otherwise stated shall be deemed to have been prepared in accordance with the Indian Standard Method of Measurements and quantities. The rate quoted shall remain valid for variation of quantity against individual item to any extent. The entire amount paid under Clause 19, 20 hereof as well as amounts of prime cost and provision sums, if any, shall be excluded.

19.0 Works to be measured:

The Architect/Consultant may from time to time intimate to the contractor that he requires the

work to be measured and the contractor shall forthwith attend or send a quantity representative to assist the Architect in taking such measurements and calculation and to furnish all particulars or to give all assistance required by any of them. Such measurements shall be taken in accordance with the Mode of measurements detail in the specifications. The representative of the Architect / Consultant shall take measurements with the contractor's representative and the measurements shall be entered in the measurement book. The contractor or his authorized representative shall sign all the pages of the measurement book in which the measurements have been recorded in token of his acceptance. All the corrections shall be duly attested by both representatives. No over writings shall be made in the M book should the contractor not attend or neglect or omit to depute his representative to take measurements the measurements recorded by the representative of the Architect/consultant shall be final. All authorized extra work, omissions and all variations made shall be included such measurement.

20.0 Variations:

No alteration, omission or variation ordered in writing by the Architect/consultant vitiates the contract. In case the SBI/ Architect / Consultant thinks proper at any during the progress of works to make any alteration in, or additions to or omission from the works or any. Alteration in the kind or quality of the materials to be used therein, the Architect / Consultant shall give notice thereof in writing to the contractor shall confirm in writing within seven days of giving such oral instructions the contract shall alter to, add to, or omit from as the case may be in accordance with such but the contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulations, specifications or contract drawings without previous consent in writing of the Architect/ Consultant and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Architect / Consultant and the same shall be added to or deducted from the contract value, as the case maybe.

21.0 Valuation of Variations:

No claim for an extra shall be allowed unless it shall have been executed under the authority of the Architect / Consultant with the concurrence of the SBI as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.

- (i) The net rates or prices in the contract shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work price herein.
- (ii) Rates for all items, wherever possible should be derived out of the rates given in the priced BOQ.

The net prices of the original tender shall determine the value of the items omitted, provided if omissions do not vary the conditions under which any remaining items of Works are carried out, otherwise the prices for the same shall be valued under sub- Clause 'c' hereunder.

Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items or works are carried out, then the contractor shall within 7 days of the receipt of the letter of acceptance inform the Architect/ consultant of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the Architect/consultant shall fix such rate or prices as in the circumstances in his opinion are reasonable and proper, based on the market rate.

Where extra work cannot be properly measured or valued the contractor shall be allowed day work prices at the net rates stated in the tender, of the BOQ or, if not, so stated then in accordance with the local day work rates and wages for the district; provided that in either case, vouchers specifying the daily time (and if required by the Architect/Consultant) the workman's name and materials employed be delivered for verifications to the Architect

/consultant at or before the end of the week following that in which the work has been executed.

It is further clarified that for all such authorized extra items where rates cannot be derived from the tender, the Contractor shall submit rates duly supported by rate analysis worked on the 'market rate basis for material, labour hire / running charges of equipment and wastages etc. plus 15% towards establishment charges, contractor's overheads and profit. Such items shall, not be eligible for escalation.

22.0 Final measurement:

The measurement and valuation in respect of the contract shall be completed within two months of the virtual completion of the work.

23.0 Virtual Completion Certificate (VCC):

On successful completion of entire works covered by the contract to the full satisfaction of the SBI, the contractor shall ensure that the following works have been completed the satisfaction of the SBI:

Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour equipment and machinery.

Demolish, dismantle and remove the contractor's site office, temporary works, structure including labour sheds/camps and constructions and other items and things whatsoever brought upon or erected at the site or any land allotted to the contractor by the SBI not incorporated in the permanent works.

Remove all rubbish, debris etc. from the site and the land allotted to the contractor by the SBI and shall clear, level and dress, compact the site as required by the SBI

Shall put the SBI in undisputed custody and possession of the site and all land allot by the SBI

Shall hand over the work in a peaceful manner to the SBI

All defects / imperfections have been attended and rectified as pointed out by the Architects to the full satisfaction of SBI

Upon the satisfactory fulfillment by the contractor as stated above, the contractor is entitled to apply to the Architect / consultant is satisfied of the completion of work. Relative to which the completion certificate has been sought, the Architect/ consultant shall within fourteen (14) days of the receipt of the application for completion certificate, issue a VCC in respect of the work for which the VCC has applied.

This issuance of a VCC shall not be without prejudice to the SBI rights and contractor liabilities under the contract including the contractor's liability for defects liability nor shall the issuance of VCC in respect of the works or work at any site be construction as a waiver of any right or claim of the SBI against the contractor in respect of or work at the site and in respect of which the VCC has been issued.

24.0 Work by other agencies:

The SBI / Architect / consultant reserves the rights to use premises and any portion the site for execution of any work not included in the scope of this contract which it may desire to have carried out by other persons simultaneously and the contractor shall not only allow but also extend reasonable facilities for the execution of such work. The contractor however shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI. Such work shall be carried out in such manner as not to impede the progress of the works included in the contract.

25.0 Insurance of works:

Without limiting his obligations and responsibilities under the contract the contractor shall insure in the joint names of the SBI and the contractor against all loss of damages from whatever cause arising other than the excepted risks, for which he is responsible under the terms of contract and in such a manner that the SBI and contractor are covered for the period stipulated in clause of GCC and are also covered during the period of maintenance for loss or damage arising from a cause, occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under clause.

The Works for the time being executed to the estimated current Contract value thereof, or such additional sum as may be specified together with the materials for incorporation in the works at their replacement value.

The constructional plant and other things brought on to the site by the contractor to the replacement value of such constructional plant and other things.

Such insurance shall be effected with an insurer and in terms approved by the SBI which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the Architect / consultant the policy of insurance and the receipts for payment of the current premiums.

26.0 Damage to persons and property:

The contractor shall, except if and so far as the contract provides otherwise indemnify the SBI against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation of damages for or with respect to:

- a) The permanent use or occupation of land by or any part thereof.
- b) The right of SBI to execute the works or any part thereof on, over, under, in or through any lands.
- c) Injuries or damages to persons or properties which are unavoidable result of the execution or maintenance of the works in accordance with the contract.
- d) Injuries or damage to persons or property resulting from any act or neglect of the SBI their agents, employees or other contractors not being employed by the contractor or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the SBI, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

27.0 Contractor to indemnify SBI:

The contractor shall indemnify the SBI against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the provision sub-clause 26.0 of this clause.

28.0 Contractor's superintendence:

The contractor shall fully indemnify and keep indemnified the SBI against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect to any article or part thereof included in the contract. In the event of any claim made under or action brought against SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expenses to settle any dispute or to conduct

any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the SBI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Architect / consultant in this behalf.

29.0 Third Party Insurance:

Before commencing the execution of the work the contractor but without limiting his obligations and responsibilities under clause 25.0 of GCC shall insure against his liability for any material or physical damage, loss, or injury which may occur to any property including that of SBI, or to any person, including any employee of the SBI, by or arising out of the execution of the works or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to clause 25.0 thereof.

30.0 Minimum amount of Third Party Insurance:

Such insurance shall be affected with an insurer and in terms approved by the SBI which approval shall not be reasonably withheld and for at least the amount stated below. The contractor shall, whenever required, produce to the Architect / consultant the policy or policies of insurance cover and receipts for payment of the current premiums.

The minimum insurance cover for physical property, injury, and death is Rs.5 Lakh per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

31.0 Accident or Injury to workman:

The SBI Shall not be liable for or in respect to any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

32.0 Insurance against accidents etc. to workmen:

The contractor shall insure against such liability with an insurer approved by the SBI During the whole of the time that any persons are employed by him on the works and shall, when required, produce to the architect / consultant such policy of insurance and receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor the contractor's obligation to insured as aforesaid under this sub-clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that SBI is indemnified under the policy but the contractor shall require such sub-contractor to produce to the Architect /consultant when such policy of insurance and the receipt for the payment of the current premium.

33.0 Remedy on contractor's failure to insure:

If the contractor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the SBI may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the SBI as aforesaid from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

Without prejudice to the others rights of the SBI against contractors. In respect of such default, the employer shall be entitled to deduct from any sums payable to the contractor the amount of any damages costs, charges, and other expenses paid by the SBI And which are payable by the contractors under this clause. The contractor shall upon settlement by the Insurer of any claim made against the insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the monies

received from the Insurer in respect of such damage shall be paid to the contractor and the Contractor shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.

34.0 Commencement of Works:

The date of commencement of the work will be reckoned from the date of award of letter by the SBI

35.0 Time for completion:

Time is essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within the stipulated period from the date of commencement. If required in the contract or as directed by the Architect / consultant. The contractor shall complete certain portions of work before completion of the entire work. However, the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the contract.

36.0 Extension of time:

If, in the opinion of the Architect/consultant, the work be delayed for reasons beyond the control of the contractor, the Architect/consultant may submit a recommendation to the SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond the due date of completion as stipulated in the contract, the contractor shall apply to the SBI Through the Architect' Consultant in writing at least 30 Days before the expiry of the scheduled time and while applying for extension of time he shall furnish the reason in detail and his justification if an', for the delays. The architect/consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of time. While granting extension of time the contractor shall be informed the period extended time which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the provision of liquidated damages as stated under clause 10.0 shall become applicable. Further the contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

37.0 Rate of progress:

Whole of the materials, plant and labour to be provided by the contractor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the Architect/consultant should the rate of progress of the work or any part thereof be at any time be in the opinion the. Architect / consultant too Slow to ensure the completion of the whole of the work the prescribed time or extended time for completion the Architect/consultant shall the re upon take such steps as considered necessary by the Architect / consultant to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the Architect / consultant neither shall relieve. The contractor from fulfilling obligations under the contract nor he will be entitled to raise any claims arising out of such directions.

38.0 Work during nights and holidays:

Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the Architect/consultant, save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the contractor shall immediately advise the Architect / consultant. However, the provisions of the clause shall not be applicable in the case of any work which becomes essential to carry by rotary or double shifts in order to achieve the progress and quality of the part of the works being technically required / continued with the prior approval of the Architect / consultant at no extra cost to the SBI

All work at night after obtaining approval from competent authorities shall be carried out without unreasonable noise and disturbance.

39.0 No compensation or restrictions of work:

If at any time after acceptance of the tender SBI shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any part of the work to be carried out. The Architect / consultant shall give notice in writing that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise what so ever on account of any profit or advantage which he might have derived from the execution of the Work fully but which he did not derive in consequence of the fore closure of the whole or part of the work.

Provided that the contractor shall be paid the charges on the cartage only of materials actually and bonafide brought to the site of the work by the contractor and rendered surplus as a result of the abandonment, curtailment of the work or any portion thereof and then taken back by the contractor, provided however that the Architect/Consultant shall have in such cases the option of taking over all or any such materials at their purchase price or a local current rate whichever is less.

In case of such stores having been issued from SBI stores and returned by the contractor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the contractor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of Architect / consultant shall be final.

40.0 Suspension of work:

The contractor shall, on receipt of the order in writing of the Architect / consultant (whose decision shall be final and binding on the contractor) suspend the progress of works or any part the offer such time and in such manner as Architect/consultant may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of following reasons:

- a) On account any default on the part of the contractor, or
- b) For proper execution of the works or part thereof for reasons other than the default the contractor, or
- c) For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works the extent necessary and carry out the instructions given in that behalf by the Architect / consultant.

i) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

The contractor shall be entitled to an extension of time equal to the period of every such suspension. No compensation whatsoever shall be paid on this account.

41.0 Action when the whole security deposit is forfeited:

In any case in which under any clause or clauses of this contract, the Contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit the Architect / consultant shall have the power to adopt any of the following course as they may deem best suited to the interest of the SBI:

To rescind the contract (of which rescission notice in writing to the contractor by - Architect / consultant shall be conclusive evidence) and in which case the security, deposit of the contractor shall be forfeited and be absolutely at the disposal of SBI.

To employ labour paid by the SBI and to supply materials to carry out the work, or part of the work, debiting the contractor with the cost of the labour and materials cost of such labour and materials as worked out by the Architect / consultant shall final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same manner and at the same rates as if it had been carried out by the

contractor under the terms of this contract certificate of architect /consultant as to the value of work done shall be final conclusive against the contractor.

To measure up the work of the contractor, and to take such part thereof as shall unexecuted, out of his hands, and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (The amount of which excess the certificates in writing of the Architects / consultant shall final and conclusive) shall be borne by original contractor and may be deducted any money due to him by SBI under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or sufficient part thereof.

In the event of any of above courses being adopted by the SBI the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any material or entered into any engagements or make any advances on account of, or with a view to the execution of the work or the performance of the contract and incase the contract shall be rescind under the provision aforesaid, the contractor shall not be entitled to recover or to be paid any sum or any work thereto for actually performed under this contract, unless, and until the Architect / consultant will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

42.0 Owner's right to terminate the contract:

If the contractor being an individual or a firm commit any 'Act of insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Govt. and of the Official Assignee of the liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him to do so, to show to the reasonable satisfaction of the Architect / Consultant that he is able to carry out and fulfill the contract, and to dye security therefore if so required by the Architect /Consultant.

Or if the contractor (whether an individual firm or incorporated Company) shall suffer execution to be issued or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor.

Or shall assign or sublet this contract without the consent in writing of the SBI through the Architect/Consultant or shall charge or encumber this contract or any payment due to which may become due to the contractor there under:

has abandoned the contract; or

has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for 14 days after receiving from the SBI through the Architect / consultant written notice to proceed, or

has failed to proceed with the works with such diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or has failed to remove the materials from the site or to pull down and replace work within seven days after written notice from the SBI through the Architect / Consultant that the said materials were condemned and rejected by the Architect/ consultant under these conditions; or has neglected or failed persistently to observe and perform all or any of the acts matters or things by this contract to be observed and performed by the contractor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to the detriment of good workmanship or in defiance of the SBI or Architect's / consultant's instructions to the contrary subject any part of the contract. Then and in any of said cases the SBI and or the Architect / consultant, may not withstanding any previous waiver, after giving seven days' notice in writing to the contractor, determine the contract, but without thereby affecting the

powers of the SBI or the Architect/consultant or the obligation and liabilities of the contractor the whole of which shall continue in force as fully as if the contract had not been determined and as if the works subsequently had been executed by or on behalf of the contractor. And, further the SBI through the Architect / consultant their agents or employees may enter upon and take possession of the work and all plants, took scaffoldings, materials, sheds, machineries lying upon the premises or on the adjoining lands or roads use the same by means of their own employees or workmen in carrying on and completing the work or by engaging any other contractors or persons to the work and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractor or other persons employed for complement and finishing or using the materials and plant for the works.

When the works shall be completed or as soon thereafter as convenient the SBI Or architect/consultant shall give a notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within 14 days after receive thereof by him the SBI sell the same by public auction, and after due publication, and shall, adjust the amount realized by such tender. The contractor shall have no right to question any of the act of the SBI incidental to the sale of the materials etc.

43.0 Certificate of payment:

The contractor shall be entitled under the certificates to be issued by the Architect / consultant to the contractor within 10 working days from the date of certificate to payment from SBI From time to time SBI shall recover the statutory recovering other dues including the retention amount from the certificate of payment. Provided always that the issue of any certificate by the Architect / consultant during progress of works or completion shall not have effect as certificate of satisfaction relieve the contractor from his liability under clause.

The Architect / consultant shall have power to withhold the certificate if the work or in part thereof is not carried out to their satisfaction. The Architect/consultant may by any certificate make any corrections required previous certificate. The SBI shall modify the certificate of payment as issued by the architect/ consultant from time to time while making the payment. The contractor shall submit interim bills only after taking actual measurements and properly recorded in the Measurement books. Interim Bills shall be paid as per NIT.

The final bill may be submitted by contractor within a period of one month from the date of virtual completion and Architect / consultant shall issue the certificate of payment within a period of two months. The SBI Shall pay the amount within a period of three months from the date of issue of certificate provided there is no dispute in respect of rates and quantities.

The contractor shall submit the interim bills in the prescribed format with all details.

44.0

A. Settlement of Disputes and Arbitration:

Except where otherwise provided in the contract all questions and disputes to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question , claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings specifications, estimates, instructions orders or these conditions or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contractor raise any dispute, the contractor shall forthwith give notice in

writing of his claim, or dispute to The AGM (P&E) LHO Delhi and endorse a copy of the same to the Architect, within 30 days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the SBI be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to the AGM (P&E) LHO Delhi in the manner and within the time as aforesaid. The Contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the AGM (P&E) LHO Delhi in writing in the manner and within the time aforesaid.

B. Settlement of Disputes and Arbitration:

The AGM (P&E) LHO Delhi shall give his decision in writing on the claims notified by the receipt of the contractor may within 30 days of the receipt of the decision of the Submit his claims to the conciliating authority namely the CDO., SBI, LHO, Delhi for conciliation along with all details and copies of correspondence exchanged between him and the SBI.

If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned CGM of the SBI for appointment of an arbitrator to adjudicate the notified claims falling which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.

Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the contractor as aforesaid and all claims of the SBI shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the CGM and who will be of Deputy General Manager rank. It will also be no objection to any such appointment that the Arbitrator so appointed is a SBI, Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as SBI, Officer. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said CGM of the SBI Such person shall be entitled to proceed with the reference from the stage at which it was let by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by such Chief General Manager as aforesaid should act as arbitrator. The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any or any accordance modification or reenactment thereof and the rules made there under.

It is also a term of the contract that if any fees are payable to the Arbitrator these shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a SBI Officer.

It is also a term of the contract that the Arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any of the arbitrators shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The Cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof, shall be paid and fix or settle the amount of costs to be so paid.

45.0 Water supply:

The contractor shall make his own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following condition.

- i) That the water used by the contractor shall be fit for construction purposes to the satisfaction of the Architect /consultant's.
- ii) The contractor shall make alternative arrangements for the supply of water if the arrangement made by the contractor for procurement of water in the opinion of the Architect / consultant is unsatisfactory.
- iii) In case contractor is permitted to use SBI source of water i.e. Municipal connection, Bore well (existing or new) etc., the SBI will recover as per clause **51.0** of this document from the final bill of contractor.

The contractor shall construct temporary well / tube well in SBI Pvt. Ltd land for taking water for construction purposes only after obtaining permission in writing from the SBI The contractor has to make his own arrangements for drawing and distributing the water at his own cost. He has to make necessary arrangements. To avoid any accidents or damages caused due to construction and subsequent maintenance of the wells. He has to obtain necessary approvals from local authorities, if required, at his own cost. He shall restore the ground to its original condition after wells are dismantled on completion of work or hand over the well to the SBI without any compensation as directed by the architect /consultant.

46.0 Power supply:

The contractor shall make his own arrangements for power and supply / distribution system for driving plant or machinery for the work and for lighting purpose at his own cost, the cost of running and maintenance of the plants are to be included in his tender prices, He shall pay all fees and charges required, by the power supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approval from the appropriate authorities, if required.

In case contractor is permitted to use Bank's source of power supply provided at one point, the SBI will recover as per clause **51.0** of this document from the final bill of contractor.

47.0 Treasure trove etc.

Any treasure trove, coin or object antique which may be found on the site shall be the property of SBI and shall be handed over to the bank immediately.

48.0 Method of measurement:

Unless otherwise mentioned in the schedule of quantities or in mode of measurement, the measurement will be on the net quantities or work produced in accordance with up to date rules laid down by the Bureau of Indian Standards. In the event any dispute/ disagreement the decision of the Architect / consultant shall be final and binding on the corrector.

49.0 Maintenance of registers:

The contractor shall maintain the following registers as per the enclosed perform at site of work and should produce the same for inspection of SBI /Architect / consultant whenever desired by them. The contractor shall also maintain the records / registers as required by the local authorities / Govt. from time to time.

- i) Register for secured advance
- ii) Register for hindrance to work
- iii) Register for running account bill
- iv) Register for labour

50.0 Force Majeure:

Neither contractor nor SBI shall be considered in default in performance of the obligations if such performance is prevented or delayed by events such as but not war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of or for any other cause beyond the reasonable control of the party affected or prevents or delayed. However, a notice is required to be given within 30 days from the happening of the event with complete details, to the other party to the contract ,if it is not possible to serve a notice, within the shortest possible period without delay.

As soon as the cause of force majeure has been removed the party whose ability perform its obligations has been affected, shall notify the other of such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.

From the date of occurrence of a case off or force majeure obligations of the party affected.

51.0 Water power and other facilities:

The rate quoted by the contractor shall include all expenses that are required for providing all the water required for the work and the contractor shall make his own arrangements for the supply of good quality water suitable for the construction and good quality drinking water for their workers If necessary the contractor has to sink a tube well/open well and bring water by means of tankers at his own cost for the purpose The SBI will not be liable to pay any charges in connection with the above

The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges

The contractors for other trades directly appointed by the SBI shall be entitled to take power and water connections from the temporary water and power supply obtained by the contractor However, the concerned contractor shall make their own arrangements to draw the supply and pay directly the actual consumption charges at mutually agreed rates between them. All municipal charges for drainage and water connection for Construction purposes shall be borne by the contractor and charges payable for permanent connections, if any, shall be initially paid by the contractor and the SBI will reimburse the amount on production of receipts.

The SBI as well as the Architect / consultant shall give all possible assistance to the Contractor's to obtain the requisite Permission from the various authorities, but the responsibility for obtaining the same in time shall be of the contractor.

In case contractor is permitted to use Bank's source of water and power supply provided at one point, the SBI will recover @ 0.50% of final bill amount for water and electricity (Combined) from the bill of contractor.

52.0 Facilities for contractor's employees:

The contractor shall make his own arrangement for the housing and welfare of his staff and workmen including adequate drinking water facilities. The contractor shall also make the arrangements at his own cost for transport where necessary for his staff and workmen to and from site of work at his own cost.

53.0 Lighting of works:

The contractor shall at all times provide adequate and approved lighting as required for the proper execution and supervision and inspection of work.

54.0 Firefighting arrangements:

The contractor shall provide suitable arrangement for firefighting at his own cost. This purpose he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are to be always kept filled with sand and some with water these equipment shall be provided at suitable prominent and easily accessible place and shall be properly maintained.

Any deficiency in the fire safety or unsafe conditions shall be corrected by the contractor at his own cost and, to the approval of the relevant authorities. The contractor make the following arrangements at his own cost but not limited the following:

- a) Proper handling, storage and disposal of combustible materials and waste.
- b) Work operations which can create fire hazards.
- c) Access for fire-fighting equipment.
- d) Type, number and location of containers for the removal of surplus materials and rubbish.
- e) Type, size, number and location of fire extinguishers or other tire fighting equipment.
- f) General housekeeping.

55.0 Site order book:

A site order book shall be maintained at site for the purpose of quick communication between the Architect / Consultant. Any communication relating to the work may be conveyed through records in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract Each site order book shall have machine numbered pages in triplicate and shall carefully maintained and preserved by the contractor and shall be made available to the architect

/consultant as and when demanded- Any instruction which the architect/consultant may like to issue to the contractor or the contractor may like to bring to the architect / consultant two copies of such instructions shall be taken from the site order book and one copy will be handed over to the party against proper acknowledgment and the second copy will be retained for their record.

56.0 Temporary fencing/barricading:

The contractor shall provide and maintain a suitable temporary fencing/barricading/ green nets and gates at his cost to adequately enclose all boundaries of the site for the protection of the public and for the proper execution and security of the work and in accordance with the requirement of the architect/consultant and regulations of local authorities. These shall be altered, relocated and adopted from time to time as necessary and removed on completion of the work.

57.0 Site meetings:

Site meetings will be held to review the progress and quality evaluation. The contractor shall depute a senior representative along with the site representative and other staff of approved sub-contractors and suppliers as required to the site meetings and ensure all follow up actions. Any additional review meetings shall he held if required by the architect/ consultant.-

58.0 Disposal of refuse:

The contractor shall cart away all debris, refuse etc. arising from the work from the site and deposit the same as directed by the architect / consultant at his own cost. It is the responsibility of the contractor to obtain from the local authorities concerned to the effect that all rubbish arising out of contractor's activities at the construction site or any other off-site activities borrow pits has been properly disposed off.

59.0 Contractor to verify site measurement:

The contractor shall check and verify all site measurements whenever requested other specialist's contractors or sub-contractors to enable them to prepare the own shop drawing and pass on the information with sufficient promptness as will in any way delay the works.

60.0 Displaying the name of the work:

The contractor shall put up a name board of suitable size as directed by the architect/ consultant indicating there in the name of the project and other details as given by the architect/consultant at his own cost and remove the same on completion of work.

61.0 As built drawings:

For the drawings issued to the contractor by the Architect / Consultant. The architect Consultant will issue two sets of drawings to the Contractor for the items for some changes have been made. From the approved drawings as instructed by the SBI / Architect / Consultant. The contractor will make the changes made on these copies and return these copies to the architect / Consultant for their approval. In cases revision is required or the corrections are not properly marked the architect/Consultant will point out the discrepancies to the contractor. The contractor will have to incorporated these corrections and / or attend to discrepancies either on copies as directed by the architect / consultant and resubmit to him for approval. The architect / consultant will return one copy duly approved by him.

For the drawings prepared by the contractor:

The contractor will modify the drawing prepared by him wherever the changes made by the SBI / architect / consultant. And submit two copies of such modified drawings to the architect/ consultant for approval. The architect / consultant will return one copy of the approved drawing to the contractor.

62.0 Approved make:

The contractor shall provide all materials from the list of approved makes at his own cost and also appoint the specialized agency for the waterproofing, anti-termite treatment, aluminum doors and windows and any other item as specified in the tender. The architect/consultant may approve any make / agency within the approved list as given in the tender after inspection of the sample/mockup.

63.0 Procurement of materials:

The contractor shall make his own arrangements to procure all the required materials for the work. All wastages and losses in weight shall be to the contractors account

64.0 Excise duty, taxes, levies etc.:

The contractor shall pay and be responsible for payment of all taxes, duties, levies, royalties, fees, cess or charges in respect of the works including but not limited to sales tax, tax on works contract excise duty, and Octroi, payable in respect of materials, equipment plant and other things required for the contact. All of the aforesaid taxes, duties, levies, fees and charges shall be to the contractor's account and the SBI Shall not be required to pay any additional or extra amount on this account. Variation of taxes, duties, fees, levies etc. if any, till completion of work shall be deemed to be included in the quoted rates and no extra amount on this account. Variation of taxes, duties, fees, levies etc. if any, till completion of work shall be deemed to be included in the quoted rates and no extra claim on this account will in any case be entertained. If a new tax or duty or levy or cess or royalty or Octroi is imposed under as statutory law during the currency of contract the same shall be borne by the contractor. However, GST will be paid extra.

65.0 Acceptance of tender:

The SBI shall have the right to reject any or all tenders without assigning any reason. They are not to bind to accept the lowest or any tender and the tenderer or tenderers shall have no right to question the acts of the SBI. However adequate transparency would be maintained by the SBI

66.0 Photographs:

The Contractor shall at his own expense supply to the Architects with duplicate hard copies of large photographs not less than 25 cm. x 20 cm. (10" x 8") of the works, taken from two approved portions of each building, at intervals of not more than one months during the progress of the work or at every important stage of construction.

In addition to above, the contractor shall be bound to submit adequate no. of site photographs along with each Running Bill for the project clearing showing major progress of work measured and claimed therein failing which the Architect/ SBI may consider returning the Bill to the contractor and no claim for delay on this account will be entertained.

67.0 Safety Codes:

1. First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases when the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used an extra labour shall be engaged for holding ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of the trench half of the depth of trench whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.
6. Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one meter.
7. No floor, roof or other part of the structure shall be so overloaded with debris or material as to render it unsafe.
8. Workers employed on mixing and handling material such as asphalt, cement, mortar, concrete and lime shall be provided with protective footwear and rubber hand gloves.
9. Those engaged in welding works shall be provided with welders' protective eye shield and gloves.
10. (i) No paint containing lead or lead products shall be used except in the form of paste readymade paint.
(ii) Suitable face masks should be supplied for use by the workers when the paint applied in the form of spray or surface having lead paint dry rubbed and scrapped.
11. Overalls shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during cessation of work.
12. Hoisting machines and tackle used in the works including their attachments anchor and supports shall be in perfect condition.
13. The ropes used in hoisting or lowering material or as a means of suspension shall be durable quality and adequate strength and free from defects.

SPECIAL CONDITIONS OF CONTRACT

1. Dimensions and levels

All dimensions and levels shown on the drawings shall be verified by the contractor on the site and he will be held responsible for the accuracy and maintenance of all the dimensions and the levels. Figured dimensions are in all cases to be accepted and no dimension shall be scaled. Large scale details shall take precedence over small-scale drawings. In case of discrepancy the contractor shall ask for clarification from the Architect/Consultant before proceeding with the work.

2. Notice of operation:

The contractor shall not carry out any important operation without the consent in writing from the Architect/Consultant.

3. Construction records:

The contractor shall keep and provide to the Architect/Consultant full and accurate records of the dimensions and positions of all new work and any other information necessary to prepare complete drawings recording details of the work as constructed.

4. Safety of adjacent structures and trees

The contractor shall provide and erect to the approval of the Architect/ Consultant such supports as may be required to protect effectively all structures and protective guards to trees which may be endangered by the execution of the works or otherwise take such permanent measures as may be required by the Architect to protect the trees and structures.

5. Temporary works:

Before any temporary works are commenced the contractor shall submit at least 7 days in advance to the Architect/Consultant for approval complete of all temporary works he may require for the execution of the works. The contractor shall carry out the modifications relating to strength, if required by the Architect/Consultant may require in accordance with the conditions of contract at his own cost. The contractor shall be solely responsible for the stability and safety of all temporary works and unfinished works and for the quality of the permanent works resulting from the arrangement eventually adopted for their execution.

6. Temporary roads:

The contractor shall provide access road to the site from the nearest main road at no extra cost and as directed by the Architect/Consultant. The contractor shall also be responsible for proper maintenance of this access road and would take all care to see that existing services, if any, are maintained in working order at his own cost. The laying and maintaining the temporary roads within the site area shall be the contractor's responsibility and the contractor shall take such measures that are necessary and as directed by the Architect/Consultant.

7. Office accommodation

a. The contractors shall provide and maintain all necessary offices, workshops, stores, shelters, sanitary facilities, canteens and other temporary structures for themselves in connections with the work at the site at their own cost after getting the approval from the Architect/ Consultant.

b. A site office for the use of SBI/ the Architect/ Consultant shall be provided by the contractors at his own expenses.

c. All temporary buildings and facilities as mentioned above shall be removed on completion of the work or at any other earlier date as directed by the contractors.

d. All the expenses for obtaining statutory approvals and maintenance of the above

facilities as well as running expenses shall be borne by the contractor at no extra cost. It is also the responsibility of the contractor to obtain statutory approvals for providing the above facilities

8. Fire fighting arrangements:

The contractor shall provide suitable arrangement for firefighting at his own cost. For this purpose he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are to be always kept filled with sand and some with water. These equipments shall be provided at suitable prominent and easily accessible places and shall be properly maintained.

Any deficiency in the fire safety or unsafe conditions shall be corrected the contractor at his own cost and to the approval of the relevant authorities. The contractor shall make the following arrangements at his own cost but not limited to the following.

- Proper handling, storage and disposal of combustible materials and waste.
- Work operations which can create fire hazards
- Access for firefighting equipments.
- Type, number and location of containers for the removal of surplus materials and rubbish.
- Type, size, number and location of fire extinguishers or other firefighting equipment's.
- General housekeeping.

9. Defects after Virtual completion and defects liability period:

Any defect shrinkage, settlement or other faults which may appear within the "Defects Liability Period" which shall be as per NIT from the date of the virtual completion of the work, arising in the opinion of the Architect from materials or workmanship not in accordance with the contract, shall upon the direction in writing of the Architect, and within such reasonable time as shall be specified therein, be amended and made good by the contractor, at his own cost and in case of default then Bank may employ and pay other person /agency to amend and make good such defects, shrinkage, settlement or other faults, and all damages, loss, and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damage, loss and expenses shall be recoverable from him by the Bank or may be deducted by the Bank, upon the Architect's certificate in writing, from any money due or may be deducted by the Bank, upon the Architect's certificate in writing, from any money due or that may become due to the contractor, or the bank may in lieu of such amending and marking good by the contractor deduct from any money due to the contractor a sum, to be determined by the Architect equivalent to the cost of amending such work and in the event of the amount retained under clause of GCC, hereof being insufficient, recover the balance from the contractor, together with any expenses the Bank may have incurred in connection therewith. Should any defective work have been done or material supplied by any sub-contractor employed on the works, who has been nominated or approved by the Architect as provided in clauses of GCC the contractor shall be liable to make good in the same manner as if such work or material has been done or supplied by the Contractor and been subject to the provisions of this Contract. The Contractor shall remain liable under the provisions of this Contract notwithstanding the signing of any Certificate or the passing of any accounts, by the Architect.

ADDITIONAL CONDITIONS OF CONTRACT

Notwithstanding anything contained herein above the following ADDITIONAL CONDITIONS shall be applicable for this contract / work.

1. PRICE VARIATION ADJUSTMENT (PVA):

The rates/ Percentage quoted by the bidder shall remain firm throughout the contract / construction period. PVA & PVA Clause mentioned elsewhere in these documents shall not be applicable.

2. WORKING SCHEDULE / BAR CHART:

Detailed working date schedule and bar chart for the work shall be prepared by the contractor and got approved from the Bank / Architect. A detailed flow chart of activities highlighting curing, setting time / period, pot life period / predecessor, successor & critical activities etc. shall also be prepared by the contractor for effective management of work and also to make a realistic bar chart / working date schedule.

3. RATES:

It may be noted that it is an item rate contract. Rates after applying K-factor on indicative price bids on the basis of amount quoted in reverse auction by successful bidder and accepted by the bank shall be for all levels/height and lead unless otherwise specified in the schedule of quantities and shall be inclusive of all man, labour, supervision, materials, tools, equipment, scaffoldings, water, electricity, taxes, insurances, arrangements, temporary works, over heads, collection & carting away & final disposal of rubbish & debris, regular cleaning of site etc. required to complete the works in all respect to the satisfaction of the architects / Bank and nothing additional or extra shall be paid on these accounts and / or on account of variation in rates / taxes and / or imposition of new tax / levy during currency of contract / work, except for the items, taxes, works etc. for which there is a specific mention for additional payment in these tender documents. The rates shall remain firm throughout the contract period.

4. BASIC RATE:

Wherever for any item of work basic rate of materials are specified, the materials of that basic rates as selected by the Bank/Architect at any commercial establishment/ seller of Ahmadabad or nearby centre, if such materials are not available at Ahmadabad, shall be procured and used by the contractor.

Basic rate of any material (Without processing) is the rate offered by seller against Bill and credit period not exceeding 15 days, including all applicable taxes etc (but excluding GST) ex- godown. Payments for procurement of materials shall be made by the contractor themselves. If the basic rate of any material actually used for the work is more or less than the basic rate given in schedule of quantities, in that case adjustments in the rate admissible to the contractor shall be modified by adding or subtracting, as the case is, from the accepted tender rates an amount equivalent to difference in the basic rates plus 15 % of difference of the basic rate.

5. BRANDED / FINISHING ITEMS:

Branded items such as tiles, construction chemicals, hardware, sanitary wares and other finishing items shall be used as per the samples selected and approved by the architects / Bank from the brands/makes mentioned in the tender document. If the contractor intend to use an equivalent substitute than, they have to produce necessary documentary evidences establishing the equivalency to the satisfaction of the architect/Bank and shall use the same only after approval of the architect.

6. INSURANCE

The contractor shall keep the Bank indemnify from all the claims arising out of damage to workman/person & property of Bank and/or third party and the SBI shall have right to

recover the cost of such damages /claim from any amount due to the contractor. If the claim amount exceeds the amount due to be paid to the contractor, the contractor shall immediately pay such excess amount to the Bank. Decision of the Bank regarding determination of the amount of claim /damage shall be final & binding to the contractor. Being a short period work, the Bank may not be able to check or verify the various insurance policies required to be taken by the contractor and trust that the contractor has obtained all such policies.

7. SITE CONDITION & WORKING HOURS.

The tenderer must visit the site and acquaint themselves with the site conditions. It must be noted that the work is to be carried out in the functional branch without hindering the normal functioning of the Branch. The work shall generally be carried out on holidays or after Banking hours only.

The work is to be carried out in running branch premise; therefore the work may be carried out day & night.

The contractor has to work in coordination with the other contractors and daily/weekly schedule of working shall be prepared in consultation with the Architects/Banks. Regular updating / modification of such schedule shall be required.

For normal functioning of the Bank/Branch the contractor shall be required to shift the furniture etc and/or relocate the existing and/or new loose and/or fix furniture and/or any other item of works and/or any such materials at new location at times. The contractor shall carry out all such activities with utmost priority and without any additional/extra cost to the bank. The tenderer shall quote the rates inclusive of all such activities/works as may be required as per site conditions. The rates quoted by the tenderer shall be inclusive of all such temporary/ semi-permanent works/activities.

8.GENERAL:

- a. Source of materials / samples / brands / makes etc. shall be got approved from the Architects /Bank before using. In case of deviations, decision of the Bank shall be final and binding and shall not be open for arbitration.
- b. The Architects have their specific role/duties/rights as defined in these tender documents However in the event of any dispute arising out of differences between the opinions of the Architects and also their role/duties/rights, the Banks' decision shall be final & binding on the Architects and the Contractor and shall not be open to arbitration.
- c. Any item mentioned in the BOQ with "TO THE SHAPE" will have measurement of onsite executed to the shape area only.
- d. The contractor's qualified & authorized representative shall remain on site during the entire execution process for coordination with various agencies/ Architect/Bank & execution of work
- e. Hidden measurement. It is contractor's responsibility to get the measurement checked immediately on completion of such items. This shall be done before finishing the same & before ceiling boarding done. The Architect shall be provided with such details well in advance so that the other work is not held up due to last moment action.
- f. MTC (Manufacturer Test certificate) Where ever applicable shall be arranged & submitted by the contractor.
- g. Water & Electricity, if available, shall be provided by the Bank at one point without any charges. However, if the water & electricity could not be provided by the Bank, the same shall be arranged by the contractor at their own cost within the quoted/accepted rate. Nothing extra shall be paid by the Bank on account of not providing the water & Electricity.
- h. Wherever the specifications are not specified in details the work shall be carried out as per CPWD specifications or Manufacturer's instructions or architects instructions depending upon the site conditions as directed by the Bank/ Architects.
- i. The contractor shall produce the bills / challans / documentary evidences and proof in respect of genuineness of materials used by him when so ever asked/demanded by the Architects/Bank.

TECHNICAL SPECIFICATIONS FOR CIVIL WORKS

General:

This specifications are for the work to be executed items to be supplied and materials to be used in the works as shown and defined on the drawings and described here in all under the supervision and to the satisfaction of the architect / employer.

The workmanship is to be the best available and to a high standard. Use must be made of specialist tradesmen in all aspects of the works, and allowance must be made in the rates for doing so.

The materials and items to be provided by the contractor shall be the best of their respective kinds, approved by the architect in accordance with any samples, which may be submitted for approval, and generally in accordance with the specification. Where materials or products are specified in this specification and/ or bill of quantities by the name of the manufacture or the brand trade name or catalogue references the contractor will be required to obtain the approval of the architect/ employer before using a material or product other than the specified. The contractor shall produce all invoices, vouchers or receipted accounts for any materials of called upon to do so by the architect.

Sample of all material are to be submitted to the architect for his approval before the contractor orders or delivers in bulk to the site. Also, the contractor will be required to submit specimen finishes to colors, fabrics etc. For the approval of the architect before proceeding with the works. Should it be necessary to prepare shop drawings, then four copies of such drawings shall be submitted for the approval of the architect who will retain to copies, all at the contractors expenses.

Materials

The materials shall be of the best-approved quality obtainable and shall comply with the respective Indian standard specification.

If directed, materials shall be tested in any approved testing laboratory and the test certificates in original shall be submitted to the Architect / Bank and the entire charges for repeated testes, if ordered shall be borne by the constructor.

It shall be obligatory for the contractor to furnish certificate, it demanded by the Architect / Bank, from manufacturer of the material supplier that the work has been carried out by using their material and as per their recommendations.

All materials supplied by the employer / any other specialist firm shall be properly stores and the contractor shall be responsible for its safe custody until they are required on the works and till the completion of work.

Unless otherwise shown on the drawings or mentioned in the "Schedule of Quantities" or special specifications, the quality of materials, workmanship, dimensions etc., shall be as specified herein under.

The contractor without any extra cost for carrying out field-tests on materials shall provide all equipment and facilities.

Unless mentioned specifically, all materials used in the construction shall conform to the relevant Indian standards published by bureau of Indian standards.

The contractor whenever in doubt should get the materials approved by the Architect / Bank,

before use. A sample of approved material should be deposited with the Architect / Bank.

Test certificates from the laboratory approved by the Architect / Bank/consultant will have to be furnished, if so directed by him. The contractor will pay all costs for the same.

For special items to be used, the manufacturer's instruction of handling and installation shall be strictly adhered to. The contractor shall obtain, the guarantee certificate from the manufacturer and pass on the same to the owner.

Materials if supplied by the owner, shall be properly stored in the safe custody of the contractor. The same shall be carefully used and shall be properly preserved till the work is completed and handed over to the owner. Proper accounts of such materials will be maintained and will be presented for inspection and physical verification as and when requested by the owner.

Cement Concrete paver blocks of M-30 grade

Scope of work :

The work covered under this specification consists of providing and laying 60mm thick cement concrete paver blocks of grade M-30 all as per these specifications or as per instructions of Architect/ Engineer in charge.

Sub- Base:

60 mm thick Interlocking / rectangular paver block to be fixed over the 50 mm bed of compacted coarse sand of approved specification and filling the joints with the sand of approved type and quality.

Interlocking Paver Block:

Factory made precast concrete molded paver blocks of M-30 grade to be used. Paver blocks to be of approved brand and manufacturer and shall be got approved from Engineer in charge before use. Minimum strength as prescribed by manufacturer and as per direction of Engineer-in-Charge for the grade specified to be tested as per method mentioned in CPWD specifications or as per relevant IS codes.

Measurement & Rates:

Area provided with paver block to be measured in sqm. Correct up to two places of decimal. The rate includes the cost of all material, labour, tools etc. required in all the operations described above.

Kerb Stones

Laying :

Trenches shall first be made along the edge of the wearing course of the road to receive the kerb stones of cement concrete of M25 grade. The bed of the trenches shall be compacted manually with steel rammers to a firm and even surface and then the stones shall be set in cement mortar 1:3 (1 cement: 3 coarse sand). The kerb stones with top 20 cm. wide shall be laid with their length running parallel to the road edge, true in line and gradient at a distance of 30 cm. from the road edge to allow for the channel and shall project about 12.5 cm. above the latter. The channel stones with top 30 cm. wide shall be laid in position in chamber with finished road surface and with sufficient slope towards the road gully chamber. The joints of kerb and channel stones shall be staggered and shall be not more than 5 mm. Wherever specified all joints shall be filled with mortar 1:3 (1 cement : 3 coarse sand) and pointed with mortar 1:2 (1 cement: 2 fine sand) which shall be cured for 7 days. The necessary drainage openings of specified sizes shall be made through the kerb as per drawings or as directed by the Engineer-in-Charge for connecting to storm water drains.

Finishing :

Kerbs and road edges shall be restored and all surplus earth including rubbish etc. disposed off as directed by the Engineer-in-charge. Nothing extra shall be paid for this.

Measurements :

It shall be measured in meters with length of the kerb edging of finished work (for specified width and height of stone) shall be measured in running meter along the edge of the area correct to a cm.

Rate :

The rate shall include the cost of all the materials and labour involved in all the operations described above.

SPECIFICATION FOR CAST – IN – SITU PLAIN CEMENT CONCRETE (PCC) (1:2:4) or (1:3:6)**General Specification:**

- In plain cement concrete coarse aggregate should be hard durable and free from impurities.
- Fine aggregate should contain sharp, angular grain.
- Cement should be fresh Portland cement.
- Mixing should be done by machine mixing.
- If permitted & approved by Engineer in charge, Hand mixing for small works may be allowed.
- Laying and compaction should be done before setting of concrete i.e. within 30 min.
- Curing should be done for minimum 7 days.

Detail Specification: MATERIALS**Coarse aggregate:**

1. Aggregates shall comply with the requirements of IS 383.
2. Aggregate for Design Mix Concrete: Coarse aggregate shall be of machine crushed stone of black trap equivalent hard stone and be hard strong dense, durable clean and free from skin and coating likely to prevent proper adhesion of mortar.
3. The aggregates shall generally be cubical in shape. Unless special stones of particular quarries are mentioned, aggregates shall be machine crushed from the best, black trap or equivalent hard stones as approved. Aggregate shall have no deleterious reaction with cement.
4. The grading test shall be taken in the binning and at the change of source of materials. The necessary test indicated in S 383-1970 and I.S. 456-1978 shall have to be carried out to ensure the acceptability. The aggregates shall be stored separately and handled in such a manner as to prevent the intermixing of different aggregates. If the aggregates are covered with dust, they shall be washed with water to make them clean.
5. It shall be crushed or broken from hard stone from the approved quarry. It shall be hard, strong, dense and durable, clean and free from soft friable, thin, flat, elongated or laminated, flaky pieces and shall be roughly cubical in shape. It shall be clean and free from dirt and any other foreign matter.
6. Coarse aggregate may be graveled, may either be river bed shingle or pit graveled. It shall be sound, hard, clean suitably graded in size.
7. This shall be free from flat particles of shale, powdered clay, slate, loam and other impurities. Gravel shall have to be washed if it contains soil materials adhering to it.
8. Unless specially mentioned the size of the coarse aggregate shall be 20 mm graded down and shall be retained in 5mm square mesh so that the voids do not exceed 42%.
9. In case of Grit, it shall consist of crushed or broken stone and be hard strong, dense, durable, clean of proper gradation and free from skin or coating likely to prevent adhesion of mortar. Grit shall generally be cubical in shape and as far as possible flaky elongated pieces. The grit shall be obtained from the best black trap or equivalent hard stone as approved by the Engineer-in-charge. The grit shall have no deleterious reaction with cement.

10. The necessary tests for grit shall be carried out as per the requirements of I.S. 2386 (Parts I to VII) 1963, as per instruction of the Engineer-in-charge. The necessity of test will be decided by the Engineer-in-charge.

11. The crushing strength of grit will be such as to allow the concrete in which it is used to built up the specified strength of concrete.

Fine aggregate:

Aggregate most of which passes 4.75mm IS sieve is known as fine aggregate. Sand as fine aggregate shall be coarse, consisting of sharp, angular grains and be of standard specification.

1. Sand shall be natural sand, clean, well graded, hard strong curable and gritty particle free from injurious amounts of dust clay, kankar nodules, soft or flaky particles shale, alkali, salts organic matter, loam, mica or other deleterious substance and shall be got approved from the Engineer-in-charge. The sand shall not contain more than 8 percent of silt as determined by field test. If necessary, the sand shall be washed to make it clean.
2. Coarse Sand: The fineness modulus of coarse sand shall not be less than 2.5 and shall not exceed 3.0.
3. Crushed dust stone may also be used as fine aggregate. This shall be obtained from crushing hard trap or equivalent. It shall not contain more than 8% of silt as determined by field test with measuring cylinder. The method of determining silt contents by fields test is given as under:
4. A sample of stone dust to be tested shall be placed without drying in 200 mm. measuring cylinder. The quantity of the sample shall be such that it fills the cylinder unto 100 mm thick. The clean water shall be added up to 150 mm. mark. The mixture shall be striped vigorously, and the content allowed to settle for 3 hours.
5. The height of silt visible as settled layer above the stone dust shall be expressed as percentage of the height of the stone dust below. The stone dust containing more than 8 % silt shall be washed so as to bring the silt content within the allowable limit

Cement:

1. Cements shall be phrased as Portland cement and confirmed to relevant ISI specifications. The white cement shall confirm to I.S. 80412-E 1978. Coloured cement shall be with white or gray Portland cement as specified in the item of the work.
2. It should have required compressive and tensile strength and fineness.

Water:

Water used shall be clean and reasonably free from injurious quantities of deleterious materials such as oils, acids, alkalis, salts and vegetable growth.

1. Water shall not be salty or brackish and shall be clean, reasonably clear and free from objectionable quantities of silt and traces of oil and injurious alkalis, salts, organic matter and other deleterious material which will either weaken the mortar or concrete or cause efflorescence or attack the steel in R.C.C. Container for transport, storage and handling of water shall be clean. Water shall confirm to the standards specification in I.S. 456-1978
2. If required by Engineer-in-charge it shall be tested by comparison with distilled water. Comparison shall be made by means of standard cement tests for soundness, time of setting and mortar strength as specified in I.S. 269-1976. Any indication of unsoundness, change in time of setting by 30 minutes or more or decrease of more than 10 percent in strength of mortar prepared with water sample when compared with the results obtained with mortar prepared with distilled water shall be sufficient cause for rejection of water under test.
3. Water for curing mortar, concrete or masonry should not be too acidic or too alkaline. It shall be free of elements which significantly affect the hydration reaction or otherwise interface with the hardening of concrete during curing or those which produce objectionable stains or other unsightly deposits on concrete or mortar surfaces.
4. Hard and bitter water shall be not used for curing

5. Generally potable water shall be used.
6. The pH value of the water should not be less than 6.
7. The maximum permissible limits for solids shall be as per IS 456:2000 Clause 5.4

Proportion

Proportioning of cement, sand and coarse aggregate shall be as specified.

1. Coarse aggregate and sand shall be measured by measuring box of 30cmx30cmx38cm or suitable size equivalent to one bag cement of $1/30 \text{ m}^3$ or 0.035 m^3 .
2. Cement shall be measured by bag weighing 50kg.
3. Sand shall be measured on the basis of its dry volume.
4. While measuring the aggregate sacking, ramming or hammering shall not be done.
5. If damp sand is used compensation shall be made by adding additional sand to the extent required for the bulking of damp sand.

Hand mixing:

1. Hand mixing by batches shall be permitted on small works.
2. The mixing shall be done on a clean watertight masonry or concrete slab or steel plate platform.
3. Measured quantity of sand shall be sprayed evenly. The cement shall be dumped on the sand and distributed evenly. The sand and cement shall be mixed thoroughly with spade turning the mixture repeatedly until its even colour throughout and free from streaks. The measured quantity of coarse aggregate shall be sprayed out and the sand cement mixture shall be sprayed on its top.
4. This shall be mixed at least three times by shoveling and turning over by twist from centre to side then back to the centre and again to the sides.
5. A hollow shall be made in the middle of the mixed pile.
6. Three quarters of the total quantity of water required shall be added while the material is turned in toward the centre with spades.
7. The remaining water shall be added by water can fitted with rose head slowly turning the whole mixtures over and over until a uniform colour and consistency is obtained throughout the pile.

Machine Mixing:

1. Measured quantity of dry coarse aggregate, fine aggregate and cement shall be placed in the hopper respectively.
2. The dry materials shall be mixed in the mixing drum for at least four turns of the drum after which correct quantity of water shall be added gradually while the drum is in motion.
3. The total quantity of water for the mixing shall be introduced before 25% of the mixing time has elapsed and shall be regulated to achieve the specific water cement ratio.
4. The mixing shall be thorough to have a plastic mix of uniform colour.

Mixing time:

1. The materials shall be mixed in a drum for a period of not less than 2 min and until a uniform colour and consistency obtained.
2. The time shall be counted from the moment all the materials have been put into the drum.

Consistency:

1. The quantity of water to be used for each mix of 50kg cement to give the required consistency shall be as follows:

Not more than 34 lit – 1:3:6 mix
Not more than 30lit – 1:2:4 mix
Not more than 27lit – 1:1 ½:3 mix
Not more than 25lit – 1:1:2 mix

2. The quantity of water shall be regulated by carrying out regular slump test.

Laying

1. The entire concrete used in the work shall be laid gently in layers not exceeding 15cm and

shall be thoroughly vibrated by means of mechanical vibrators till a dense concrete is obtained.

2. Hand compaction shall be done with the help of punning rods and tamping rods and tamping with the wooden tampers so that concrete is thoroughly compacted and completely walked into the corners of the form work.

3. The layers of concrete shall be so placed that the bottom layer does not finally sit before the top layer is placed.

4. Compaction shall be completed before the initial setting starts that is within thirty minutes of addition of water to the dry mixture.

Protection and Curing

1. Freshly laid concrete shall be protected from rain by suitable covering

2. After the concrete as begun to harden, that is about one to two hours after its laying it shall be protected with moist gunny bags, sand or any other materials against quick drying.

3. After 24hrs of lying of concrete the surface shall be cured by flooding with water of about 25mm depth or by covering with weight absorbent materials Curing shall be done for a minimum period of 14 days.

Formwork

1. If centering and shuttering are required to be done for this work.

2. This shall be done in accordance with the specifications for form work under R.C.C

Rate: The rate shall include the cost of all cleaning, surface preparation, labour, material, scaffolding, curing, finishing etc., involved in all the operations described above.

AVERAGE 15MM CEMENT PLASTER INCLUDING WATERPROOFING COMPOUND ON BOUNDARY WALL AND OTHER EXTERNAL SURFACES

Scope of work:

This shall include providing and laying double coat average 15 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with approved waterproofing compound (Sikka / Dr.Fixit / Basf or equivalent) @ 2%, by weight of cement on external wall surfaces or facades. The junctions of RCC and masonry shall be fixed with chicken mesh with a minimum overlap of 100 mm in all directions and curing complete.

The fineness modulus of the sand shall not be less than 2.5 mm.

Sand for Plaster- Sand shall consist of natural sand, crushed stone sand or crushed gravel sand or a combination of any of these. Sand shall be hard durable, clean and free from adherent coating and organic matter and shall not contain the amount of clay, silt and fine dust more than as specified in relevant Indian standards .

Water Proofing Compound

Integral cement water proofing compound conforming to IS 2645 and of approved brand and manufacture, enlisted by the Engineer-in-Charge shall be used.

Where so specified, water proofing material of approved quality shall be added to the mixture in accordance with the manufacturer's specification stating the quantity of water proofing material in liters or kg per 50 kg of cement.

Appearance - Opaque liquid

Density @20 degree Celsius : 1.05 +/- 0.02 kg/ltr

pH : alkali

Chloride : nil

Storage : 24 months when kept unopened and away from frost.

Areas of Application:

External masonry walls, parapet walls, all shafts inner side etc.

Features & Benefits:

- Corrosion - Chloride-free hence no chances of corrosion of reinforcement bars. Water seepage - As an effective pore filler, helps to fill capillaries and pores to prevent water seepage.
- Consistency - Makes the mix cohesive and denser, hence the concrete & plaster has reduced permeability.
- Setting & strength - Does not affect the setting time and strength. Of the cured concrete.
- Compatibility – Compatible with all types & grades of cements.

Method of Application:

- Hand mixing of mortar not allowed, else otherwise specified and prior approval of Architect / Engineer-in-charge.
- Machine Mixing: Charge the Cement & sand as per the mix design into concrete mixer & mix for one minute. Add dosage of liquid waterproofing compound for every 50 kg bag of cement & mix for one minute.
- Add the measured quantity of potable water as per W/C ratio and mix for 2-3 minutes to a lumps free homogeneous concrete. Place the mixed cement mortar to the locations as specified. For exterior plasters procedure is to be carried from top to ground level.
- Cure the concrete / mortar surface as per regular practices of water curing.

Health & Safety Precautions

- Use rubber hand gloves & safety goggles, while using Powder Waterproof.
- In case of contact with skin, wash with plenty of water.
- Keep out of reach of children's.

The contractor shall bring the materials to the site in their original packing. The containers will be opened and the material mixed with dry cement in the proportion by weight, recommended by the manufacturers or as specifically described in the description of the item. Care shall be taken in mixing, to see that the water proofing material gets well and integrally mixed with tied from the cement and does not run out separately when water is added.

Mode of Measurement:

- a. Length and breadth shall be measured correct to a cm and its area shall be calculated in square meters correct to two places of decimal.
- b. The measurement of wall plaster shall be taken between the walls or partitions (the dimensions before the plaster shall be taken) for the length and from the top of the floor or skirting to the ceiling for the height. Depth of coves or cornices if any shall be deducted.
- c. Deductions in measurements, for opening etc. will be regulated as follows: 1) No deduction will be made for openings or ends of joists, beams, posts, girders, steps etc. upto 0.5 sqm in area and no additions shall be made either, for the jambs, 2) soffits and sills of such openings. The above procedure will apply to both faces of wall. 3) Deduction for opening exceeding 0.5 sqm but not exceeding 3 sqm each shall be made for reveals, jambs, soffits sills, sills, etc. of these openings. When both faces of walls are plastered with same plaster, deductions shall be made for one face only. 4) When two faces of walls are plastered with different types of plaster or if one face is plastered and other is pointed or one face is plastered and other is unplastered, deduction shall be made from the plaster or pointing on the side of the frame for the doors, windows etc. on which width of reveals is less than that on the other side but no deduction shall be made on the other side. Where width of reveals on both faces of wall are equal, deduction of 50% of area of opening on each face shall be made from area of plaster and/or pointing as the case may be. (iii) For opening having door frame equal to or projecting beyond thickness of wall, full deduction for opening shall be made from each plastered face of wall. For opening exceeding 3 sqm in area, deduction will be made in the measurements for the full opening of the wall treatment on both faces, while at the same time, jambs, sills and soffits will be measured for payment.

Rate : The rate shall include the cost of all cleaning, surface preparation, labour, material, scaffolding, curing, finishing etc., involved in all the operations described above.

TECHNICAL SPECIFICATIONS FOR PAINTING WORK- TEXTURED EXTERIOR PAINT

Scope of work:

This includes providing and applying 02 or more coats of water based 100% Acrylic emulsion paint of approved make and textured exterior paint (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm as per the manufacturer's specifications to give a smooth surface to all walls, columns, finished plaster surfaces on locations as per drawings or as per directions of Architect / Engineer in charge. Contractor shall follow general specifications as specified above.

Material:

The paint shall be Acrylic Emulsion textured finish paint (exterior grade) of approved make and colour. This paint shall be brought to the site of work by the contractor in its original containers in sealed condition.

Preparation of Surface : Before painting, the surface shall be cleaned thoroughly leaving it free of all scales, rust, grease, oil coating, moisture and other matter. Any protrusions of weld metal etc. shall be ground by grinding machine to get smooth surface. Heavy deposits of grease and oily material if any shall be removed by a suitable solvent wash before painting. All loose places and scales shall be removed by scrapping. Surfaces shall be thoroughly, sand-papered to a smooth finish. Further preparation work shall be done as specified under different types of finishes. Before starting painting, all floors shall be washed clean and wiped dry.

Application:

Base Coat : The surface shall be thoroughly cleaned of dust, old white or colour wash by washing and scrubbing. The surface shall then be allowed to dry for at least 48 hours. It shall then be sand papered to give a smooth and even surface. Any unevenness shall be made good by applying putty, as approved, on the entire surface including filling up the undulations and then sand papering the same after it is dry.

Primer: The primer to be used for the painting with acrylic emulsion on cement concrete surfaces, plastered surfaces, A.C. sheets, timber and metal surfaces, if necessary, shall be of approved base and as per recommendations of the manufacturers.

Putty: Plaster filler to be used for filling up (putting) uneven surfaces, small cracks and holes etc. shall be of approved compound and as per recommendations of the manufacturers. No oil-based putty shall be used. The putty should be made from a mixture of whiting and plastic emulsion paint or as per manufacturers recommendations.

Finishing Coats : All the finishing coats shall be of matt finish or any other finish as required by the Architects. The number of finishing coats shall be as specified in the item

Before pouring into smaller containers for use, the paint shall be stirred thoroughly in its container, when applying also the paint shall be continuously stirred in the smaller containers so that its consistency is kept uniform. Dilution ratio of paint with potable water can be altered taking into consideration the nature of surface climate and as per recommended dilution given by manufacturer. In all cases, the manufacturer's instructions & directions of the Engineer-in-charge shall be followed meticulously. The lids of paint drums shall be kept tightly closed when not in use as by exposure to atmosphere the paint may thicken and also be kept safe from dust.

Paint shall be applied with a roller / brush on the cleaned and smooth surface. Horizontal strokes shall be given first and vertical strokes shall be applied immediately afterwards. This entire operation will constitute one coat. The surface shall be finished as uniformly as possible leaving no brush marks.

The specifications in respect of scaffolding, protective measures, measurements and rate shall be as described above in general specifications.

Technical Specifications for Fabrication works in Mild Steel for MS grills

Scope of Work :

The work covered by this specification consists of supplying, fabricating, assembling, and fixing in position of structural steel in grating, frames, guard bar, ladders, brackets, gates etc complete in strict accordance with these specifications and the applicable drawings.

Materials : All structural steel shall be of standard sections as marked on the drawings and shall be free of scale, blisters, laminations, cracked edges and defects of any sort. All structural steel and electrodes shall comply in all respects with relevant I.S. codes.

Workmanship :

All workmanship shall be of first class quality in every respect to get greatest accuracy to ensure that all parts will fit together properly on erection. All ends shall be cut true to planes. They must fit the abutting surfaces closely. All stiffeners shall fit tightly at both ends. All holes in plates and section between 12mm and 20 mm thick shall be punched to such diameter that 3mm of metal is left all around the hole to be cleaned out to correct size by reamer. The base connection shall be provided as shown on drawings and the greatest accuracy of workmanship shall be ensured to provide the best connections. Figured dimensions on the drawings shall be taken.

Shop Drawing :

The shop drawings of structural steel based on contract drawings shall be submitted to the Engineer-in-charge. The necessary information for fabrication, erection, painting of structure etc. must be furnished immediately after acceptance of the Architect / Engineer in charge.

Painting :

Providing and applying Epoxy paint of approved make and desired shade, including the surface preparation (with emery paper 180 and wipe clean) by thoroughly cleaning all dust, dirt, applying red oxide oil primer and applying primer, again sand papering leveling rubbing the surface, to be free from undulation/ waviness, applying 1st coat of Epoxy paint & 2nd coat of Epoxy paint. Painting should be carried out on dry surfaces free from dust, scale etc. The paint shall be approved by the Engineer-in-charge.

Welding :

Welding shall be in accordance with IS 816-1969, IS 819-1957, IS 1024-1979, IS1261-1959, IS 1323-1982 and IS 9595-1980 as appropriate. For welding of any particular type of joint, welders shall give evidence of having satisfactory completed appropriate test as described in any of IS 817-1966, IS 1393-1961, IS 7307 (part-I) –1974, IS 7310 (part-I) 1974 and IS 7318 (part-I) 1974 as relevant.

Type of Welding :

Arc welding (direct or alternating current) or Oxyacetylene welding may be used. Field welding may be used. Field welding shall be by D.C.

Note : On any straight weld the first run shall not ordinarily be deposited with a larger gauge electrode than No.8 S.W.G. For subsequent runs the electrode shall not be increased by more than two electrode size between consecutive runs.

Mode of Measurement : The surface area of grill after finishing / modification shall be measured in Sqm. No separate measurements shall be taken for welding, riveting, bolting, field connections etc. The rate shall include cost of all labour, materials, scaffolding, transport and also cost of welding, riveting and bolting, field connections if any all to complete the job as per specifications.

Technical Specifications for Brick Masonry:

Material:

The Common Burnt Clay Bricks of class designation 75 sub class 'A' shall conform to IS:1077 and shall be machine moulded. They shall be free from nodules of free lime, visible cracks, flaws warpage and

organic matter, have a frog 100 mm in length 40 mm in width and 10 mm to 20 mm deep on one of its flat sides. Bricks made by extrusion process and brick tiles may not be provided with frogs. Each brick shall be marked (in the frog where provided) with the manufacturer's identification mark or initials.

Bricks shall be laid in English Bond (Fig. 6.2, 6.3, 6.4) unless otherwise specified. For brick work in half brick wall, bricks shall be laid in stretcher bond. Half or cut bricks shall not be used except as closer where necessary to complete the bond. Closers in such cases, shall be cut to the required size and used near the ends of the wall. Header bond shall be used preferably in all courses in curved plan for ensuring better alignment.

Mortars:

As per BOQ specification.

Curing:

The bricks shall be adequately wet before use and brick work shall be constantly kept wet for at least seven days after laying.

It is intended to plaster concrete masonry, the block shall have a sufficiently rough surface to afford a good key to the plaster.

Workmanship:

- All workmanship shall be of first-class quality in every respect to get greatest accuracy to ensure that all walls shall be strong, sound and in true line, level and plumb. All ends shall be cut true to planes.
- All joints shall be thoroughly flushed with mortar of mix as specified in the schedule of quantities, at every courses. Care shall be taken to see that the bricks are bedded effectively and all joints completely filled to the full depth.
- The joints of brick work to be plastered shall be raked out to a depth not less than 10mm as the work proceeds. The surface of brick work shall be cleaned down and wiped properly before the mortar sets.
- The adhesion between the brick masonry surface and the concrete surface of columns, beams, Chajja, lintels etc. should be proper by ensuring that the concrete surface coming in contact with brick masonry is backed / chipped / keyed, cleaned and cement slurry is applied so that a proper bond is achieved between the two dissimilar materials. It is responsibility of the contractors to ensure that there will not be any cracks / fissure anywhere in the brick masonry.

Mode of measurement:

Quantity of RCC/ lintel band shall be measured with the brick masonry and RCC bands will not be paid separately, only reinforcement steel will be paid extra. The length and breadth of the brick masonry and RCC band, lintel bands shall be measured in meter nearest to two place of decimals and volume of wall will be measured in cubic meter correct to two places of decimals.

All opening in brick work for doors, windows and ventilators shall be deducted to get the net quantity of actual brick work done.

Opening or chases required for P.H. or electrical inserts less than 0.1 sqm. and bearing of precast concrete members shall not be deducted.

Rate:

The rate quoted shall include cost of all materials, labour including framework, transporting, scaffolding, handling, hoisting the bricks to proper level, curing masonry etc. at all levels and heights complete in all aspects.

Technical Specifications for STP

Recycling 15 KLD Sewage Treatment Plant (STP) is designed with cutting-edge Moving Bed Biofilm Reactor (MBBR) technology, ideal for treating wastewater from 70 to 100 occupants. The tanks of the plant will be based in an underground PORTABLE structure which will be highly efficient, cost-effective, and environmentally friendly wastewater treatment while maintaining a small footprint.

- **Technology:** The MBBR technology is known for its advanced treatment capabilities and operational flexibility. In the MBBR process, biofilm growth occurs on small, floating carriers within the reactor, allowing microorganisms to thrive while optimizing oxygen transfer and pollutant removal.
 - **Key components of the MBBR-based 15 KLD STP include:**
 - **Moving Bed Biofilm Reactor (MBBR):** A biologically active medium supports microbial growth that efficiently removes organic pollutants, nitrogen, and phosphorous.
 - **Aeration System:** High-efficiency aerators provide sufficient oxygen to the biological media, promoting the growth of bacteria that degrade organic matter.
 - **Clarifier:** The treated water passes through a settling chamber to remove any residual suspended solids, ensuring high-quality effluent.
- Sludge Management:**
- **Sludge Collection and Removal:** Automatic or manual sludge extraction system to remove excess biomass periodically
 - **Sludge Disposal:** Sludge can be periodically removed and safely disposed of or used for composting, depending on local regulations

Power and Control:

- **Power Supply:** 220V, 50Hz (single-phase or three-phase as required)
- **Control Panel:** Automated control system for monitoring and managing operational parameters (flow, aeration, sludge removal)
- **Safety and Alarms:** Built-in alarms for system malfunctions, overflow, or equipment failure

Environmental Compliance:

- **Discharge Standards:** Compliant with local and national wastewater discharge standards
- **Eco-Friendly:** Low energy consumption, reduced carbon footprint, and minimal environmental impact

Methodology:

1. **Pre-Treatment:** Wastewater enters the system through a coarse screening process, removing larger debris that could damage equipment or interfere with the treatment process.
2. **Primary Treatment:** The wastewater then flows into the primary settling tank, where heavy solids are allowed to settle. This reduces the load on the biological treatment stage.

Biological Treatment (MBBR): The primary-treated water is then directed into the MBBR tank. The moving bed biofilm media provides an ideal environment for the growth of microorganisms that break down organic pollutants in the wastewater. The continuous mixing provided by aerators ensures that the biofilm is well-aerated and the bacteria have optimal conditions for breaking down contaminants.

- 1 **Secondary Clarification:** After the biological treatment, the effluent enters the secondary clarifier, where any remaining suspended solids are allowed to settle before discharge.
- 2 **Effluent Discharge:** The final treated water, meeting stringent quality standards, is discharged into the environment or reused for non-potable purposes (such as irrigation, landscaping, or industrial applications).
- 3 **Advantages of MBBR-Based Technology:**
- 4 **High Efficiency:** MBBR provides superior pollutant removal, ensuring that the treated effluent meets or exceeds regulatory standards for discharge.
- 5 **Low Footprint:** Unlike conventional treatment technologies, MBBR systems do not require large tank volumes, saving space while maintaining high efficiency.
- 6 **Low Operational Costs:** With energy-efficient aeration and minimal maintenance requirements, the overall operational costs are significantly lower compared to other treatment systems.

Technical Specifications & Details for STP

The technical specifications of the plant ensure that it operates at peak efficiency, with the capability to treat wastewater to meet stringent environmental discharge standards. Below is an overview of the key technical parameters of the a 15 KLD Recycling MBBR-based STP.

A Tanks					
Sl. No	Items	Quantity	MOC	Capacity	Dimension & Specification
1	Collection Tank	1 Nos	PVC	7 KLD	
2	Platform for underground PVC tanks with excv.	As Required	MS	M25	250 Sq. Mtr
3	Shed for Motor Control Centre	1 Nos	Angle with Sheet	10x10 Sq.ft	10x10 Sq.ft
4	MBBR Tanks	2 Nos	PVC	3 KLD	
5	Tube Settler	2 Nos	MS with Epoxy	1.5 KLD	
6	Filter Feed tank	1 Nos	HDPE	3 KLD	
7	Treated Water Tank	1 Nos	MSFRP/HDP E	2 KLD	
B Electro - Mechanical					
Sl. No	Items	Quantity	MOC	Capacity	Type/Specification
1	Bar Screen	2 Nos	SS	NA	200 mm x 250 mm/Perforated
2	Raw Sewage Transfer Pump	1 Nos	CI	1 Hp	Submersible/20-30 mm Impellar Gap
3	Filter Feed Pumps	1 Nos	Impellar - SS / Casing- CI	1 HP, 25 mtr Head	Monoblock
4	Sludge Recirculation Pump	1 Nos	CI	2 m3/hr, 10-12 Mtr Head	Monoblock
5	Chlorine Dosing	2 Nos	PP	0-6 LPH/20-30 Mtr Head	
6	Air Blower	2 Nos (1W+1S)		25 m3/hr/ 1 Hp	Twin Lobe rotary
7	Diffusers	1 lot	EPDM		Membrane type
8	Tube Settler Media	1 lot	PVC		Tube Deck Type
9	Dual Media Filter with Activated Carbon Filter	1 Nos	FRP	2000 LPH	
C Electrical & Plumbing					
Sl. No	Items	Quantity	MOC	Type/Specification	Make
1	Electrical & Instrumentation	1 Job		Panel fabrication	L&T/ABB/Schnider
2	Piping & Valve	1 Job	UPVC	Schedule 40	Prince/Astral
3	Earthing & Cabling	1 Job		As Required	Polycab/Finolex
4	LMC Connectivity	15 mtr (Approx.)	UPVC	1" Dia	
15 KLD Performance & Effluent					
Sl. No	Parameters	Inlet	Outlet		
1	PH	6.5 to 9	6.5 to 8.5		
2	BOD	Up to 250-400 mg/L	Less than 20-30 mg / L		
3	COD	Up to 450-700 mg/L	Less than 10-30 mg / L		
4	TSS	Up to 250-400 mg/L	Less than 15-25 mg / L		
5	Oil & Grease	Up to 50 mg/L	Less than 5 mg / L		

GENERAL SPECIFICATIONS

1. All the works specified and provided for in the tender/ schedule and drawing or which may be required to be done in order to perform and complete any part there of shall be executed in accordance with the technical specification, workmanship, quality control, as prescribed whether enclosed/ not enclosed in this document, in the specification & codes, with up to date amendments, in the following order:-
 - a) CPWD/ DSR
 - b) IS (BIS) Codes
2. All works under this contract (wherever grey cement is used) have to be executed in OPC.
3. The quantities given in the tender are approximate. However the payment shall be made on the basis of actual measurements taken on site and in conformity with CPWD Specification and BIS Codes. It is clarified that all quantities are subject to change and no claims whatsoever on this behalf shall be entertained.
4. All materials used in the works shall be of their respective kind and quality specified in the tender document or approved by the SBI and/ or Architect and shall comply strictly with the requirements of the latest specifications of CPWD and Indian Standard Codes.
5. The work shall be executed and measured as per metric dimensions given in the Schedule of Quantities, Drawings etc. (FPS units wherever indicated are for guidance only).

SAFETY CODE

- 1) First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.
- 2) An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
- 3) Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.
- 4) No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm (Clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used an extra mazdoor shall be engaged for holding ladder.
- 5) Every opening in the floor of a building or in a working platform be provided with suitable means to prevent to fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one meter.
- 6) No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.
- 7) Workers employed on mixing and handling material such as asphalt, cement mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand-gloves.
- 8) Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
- 9)
 - i) No paint containing leads or lead products shall be used except in the form of paste or readymade paint.
 - ii) The workers should supply suitable facemasks for use when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
- 10) Overalls shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the periods of cessation of work.
- 11) Hoisting machines and tackle used in the works, including their attachments, anchorage and supports shall be in perfect condition.
- 12) The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

PROFORMA FOR RUNNING ACCOUNT BILLS

C E R T I F I C A T E

The measurements on the basis of which the above entries for the Running Bill _____
were made have been taken jointly on _____ and are recorded at pages
_____ of
Measurement BookNo. _____.

Date & Signature of
Contractor.

Date & Signature of
Architect's Representative
(Seal).

Date & Signature
of Site Engineer

The work recorded in the above mentioned measurements has been done at the site satisfactorily as per tender drawings, conditions and specifications.

ARCHITECT

SITE ENGINEER / BANK'S ENGINEER

RUNNING A/C BILL

Name of Contractor/Agency: _____

Name of Work: _____

Sr. No. of this Bill: _____

No. and Date of Previous Bill. _____

Reference to Agreement No. _____

Date of Written Order to Commence. _____

Date of Completion as per Agreement. _____

Sr. No.	Item description	Unit	Rate (Rs.)	As per Tender		Upto Previous R/A Bill		Upto Date (Gross)		Present Bill		Remarks
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	
1.	2.	3.	4.	5.		6.		7.		8.		9.

Note: 1. If Part Rate is allowed for any Item, it should be Indicated with reasons for allowing such a Rate.

2. If Adhoc Payment is made, it should be mentioned specifically.

Net value since Previous Bill.

Date & Signature of Contractor.

PERFORMA OF HINDERANCE REGISTER

Name of Work : Date of State of Work :

Name of Contractor : Period of Completion :

Agreement No : Date of Completion :

Sr No	Nature of Hindrance	Date of occurrence of Hindrance	Date of which Hindrance was removed	Period of Hindrance	Signature SE / PE	Remarks
1	2	3	4	5	6	7

SE = Site Engineer

PE = Project Engineer

**ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ON
MATERIALS HELD AT SITE BY THE CONTRACTOR**

No.	Item	Quantity	Unit	Amount	Remarks
1	2	3	4	5	6
Total Value of Materials at Site					
Secured Advance @.....% of above Value					B
<p>CERTIFIED (I) That the materials mentioned above have actually been brought by the contractor to the site of the work and no advance on any quantity of any of this item is outstanding on their security, (ii) that the materials are of imperishable nature and are all required by the contractor for use in the work in connection with the items for which rates of finished work have been agreed upon.</p>					

Dated Signature of
Site Engineer
preparing the Bill

Designation_____

Dated Signature of
Bank's Architects

(Name of the Architects)

Dated Signature of Contractor

LIST OF APPROVED BRANDS / MAKES

One of the following make of the material shall be used. Please note that equivalent brands will be allowed only if below mentioned brands are not available / feasible. The contractor will have to get the sample approved from the Architect/ Bank's Engineer whose decision shall be binding on the contractor. The condition is also applicable for any material, not mentioned in the specification or schedule of work. No deviations are allowed in these even during/ after Tender.

1	Structural Steel	JSW, JINDAL, TATA, SAIL or Equivalent
2	Ready Mix Concrete	Ultratech, ACC, Lafarge or Equivalent
3	Paints	Asian/Birla Opus/ Berger/ Dulux or Equivalent
4	Cement paint	Snowcem/ Surfaced/ Durocem or Equivalent
5	Cement	Grade 43/53 of L&T/ A.C.C./ Ambuja/ Ultratech or
6	Precast Concrete Grass Pavers, Pavers, Drain Covers	NIC Tiles, Vyara, Super Tiles
7	Reinforcement Steel	JSW, TATA, SAIL or Equivalent
8	PVC Pipes	Finolex, Prince or Equivalent
9	Water Proofing	SIKA, Dr. Fixit, Pedilite
10	Rain Water Harvesting System	Furaat or Equivalent
11	Sewage Treatment Plant System	MBBR Technology, Apex Infrabuild or Equivalent

LIST OF APPROVED MAKES OF MATERIALS- ELECTRICAL

1	PUMP	: CROMPTON/ KIRLOSKAR / HAVELLS
2	CABLES 1100V PVC INSULATED FRLS XLPE	: SKYTON/ BONTON/RELISONS/ KEI/ GRANDLAY/POLYCAB/FINOLEX
3	MCBS, MCCBS & ELCBS.	: SCHNIDER/ LEGRAND/ L&T-HAGER/ ABB/ C&S/HPL
4	CABLE GLANDS	: COMET /GRIPWEL/ DOWEL
5	IP BOX	: SCHNIDER/ LEGRAND/ L&T-HAGER/ ABB/ HAVELLS

BILL OF QUANTITY

(Refer annexed file/section in e-tender portal for detailed Bill of Quantities)

Notes

1. ALL DIMENSIONS ARE IN MILLIMETERS. DIMENSIONS SPECIFIED IN CIRCLES IN METERS.
2. ALL DIMENSIONS ARE TO BE READ AND NOT IN REVERSE.
3. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE COMMENCING WORK. ANY DISCREPANCIES OR OMISSIONS IN THE DRAWINGS AND IN CASE OF ANY DISCREPANCIES OR OMISSIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING THE SAME TO THE NOTICE OF ARCHITECT AND GET CLARIFIED BEFORE EXECUTION OF WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES AND SHALL BE RESPONSIBLE FOR THE SAME.
5. WITH VASTU MANDAL ARCHITECTS IN ASSOCIATION WITH VASTU MANDAL ARCHITECTS, PUNJAB, INDIA. RESPONSIBILITY IS UNLIMITED FOR STRICT LEGAL ACTION.

NO.	REVISION	DATE

STATE BANK OF INDIA

PROJECT: Repairs and Renovation works at 14 Kalidas Road, Dehradun

VASTU MANDAL
 PLOT NO. 14, KALIDAS ROAD, DEHRADUN, UTTARAKHAND
 Ph: 9106049399, Email: vasm@gmail.com

DWG TITLE: Site Plan-Proposed

SCALE	DATE	REVISION	DWG NO.

