

CANARABANK

PREMISES AND ESTATE SECTION,
CIRCLE OFFICE, CHENNAI
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TENDER DOCUMENT (TECHNICAL BID)

FOR THE PROPOSED

**REPAIR, REHABILITATION, RETROFITTING AND
OTHER RELATED CIVIL WORKS OF “CANARA
COURT” APARTMENTS AT GREENWAYS LANE, RA
PURAM, CHENNAI**

**NOTICE INVITING THE TENDER, GENERAL RULES & INSTRUCTIONS GENERAL CONDITIONS,
SPECIAL CONDITIONS, OFFER LETTER, APPENDICES, SCHEDULE OF QUANTITIES.**



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NOTICE INVITING Tender (NIT)

The Canara Bank Circle Office, Chennai proposes to carry out the Repair, Rehabilitation & Retrofitting of “Canara Court” apartments at No.24, Greenways Lane, RA Puram, Chennai and invite Offers from eligible structural rehabilitation contractors in the prescribed format under Two-envelope concept.

1. Nature of the document: **TWO BID CONCEPT**

2. The offer document comprises of the following:

A. TECHNICAL BID: (is to be submitted in a separate envelope)

- a) Eligibility criteria.
- b) Brief details of the work
- c) General Rules & Instructions to the Applicants.
- d) Method of selection of Vendor.
- e) Conditions of contract
- f) Application Format.
- g) Performa - A,B,C,D & E
- h) EMD in the form of demand draft payable to Canara Bank at Chennai

B. FINANCIAL BID in separate sealed envelope

3. Application Fee: Rs.1,000/- as DD in favour of “Premises & Estate Section, Canara Bank Circle Office, Chennai” which is non-returnable

4. Earnest Money Deposit: Rs.1,00,000/- (Rupees One Lakh only) - refer Clause-5 of general rules & instructions to applicants as DD in favour of “Premises & Estate Section, Canara Bank Circle Office, Chennai”

5. Period of issue of the documents: 17.08.2019 to 27.08.2019 during office hours (BOTH DAYS INCLUSIVE). Documents can also be downloaded from Bank’s website www.canarabank.com

6. Last date and time for submission offer is - **27.08.2019 - 3:00 PM.**

7. Date of opening of Technical bid: 27.08.2019- 3:30 PM.

8. Completion time : **150** days from date of issue of work order/letter of acceptance of tender

The offer should reach to the office of

The Divisional Manager

Premises & Estate Section

Canara Bank Circle Office

6th Floor, #524, Anna Salai, Teynampet, Chennai - 600 018



ELIGIBILITY CRITERIA

S. No.	Criteria	Documents Required
01	The Contractor should have minimum of 5 years" experience in Structural Rehabilitation Contracting services as on 31.07.2019.	Order copy and Completion certificates from the customer issued for each completed project (not ongoing) between 01/08/2014 to 31/07/2019.
02	<p>Please note that only those Contractor who have carried out rehabilitation works of multistoried building as under should apply:</p> <p>The Contractor should have provided multistoried building Structural rehabilitation Contracting services in the last 3 years for at least</p> <p>Three (3) similar works each worth 50 Lacs OR Two (2) similar works each worth 60 Lacs OR One (1) similar works each worth 95 Lacs</p> <p>In preceding 3 (Three) years ending with 31.07.2019.</p> <p>Building considered for structural rehabilitation is a multistoried G+3 building having total built up area of approximately 12000 sft in a single block.</p> <p>“Similar work” means repair, rehabilitation and retrofitting of RCC frame structure multi storied residential/commercial building either in a single or multiple block.</p> <p>Note: In the completed works, the value of the repair, rehabilitation and retrofitting works should not be less than minimum 50 %.</p> <p>The bidders shall submit their details in this respect in the format given in Appendix-11</p>	Satisfactory completion certificates / Handover Certificates from the clients clearly indicating the nature of service, cost & nature of work and month & year of commencement & completion.
03	The Contractor must have GST registration	Copies of the GST registration



	number and PAN number.	certificate, PAN card copy and Trade License shall be enclosed.
04	The Contractor must have their office in Chennai, Tamil Nadu for operational convenience	Details of local address. Acceptance of the address subjected to verification by the Bank to its satisfaction.
05	ANNUAL TURNOVER a) Average annual financial turnover on civil construction works should be at least 2.00 Crores during the last three consecutive financial years.	The bidders shall submit their details in this respect in Appendix-10.
06	MANPOWER CRITERIA The bidder should have qualified technical personnel for successful execution of the work. The basic minimum requirement in this respect is at least one graduate engineer with minimum five years practical experience in similar nature of work or, one diploma engineer with minimum eight years practical experience in similar nature of work.	The Bidders shall submit their details in this respect in Appendix-12
07	STATUTORY REQUIREMENTS: Bidders should have valid Trade License, Registration No. for Sales Tax / VAT / Service Tax, whichever is applicable. Bidder should have valid PAN / TIN No. and should fulfill all statutory compliances like PF, ESI Registration etc.	The Bidders shall submit their details in this respect in Appendix-13
08	BLACKLISTING / DEBAR REDNESS CERTIFICATE Bidders who have been debarred / blacklisted in other utilities in India will not be considered.	In this respect, the Bidders shall submit declaration as outlined in Appendix-14 on their Company Letter headed paper duly sealed & signed
09	PLANT AND MACHINERY / TOOLS & TACKLES Bidder shall have in his possession or shall have arranged on hire or on lease basis required tools, plant, machinery and helping equipment for execution of the work and adequate supporting arrangement for safety measure. The list of plant & machinery, tools & tackles given in the Appendix-15 is indicative for bid evaluation purpose only. It will be the responsibility of the successful Contractor to mobilize and engage all plant, machinery, tools &	The Bidder shall submit their details in this respect in Appendix-15



	tackles and supporting equipment's to be required for execution of the work successfully true to specification and taking all safety measure as per instruction of the Engineer - in - Charge.	
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GENERAL RULES & INSTRUCTIONS TO TENDERERS

- 1) The completed Tender documents comprising of Notice Inviting the Tender (NIT), General rules & Instructions, General conditions of tender, Special conditions, Offer Letter, Integrity Pact, Appendices and Schedule of quantities, drawings, should be submitted to the Manager at the address given in the Tender Notice. The Tender document should be **sealed** in an envelope super scribed as **"Tender for Repair, Rehabilitation, Retrofitting and other related civil works at "Canara Court" apartments at Greenways Lane, RA Puram, Chennai"**. The Tenderer's name and address should also be put on the envelope.
- 2) Last date for receipt of tenders: As stated in the tender notice.
- 3) The Tenderer are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the site and dimensions, the means of access to the site, availability of materials and obtain all necessary information's as to risks, contingencies and other circumstances which may influence or affect their tender.
- 4) Tenderer should ensure that their tenders are submitted before the date and time specified above.
- 5) Tenderer are requested to put their firm's signature on each page of the tender documents as a token of acceptance.
- 6) Tenderer should fill in all the relevant blanks and put their signature in the relevant places indicated in the documents.
- 7) It will be obligatory on the part of the Tenderer to tender and sign the tendered documents for all the component parts and that, after the work is awarded, he / they will have to enter into an agreement for each component with the competent authority of the Employer.
- 8) The Tenderer should quote in figures as well as in words the rate, and amount tendered by them. The amount for each item should be worked out and the requisite totals given. The rates quoted shall be all inclusive rates for the item of work described, including materials, labour, tools & plant, carriage & transport, supervision, overheads & profits, taxes, cess, fees, mobilizing and other charges whatsoever including any anticipated or un-anticipated difficulties, etc. complete for proper execution of the work as per drawings and specifications and no claim whatsoever for any extra payment shall be maintainable.
- 9) When a Tenderer signs a tender in an Indian language, the tendered amount and the total amount tendered should also be written in the same language. In the case of illiterate Tenderer, the rates or the amounts tendered should be attested by a witness.
- 10) The Schedule of Quantities should be filled as follows:



- a. The “Rate” Column to be legibly filled in ink in both figures and words.
- b. ‘Amount’ column to be filled for each item and the total amount for each trade to be given.
- c. All corrections/ over writings are to be initialed. Failing which the tender shall be rejected.
- d. All the items of the schedule of quantities shall be filled, failing which the tender shall be rejected.
- e. Tenderer’s signature to be put on each page of the Schedule of quantities and in the “Abstract Sheet”.
- f. The “Amount” column for alternative items for which the quantities are mentioned should be filled up.
- g. The “Rate” column for "Rate only" items should be filled up.

Special care should be taken to write the rates in figures as well as in words and the amounts in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words.

11) No alterations or additions are to be made by the Tenderer in the tender document. Violation of this instruction will attract rejection of the tender at the discretion of Consultant/Bank.

12) Tender shall be quoted on prescribed Form only and quoting in any other form will be rejected. All rates shall be quoted on the proper form of the tender alone. Quoted rates and units different from prescribed in the tender schedule will be liable for rejection.

13) Earnest money accompanying the tender will be accepted only in the form of Demand Draft on any of the Nationalized Banks / State bank drawn in favor of **“Premises & Estate Section, Circle Office, Canara Bank, Chennai” payable at Chennai** & not in favor of any other authority. Any tender, which is not accompanied by Earnest Money Deposit in the form of DD, shall be summarily rejected.

14) The EMD of the Tenderer whose tender is accepted, shall be forfeited in full in case he does not remit the Initial Security Deposit or execute the agreement or submit the Indemnity Bond within the period stipulated or period mentioned in the award letter.

15) The Sealed Envelopes shall be **opened at the specified time** in the presence of the tenderer or their authorized representatives if they desire to attend. Bank shall open the tenders on the specified date & time even if the tenderer or their authorized representatives are not present.



16) The tender for the work shall not be witnessed by a tenderer or tenderers' who himself / themselves has / have tendered or who may and had/have tendered for the same work. Failure to observe this condition would render tenders of the tenderers tendering as well as witnessing the tender liable to summary rejection.

17) The Tenderer is required to check the numbers of the pages and should any be found missing or in duplicate, or the figure or writing indistinct, he must inform the consultant / Bank at once and have the same rectified. Should the tenderer be in doubt about the precise meaning of any item or any provision or if he wants any clarification, he must inform the consultant /Bank during the pre-bid meeting. No claim will be allowed in respect of errors in the Tenderers tender due to any mistake in the Schedule of Quantities, which should have been but was not rectified in the manner described above. Queries raised after the pre-bid meeting shall not be clarified.

18) The articles of Agreement should not be filled. It is only a format for information. The agreement shall execute on this format with the successful tenderer only.

19) Rate in words will be taken in correct over rate in figures. If the amount of an item does not tally with the rate quoted in words, the rate quoted in words shall be taken as correct.

20) Contractors are forewarned that no errors whatsoever arithmetical or otherwise will be permitted in their tenders. Tenders containing many errors are liable to be rejected at the discretion of Bank.

21) Tenderer's should note that their tenders should remain open for consideration for a minimum period of **90 days** from the date of the opening of tenders.

22) If any tenderer withdraws his tender before the said period or makes any modifications in the terms and conditions of the tender, or quoted rates then the Employer shall, without prejudice to any other right or remedy, be at liberty to **forfeit full value** of the earnest money as aforesaid.

23) A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. Submission of a tender by a Tenderer implies that he has read this notice and all other Tender/ contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors bearing on the execution of the work.

24) All the parts of this tender document shall form a part of the contract document.

25) The Tenderer shall agree that until a formal agreement on stamp paper is prepared and signed, this tender shall constitute a binding contract between the Tenderer and the Employer.

26) On acceptance of the tender, the name of the accredited representative(s) of the Tenderer who would be responsible for taking instructions from the Employer shall be communicated to the Employer.



27) The Bank reserves the right to accept any tender or accept tenders in part or to reject any or all tenders without assigning any reasons thereof and will not be liable to offer any explanation whatsoever.

28) Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the Tenderer who resort to canvassing will be liable for rejection.

29) Tenderers are requested to note that non-compliance of the above instructions is liable to render rejection of their Tender.

30) EMD of unsuccessful tenderers will be refunded without any interest.

31) The bank reserves the right to reject any or all of the Bids without assigning any reason whatsoever. The bank shall not be bound to issue work order to the lowest bidder in the Financial Bid.

32) The bank shall reserve the power to alter the quantity of materials mentioned in the Bidding Documents at the time of placing Work Order. The Bank reserves the right to carry out capability assessment of the Bidder/s to evaluate their performance and eligibility. The decision of the Bank shall be final and binding in this regard.

PRE-BID CONFERENCE

Pre-Bid meeting was scheduled on 07.08.2019. Tender Documents revised based on the discussions.

DIVISIONAL MANAGER



GENERAL CONDITIONS OF CONTRACT

1. INTERPRETATION

In construing these conditions, the specifications, the schedule of quantities, tender and Agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.

Employer or Bank: The term "Employer" or "Bank" shall denote CANARA BANK with their Head Office at BANGALORE represented by Divisional Manager, Premises & Estate Section, Canara Bank, Circle office, Chennai and any of its employees or representative authorized on their behalf.

Consultant: The term "Consultant" shall mean or in the event of his / their ceasing to be the Consultant for the purpose of this contract such other person/s the Employer shall nominate for the purpose.

Site Engineer: The term "Site Engineer" shall mean authorized Engineer appointed by Consultant or Bank for day-to-day supervision of works at site as per tender terms.

Contractors: The term "Contractor", "Bidder" or "Tenderer" shall mean _____ (Name and address of Contractor) and his/their heirs, legal representatives, assigns and successors.

Site: The "site" shall mean "Canara Court" apartments at No.24, Greenways Lane, RA Puram, Chennai, where the works are to be carried out.

Drawings: "Drawings" means the drawings referred to in the Specification and any modification of such drawings approved in writing by the Consultant / Bank and such other drawings as may from time to time be furnished or approved in writing by the Consultant / Bank.

Work / Works shall mean the work or works to be executed or done under this contract and shall include materials, apparatus, equipment, plant, fittings and other things for incorporation in the works.

Contract means the contract effected by the contractor's Tender and the Employer's acceptance thereof comprising (in addition to the Tender and Acceptance) the priced Schedule of Quantities and Schedules, Schedules of particulars (if any), Specifications and Drawings, these General Conditions of Contract, Special Conditions contained in, Appendices, Annexure, Integrity Pact or attached to any of the forgoing documents, any alterations agreed in writing between the parties before the formal acceptance of the Tender, all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

"Technical Specification" means the specification annexed to or issued with this tender or detailed in the schedule of quantities.



"Approved" means approved in writing including subsequent written confirmation of previous verbal approval and "approval" means approval in writing including as aforesaid.

'Market rate' means the rate as prevailing in the market and recommended by the Consultant and as approved by the Employer on the basis of cost of materials, labour, plant etc inclusive of any tax, duty, octroi, etc. at the time of execution of work.

"The Schedule of Quantities" or "Priced Schedule of Quantities" shall mean the schedule (or bill) of quantities with specifications as specified and forming part of this contract.

"Act of Insolvency" shall mean any act such as defined by the Presidency Towns Insolvency Act or in Provincial Insolvency Act or any amending statutes.

2. SCOPE OF WORKS:

The work consists of Execution of **Repair, Rehabilitation, Retrofitting and Other Related Civil Works of "Canara Court" Apartments at Greenways Lane, RA Puram, Chennai** in accordance with the "Schedule of Quantities". Employer / consultant may in their absolute discretion issue further and/or written instruction, details, directions & explanations, which are, hereafter collectively referred to as "The Employer's instructions" in regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and/or drawings and/or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.
- d) The demolition removal and/or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any persons employed there upon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned and those arising during the defect liability period.

The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings, which may be given by the Consultant / Bank during the execution of the work.



In case any detailed Working/Fabrication/Shop Drawings are necessary, contractor shall prepare such detailed drawings and/or dimensioned sketches thereof and get approved by the Bank / Consultant prior to taking up such work.

The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings for additional instructions at least 10 days ahead from the time when it is required for implementations so that the Employer may be able to give decision thereon.

No works, for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without written permission of the Employer/Consultant. Rates of items not mentioned in the priced schedule of quantities shall be fixed by the employer in consultation with the Consultant as provided in Clause “variation”.

Regarding all factory made products for which **ISI marked products** are available, only products bearing ISI marking shall be used in the work.

The whole work including all extra and additional items if any is to be completed within the period of completion as stated in Notice Inviting the Tender and the Contractor will be required, if necessary to work overtime to fulfill the Banks/ Consultants instruction to complete the work by the stipulated date. No extra payment will be allowed on the quoted rates for such overtime work.

The existing passenger lifts will not be permitted for shifting of materials, debris etc.

3. TENDER

The tenderers should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self-supporting.

The works will be paid for as “measured work” on the basis of actual work done on item rate basis and not as “lump sum” contract as per the rate quoted in the Schedule of quantities.

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly, related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection.

In the case of items of lump-sum charges in the tender in respect of any item of works, the payment of such items of work will be made for the actual work done on the basis of lump-sum rates as will be assessed to be payable by the Employer/ Consultants.

4. AGREEMENT, INDEMNITY BOND, INTEGRITY PACT

The successful contractor shall sign a Contract Agreement as per format enclosed as **Appendix 5** and shall pay for all stamps paper charges and legal expenses, incidental



thereto. The contractor shall submit Indemnity Bond as per format enclosed as **Appendix 6**.

The contractor shall sign the Integrity Pact as per **Appendix 17**. The same to be duly filled in a **non-judicial stamp paper of appropriate value** and submitted along with offer. Name & details Independent External Monitor (IEM) identified for this Tender/RFP are as under:

- a) Sri Dilip Mavinkurve - dilipmav@gmail.com
- b) Sri Hari Santhosh Kumar - hsantoshkumar50@gmail.com

Only those tenderers, who commit themselves to the above pact with the Bank, shall be considered eligible for participate in the tendering process. Those bids/ tenders which are not containing the above pact are liable for rejection.

The contract agreement, Integrity Pact and Indemnity bond shall be executed within **7 days** from the date of receipt of letter of acceptance of tender, failing which the Employer at his discretion, without prejudice to any other rights/remedies available under the terms of this Contract may revoke the letter of acceptance and forfeit the Earnest money deposit furnished along with the tender.

5. PERMITS AND LICENCES

Permits and Licenses for release of materials, which are under Government control, shall be arranged by the contractor. The Employer may render necessary assistance, sign any forms or applications that may be necessary but shall not be responsible for actual procurement or for any delay in procurement.

It may be clearly understood that no compensation or additional charges can be claimed by the contractor for non-receipt of any controlled materials in due time on this account or according to his own requirements.

The Employer/Consultant shall be indemnified against all Government or legal actions for theft or misuse of controlled materials in the custody of the contractor.

6. GOVERNMENT AND LOCAL RULES

The contractor shall confirm to the provisions of all local laws and Acts relating to the work and to the Regulations etc., of the Government and Local Authorities. The cost, if any, shall be deemed to have been included in quoted rates, taking into account all liabilities for licenses, fees. The tenderer shall indemnify the Employer against any such liabilities in compliance of the local acts, rules.

7. QUOTED RATES

The rates shall be as per the Schedule of Quantities and include the following:

(i) The rates quoted by the contractor shall be held to include for providing all materials, testing of materials, labour and fixing all scaffolding, conveyance and delivery, unloading, carrying in storing, hoisting, all labour, setting, fitting and fixing in position making, cutting, wastages, return of packing and all materials and labour and



cleaning of work place, everything else necessary for the proper completion of each item of work including overheads and profits.

(ii) The rates must include in their tender rates quoted for all duties royalties, GST, cess, sales tax, VAT, service tax or any other taxes or local charges if applicable. Any variations in the above shall not be paid. No extra claim on this account will in any case be entertained.

(iii) The rates quoted by the contractor should cover for work at all heights and levels for all items of work under this contract. Lifting of materials will not form any criteria for claiming extra payment.

Timings of Work & Cleaning of site

Wherever the works are carried out timing of work shall not affect the neighboring occupants and public.

The works, all cuttings, waste materials, rejected materials and other rubbish as it accumulates shall be cleaned from time to time during the progress of the work and at completion of **each day's** work and to be cleared and carted away from the site without affecting surroundings and public.

Contractor's quoted rates shall allow for the above factors also.

8. QUANTITY OF WORK TO BE EXECUTED

The quantities shown in the schedule of quantities are only approximate and are intended to cover the entire work but the Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore. In case of increase it shall be as per the variation clause.

9. OTHER PERSONS ENGAGED BY THE EMPLOYER

The Employer reserves the right to execute any part of the work included in this contract or any work, which is not included in this contract by other Agency or persons, and contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The main contractor shall extend all cooperation in this regard.

10. EARNEST MONEY, SECURITY DEPOSIT & RETENTION MONEY

The tenderer will have to deposit the amount specified in the NIT at the time of submission of tender as Earnest Money deposit. No interest shall be paid on the Earnest Money deposit.

The successful tenderer to whom the contract is awarded will have to deposit as Initial security deposit a further sum to make up 2% of the value of the accepted tender including the Earnest Money. The initial Security Deposit will have to be made within **7 days** from the date of receipt of letter of acceptance of tender, failing which the Employer at his discretion, without prejudice to any other rights/remedies available



under the terms of this Contract may revoke the letter of acceptance and forfeit the Earnest money deposit furnished along with the tender. No interest shall be paid on the Initial security deposit.

Apart from the initial security deposit made as above, retention money shall be deducted from progressive running bills @ 8% of the gross value of each running bill till the **total security deposit**, (i.e., the initial Security Deposit plus the retention money) equals the amount mentioned below:

- a) 10% on the first rupees one lakh of the estimated cost of work.
- b) 7.5% on the next rupees one lakh of the estimated cost of work
- c) 5% on the remaining amount of the estimated cost of work.

The total security deposit amount will be refunded to the contractor, after deducting any sum due from the contractor on any account under this contract, 14 (fourteen) days after the end of **defects liability period** provided he has satisfactorily rectified all the defects in accordance with the conditions of the contract. No interest is allowed on retention money & total security deposit.

11. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing, refer the same to the Employer/ Consultant whose decision shall be final and binding. Necessary Electricity & water for carrying of the work will be made available by bank. These amenities has to be efficiently and economically used and it will be metered against usage.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplation of the contract, and beyond the unit price no extra payment will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents.

The contractor shall supply, fix and maintain at his own cost, for the execution of any work, all tools, tackle, machineries and equipment's and all the necessary centering, scaffolding, staging, planking, timbering, watching and lighting by night as well as by day required not only for the proper execution and protection of the said work **but also for the protection of the public and safety of any adjacent** walls, houses, building, all other erections, matters and things and the contractor shall take down and remove any or all such centering, scaffolding, planking, timbering, strutting, shorting etc., as occasion shall be required or when ordered so to do, and shall fully reinstate and make good all matters and things disturbed during the execution of works to the satisfaction of the Employer/ Consultants.



The contractor shall at all times give access to **workers employed by the Employer** or any men employed on the premises and to provide such parties with proper sufficient and if required, special scaffolding, hoists and ladders etc. In any work, where directed by the employer as may be required to enable such workmen to lay or fix pipes, electrical wiring, special fittings etc. The quoted rates of the tenderers shall accordingly include all these above-mentioned contingent works.

12. TIME OF COMPLETION, EXTENSION OF TIME & PROGRESS CHART

Time of completion: The entire work is to be completed in all respects within the stipulated period stated in the Notice Inviting the tender.

The order to commence the works shall be given by the Bank only after depositing the Initial security deposit, signing of agreement & Integrity Pact, submission of Indemnity bond, submission of Insurance.

Time is the essence of the contract and shall be strictly observed by the contractor.

Extension of Time: If in the opinion of the Employer/ Bank the works were delayed for reasons beyond control of the contractor, the Bank may grant a fair and reasonable extension of time for completion of the contract works.

Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay to the Consultant / Bank. The Contractor shall also, if practicable, indicate in such a request the total period for which extension is desired, overlapping period, if any, with earlier events causing delays, net extension required.

In such case, the Employer may give a fair and reasonable extension of time for completion of work. Such extension shall be communicated to the contractor by the Employer in writing, within **14 days** of the date of such request.

While granting extension, the Employer shall notify the contractor the period of time which will not qualify for levy of liquidated damages.

For the period in excess of original stipulated time period and authorized extension of time (i.e. period not qualifying for levy of liquidated damages), granted by the Employer, the provision of liquidated damages as stated under **Clause 13** hereof will become applicable.

However, the contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

Progress of work: The contractor shall maintain proportionate progress on the basis of a Programme Chart submitted by the contractor immediately before commencement of work and agreed to by the Employer/ Consultant. Contractor should also include planning for procurement of scarce material well in advance and reflect the same in the programme chart so that there is no delay in completion of the project.



13. LIQUIDATED DAMAGES.

Time is the essence of the contract. The completion of the **works** is essential to comply with various requirements of the bank. Thus the contractor shall be aware and take note that non-completion of the works will affect the Banks committed programs and thus the loss by way delayed completion of related works etc., are invaluable and cannot be easily assessed. Therefore, it is part of the agreed terms that in the event of any delay in completion of the work, the Bank is liable to charge the Contractor without the necessity of providing for any details of such losses suffered by the Bank.

Thus if the Contractor fails to complete the works within the time for completion stated in the Notice Inviting the Tender or within any extended time under **Clause 12** hereof, the Contractor shall pay the Employer the sum at the rate of **1% (one per cent) of the Contract Value per week of delay subject to a limit of 10%(ten percent) of the Contract Value as "Liquidated damages"** for the period during which the said works shall so remain incomplete or the Employer may deduct aforesaid sum towards such damages from any monies due to the Contractor.

For this purpose, the term `Contract Value' shall be value at the contract rates of the work as ordered / accepted.

The Employer shall have the right to adjust, / set-off against any sum payable to the contractor under this or any other contract with the Employer anywhere in India/outside India.

14. PROTECTION TO WORKS, STORAGE

Protective Measures: The contractor shall make suitable arrangements for watching and protecting the works and surrounding property by day, by night, on Sundays and other holidays, on round the clock basis and no extra will be paid by Bank for such services.

Contractor shall indemnify the Employer against any possible damage to the building, roads or members of the public in course of execution of the work.

Should the work be suspended by reason of rain, strike, lockouts or any other cause, the contractor shall take all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these causes.

Storage of materials: The contractor shall provide adequate protection of the materials, work etc., and also other work that may be executed on the site.

All offensive, inflammable materials shall not be stored in the premises.

15. NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNERS



The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-laws of any authorities, and /or any water, lighting and other companies, and/or authorities with whose systems the structures were proposed to have connection and shall before making any variations from the drawings or specification that may be associated to so conform, give the Employer/Consultant written notices specifying the variations proposed to be made and the reasons for making them and apply for instruction thereon. The Employer/Consultant on receipt of such intimation shall give a decision within a reasonable time.

The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer.

The contractor shall indemnify the Employer against all claims in respect of patent rights, royalties, damages to buildings, roads or members of public in course of execution of work and shall defend all actions arising from such claims and shall keep the Employer saved harmless and indemnified in all respects from such actions, costs and expenses.

16. SETTING OUT WORKS

The contractor shall set out the works and shall be responsible for the true and perfect setting out of the work and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of the work, the contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the Employer. The contractor shall further set out the works to the alternative positions at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

17. MATERIALS, WORKMANSHIP, SAMPLES OF MATERIALS

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales tax, GST, octroi, VAT, service tax and other charges and must be the best of their kind available and the contractor/s must be entirely responsible for the proper and efficient carrying out of the work.

The work must be done in the best workman like manner.

Samples of all materials to be used must be submitted to the Employer/Consultant when so directed by the Engineer/Consultant and written approval from Employer/Consultant must be obtained prior to placement of order for the material.

Before ordering any material, the Contractor shall get samples of the materials approved from the Bank/Consultant well in time. The samples of materials shall be got tested from approved laboratories at the contractor's cost before approval if ordered



by the Bank/Consultant. No claim will be allowed for delay to the progress of work caused by tests. If called upon by the Bank, the contractor shall produce proof for having arranged for the supply of materials well in time.

18. REMOVAL OF IMPROPER WORK, RECTIFICATION, REJECTED MATERIALS

The Employer shall during the progress of the work have power to order for removal of work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Employer/Consultant are not in accordance with specifications or drawings or instructions.

All materials / or workmanship which in the opinion of the Bank are / is defective / not conforming to specifications / drawings or un-suitable, shall be removed immediately from the site and shall be substituted/ reworked with proper material and / or workmanship forth with as per drawings, specifications at the cost of the contractors.

In case the contractor refuses to comply with the orders of the Employer/ Consultant, then the Employer shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Employer/ Consultant shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor under this contract or any other contract. No certificate, which may be given by the Consultant / employer, shall relieve the contractor from his liability in respect of unsound work or bad materials.

19. ACCESS

Any authorized representative of the Employer/ Consultant shall at all reasonable times have free access to the works and/or to the workshop, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained, and the contractor shall give every facility to the Employer or their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Employer no person shall be allowed at any time without the written permission of the Employer.

20. SITE ENGINEER

The term 'Site Engineer' shall mean the person appointed and paid by the Employer/ Consultant to superintend the work. The contractor shall afford the Site Engineer every facility and assistance for examining the works and materials and for checking and measuring work and materials.

The work will from time to time be examined by the Consultants, Engineer from the Premises Department of the Employer and the Site Engineer. But such examination shall not in any way exonerate the contractor from the obligation to remedy any defects, which may be found to exist at any stage of the work or after the same is complete. Subject to the limitations of this clause the contractor shall take instructions only from the Consultants/Employer.



21. CONTRACTOR'S EMPLOYEES

The contractor shall employ technically qualified staff and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Employer/ Consultant. The contractor shall employ in connection with the work, persons having the appropriate skill or ability to perform their job efficiently.

No labourer below the age of Eighteen years shall be employed on the work.

Any labourer supplied by the contractor to be engaged on the work on day-work basis either wholly or partly under the direct order or control of the Employer or his representative shall be deemed to be a person employed by the contractor.

The contractor shall comply with the provisions of all labour legislation including the requirements of

- a) The Payment of Wages Act
- b) Minimum wages Act
- c) Employer's Liability Act
- d) Workmen's Compensation Act
- e) Contract Labour (Regulation & Abolition) Act, 1970 and Central Rules 1971
- f) Apprentices Act 1981
- g) Any other Act or enactment relating thereto and rules framed there under from time to time.
- h) Indian Electricity Act (IE Act) and follow the rules.

The contractor shall keep the Employer saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

The contractor shall comply at his own cost with the order of requirement of any Health Officer of the State or any local authority or of the Employer regarding the maintenance of proper environmental sanitation of the area where the contractor's labourer are housed or accommodated, for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The contractor shall provide, maintain and keep in good sanitary accommodation and provide facilities for pure drinking water at all times of the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The contractor shall arrange to provide first aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works, report such accident to the Employer and also to the competent authority where such report is required by law.



The contractor shall pay rates of Wages and observe hours of work and conditions or employment according to existing rules under Minimum Wages Act. Further, it shall be contractor's responsibility to ensure that he pays his workmen wages which are not lower than the minimum prescribed by the Union Government and State Government in which area this contract is being operated.

22. DISMISSAL OF WORKMAN

The contractor shall on the request of the Employer immediately dismiss from works any person employed thereon by him, who may in the opinion of the Employer be unsuitable or incompetent or who may misconduct himself. Such discharges shall not be the basis of any claim for compensation or damages against the employer or any of their officer or employee.

23. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.

The contractor shall be responsible for all injury to the work or workmen, persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include inter-alia, any damage to buildings whether immediately adjacent or otherwise, and any damage to roads, streets, foot paths or ways as well as damages caused to the buildings and the works forming the subject of this contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the Employer and hold harmless in respect of all and any expenses arising from any such injury or damages to persons or property as aforesaid and also in respect of any claim made in respect of injury or damages under any acts of compensation or damage consequent upon such claim. **The contractor shall submit an indemnity bond in Bank's approved proforma (enclosed under Appendix-6) in a stamp paper. Indemnify the Bank / Consultant from any damages, prosecution, other legal suits and claims arising out of any mishaps occurring at the site due to faulty work, faulty construction and for violating rules and regulations for which the contractor shall be solely responsible.**

The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damages to the property or third parties.

The contractor shall affect the necessary insurance and indemnify the Employer / Consultants entirely from all responsibility in this respect. The insurance must be placed with a company approved by the Employer and must be effected **jointly in the name of the contractor and the Employer and the policy lodged with the latter.** The scope of insurance is to include damage or loss to the works itself till this is made over in a complete state and also the workmen/ labours / supervisors employed in the work.



Insurance is compulsory and must be affected from the very initial stage before commencement of the work.

The contractor shall also be responsible for anything, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim for damages from any sums due or to become due to the contractor.

24. INSURANCE

The Contractor shall, at his own expense insure the works, effect and maintain till the completion of the contract a **Contractors All Risks Policy (CAR)** for Insurance, with an insurance company approved by the Employer, for the full amount of the contract. The scope of the cover shall include fire, lightning, explosion, crashing, aircraft, extinguishing water or other fighting measures, flood, inundation, rain, windstorm of any kind, earthquake, subsidence, landslide, rockslide, bad workmanship, lack of skill, negligence, malicious acts or human error, additional cover for third party liability and surrounding properties. The CAR shall be held in the joint names of the Employer and the Contractor (the name of the former being placed first in the policy.) with Employer as beneficiary against all risk as per the standard all risk policy for Contractors and deposit such policy or policies with the Employer with **7 (seven)** days from the date of receipt of the letter of acceptance of tender.

The Contractor shall also indemnify the Employer against all claims which may be made upon the Employer, whether under the Workmen's Compensation Act or any other statute in force, during the currency of this contract or at Common Law in respect of any employee of the Contractor or of sub-Contractor and shall be at his own expense obtain, **effect and maintain until the completion of the Contract a policy of Insurance against such risk in respect of employees of contractor or sub-contractor with an Insurance Company approved by the Employer,** a comprehensive policy of Insurance and deposit such policy or policies with the Employer from time to time during the currency of this contract.

In default of the Contractor insuring as provided above, the Employer on his behalf may so insure and may deduct the premiums paid from any money due, or which may become due to the contractor.

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.



The Contractor, in case of re-building or reinstatement after damage shall be entitled to such extension of time for completion as the Consultants may deem fit, but shall, however, not be entitled to reimbursement by the Employer of any shortfall or deficiency in the amount paid by the insurer in settlement of any claim arising as set out herein.

Without prejudice to his liability under this clause, the Contractor shall also cause all sub-Contractors to effect for their respective portions of the works, similar policies of insurance in accordance with the provisions of this clause and shall produce or cause to produce to the Employer such policies. The Contractor shall not permit a sub-Contractor to commence work at the site unless the said insurance policies are submitted. In the event of failure of the sub-contractor to commence work at the site, the contractor shall be responsible for any claim or damage attributable to the said sub-Contractor.

25. ACCOUNTS RECEIPTS & VOUCHERS

The contractor shall, upon the request of the Employer furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the works under this contract, if the contractor shall use materials less than what he is required under the contract, the value of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the Employer shall be final and binding on the contractor as to the amount of materials the contractor is required to use for any work under this contract.

26. MEASUREMENTS

All measurements shall be carried out as per relevant IS code unless otherwise stated elsewhere in this document. Before taking any measurement of any work the Site Engineer/ Consultant / employer or a subordinate deputed by him shall give reasonable notice to the contractor. If the contractor fails to attend at the measurements after such notice or fails to counter sign or to record the difference within a week from the date of measurement in the manner required by the Site Engineer, then in any such event the measurements taken by the Site Engineer or by the subordinate deputed by him as the case may be is final and binding on the contractor and the contractor shall have no right to dispute the same.

27. CONCEALED WORK

The contractor shall give due notice to the Employer/Consultant whenever any work is to be concealed or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the opinion of the Employer/Consultant be either opened up for measurement at the contractor's expense or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the notes of the Employer/Consultant shall be accepted as correct and binding on the contractor.



28. INITIAL & INTERIUM PAYMENTS

Initial Mobilization Advance: No mobilization advance will be considered by Bank.

Running Bill payments: All bills shall be prepared by the contractor in the form prescribed by the Employer/ Consultant. Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in the **Appendix-1**. The bills in proper forms must be duly accompanied by detailed measurements & test certificate in support of the quantities of work done and must show deductions for all previous payments, retention money, etc.

The Consultant shall issue a certificate after due scrutiny of the contractor's bill stating the value of the work executed, amount due to the contractor from the Employer and the contractor shall be entitled to payment thereof, within the period of honoring certificate stated in the **Appendix-1 subject to its correctness and verification by Employer.**

The amount stated in an interim certificate shall be the value of work properly executed and material advance upto 75% of invoiced value of materials brought to site for permanent incorporation into the work after preparation of the previous bill less the amount to be retained by the Employer as **retention money vide clause 10** of these conditions. Advance paid for materials already incorporated in the work shall be recovered.

The material advance shall be admissible only on materials, which in the opinion of the Consultant / employer are imperishable in nature, are genuinely required for use in the work in the near future, are of the required quality and are adequately protected against damage, theft, loss etc.

If the Employer has supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to contractor in accordance with the quantities consumed in the work.

All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall it conclude, determine or affect in anyway the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. In all the above the **Appendix 2, 3 & 4**, shall be followed.

29. FINAL PAYMENT

The final bill shall be submitted by the contractor to the Consultant within one month of the date of completion of the work certified by the Consultant and payment shall be



made within **one month** for such of those items and quantities that in the opinion of the Employer are undisputed.

Payments of final bill shall be made after deduction of Retention Money as specified in **clause 10** of these conditions, which sum shall be refunded as stipulated in **Clause 10**. The acceptance of payment of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

30. VARIATION / DEVIATION

The Employer shall have powers to order additional /non-tendered items or to modify the tendered items, to vary the quantities of tendered items and not to execute certain items. All such orders shall be in writing.

The rate or price of all such additional items/non-tendered/modified items will be worked out on the basis of rates quoted for similar items in the contract wherever existing or on engineering rate analysis based on prevalent fair price of labour, material and other components as required. The tender rates shall hold good for any increase or decrease in the tendered quantities up-to variation of 25%.

For variation beyond 25%, the rate may be reviewed based on prevalent fair price of labour, materials and other components as per the rate analysis format given in **Appendix- 7**. The contractor shall submit detailed analysis of rates and supporting documents to the Employer/ Consultants within 7 days of being directed to execute such items/quantities and the Employer/ Consultant shall assess the analysis and approve reasonable and justified rate.

No such additional or modified items or variation in quantities (except variation in quantities as per approved drawings) shall be executed by the Contractor without prior written approval of the Employer / Consultant.

31. SUBSTITUTION

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Employer/ Consultant in writing for any such substitution well in advance. Materials designated in the Schedule of Quantities and specification indefinitely by such term as "Equal", "Equivalent" or "Other approved" etc. specific approval of the Employer/ Consultant has to be obtained in writing.

32. COMPLETION OF WORK

On completion of the work the contractor shall clean all windows, doors, fittings, fixtures, furniture's etc of all paint/polish/distemper splashes/dirt/dust / adhesives etc, if necessary all hardware, clean inside and outside, all floor, stair-cases, and every part of the building and the surroundings.

On receipt of such written intimation from the contractor on completion of the work, the Consultant / Employer shall arrange to inspect the work and certify completion if



the work has been completed satisfactorily. If not, the Consultant / Employer shall inform the Contractor the deficiencies/defects in the work and the contractor shall attend to them properly and again intimate the Employer/Consultant for further inspection.

The work shall not be considered as complete until the Employer/ Consultant have certified in writing that it has been completed satisfactorily without any apparent defects and the Defects Liability Period shall commence from the date of such certificate

No such certificates shall be issued until the contractor clears away and removes from the site all constructional plant, surplus materials, rubbish temporary works of every kind and leaves the whole of the site and the works clean and in a workman like condition to the satisfaction of the Employer/Consultant.

33. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects which may appear during the defect liability period of **one year from the date of completion of the works.**

In default the Employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the employer, in lieu of such amending and making good by the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the contractor from the amount retained under **clause No.10** under this contract or any other contract together with any expenses the Employer may have incurred in connection therewith.

34. IDLE LABOUR

Whatever the reasons may be no claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

35. ASSIGNMENT

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or sublet the contract or any a part, share or interest therein nor, shall take a new partner, without written consent of the Employer and no subletting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

36. ESCALATION:



The rate quoted shall be firm throughout the tenure of the contract including extension of time, if any, granted and will not be subject to any fluctuation due to increase in cost of materials, labour, sales tax, VAT, works contract tax, octroi, service tax etc. or any other tax. There shall be **NO ESCALATION** on the quoted rates.

The basic rates indicated in Schedule of quantities for material is only to facilitate the Bank to select the material.

37. SUSPENSION OF WORK

If the Contractor:

(i) Having been given by the Bank a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman like manner, shall omit to comply with the requirements of such notice for a period of seven days thereafter; or,

(ii) has without reasonable cause suspended the progress of the work or has failed to proceed with the work so that in the opinion of the bank (which shall be final and binding) that he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the bank; or

(iii) persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the bank or

(iv) fails to complete the work within the stipulated date or items of work with individual date of completion, if any, stipulated on or before such date(s) of completion and does not complete them within the period specified in the notice given in writing in that behalf by the Bank; or

(v) being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitles the court to make a winding up order; or

(vi) If the contractor except on account of any legal restraint upon the Employer preventing the continuance of the work or in the opinion of the Employer shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default,

In all the above, the Employer shall have the power to give notice in writing to the contractor requiring the work be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be a notice under this clause.

After such notice shall have been given the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with. If the contractor shall fail for 7 (seven) days after such notice has



been given to proceed with the works as therein prescribe, the Employer may proceed as provided in **clause 38** (Termination of Contract by Employer).

38. TERMINATION OF CONTRACT BY EMPLOYER

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the Official Assignee in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a Receiver of the contractor's firm appointed by the court shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the employer that he is able to carry out and fulfill the contract, and if so required by the employer to give reasonable security therefore, or if the contractor 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, charge or encumber this contract or any payments due or which may become due to the contractor there under, or shall neglect or fail to observe and perform all or any of the acts, matters or things by this contract to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials or workmanship in carrying on the works, or shall in the opinion of the employer not exercise such due diligence and make such due progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the employer after three clear days' notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned, or shall abandon the contract, then and in any of the said cases, the bank may notwithstanding previous waiver, determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the contract the whole of which shall continue in force as fully as if the contract had not been so determined and as if the works subsequently executed had been executed by or on behalf of the contractor (without thereby creating any trust in favor of the contractor). Further the employer or his agent, or servants, may enter upon and take possession of the work and all plants, tools, scaffolding, sheds, machinery, steam and other power, utensils and materials lying upon premises or the adjoining lands or roads and sell the same as his own property or, may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other contractors or other persons or person to complete the works, 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 or person employed from completing and finishing the works. When the works shall be completed, or as soon thereafter as conveniently may be, the employer shall give notice in writing to the contractor to remove his surplus materials and plants and, should the contractor fail to do so within a period of 14 days after receipt by him, the employer may sell the same by Public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the employer in getting the works carried out by other persons or contractors shall be adjusted against the amount payable to the contractor by way of



selling his tools and plants or due on account of work carried out by the contractor prior to engaging other persons or contractors or against the Security Deposit.

Without prejudice to any of the rights or remedies under this contract if the contractor dies, the Bank shall have the option of terminating the contract without compensation to the contractor.

39. ARBITRATION

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contract or the construction remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Employer hereinafter mentioned be referred for adjudication to a **sole Arbitrator** to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, the Employer will send within thirty days of receipt of the notice, to the contractor a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed.

The contractor shall on receipt of the names of aforesaid, select any one of the persons named to be appointed as a sole Arbitrator and communicate his name to the Employer within thirty days of receipt of the names. The Employer shall thereupon without any delay appoint the said person as the Sole Arbitrator. If the contractor fails to communicate such selection as provided above within the period specified, the competent authority shall make the selection and appoint the selected person as the Sole Arbitrator.

If the Employer fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all be unconnected with either party. The Employer shall on receipt of the named as aforesaid select anyone of the person's name and appoint him as the Sole Arbitrator. If the Employer fails to select the person and appoint him as the Sole Arbitrator within 30 days of receipt of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from the panel as the Sole Arbitrator and communicate his name to the Employer.

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 as aforesaid. The work under the Contract shall, however, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings. The Arbitrator shall give a separate reasoned award in respect of each dispute or difference referred to him. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion.



The fees and expenses, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The Arbitrator may direct to and by whom and in what manner the cost of the reference and of the award including the fees and expenses or any part thereof shall be paid and may fix or settle the amount of costs to be so paid.

The award of the Arbitrator shall be final and binding on both the parties. Subject to the aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made hereunder, and for the time being in force, shall apply to the arbitration proceeding under this clause.

40. CLOSE RELATIVES

The contractor shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him or himself and who are near relative to any Employee of the Canara bank. Any breach of these conditions by the Company or Firm or any other person/ contractor, the tender/work is liable to be cancelled and Earnest Money/ Security Deposit will be forfeited at any stage, whenever it is so noticed. The Bank will not pay any damages to the company or Firm or the concerned person. The Company or Firm or the person is also liable to be debarred for further participation in the tenders in the concerned circle of the Bank. The details shall be furnished in **Appendix 8**.

41. RETIRED EMPLOYEES

No Employee of the employer or employed in any department of the Government of India, PSU, Nationalized/ state bank shall work as a contractor or employee of a contractor for a period of two years after his retirement from service without the previous permission of their employer in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of their employer as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be. The details shall be furnished in **Appendix 8**.

42. TESTING OF MATERIALS

All materials received at site shall be accompanied by the Test certificate of the manufacturer. The Engineer-In-Charge reserves the right to instruct any material to be further tested in an approved laboratory for which the Contractor shall make no additional claims. Wherever test requirements are not specified in the specifications, relevant IS code of practice shall govern.

43. SAFETY REGULATIONS.

- Safety shall be ensured in accordance with all requirements & specifications. The Contractor shall ensure adequate safety precautions at site as required under the law of the land and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises



- The Contractor shall indemnify the BANK from any consequence arising due to contractor's failure in respect to safety compliance
- First Aid facilities at easily accessible place shall be provided by the Contractor at their own cost as per provisions of Labour act or as advised by the BANK wherever works are carried out.
- All critical injuries shall be reported promptly to the BANK. The report shall cover type, nature, cause, physician's report and actions for prevention of those types again.
- To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the Contractor shall be open to inspection by the BANK.
- The cost so incurred by the Contractor in providing for safety standards and requirements as above shall be deemed to be included in the rates quoted for various items under the scope of Contract and no extra amounts shall be payable to the contractor on this account.
- The Contractor shall furnish to the BANK within seven days from issue of LOI or Work Order whichever is earlier, for approval of BANK, the proposed safety programme on how it intends to implement the safety procedures and precautions to ensure that the site is accident free.

44. MATERIALS AND WORKMANSHIP.

44.1 Quality Assurance Program.

- The Contractor before the start of work shall submit for approval a quality assurance program to the EIC indicating measures that he proposes to implement to ensure that the quality of the work shall be in accordance with requirements, specifications laid down in the contract.
- The lot size, number of required tests and frequency of testing needs to be clearly indicated in QA plans as per specification and IS code.
- The time schedule by which machinery and T&P is to be brought at site should also be indicated.
- All registers of tests carried out at site or in outside laboratories shall be maintained by the contractor which shall be issued by the EIC.

44.2 Quality of Materials and Workmanship and Tests.

The contractor shall procure all equipment from genuine sources as approved by the EIC. Cement shall be of grade 43 OPC conforming to IS 8112 / 53 grade OPC conforming to IS 12269; aggregate for cement concrete shall conform to IS 383; Reinforcement for cold drawn twisted bars shall conform to IS 1786; the bricks for brick work shall conform to IS 1077; water to be used shall comply with requirements of IS 456. Contractor shall provide all requisite facilities for field test and laboratory tests shall



be carried out in the laboratory having ISO 9001-2000 Certified testing laboratory for which no extra payment shall be made. The contractor shall maintain mandatory Test Register with the EIC as provided in latest IS specifications.

All materials and workmanship shall be of the respective kinds described in the contract and in accordance with the EIC's instruction and shall be subjected from time to time to such tests as the EIC may direct at the place of manufacture or fabrication or on the site or at such other places or places as may be specified in the contract, or at all or any of such places. The contractor shall provide at no additional cost to the BANK such assistance, instruments, machines, labour and materials as are normally require for examining, measuring and testing any work and the quality, weight or quantity of any material used and shall supply samples of materials before incorporation in the works for testing as may be selected and required by the EIC.

44.3 COST OF SAMPLES AND TESTS

All samples shall be supplied to the BANK, if required, by the contractor at his own cost. Cost of tests required by the EIC shall be borne by the contractor and are deemed to be included in unit rates quoted in the BOQ. The contractor shall take approval of the EIC prior to start the work for all samples of materials including mix design of concrete to be utilized for the works to be executed. The cost of such tests carried out by the external agencies or consultants shall be borne by the contractor at his own cost.

44.4 Sampling and testing Concrete on site.

The contractor can also have concrete cubes tested in an approved laboratory in lieu of a testing machine at site but at his own cost and with the prior written consent of the BANK.

44.5 Inspection of operations

The EIC, the consultant or any person authorized by the BANK shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility for and assistance in or in obtaining right to such access.

44.6 Examination of work before covering up.

No work shall be covered up or put out of view without the approval of the EIC or his representative and the contractor shall afford full opportunity to the EIC or his representative to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The contractor shall give due notice to the EIC or his representative whenever any such work is ready or about to be ready for examination and the EIC or his representative shall, without unreasonable delay, attend for the purpose of the examining such work

Signature of the Tenderer
With name and address



SPECIAL CONDITIONS OF CONTRACT

1. GENERAL:

These Special conditions of Contract shall be read in conjunction with the General Conditions of contract, Schedule of quantities, Drawings and any other documents forming part of this contract wherever the context so requires.

Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, then unless a different intention appears, the provisions of the Special Conditions of Contract, shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnance, or variance, prevail.

In case where the specifications in the drawings or those given in schedule of quantities are found wanting the latest IS specifications then CPWD shall hold good.

2. ORDER OF EXECUTION OF DIFFERENT ITEMS OF WORK:

The Bank reserves the right to fix the order in which the various items of work involved in this contract are to be executed and contractor shall comply with the same. There shall be no extra claims on account of this.

3. DISCREPANCIES IN DOCUMENTS:

The several documents forming the contract are to be taken mutually explanatory of one another. In the event of any Errors, Omissions and Discrepancies, the same shall be dealt as under:

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

- Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.
- Between the written or shown dimensions in the drawings and the corresponding one in the specification, the former shall be taken as authenticated.

❖ In case of discrepancy between the schedule of quantities, the specifications and /or the drawings, the following order of preference will be observed.

- Description in Schedule of Quantities.
- Drawings.
- Indian Standard Specifications of B.I.S.
- CPWD specifications

❖ In case of difference between the rates written in figures and the rate in words shall prevail.

❖ In case of omissions and/or doubts or discrepancies in any of the items or specifications, a reference shall be made to the Bank whose Elucidation, elaboration, decision shall be considered as authentic.



4. DEDUCTIONS AT SOURCE FOR Income tax, GST, works contract tax and other applicable Statutory deductions:

Appropriate deduction as per relevant GST, Income Tax & VAT (works contract tax) Rules applicable at the time of payment shall be made on the bills submitted by the contractor and such deducted amounts shall be remitted by the Employer to the respective central/ state government authorities on behalf of the Contractor as per Rules.

5. USEFUL DISMANTLED MATERIALS:

Before dismantling any item prior permission of the Consultants / Employer shall be obtained and seek instructions for measurement, storage of the materials which shall become the property of the Bank unless otherwise stated in these documents / schedule of quantities.

6. NO OVER LOADING OF SLABS:

Floors of buildings shall not be over loaded by stacks or materials during execution of the works without the prior approval of the Bank.

7. APPROVED MAKE OF MATERIALS

The make of the material to be used in the works shall be as per list of approved makes detailed in **Appendix 9** and as per sample got approved from the Bank. A set of specimen samples of all approved materials shall be kept at site or any designated branch of the Bank. The cost of which shall be borne by the Contractor.

All other materials to be used in the works but not covered above but specified in the schedule of quantities (SOQ) including items beyond SOQ shall also be of best of its kind and shall conform to latest Indian Standard Specifications.

8. CORDINATION OF WORKS

Work involves execution in functioning branch of a Bank; it is intended to undertake works with minimum disturbance to the occupants & customers. Hence the execution needs to be carried out meticulously with proper co-ordination and planning. Further the work needs to be carried out with co-ordination with other agencies.

Signature of the Tenderer/Contractor
With name and address



OFFER LETTER

**The Divisional Manager,
Premises Estate section
Canara Bank, Circle office**

.....
.....

Name of work: "" "

Dear Sir,

I/We have read and examined the Notice Inviting the Tender (NIT), Offer Letter, General rules & Instructions to tenderers, General conditions of tender, Special conditions, Appendices, Schedule of quantities, drawings, and all other documents referred to in this Documents and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the Employer within the time specified at the rates specified in the attached Priced Schedule of quantities viz., schedule of quantities and in accordance in all respects with the tender documents and in all respects in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for **90 days** from the due date of submission thereof and undertake not to make any modifications in its terms and conditions. A sum of Rs.....is hereby forwarded as earnest money in form of Demand Draft of. (Name of the issuing Schedule Bank) bearing no. and date .
.....

In the event of the acceptance of my tender, I agree that the earnest money shall be retained by Employer towards security deposit to execute all the works referred to in the tender documents as per the terms and conditions contained or referred to therein.

I/We agree that should I/We fail to deposit the full amount of Initial security deposit and/or fail to commence the work specified **and/or** execute the agreement **and/or** execute the Indemnity bond and/ or submit the Insurance as per the above tender documents, an amount equal to the amount of the earnest money deposit mentioned tender documents shall be absolutely forfeited to the Employer and the same may at the option of the Employer be recovered without prejudice to any other right or remedy available in law, out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/us under this contract or otherwise.

I/We hereby declare that I/We treat these tender documents, drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any persons other than a person to whom I/We am /are authorized to communicate the same or use the information in any manner prejudiced to the safety of the State / the Employer.



I/We fully understand that you are not bound to accept the lowest or any tender you may receive.

Shri. _____, Partner / Proprietor / Authorized representative of the Company, is the person authorized to negotiate commercial, technical terms & conditions & sign on behalf of the firm any Agreement, Bills & receipts for this work.

I/We agree that until a formal agreement on stamp paper is prepared and signed, this tender with your written acceptance thereof shall constitute a binding contract between us.

Dated the:day of 2019

Signature of Contractor

Witness, Name & address: Full Postal Address including

Pin Code NO. & Telephone NO.

1).

2).



APPENDIX-1

IMPORTANT TERMS

- 1 Period of Completion : 150 Days from the date of work order
- 2 Defects Liability Period (DLP) : One year from the date of Completion of work unless otherwise specified.
- 3 Date of Commencement : **Third day** from the date of signing of agreement, submission of Indemnity bond, submission of Insurance, depositing of Initial security deposit OR order to commence the works whichever is later.
- 4 Liquidated Damages for Delay : As mentioned in the **Clause no.13**
- 5 Period of final measurement : 30(Thirty) days.
- 6 Value of work for claiming the Interim Bills : Minimum of Rs. 2 (two) lakh based on the **accepted measurements.**
- 7 Period of honoring interim Certificate : 15 days from the date of receipt of bill.
- 8 Period of honoring Final Certificate : One month.
- 9 Retention Money : 8% of Interim Bill amount subject to the ceiling of the total security deposit
- 10 Total Security Deposit (Maximum) : As per clause no. 10 of General conditions
- 11 Initial Security Deposit : 1% of accepted tendered sum including EMD



APPENDIX-2

RUNNING A/C BILL FORMAT

1. Name of work :
2. Name of Contractor :
3. Accepted contract amount :
4. Date of commencement :
5. Stipulated date of completion :
6. Actual date of completion :
7. Extension, if any :
8. Insurance valid upto :
 - a) Workmen Compensation Act
 - b) Contractor's all risk Comprehensive
9. Labour license no. and date & valid upto:
10. Serial no. of this bill :
11. No. & date of this bill :
12. Ref. to agreement no. :
13. Earnest money deposit :
14. Total retention money excluding:
15. E.M.D as per contract
16. Total retention money excluding :
which this bill has been prepared
(Date to be mentioned)

Note: i) if part rate is allowed for any item, it should be indicated with reasons

ii) if ad-hoc payment is made, it should be mentioned specially.

Signature of the Tenderer



APPENDIX -3

CERTIFICATE FOR PAYMENT

RUNNING BILL NO. _____ date

Total value of the works executed so far Rs..... (A)

Total value of the works till the previous bill Rs..... (B)

Total amount due since previous bill Rs. _____ (A) - (B)

DEDUCTIONS

Retention money on value of work as per accepted tenders

upto date Rs. _____

Less: Already recovered (-) Rs. _____

Balance to be recovered Rs. _____

Total Deduction as per contractRs. _____

Any other recovery as per contract (-) Rs

Net amount payable as per contract Rs. _____

Rupees _____) in words.

Signature of Consultants



APPENDIX- 4

MEASUREMENT CERTIFICATE

1. The measurements on the basis of which the above entries the Running Bill no. _____ were made have been taken jointly on _____ and are recorded at pages _____ to _____ of measurements book no. _____

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

Signature of Contractor

Signature of Consultants

Signature of Site Engineer

Date:

Place:



APPENDIX-5

CONTRACT AGREEMENT FORMAT

This agreement made on this _____ day of the month of ____ in the year two thousand nine (____. 2019) BETWEEN, **Canara Bank** a body corporate constituted under the Banking & Companies (Acquisition and Transfer of Undertakings) Act, 1970, having its Head Office, at 112, J C Road, Bangalore- 560 002, amongst others a **Circle office at #524, Anna Salai, Teynampet, Chennai - 600 018** represented by its duly constituted attorney (hereinafter referred to as Bank) of the **ONE PART** ;

AND

M/s. _____ duly represented by one of its Proprietor/Partner _____, aged _____ years, S/o Sri _____, residing at _____ and having their office at _____ (hereinafter called the Contractor) of the **Other part**.

WHEREAS THE Bank is desirous of undertaking theand has accepted the tender opened on _____,2019 submitted by the contractor & the contractor has agreed to perform as set out and subject to the terms & conditions set forth in the said documents mentioned herein under.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to.
2. The following documents not inconsistent with these presents shall be deemed to form and be read and construed as part of this agreement viz.,
 - a) The Tender Document Comprising Notice inviting the tender, General rules & Instruction to tenderers, General Conditions of the Contract, Special; conditions, Appendix 1 to 17, Priced schedule of quantities, Tender Drawings, Integrity Pact.
 - b) Corrigendum to tender document if any.
 - c) Letter from contractor dt. _____ in response to the negotiation meeting discussions held on _____
 - d) Letter of Acceptance issued to contractor by Bank - letter No. _____ dt.....
 - e) Letters from and to the Contractor, if any, leading to and prior to acceptance letter.

3. In consideration of the payments to be made by the Bank to the Contractor the Contractor hereby covenants and agrees with the Bank to execute, complete and perform the works in conformity in all respects with the Tender document as mentioned in the aforesaid documents which shall form part of this agreement.

In witness whereof, the parties hereunto have set their respective hands and seals the day and year first above written.

For & on behalf of the
Contractor with seal
seal

For & on behalf of the
Canara Bank with



APPENDIX -6

INDEMNITY BOND FORMAT

THIS DEED OF INDEMNITY BOND executed at Chennai on this _____ day of _____ month of year two thousand and ten (2019) By M/s _____ duly represented by proprietor / one of its partner's Sri _____, aged _____ years, son of Sri _____, residing at _____..

In favour of

Canara Bank, a body corporate constituted under the Banking companies (Acquisition and Transfer of undertakings) Act, 1970, having its Head Office, at 112, J.C.Road, Bangalore - 560002 and amongst others a Circle office at #524, Anna Salai, Teynampet, Chennai - 600 018

Whereas I am the authorized partner of M/s _____, and had applied for prequalification of contractors for

Whereas as my company was shortlisted for issue of tenders and my company became successful in securing the subject work through competitive tendering and the work of has been awarded in our favour by Canara Bank, Circle Office, Chennai vide their letter

And whereas for undertaking thework, my company has entered into contract agreement with Canara Bank on_____.

Now this Deed Witnessed that in pursuance of the aforesaid contract agreement dt. _____ and in consideration of Canara Bank having agreed to make payments on the bills claimed by me/my company based on the works completed by me/my company in respect ofand referred to above,

I hereby undertake to indemnify and keep harmless the Canara Bank & its Consultants and its officials/ staff from any damages, prosecution, other legal suits and claims arising out of any mishaps occurring at the site due to faulty work, faulty construction and for violating rules and regulations, any possible damage to the building and members of public in course of execution of the work for which I shall be solely responsible.



APPENDIX-7
FORMAT FOR RATE ANALYSIS OF ITEMS

I. MATERIAL

1. Basic Cost of Material - Rs. _____

2. Wastage - Rs. _____

II. Labour:

As per Standard - Rs. _____

Labour output and labour input required for the Particular item using quoted labour rates.

III. Machinery / Tools

Rs. _____

Inputs of Machinery / Tools requirements as per the item and hire charges as per market.

TOTAL (I) + (II) + (III) - Rs. _____

IV. Tax Liability

[as per contractual clauses will be added] - Rs. _____

V. Add - ½ % for water charges - Rs. _____

½ % for Electricity - Rs. _____

VI. Any other Expenditure (please specify) - Rs. _____

TOTAL

Contractor Profit & OH - 15% - Rs. _____

GRAND TOTAL - Rs. _____

TDS will be deducted as per standard norms and recovery shall be made for water and electricity as per tender conditions.



APPENDIX-8
LIST OF RELATIVES & EMPLOYMENT OF RETIRED PERSONS

1. Details List of relatives working in Canara bank;

NAME OF THE OFFICIAL	DESIGNATION	ADDRESS OF THE OFFICE / BRANCH

2. Details List of retired Government / PSU/ Bank employees, employed by the tenderer / contractor:

NAME OF THE RETIRED OFFICIAL	DESIGNATION	NAME & ADDRESS OF THE PREVIOUS EMPLOYER

Name & Signature of Tenderer



APPENDIX-9

LIST OF APPROVED MAKE OF MATERIALS

- River Sand : For Plastering purpose only -(IS : 383)
- M-sand : As per IS:383 and conforming to Zone-II
- Aggregates : Size - down 20mm aggregate- (IS : 383)
- CEMENT : OPC of make ACC, ULTRA TECH, AMBUJA - 43/53 grade (IS 8112: 1989/IS 12269 : 1987)
- BRICKS : Burnt bricks with minimum strength of 35kg/cm² (IS 3495: Part 1-4: 1992)
- STEEL : TMT bars with Fe-415 grade (IS 800:2007)

NOTE:

Any brands indicated under the items specifications in the schedule of quantities will prevail over the above indicated makes.

Apart from the above makes, any further equivalent make as approved by the Bank, can also be used with prior permission from the Bank.



APPENDIX-10

AVERAGE ANNUAL FINANCIAL TURNOVER ON CIVIL CONSTRUCTION WORKS

Srl. No.	Financial Year (April - March)	Average Annual Turnover	Brief details of rehabilitation & retrofitting works done during period.	Name & Address of clients	Whether Audited Balance Sheets enclosed	Remarks
1	2016-2017					
2	2017-2018					
3	2018-2019					

NOTE: Please enclose self-attested copies of Audited Balance Sheet of preceding 3 years.



APPENDIX-11

EXPERIENCE FOR CARRYING OUT SIMILAR TYPE OF WORK IN PRECEDING 3 YEARS

Srl. No.	Details of completed work carried out	Name& Address of Client	Date of commencement of work	Date of completion of work as per WO	Date of completion of work as per actual.	Total value of Work	Reasons for delay , if any

Note:

- In the completed works, the part of the repair, rehabilitation and retrofitting works should not be less than minimum 50 %.
- Please enclose self-attested copies of Work Order detailing type of work done
- Please enclose self-attested copies of completion / payment certificate of Client



APPENDIX-12

DETAILS OF MANAGEMENT, TECHNICAL AND SUPERVISORY PERSONNEL

Category	Name	Educational Qualification	Age (years)	Total experience in Civil Const. work	Working with present Comp. since (date)	Experience in Repair & Retrofitting work
Management Staff						
Technical Staff						
Supervisory Staff						



APPENDIX-13

DETAILS OF STATUTORY REGISTRATION

Srl. No.	Parameter	Registration No.	Validity		Whether copy enclosed
			From	To	
1	Trade License No.				
2	Sales Tax				
3	Work Contract Tax/VAT				
4	Service Tax				
5	GSTIN No.				
6	PAN / TIN No.				
7	PF Code No				
8	ESI Registration No.				

Note:

- 1 All employees to have PF A/c No. under PF Act, 1952.
- 2 All employees to have temporary or permanent ESI Card as per ESI Act
- 3 A copy of Labour License to be submitted before commencement of work by the Contractor.
- 4 If any work involves Electric License, then the same to be submitted to E-I-C before commencement of work by the contractor.



APPENDIX-14

(To be submitted on letter head of the Bidder)

DECLARATION

**Ref : Tender for Repair, Rehabilitation, Retrofitting and Other Related Civil Works
of “Canara Court” Apartments at #24, Greenways Lane, RA Puram, Chennai -
600028**

I / We hereby declare that I / We have not been banned or delisted or debarred by any Government , Quasi Government Agencies, Public Sector Undertakings or Private Companies anywhere, anytime.

Should it be observed anytime during currency of the bidding process or during execution of the work that I / We have been banned, delisted or debarred by any of the above Agencies, then I / We agree for termination of the contract forthwith and also agree for forfeiture of our Earnest Money Deposit and Security cum Performance Deposit, if any, by Canara Bank, without any recourse.

Dated :

Signature of Bidder with
Official Seal



APPENDIX-15

DETAILS OF PLANT & MACHINERY, TOOLS & TACKLES AND HELPING EQUIPMENT

The list of Plant & Machinery, Tools & Tackles and helping equipment outlined below is indicative only for Bid evaluation purpose AND NOT EXHAUSTIVE, in nature.

It will be the responsibility of the successful Contractor to mobilize and engage all plant, machinery, tools & tackles and supporting equipment to be required for execution of the work successfully true to specification and taking all safety measure as per instruction of the bank .

Srl. No.	Description	Number suggested for bid evaluation.	Whether owned or arranged	Remarks
	<u>ESSENTIAL PLANT AND MACHINERY</u>			
1	Light Hammer Electric cutting machine	1		
2	Power Drilling machine	1		
3	10 x 7 concrete mixture	1		
4	Needle Vibrator	1		
5	Shotcreting machine	1		
6	Guniting Gun & Pump	1		
7	Air Compressor	1		
8	Portable Welding machine	1		
9	Steel Props of 50 mm dia. 3.5 m height	1700		
10	Stout Props	415		
11	Water pump	2		

Note : Conclusive proof of ownership and / or arrangement should be furnished along with the Techno Commercial Bid.



APPENDIX-16

UNDERTAKING LETTER

To,

The Divisional Manager
Premises & Estate Section
Canara Bank Circle Office
#524, Anna Salai
Teynampet, Chennai – 600 018

Name of work: Repair, Rehabilitation, Retrofitting and Other Related Civil Works of
"Canara Court" Apartments at Greenways Lane, RA Puram, Chennai

Dear Sir,

This has reference to your above Notice inviting tender.

We hereby state that we M/s _____ have submitted
the above offer documents duly filling at the appropriate places without making any
alterations, corrections, omissions in the Tender Document issued by the bank or
downloaded from the web site.



APPENDIX-16

INTEGRITY PACT FORMAT

PRE CONTRACT INTEGRITY PACT

Between

This pre-bid contract Agreement (herein after called the Integrity Pact) is made on ____ day of the month 20____ , between, **CANARA BANK** hereinafter referred to as "**The Principal**", a body corporate constituted under Banking Companies (Acquisition and transfer of undertakings), Act 1970 having its Head office at 112, J.C. Road, Bangalore 560 002, with branches spread over India and abroad (hereinafter referred to as BUYER which expression shall include its successors and assigns) acting through Shri _____ , (Designation of the officer) representing _____ , of the BUYER, of the FIRST PART

AND

M/s. _____ represented by Shri _____ Chief Executive Officer/Authorised Signatory (hereinafter called the "**The Bidder/ Seller/ Contractor/ Service Provider**", which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns), of the SECOND PART

The Principal intends to award, under laid down organizational procedures, contract/s for. The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and / or Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitors (IEMs) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

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

a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract executed



c) The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

(1) The Bidder(s)/ Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commit themselves to observe the following principles during participation in the tender process and during the contract execution.

a) The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b) The Bidder(s)/ Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

c) The Bidder(s)/ Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d) The Bidder(s)/ Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

e) Bidder(s)/Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.



Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as below -

(1) Any breach of the provisions herein contained by the BIDDER/SELLER /CONTRACTOR/SERVICE PROVIDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER shall entitle the BUYER to take all or any one of the following actions, wherever required:-

a) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER. However, the proceedings with the other BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER(s) would continue.

b) To forfeit fully or partially the Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed), as decided by the BUYER and the BUYER shall not be required to assign any reason therefor.

c) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER.

d) To recover all sums already paid by the BUYER, and in case of the Indian BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of (Name of the Bank/Financial Institution) while in case of a BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER from a country other than India with Interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER/SELLER /CONTRACTOR from the BUYER in connection with any other contract such outstanding payment could also be utilized to recover the aforesaid sum and interest. The BUYER shall also be entitled to recover the replacement costs from BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER.

e) To encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER, in order to recover the payments, already made by the BUYER, along with interest.

f) To cancel all or any other contracts with the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER and the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER.



g) To debar the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER from participating in future bidding processes of the BUYER for a minimum period of five years, which may be further extended at the discretion of the BUYER.

h) To recover all sums paid in violation of this Pact by BIDDER/ SELLER/ CONTRACTOR/ SERVICEPROVIDER(s) to any middlemen or agent or broker with a view to securing the contract.

i) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER, the same shall not be opened.

j) Forfeiture of The Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

k) The BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER, and if he does so, the BUYER shall be entitled forthwith to rescind the contract and all other contracts with the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER. The BIDDER/SELLER/ CONTRACTOR shall be liable to pay compensation for any loss or damage to the BUYER resulting from such rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER.

(2) The BUYER will be entitled to take all or any of the actions mentioned as per above clause - 1 (i) to (xi) of this Pact, also in the event of commission by the BIDDER/ SELLER/ CONTRACTOR/ SERVICE PROVIDER or anyone employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined In Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

(3) The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the BIDDER/ SELLER/ CONTRACTOR shall be final and conclusive on the BIDDER/ SELLER / CONTRACTOR. However, the BIDDER/SELLER/CONTRACTOR/SERVICE can approach the Independent External Monitor (s) appointed for the purpose of this pact.

Section 4 - Compensation for Damages

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.



Section 5 - Previous Transgression

(1) The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as mentioned in section 3, clause - 1a to 1k).

Section 6 - Equal Treatment of all Bidders/ Contractors/ Subcontractors

1. In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor.

2. The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidder(s)/ Contractor(s) / Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitor

1. The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2. The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have access to all Contract documents, whenever required. It will be obligatory for him/ her to treat the information and documents of the Bidders/Contractors as confidential. He/ she reports to the Managing Director, CANARA BANK.

3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.



4. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform the Managing Director, CANARA BANK and recuse himself / herself from that case.

5. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

6. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

7. The Monitor will submit a written report to the Managing Director, CANARA BANK within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

8. If the Monitor has reported to the Managing Director, CANARA BANK, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Managing Director, CANARA BANK has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

9. The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future usiness dealings.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the Managing Director, CANARA BANK.

Section 10 - Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. _____.



2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

5. Issues like Warranty / Guarantee etc. shall be outside the purview of IEMs.

(For & On behalf of the Principal)
Seal)

(For & On behalf of Bidder/ Contractor) (Office
Seal)

Place:

Date :

Witness 1:

(Name & Address)

Witness 2:

(Name & Address)



SPECIFICATION AND METHODOLOGY OF WORK



GENERAL GUIDELINES AND METHODOLOGY FOR REPAIR AND RESTORATION WORK

1. It is advisable that bidder should visit the site to confirm its present status prior to submission of their bid,
2. The contractor shall be fully responsible for carrying out all co-ordination and liaison work as may be required with Electrical Inspector (if required) Civic Agencies (CMDA, Corporation, PWD etc), Fire officer (if required), Police Department, TNEB or any other statutory bodies for implementation of the work.
3. The contractor shall be fully responsible for carrying out all the co-ordination work required with the other contractors as well as with owners system for execution and completion of his work.
4. Concrete shall conform to the requirements mentioned in IS: 456 and all the tests shall be conducted as per relevant Indian Standard Codes. Concrete made with Portland cement shall be carefully cured and special importance shall be given during the placing of concrete and removal of shuttering.
5. Only approved admixtures shall be used in the concrete for the Works. When more than one admixture is to be used, each admixture shall be batched in its own batch and added to the mixing water separately before discharging into the mixer.
6. Admixtures shall be delivered in suitably labeled containers to enable identification. Admixtures in concrete shall conform to IS: 9103. The waterproofing cement additives shall conform to IS: 2645. Bank shall approve concrete Admixtures/ Additives.
7. The Contractor needs to deploy at least one Graduate Engineer at site having minimum five years of experience in similar nature of work
8. All material. Fittings and fixtures shall be of approved make and quality as per list attached. All material brought at site must bear identification mark of the manufacturer.



Rehabilitation Methodology

I. Isolated Repair of RC Columns, RC Beams and RC slab

Stage 1

Remove the damaged concrete portions in the RC columns/beams/slab completely till the reinforcement is exposed from the member carefully with mechanical arrangements and hand chiseling. Clean the surface to remove loose dust/particles.

Stage 2

Application of anti-corrosive coating

Clean the reinforcement and apply the anticorrosive coating like Nitozinc primer (manufactured by M/s Fosroc Chemicals or equivalent). In case the existing rods have undergone 30% loss in diameter, provide additional reinforcement and suitably connect it to the core concrete through shear connectors.

Stage 3

Provision of epoxy jointing compound

Prepare the surface suitably using an epoxy based bond coat like Nitobond EP (manufactured by M/s Fosroc Chemicals or equivalent) so that the repair material may bond well with existing/old concrete. Manufacturer's instructions/specifications are to be followed for the epoxy bond coat.

Stage 4

After the application of the bond coat, Polymer Modified Mortar (Nitobond SBR manufactured by M/s Fosroc chemicals or equivalent) may be prepared as follows:

- Cement and sand (sieved) shall be mixed in the ratio of 1:3 and 1 litre of Nitobond SBR per bag of cement (or any equivalent product) shall be added to the above mortar mix and applied to the primed concrete surface using a trowel. The dosage of SBR shall be 1 litre per bag of cement.

Stage 5

- The surface shall be finished neatly to the required line and length and cured.



II Rehabilitation of corroded slab using micro-concrete jacketing

Concrete jacketing for the slab

1. Strengthening is to be done using micro concrete.
2. Provide cores from the slab of about 77 mm diameter to facilitate the pouring of micro concrete. The depth of core cutting will be depending upon the structural member to be repaired and amount of distress happened on the member

Stages of repair

Stage 1

Remove the damaged concrete portions completely till the reinforcement is exposed from the member carefully with mechanical arrangements and hand chiseling. Clean the surface to remove loose dust/particles.

Stage 2

Anchoring shear connectors into existing slab

1. Shear connectors in the form of 'L-shaped' bars has to be anchored into the existing concrete to ensure integral action of the reinforced concrete jacket portion with the hardened core concrete of the existing beam.
2. Drill holes not less than 75 mm depth (long) into the members from the surface (Perpendicular to the surface) taking care not to damage the existing steel reinforcements in the column. The positioning of the holes has to be staggered along the perimeter and length of the beam.
3. Clean the holes with a jet of compressed air and remove the loose dust particles thoroughly.
4. Use chemical resin type capsules (Lokfix S manufactured by M/s Fosroc Chemicals (I) Pvt. Ltd or equivalent) for anchoring/fixing dowel bars into the holes to serve as shear connectors.
5. Adopt at least 10-mm dia. HSD bars as shear connectors for which 12 mm dia holes may be needed.
6. Provide additional reinforcement in case the existing rods have undergone 30% loss in diameter.
7. The additional reinforcement will be connected to the shear connectors already provided

Stage 3

Application of anti-corrosive coating

Apply the metallic based (preferably zinc based) anticorrosive coating like Nitozinc primer (manufactured by M/s Fosroc Chemicals or equivalent) to the old and new reinforcement after cleaning them.



Stage 4

Provision of Galvanic protection

Provide Galvanic protection system like Galvashield XPI or equivalent as per the design spacing based on the percentage of reinforcement available in the RC elements.

Stage 5

Provision of epoxy jointing compound

Prepare the slab surface suitably using an epoxy based bond coat like Nitobond EP (manufactured by M/s Fosroc Chemicals or equivalent), so that the jacketed concrete may bond well with existing/old concrete. Manufacturer's instructions/specifications are to be followed for the epoxy bond coat.

Stage 6

Provision of water tight shuttering

Suitable shuttering (leak proof) system has to be placed in position for the jacket portion of the member in stages and micro concrete as per specifications has to be placed into the form work of the jacket portion. Care has to be taken so that the micro-concrete used does not flow out of the shuttering.

Stage 7

The preparation of the micro concrete (Rendroc RG manufactured by M/s Fosroc Chemicals or equivalent), placing, compaction and curing for the same should be as per manufacturers specification. The micro concrete may be placed using the 77 mm diameter cores already provided in the RC slab. The micro concrete used for jacketing should have a minimum characteristic compressive strength of 45 MPa at 28 days. Cure the same after removal of the shutter.

Stage 8

After the concrete in the jacket portion of the slab in the particular stage has attained its strength, the props placed for supporting the corresponding beams are to be removed.

III Rehabilitation Methodology for Beam Jacketing

Concrete jacketing for the beams

1. Strengthening is to be done using micro concrete
2. Support the slab which is contributing the load for the beam under rehabilitation.
3. Provide cores from the slab of about 77 mm diameter to facilitate the pouring of micro concrete. The depth of core cutting will be depending upon the



structural member to be repaired and amount of distress happened on the member

Stages of repair

Stage 1

Remove the damaged concrete portions completely till the reinforcement is exposed from the member carefully with mechanical arrangements and hand chiseling. Clean the surface to remove loose dust/particles.

Stage 2

Anchoring shear connectors into existing beam

1. Shear connectors in the form of 'L-shaped' bars has to be anchored into the existing concrete to ensure integral action of the reinforced concrete jacket portion with the hardened core concrete of the existing beam.
2. Drill holes not less than 75 mm depth (long) into the members from the surface (Perpendicular to the surface) taking care not to damage the existing steel reinforcements in the column. The positioning of the holes has to be staggered along the perimeter and length of the beam.
3. Clean the holes with a jet of compressed air and remove the loose dust particles thoroughly.
4. Use chemical resin type capsules (Lokfix S manufactured by M/s Fosroc Chemicals (I) Pvt. Ltd or Equivalent) for anchoring/fixing dowel bars into the holes to serve as shear connectors.
5. Adopt at least 8-mm dia. HSD bars as shear connectors for which 12-mm dia holes may be needed.
6. Provide additional main and shear stirrup reinforcement in case the existing rods have undergone 30% loss in diameter.
7. The additional reinforcement may be connected to the shear connectors already provided

Stage 3

Application of anti-corrosive coating

Clean the reinforcement and apply the anticorrosive coating like Nitozinc primer (manufactured by M/s Fosroc Chemicals or equivalent) to the old and new reinforcement.

Stage 4

Provision of Galvanic protection

Provide Galvanic protection system like Galvashield XPI or equivalent as per the design spacing based on the percentage of reinforcement available in the RC elements.



Stage 5

Provision of epoxy jointing compound

Prepare the beam surface suitably using an epoxy based bond coat like Nitobond EP (manufactured by M/s Fosroc Chemicals or equivalent), so that the jacketed concrete may bond well with existing/old concrete. Manufacturer's instructions/specifications are to be followed for the epoxy bond coat.

Stage 6

Provision of water tight shuttering

Suitable shuttering (leak proof) system has to be placed in position for the jacket portion of the members in stages and micro concrete as per specifications has to be placed into the form work of the jacket portion. Care has to be taken so that the micro-concrete used does not flow out of the shuttering.

Stage 7

The preparation of the micro concrete (Rendroc RG manufactured by M/s Fosroc Chemicals or equivalent), placing, compaction and curing for the same should be as per manufacturers specification. The micro concrete used for jacketing should have a minimum characteristic compressive strength of 45 MPa at 28 days. Cure the same after removal of the shutter.

Stage 8

After the concrete in the jacket portion of the beam in the particular stage has attained its strength, the props placed for supporting the corresponding beams are to be removed.

IV. Complete renovation of bathrooms including waterproofing

Before the renovation of the bathroom, the roof slab of the basement may be grouted as follows:

Grouting with Low Viscous Epoxy Resin

- Drill 13 mm dia holes in to the RC slab concrete surface to a depth of 50 mm
- The spacing of the holes should not be more than 300 mm centre to centre in grid pattern (this call can be taken by the engineer in charge as the distress may be at different locations)
- Clean the holes and wash the same followed by air
- Provide metal based non return nipple and fix the same using Polyester resin Lokfix S manufactured by M/s Fosroc chemicals or equivalent
- Mix the base and hardener of the low viscous epoxy resin Conbextra EP10 or equivalent mechanically using a slow speed heavy duty drilling machine fitted



with mixing paddle. The base and hardener comes in pre-weighed and pre-packed forms and hence should not be part mixed. Pour the entire base and entire hardener followed by mixing as explained above.

- Inject the same using an electrically operated pressure grouting machine until the nipple refuses the grout or the grout comes out of the nearby nipple.
- Continue the operation until all the nipples are grouted.
- Cut the nipple and finish the surface to match the nearby surface

Renovation of Bathrooms

- Remove the existing tiles, brick jelly and bed mortar and expose up to the parent concrete slab.
- Check for cracks, if any, and if so pressure grout the same and close the crack using polymer modified mortar.
- Acid wash and water wash the surface and allow the surface to dry.
- Mix the Part A and Part B of the polymeric water proofing membrane (Brushbond RFX manufactured by M/s Fosroc Chemicals or equivalent) and apply two coats, the second layer after the first one dries up completely.
- Prepare cement sand mortar in the ratio 1:4 with waterproofing liquid (Conplast X421 IC manufactured by M/s Fosroc Chemicals or equivalent) as per the dosage of the manufacturer and apply the same as protective screed to prevent mechanical damage while laying the brick jelly
- Mix and place the lime jelly concrete with jaggery water followed by tapping the brick jelly as per the standard.
- Lay the new ceramic/vitrified tiles with cement sand mortar with waterproofing liquid (Conplast X421 IC manufactured by M/s Fosroc Chemicals or equivalent) at the rate of 125 ml per bag of cement to the required line and levels.
- The plumbing lines shall be done as per standard procedures and requirement and care should be taken to pack the plumbing holes in the brick wall with polymer modified mortar (Nitobond SBR manufactured by M/s Fosroc chemicals or equivalent).

V Recasting of damaged balcony

Stage 1

- Dismantle the damaged balcony completely including the corroded reinforcement

Stage 2

Anchoring shear connectors into existing beam

- The main bars of the balcony have to be anchored into the existing lintel beams to ensure integral action of the balcony with the lintel beam.



- Drill holes not less than 150 mm depth (long) into the members from the surface (Perpendicular to the surface) taking care not to damage the existing steel reinforcements in the lintel beam.
- Clean the holes with a jet of compressed air and remove the loose dust particles thoroughly.
- Use chemical resin type marketed by reputed firms (Lokfix S manufactured by M/s Fosroc Chemicals (I) Pvt. Ltd. or DCP Construction Chemicals Ltd or Equivalent) for anchoring/fixing dowel bars into the holes to serve as shear connectors.
- Adopt at least 12-mm dia. HSD bars as main reinforcement for which 14-mm dia holes may be needed.

Stage 3

Application of anti-corrosive coating

- Apply the anticorrosive coating like Nitozinc primer (manufactured by M/s Fosroc Chemicals or equivalent).

Stage 4

Provision of epoxy jointing compound

- Prepare the lintel beams face suitably using an epoxy based bond coat, so that the concrete may bond well with existing/old concrete. Manufacturer's instructions/specifications are to be followed for the epoxy bond coat like Nitobond EP (manufactured by M/s Fosroc Chemicals or equivalent).

Stage 5

Provision of water tight shuttering

- Suitable shuttering (leak proof) system has to be placed in position for the casting proof the balcony with suitable props.

Stage 6

- The preparation of the concrete of M25 grade, placing, compaction and curing for the same shall be as per standard specification.

V Removal of damaged weathering course and relaying the same in the terraces including the headroom

- Remove the existing damaged pressed clay tiles, brick jelly and bed mortar and expose up to the parent concrete slab.
- Check for cracks, if any, and if so pressure grout the same using micro fine cement and close the crack using polymer modified mortar.
- Acid wash and water wash the surface and allow the surface to dry.



- Mix the part A and Part B of the polymeric water proofing membrane (Brushbond RFX manufactured by M/s Fosroc Chemicals or equivalent) and apply two coats, the second layer after the first one dries up completely.
- Prepare cement sand mortar in the ratio 1:4 with waterproofing liquid (Conplast X421 IC manufactured by M/s Fosroc Chemicals or equivalent) as per the dosage of the manufacturer and apply the same as protective screed to prevent mechanical damage while laying the weathering course, tiles etc.
- Mix and place the lime jelly concrete with jaggery water followed by tapping the brick jelly as per the standard or light weight thermal insulating concrete like Hemalite, with required gradient for the easy flow of water and to avoid the water stagnation.
- Lay the new good quality pressed clay tiles with cement sand mortar with waterproofing liquid (Conplast X421 IC manufactured by M/s Fosroc Chemicals or equivalent) at the rate of 125 ml per bag of cement to the required line and levels.
- Care to be taken to allow sufficient time for the water to evaporate from the insulating system before laying the pressed clay tiles with the cement mortar as per the standards.

