

THE UNITED INDIA INSURANCE COMPANY LIMITED

The Deputy General Manager, R.O. 1

United India Insurance Co .Ltd

Stadium House, 5th floor,

Veer Nariman Road,

Mumbai – 400 020

NOTICE FOR INVITING TENDER.

To

Invitation to Bid for **Proposed External Structural Repairs at Union Co-operative Insurance Building situated at 23, Sir P. M. Road, Fort, Mumbai owned by United India Insurance Co. Ltd.**

This is an invitation to bid from The Deputy General Manager, R.O. 1, United India Insurance Co .Ltd, Stadium House, 5th floor, Post Box No. 977, Veer Nariman Road, Mumbai – 400 020

The bidder is required to go through the tender inquiry document carefully which will form part of the contract. The bidder is expected to quote item rates for various items given in “**SCHEDULE OF QUANTITIES** ” furnish all the information asked for in the bid, sign all the pages and submit the price bid (Tender) in sealed envelope to The Deputy General Manager, MRO.1, United India Insurance Co .Ltd, Stadium House, 5th floor, Veer Nariman Road, Mumbai – 400 020.

United India Insurance Co. Ltd / Consultant reserve right to accept any tender or to refuse any / all tenders without giving any reason for the same for & on behalf of “THE UNITED INDIA INSURANCE CO. LTD”

The Deputy General Manager

Place: - Mumbai.

Date: - 09/05/2021

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A. PROJECT INFORMATION

| | |
|--------------------------------------|--|
| Title | Proposed External Structural Repairs to Union Co-operative Building situated at 23, Sir P. M. Road, Fort, Mumbai owned by United India Insurance Co. Ltd, |
| Location | Fort , Near Hutatma Chowk |
| Nearest Railway Station | Churchgate , CSMT |
| Scope of work | Plaster, Structural Strengthening Plumbing Pipe Line |
| Approximate Cost of work | Rs. 22,30,000/- |
| Consultant/Consulting Engineer | Shri Ramkrishan Kejriwal M/s. Khandeparkar Kejriwal & Associates. 134, Dhirubhai Parekh Marg, Kalbadevi Road, Mumbai – 400 002 |
| Issued of Tender Document on website | 09/05/2021 |
| Last Date of Tender submission | 31/5/2021 till 15:00 |
| Opening of Technical Bid | 31/5/2021 at 15:30 |
| E. M.D. | Rs.22000/- |
| Security Deposit | Rs. 1,00,000/- |

B. TERMS & CONDITIONS

1. Instruction to Bidder:-

Bids shall be submitted in sealed envelope to the following address by completing all the enclosures sent with bid and signing all the pages and E.M.D. Rs. 22000/- (In words Rupees:- Twenty Two Thousand Only (In the name of United India Insurance Co. Ltd.)

Schedule of Quantities for **Proposed External Structural Repairs at Union Co-operative Insurance Building situated at 23, Sir P. M. Road, Fort, Mumbai owned by United India Insurance Co. Ltd.** shall be duly signed along with all the pages of the documents and submitted to:-

The Deputy General Manager, MRO. I United India Insurance Co. Ltd, Stadium House, 5th Floor Post Box No.977 Veer Nariman Road, Mumbai-400 020.

Bid shall be submitted on or before 31/05/2021 till 15:00 at the office address mentioned above.

Bid shall be accompanied with the amount in the form of crossed demand draft towards interest free earnest money deposit as directed in clause No. 3 herein below.

1.1. United India Insurance Co. Ltd. and Consultant will not be responsible for delay on any account in respect of Bid Documents. If any Bid is received after the specified date and time, even if the delay is due to postal or other transit delays or any other reason whatsoever the same is liable to be rejected.

1.2. Telegraphic Bids will not be accepted under any circumstances.

The Bidder shall be submitted the Technical Bid & Financial Bid in Two separate envelop, writing on the envelop

TECHNICAL BID and FINANCIAL BID on the top of the respective sealed envelope must show on outside the name an address of the Bidder.

In additions, the top left hand corner of sealed envelopes should be sub-scribed.

Proposed External Structural Repairs at Union Co-operative Insurance Building situated at 23, Sir P. M. Road, Fort, Mumbai owned by United India Insurance Co. Ltd.

1.3. Bid with no indication on outside to indicate that it is a Bid and which might get opened before the due date and time is liable to be disqualified.

1.4. The Bids shall be opened by the Consultant/United India Insurance Co. Ltd. and bidders will be communicated about outcome by Consultant/United India Insurance Co Ltd. Bidder may be allowed to be present while opening the Bids.

- 1.5. All questions, clarifications, doubts etc. relating to this Bid shall be discussed with consultant before filling and submitting the Bid.
- 1.6. All specifications and documents enclosed with this Bid are the UIICL's property and are to be used only for the purpose of Bidding for the said work.
- 1.7. Bidders shall quote strictly in accordance with the requirements of this invitation to Bid. Bidders shall note that unless any and all deviations they may wish to make from the enclosed specifications, are listed in the "Schedule of Deviations" in section "D" of the Bid Documents it shall be deemed that the bidder has no deviations from stipulations of this Bid documents.
- 1.8. The UIICL and the Consultant do not bind themselves to accept the lowest or any bid and reserves the right to accept or reject any or all Bids or portion thereof.
- 1.9. The Consultant and the UIICL reserves the right to split the work, either at the initial contract awarding stage or even later, without assigning any reason thereof. And will not be liable legally or normally for financial losses or damages suffered.
- 1.10. All rebates, discounts, if any, offered by the Bidder shall be indicated in the Schedule of quantities and shall not be indicated in the forwarding letter.
- 1.11. The Bid shall be valid for a period of 90 days from the date of opening the Bid.

2. Definitions

- 2.1. The UIICL shall mean "**UNITED INDIA INSURANCE COMPANY LIMITED**",
CHURCHGATE, MUMBAI

3. Earnest Money Deposit

- 3.1. Bidder shall pay Earnest Money Deposit of Rs. 22000/- in the form of crossed demand draft drawn in favour of **UNITED INDIA INSURANCE COMPANY LIMITED** . E.M.D. to be enclosed with Technical Bid envelope.

3.2. Earnest Money deposit will be returned to the Bidder in case his bid is not accepted. The deposit amount shall be adjusted towards initial security deposit in case of successful bidder. No interest will be paid on Earnest Money deposit in any case.

3.3. The bid will be rejected if earnest money deposit is paid in any form other than Demand Draft/Pay order.

4. Security Deposit and Retention

4.1. A security deposit in the form of DD/Bank Guarantee of Rs. 1,00,000/- shall be deposited by the successful bidder before start of work. The Security deposit shall be returned to the bidder on issue of Virtual Work Completion Certificate by the Consultant.

4.2. 5% amount of every running account bill will be deducted as Retention and the same will be released/returned to the contractor only after the expiry of defects liability period of 1 year from the date of virtual completion subject to condition that once the defects, if any, are rectified by the contractor to the satisfaction of the Consultant/UIICL.

4.3. No interest on Security Deposit and Retention will be paid at any stage whatsoever.

5. Defects liability Period

5.1. Defects liability period for capitalized goods such as furniture, utensils etc. would be as per warranty of respective furniture. Defects liability period for repaired work shall be one year from the date of Final Completion Certificate.

6. Payment Mode of Payment

6.1. All such interim payments shall be made for work actually done and completed and shall not preclude the right of the UIICL and The Consultant from getting bad, unsound and imperfect or unskilled work to be removed and reconstructed by the contractor.

6.2. Period of honoring interim certificate shall be 30 days after certification of measurement and bill by the Consultant.

6.3. The UIICL shall deduct T.D.S. from the payment of each running bill as per the prevailing Income Tax Law. However, Sales Tax, Purchase Tax, VAT Tax, Work Tax, Turnover Tax etc. if any, shall be the liability of the contractor.

7. **Terms and Completion**

7.1. Time is the essence of contract and contractor shall complete the entire work in 7 months from the date of issue of letter of intent.

7.2. **Penalty:** A penalty of Rs. 1000.00 per day will be levied upon contractor for the duration of work beyond the allotted 7 months and agreed extension time.

8. **Item Rate Contract:**

8.1. Methods of measurement will be as per IS 1200 unless otherwise noted. Consultant's decision will be final and binding on the contractor regarding method/mode of measurement.

8.2. No escalation in rates will be permitted. Under no circumstance will the UIICL agree to escalation in the rates quoted and no claims on this account for whatsoever reason will be entertained at any stage.

8.3. Contractor shall appoint a qualified experienced supervisor at site who shall execute the work to the full satisfaction of the UIICL and the Consultant

9. Contractor must ensure that fair wages are paid to the labour engaged by him in accordance with the current labour laws of the state. The contractor shall be responsible for compliance with all labour laws and keep the UIICL indemnified against any claim in this regard.

10. The rates of extra items, if any shall be derived on the basis of similar items in Schedule of Quantities. If any particular item is not similar in nature the rate shall be derived by actual labour, material cost and 20% thereof to cover overhead and profits. Such cost to be certified by the Consultant in consultation with the UIICL.

11. Contractor shall mobilize on site all machinery and equipment such as Guniting equipment, welding equipment or any other special process equipment at his own cost. If any special equipment is requested by the consultant, it will have to be provided by the Contractor at the site, at his own cost for all plastering work and concreting etc. The mixer machine shall be used to get the homogeneous material.

12. The quoted rates shall be inclusive and cover the cost of materials, freight, all types of taxes, duties, levies, royalties, erection, construction, testing of materials, samples brought for approval, tools and tackles, plant and equipment, labour, supervision, overhead and profit and any other expenditure incurred for completion of work as per drawing, specifications and to the full satisfaction of the UIICL/Consultant.
13. The steel /wooden props of any size and length, scaffolding etc. shall be provided free of charge wherever required before/ during the execution of work.
14. The quoted rates shall include cost of lighting, security of contractors materials and equipment.
15. The work shall commence within one week of issue of letter of intent.
16. Contractor shall bear in mind that he will have to carry out certain the work at the site. He shall take utmost care to see that:
 - a. Working area kept clean
 - b. Hessian cloth curtains are hanged over each window and over scaffolding.
 - c. Contractor has to organize the work and dump the material in such a way that moveability and convenience inside and out side the building is not disturbed during the execution of the work.
 - d. No inconvenience /nuisance is caused.
17. The Contractor must visit the site of work regularly and see for himself conditions regarding all matters related to performance of his duties and the quality of work being performed.
18. The Consultant, his representative and the UIICL shall at all times have free access to the works and/or to the workshops/factories or other places where materials are being prepared for the contractor and also to any place where the materials are laying or from which they are being obtained, the contractor shall give every necessary facility to consultant and the UIICL for inspection and examination and test of the materials and workmanship to the extent of discontinuing portions of the work temporarily or of uncovering or taking down portion of finished work, at contractor's cost.
19. The contractor shall be responsible for disposing the debris out side the UIICL premises on regular basis. He shall not dump the same on road/garbage's dumps in the area. He shall be responsible to attend the complaints that might arise from improper disposing the material. The contractor shall also ensure that after finishing every days work, the place

shall be kept clean free of debris especially inside house, or in the corridors, open yards staircase, such that members are not inconvenienced.

The saleable scrap of C.I. pipes and fittings etc. shall be the owners' property and the contractor shall store the same at the location as directed by the owner/ consultant. The contractor shall maintain a record of the said material along with the owners' representative.

20. The rates quoted shall be valid for working at all heights and depth. No extra payment shall be made for scaffolding, centering, ladder, for transportation of labour and material to higher / lower levels, etc.
21. The item rate specification are indicative and the UIICL / Consultant reserves the right to increase decrease quantity of the item or to add/delete any item in totality. The contractor shall not claim any compensation in lieu of charges of quantities as stated above.
22. In case any dispute or difference shall arise between the UIICL and Consultant on the one hand and the contractor on the other hand concerning this contract or the construction, meaning, operation or effect thereof or of any clause herein contained of as to the rights, duties, liabilities of the parties hereto respectively or of the consultant under or by virtue of these presents or otherwise or touching the subject matter of these presents or arising out of or in relation thereto (except as to matters left to the sole discretion of The UIICL/Consultant) the same shall be referred to arbitration of a single arbitration in case the parties can agree one, otherwise to two arbitrators before entering upon the reference & in either case in accordance with & subject to the provisions of the Indian Arbitration Act, 1996 or any statutory modification or re-enactment thereof for the time being in force.
23. Contractor will be allowed to carry out his activities only during 9.00 am to 6.00 P.M or any other time as per the prevalent guidelines/restrictions issued by the competent authority at the place of work. He shall not be allowed to carry out work during extended hours.
24. Contractor shall discuss with Consultant/The UIICL and prepare detailed bar chart for progress and completion of work.
25. Taking permission from all the competent authorities (i.e. BMC, Water Department, BEST etc.) will be taken by the contractor. Deposits if any will be paid by the UIICL separately. No time extension shall be granted for such activities.
26. The contractor shall indemnify UIICL, against any liability, directly or third party, incase of an accident during the execution of work.

27. No idling charges shall be paid to the contractor for labour and equipment under any circumstances.
28. No labour is allowed to stay in the premises except one watchman/curing man for security of contractor's material.
29. Only one place in the premises shall be given for storage of cement, paint and other costly materials if any and for erection of temporary shed and storage of the same.
30. Holes made in the walls or slabs to support access scaffolding shall be sealed with rich cement and brick bat/concrete to consultant satisfaction Contractor shall erect double bamboo scaffolding or steel tubular scaffolding. He will be allowed to take lateral support by fixing expansion anchor bolts in the structure or by other means with prior permission of the Consultant.
31. The contractor shall indemnify UIIC, against any liability, directly or third party, incase of an accident during the execution of work.
32. No idling charges shall be paid to the contractor for labour and equipment under any circumstances.
33. No labour is allowed to stay in the premises except one watchman/curing man for security of contractor's material .

35. **SAFETY ASPECTS**

Safety Provision:

The contractor shall take full responsibility for the adequate stability and safety of all site operations and methods of constructions, subject to provision of expected risk and special risk.

The contractor shall at his own expenses arrange for safety in his operation as required. General safety provision shall be as per latest safety manuals published by Indian Standard Institution, Statutory Rules, Regulations and Provisions of Contract conditions. In case the contractor fails to make such arrangements, the consultant or Owner's

representative shall be entitled to cause them to be provided and to recover the cost thereof from the contractor.

The contractor shall submit to the Consultant or Owner's representative a detailed proposal covering safety measures he proposes to adopt at the site. After approval he shall ensure that the copies of approved proposals are given to the person concerned to implement these measures with instruction that same should be adhered to strictly.

Breach of Safety Requisition

Persistent breaches of the safety provisions by the contractor and his employees shall constitute a sufficient cause of action to be taken under clause regarding "Default by contractor.

INSURANCE

Insurance of work:

The contractor shall insure in the joint name of the Owner and the contractor the following.

- a) The work at the contract price together with the materials for incorporation in the works at their replacement value.
- b) All plant and equipment and other things together brought to the site by the contractor at their replacement value.
- c) The insurance shall be against all losses or damages from whatever causes, other than expected risk for which the contractor is responsible under the contract. The insurance cover shall be for entire period of contract and for any loss or damage occasioned by the contractor in course of any operations carried out for the purpose of complying with his obligations under mentioned clause. Such insurance shall be effected with an insurer and in terms approved by the owner, and the contractor shall, wherever required, produce the policy or policies and the receipts of payment covering the premises of the current premium.

Third Party Insurance

Before commencing the execution of the works, the contractor shall his liability of any material or physical damage, loss or injury which may occur to any property and person/s

including any employee of the owner, resident of the building and consultant and their representative, by arising out of execution of works or in carrying out of contract. Such insurance shall be effected with an insurer and in terms approved by the Owner. The contractor shall whenever required produce to the owner the policy or policies of insurance of premises and the receipts for the payment of the current premiums.

Insurance Against Accidents to Workmen

The UIICL shall not be liable in respect of any accident or injury to any workmen or the other persons in the employment of the contractor. The contractor shall insure against such liability with an insurer approved by the owner. A copy of such insurance should be submitted to the UIICL before commencement of work.

Period of Policies

All the Insurance covers mentioned above shall be kept alive during the complete period of the contract including defect liability period.

Remedy on Contractor's failure to Insure.

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

C. GENERAL SAFETY CONDITIONS

- (i) Adequate H – type frame work (or double – scaffolding) shall be provided for workmen for all work that can not done from the ground, or from solid construction. When a ladder is used, an extra worker shall be engaged for holding the ladder, and if the ladder is used for carrying the materials as well, suitable footholds and handholds should be provided.
- (ii) Scaffolding or staging more than 3 meters above ground or floor, swung or suspended from an overhead support or erected with stationary support, shall have a guard rail (1 meter high) properly attached bolted, braced.
- (iii) Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and be suitably, fenced, as described above.
- (iv) Every opening in the floor of building or in working platform shall be endorsed with suitable means to prevent fall of person or materials by providing suitable fencing or railing with minimum height of 1 meter.
- (v) Safety means of access shall be provided to all working platforms and other working places and every ladder shall be securely fixed.
- (vi) Adequate precautions shall be taken to prevent danger from electrical equipment and any other equipment.
- (vii) No materials on any of the sites shall be so stacked or so placed as to cause danger or inconvenience to any person or the public endanger to life and property.
- (viii) The contractor shall provide all necessary fencing and lights to protect public from accidents He shall be bound to bear expenses of defiance of every suit action or other proceedings at law that may be brought by any person for injury sustained arising out of accidental or negligence by contractor and/or their property and to pay any damages and cost which may be awarded in any such suit, action or proceeding to any such, person or persons which may with the consent of the contractor be paid to person/s arising out of compromise between two such parties.

(ix) Excavation and Trenching: All trenches, 1.5m or more in depth, shall at all times be supplied with at least one ladder for each 30m in length or fraction thereof. Sides of the trench, which is 1.5m or more in depth shall be stepped back to give suitable slope, securely held by timber bracing, so as to avoid the danger of sides collapsing. Excavated material shall not be placed within 1.5m of the edge of trench or half of the depths of trench or half of the depth of trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances shall undermining or under cutting be done.

(x) Before any demolition work commences and also during the process of the work:-

(a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.

(b) No electric cable or apparatus, which is liable to be the source of danger, shall remain electrically charged.

(c) All practical steps shall be taken to prevent danger to persons employed from risk, or fire or explosion or flooding. No floor, roof or other parts of a building shall be so overloaded with debris or materials so as to render it unsafe.

(xi) All necessary personal safety equipment as considered adequate by Owner/Consultant and their representative shall be available for use of persons employed on site.

(xii) Electrical Safety

a) These shall be of good mechanical construction, sound material and adequate strength and free from latent defects and shall be kept in good working order.

b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from latent defects.

(xiii) Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to following.

a) These shall be of good mechanical construction, sound materials and adequate strength and free from latent defects and shall be kept in good working order.

- b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and from latent defects.
- (xiv) All scaffolds, ladders and other safety services mentioned or described shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use.
- (xv) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to inspection to Owner/Consultant and their representatives.
- (xvi) Not with standing the above conditions (i) to (xv) the contractor is not exempted from the operations of any other Act or Rule in force at the time of signing this agreement and during its execution.

Signature of the Contractor With Company's Seal

Dated:-

D. SPECIFICATION FOR MATERIALS

| | | |
|-----------------------------|---|--|
| CEMENT | : | ACC SUREKSHA/ PPC CEMENT OR ULTRATECH PPC OR AMBUJA PPC |
| SAND | : | GODHARA SAND/ SPECIAL GRADED FLY ASH FROM SURAT/ WASHED RIVER SAND |
| WATER | : | POTABLE WATER |
| EPOXY FOR REPAIRS | : | HUNTSMAN/ DR. FIXIT |
| RUSTREMOVER | : | RUST REMOVER OF DR. FIXIT/ RUST REMOVER OF PERMA /SUNANDA |
| POLYMERS FOR REPAIRS | : | SUNANDA CHEMICLE |
| QUARTZ FOR REPAIRS | : | 10 NO. FINE, 16 NO COARSED AS AVAILABLE IN MARKET (VARIETY PLYWOOD AT DADAR.) |
| ADDITIVES FOR PLASTERING | : | CEBEX 112, CONPLAST WL |
| METAL RED OXIDE | : | AISIAN, NEROLAC |
| CEMENT PAINT | : | SNOWCEN OF KILLICK NIXON |
| ACRYLIC PAINT | : | ASIAN APEX/ DR. FIXIT /I.C.I.C.I |
| ACRYLIC DISTEMPER | : | ASIAN, NEROLAC, DR. FIXIT |
| SYNTHETIC ENAMEL | : | ASIAN, NEROLAC, DR. FIXIT |
| GI WATER LINES | : | TATA MAKE “C” CLASS |
| TEXTURE | : | PRINCE/ SUPREME |
| A.C. MACHINES | : | VOLTAS |
| ELECTRICAL WIRING VALVES | : | POLYCAB VERTSILA/ ZOLOTO |

E. SCHEDULE OF DEVIATIONS FROM TERMS AND CONDITIONS

All deviations from the terms and conditions shall be filled in by the Bidder clause by clause in this schedule.

| Section | Clause No | Deviation |
|---------|-----------|-----------|
|---------|-----------|-----------|

The Bidder hereby certifies that the above mentioned are the only deviations from Terms and conditions of contract.

Signature.....

Designation

Company

(COMPANY'S SEAL)

F. PRE-BID QUALIFICATION

Special Instructions for Bidders

- 1) EMD in separate small envelop
- 2) Copy of Pan Card to be attached
- 3) Service Tax, Code No is to be given
- 4) Sale Tax No, Vat No is to be given
- 5) Third party Insurance & labourers Insurance
(It is to be submitted after allotting the work to the contractor)
- 6) Solvency Certificate of Rs.50,00,000/-(Fifty Lakhs only)
- 7) Three years Balance Sheets & Income Tax return papers
- 8) Profile of the company
- 9) Organization Chart (List)attached
- 10) Certificate of clients or architect to be attached of similar nature
- 11) List of Machinery and equipment

- 12) Work in hand of similar nature

- 13) Bankers details

- 14) Nature of company (Proprietary, Partnership or Limited)

Note: EMD in first envelop, Technical bid in second envelop and price bid in third envelop and all the three envelops shall be submitted in one big envelop. Write on the three envelop EMD, TECHNICAL BID AND FINANCIAL BID along with the name of the firm and address. In addition the forth/big envelop must be sealed with all the three envelops and sub-scribed **Proposed External Structural Repairs at Union Co-operative Insurance Building situated at 23, Sir P. M. Road, Fort, Mumbai owned by United India Insurance Co. Ltd.**

G. SPECIAL CONDITIONS AGREED BY THE CONTRACTOR

1. Water and Electricity will be supplied free of charge and contractor shall have to make his own arrangement for storing water.
2. Contractor will manage all the B.M.C. matters except official charges if required.
3. Labourers will be allowed to stay onsite with due permission of the society.
4. Work shall be completed within stipulated time period of 6(Six) month.
5. No advance will be given.
6. Labourers insurance will be taken by the contractor and will be submitted the certified copy to the society and architects office.
7. All the taxes will be paid by the contractor which are applicable or which will be applicable. (Rates are inclusive of taxes)
8. Extra item rates will be decided by the architect on the following manner.
Material + Labour + 5% administrative + 15% profit.
9. Any damages during the execution of work shall be made good by the contractor at this cost.
10. The contractor will keep a full time supervisor on site who will be responsible and can receive the instructions of the architect.
11. The contractor will prepare the Bar Chart for progress of work and also give expenditure per month.

12. No work shall be done without prior permission of the Architect/ Managing committee.
13. Cement will be used of L & T or Ambuja (43 grade & 53 grade for concreting)
14. River sand will be used.
15. Mode of measurement will be as per the specification of P.W.D. or I.S.S.
16. Any specification not given shall be as per the instructions of the Architects or as per the P.W.D. specification (RED BOOK)
17. Society reserve the right to delete any item or reduce the quantum of work which is given in tender fro which no claim will be entertained or no escalation will given for that.
18. 10 years guarantee for waterproofing will be given by the contractor.
19. Debris will be removed from site for which no extra charges will be paid.
20. All pipes shall be of I.S.I.
21. No escalation will be allowed due to any condition whatsoever.
22. Contractor is advised to study the tender documents in details before filling the tender.
23. Adequate H type form work (double scaffolding) to be provided.

H. METHODOLOGY

Methodology for Structural Repairs to R.C.C. Members by Polymer –Mortar Method.

CASE 1- Column upto bottom of ceiling - slab

The following steps to be followed.

1. Adequately prop up the beams supported on the said column as per the consultant's site instructions.
2. Remove all the loose materials by small chisel and small hammer.
3. Remove the exposed binding wires.
4. Remove the rust & scales off the existing re-bars by means of suitable mechanical tools.
5. In case of heavy corrosion, the scales to be removed by applying Rust remover and thereby cleaning the entire surface with a clean jet of water within 10 to 15 minutes of application.
6. Finally clean the surface by vacuum cleaner/blower/water jet.
7. All the site – engineers/supervisors must be ensured that all loose materials are entirely removed and all the re-bars are free of rust/scales.
8. Coat the existing re-bars by applying rusticide.
9. If required, provide and tie new re-bars as per the Consultant's instructions. Somewhere a new re-bars may have to be welded to the existing re-bar. At some places, new re-bars may have to be drilled inside existing concreted and anchored by **ANCHORSET –SN 1** (Polyester Resin Based Rapid Anchor Grout)

10. (A) After 24 hours apply first coat of POLYALK FIXOPRIME and cement slurry in the weight ratio 1:1.25 to the steel.
(B) After 4-6 hours apply second coat of POLYALK FIXOPRIME and cement slurry in the weight ratio 1:1.25 to the steel.
11. Apply bond coat mixed with cement ratio of 1:1 by volume over the entire concrete & steel surface receiving polymer modified treatment immediately.
12. Polymer – Mortar to be prepared in following proportion.
Polymer: Cement: Quartz Sand.

1 : 5 : 15

Water : 1 to 1.5 liters if necessary

Note: If other chemicals are used, contractor is advised to follow the steps and specification as per the manufacturers and the copy of the same to be supplied to the consultant.

1. Apply the Polymer –modified mortar by hand jobbing on the bond coat. Finish the treated area with a float for final finish.

2. Curing (General Description)

This is a very important process and it should start as early as possible. Finishing time has to be curtailed. Water –curing to be started at the earliest (say within two hours) and as soon as bleed water vanishes, initially by sprinkling water and later by usual methods (by covering with wet hessian cloth, by covering with wet gunny bags, by hoses) continuously for 4 days throughout 24 hours a day and 14 days in case of R C Cparadi /chajja recast.

If water – curing is not possible as mentioned above, use Curing compound CURAID –SN 1 on finished surfaces within 2 hours in one direction. Next day sprinkled water. Some patches may absorb the water. Then after spray CURAID SN 1 to the complete surface at right angle to the direction of first spray. Ensure that the CURAID film is properly formed.

The curaid –film to be kept for 4 days. In case of any further work of P O P, painting etc. the curaid –film to be completely removed by scrapping for proper bonding of new work to the existing surfaces.

CASE II – BEAM

The following steps to be followed.

1. Adequately prop up all the portions of the slabs supported on the distressed portion of the said beam, as per the Consultant's instructions.
2. Then follow the step nos. (2) to (13) as mentioned above for Case I

CASE III – SOFFIT OF SLABS

The following steps to be followed.

1. Prop up the surrounding portion of the said slab, which is in good condition.
2. Then follow the step nos. (2) to (13) as mentioned above for Case I

Case IV – Pardis of Lift Well

The following steps to be followed.

1. Erect scaffolding in the Lift well on all the four sides.
2. Then follow step no. (2) to (8) as mentioned above for Case –I
3. Fix 20/22 gauge annealed wire mesh with clips as directed by the Consultant.
4. Then follow steps nos. (10) to (13) as mentioned above for Case I

Methodology for internal Neeru finish Plaster

The following steps to be followed.

1. Follow steps nos. (1) to (3) as mentioned in Enclosure No. 2
2. Apply one coat of Cement: Sand plaster in proportion of 1:3
3. Add 80 ml of Polymer to 1 bag of cement

4. Curing to be done as mentioned in step No. (13) of Enclosure No.1
5. The plastered surface to be finished with neeru.

Methodology for External Sand face plaster

The following steps to be followed.

1. Remove all Box Grills, plain grills & weather shed carefully and neatly stack for re-fixing later.
2. All windows shall be covered with good quality ply wood.
3. Remove old plaster area without damaging the internal brick work, drainage, rain water pipes or windows etc. Care shall be taken to ensure that the debris does not fall on passer bys' and is neatly stacked and disposed.
4. Apply coat of Polymer mixed with cement in the ratio(1:1) at the junction of Brick work and R. C. C. members around joints of B W and pipes to a width of 50 mm and specified thickness with grouting nipples.
5. Adequate watering and cleaning should be done before starting of new plaster.
6. Sand face plaster 25mm thick in 2 coats done in 1:3 proportion. First coat of 15mm thick and second coat of 10mm thick is applied. Mix shall be added with plasticizer and water proofing compound of renowned Company.
7. Proper mixing of all materials shall be ensured by using mechanical mixer
8. Plywood shall be removed and window frames cleaned as well as Box Grills re-fixed without any damages.
9. Curing shall be carried out as specified in Enclosure 1 Step No. 13 of Case I.

INJECTION GROUTING TO HONEY COMBED/DAMAGED CONCRETE

STEP NO. 1 : IDENTIFICATION OF DISTRESS AREA:

- a) Identify the areas which require injection grouting in presence of consultants representative.
- b) Open out the existing plaster finish (Item shall include for the breaking of plaster.)
- c) Remove all loose, damage concrete by means of small chisel and light hammer. Ensure for the necessary propping required (if any) before removal of damaged areas.
- d) The damaged area of concrete only shall be repaired as under.
- e) Remaining opened out areas shall be finished with plaster as per specifications. (This shall be paid separately).

STEP NO.2: PROVIDING AND PLACING INJECTION NIPPLE:

- a) Drill the holes of 12 mm diameter for depth upto 30 mm to 50 mm inside the damaged or honey combed concrete areas at spacing as instructed by consultants.
- b) The structural repairs then shall be carried out as per enclosure No.1 (This shall be paid under respective items separately).
- c) Clean the holes by blast of air or by jet of water.
- d) Insert the P.V.C or aluminium nipples into predrilled holes and seal peripherally by “M-SEAL”.
- e) After 24 hours, inject the “POLYMER CEMENTACEOUS SLURRY MIX” in the proportion as under into the nipples, at a pressure of 2kg/cm² using gun pumps of capacity not less than 30 PSI.

“POLYMER CEMENTACEOUS SLURRY MIX”

1 kg of “POLYMER EP”

3 kg of “CEMENT”

2 liters of “WATER”

Methodology for Waterproofing on Terrace slab/ Over Lift Machine room

The following steps shall be followed.

1. Supports to be provided wherever necessary as per the consultant's instructions
2. Remove all the bitumen, tar, mastic, IPS finish, china-mosaic-chips (if any) brick bat coba etc. by small chisel and small hammer.
3. Breaking should not be done with Compressor or Pneumatic Hammer.
4. Repair all the structural –distress of the slabs from bottom as well as to by polymer – mortar as mentioned in the enclosure No.1
5. Clean the surface by vacuum cleaner blower/water –jet
6. Apply 1st coat of mixture of polymer mixed with Cement with some water (for workability)in the ratio of 1:1 to the surface.
7. Allow 1st coat to dry 4-5 hours and apply second coat perpendicular to the previous coat.
8. Leak testing shall be carried out for at least Five days by ponding method to ensure that the slab is water proof.
9. If, leakages found in any portion below the slabs, the same shall be rectified and retested without any additional cost.
10. Brick bat coba work should be done giving proper slope to the rainwater drains.
11. Filling joints of Bricks bat coba with M 15 plain cement concrete and curing as outlined in steps No. 13 of Enclosure No. 1
12. Final coat of I.P.S. of 50mm avg. thickness to be done with panel of 1m x 1m on the top over new brick bat done OR
13. Laying of China Mosaic Chips as directed by the Consultant.