BANK'S REQUIREMENTS

1. Objective

The objective of the contract is **Exterior Waterproof Painting Works of CO-BANK Towers of Kerala Bank, Thiruvananthapuram** (inclusive and without limiting,) the maintenance and removal of the Temporary works) and the rectification of defects appearing in permanent works in the manner and to the standard and within the time stipulated by the contract. In full recognition of this objective, and with full acceptance of the obligations, liabilities and risks, which may be involved, the contractor shall undertake the execution of the works.

2. GENERAL

- 2.1. The Works shall be done in accordance with Bank's Requirements and the other requirements of the Contract.
- 2.2. The Works shall be executed to the highest standards available using proven up-to-date good Engineering practices. The Specification shall in any case not specify standards which, in the Engineer's opinion, are less than or inferior to those described in the Technical/Maintenance Specifications contained in the Tender Documents.

3. SCOPE OF WORKS

- 3.1. The contractor will execute the work i.e. "KSCB/AMD/HOPAINT/2024-25 Exterior Waterproof Painting Works of CO-BANK Towers of Kerala Bank, Thiruvananthapuram". The contractor shall prepare the work method statement, programme bar chart, Quality control and safety Assurance plan for the approval of Bank as per requirement.
- 3.2. The above work shall be carried out with contractors' own material and labour as per the specifications and drawings.
- 3.3. The brief scope of work is mentioned in BOQ and as per requirement. The work under this contract shall consist of, but not limited to, all materials, labour, Equipment's tools, plants and necessary machinery as required to completely execute the entire work.
 - a. Scope includes Cleaning, Surface preparation, Repairing and Sealing of joints, repair of cracks, repair of weak plastering surfaces, sealing of window frame sides etc. in Co-bank Tower. Exterior walls of all heights and all levels as per specifications and instruction of Bank (Cost of the work includes in item no 1 of BOQ)
 - b. Providing and painting with waterproof coating/painting in Co-bank Tower's External walls of all heights and all levels including scaffolding, rope ladder, scissor lift/boom lift, Chisel, hammer, trowels and all necessary equipment's and consumables etc. as per the technical specifications. (Cost of the work includes in item no 1 of BOQ)
 - c. Scope includes providing and painting with surface paint as per the technical specifications. (Cost of the work includes in item no 1 of BOQ)
 - The contractor shall submit the DFT thickness of the waterproof coating on request by the Bank. (Cost of the work includes in item no 1 of BOQ)
- 3.4. Proper taking over and handing over of site has to be done before and after the work.
- 3.5. All procedures such as WAP (Work Access Permit), JOB card and PTW (Permit to Work) procedures has to be followed by the contractor representatives. Contractor representatives should ensure smooth coordination in seeking all required permissions to work at all floors during both Revenue operation time and non-revenue operation time.
- 3.6. All the staffs, Engineers and laborers should wear ID cards

- 3.7. The work shall be carried out in day/night, revenue/ non-revenue hours as per site requirement and nothing shall be paid extra on these accounts. The contractor has to plan his work accordingly. The work shall be carried out with all safety precautions. The contractor shall ensure all his workers shall have Personal Protective Equipment"s (PPE"s) at his cost (not to be charged to the worker) and ensure safety at site.
- 3.8. The contractor should plan & execute the work in such a way that the work proceeds smoothly without affecting the employees/visitors during Revenue operation hours to the satisfaction of the Bank.
- 3.9. Any unforeseen civil works related to the work Exterior Waterproof Painting Works of CO-BANK Towers of Kerala Bank, Thiruvananthapuram.
- 3.10 Any other item of work as may be required, to be carried out as per CPWD Specifications, for completing the job in all respects in accordance with the provisions of contract and to ensure the structural stability and safety of the work during and after maintenance.
- 3.11 The scope includes providing all safety measures i.e. PPEs (personal protective equipments), lightings, temporary signage (Work in progress) and warning boards etc. and the contract price is inclusive of all this and no separate claim will be entertained.
- 3.12 Clearing site after completion of work and handing over of all the works, as specified and directed by Bank
- 3.13 Damage caused to properties of Bank if any, during execution of above work shall be rectified by the contractor at his cost failing which the cost of rectification shall be Recovered at market cost of such items from the next Bill / Final Bill of the work contract.
- 3.14 Time period is **75 days** from the stipulated date of issue of work order.
- 3.15 The value of work shall be on items of rates accepted on BOQ. Letter of acceptance subject to such additions there to or deductions there from as may be made under the provisions of the contract.

3.10 Specifications:

<u>CPWD Specifications, USSOR specifications Vol 1 and Vol 2, IS codes, ASTM</u> are applicable in this contract

Technical Specification of painting materials.

S.No.	Material	Specifications	
1	Cleaning	i. Surface should be free from any loose paint, dust, grease, loosely held plaster, powdery residue etc. It is recommended to use intense wire brushing or abrasive sand papers or sand blasting or high-speed water jet for thorough cleaning. Any previous growth of fungus, algae or moss needs to be removed thoroughly by vigorous wire brushing and cleaning with water	
2	Repairing of plastering surface and cracks	 i. Asian paints Smart Care Crack Seal or Equivalent material to be used for cracks upto 3mm ii. The plastered surface must be checked for its soundness using small hammer iii. Open the cracks and widen the cracks to form a 'V' shaped groove. This will provide a strong base for adhesion of Crack Sealing material to the substrate. iv. Clean the area thoroughly to free it from 	

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		vi.	dust and loose particles It is recommended to use a cutter or chisel with hammer for opening the cracks Crack Seal can be applied with either putty knife or trowel Asian paints SmartCare Hybrid PU Sealant or Equivalent material to be used for cracks above 3mm
3	Repairing at Junctions/corners/repair of structural members	i.	Asian paints Smart Care Polymer modified repair mortar or equivalent materials shall be used.
		i.	Asian Paints SmartCare Damp Proof Ultra or Equivalent
	Waterproof coating/painting	ii.	No. of Coats: 2
		iii.	DFT Thickness: 200 to 250 microns
4		iv.	Fiber Reinforced Elastomeric liquid, Formulated with PU hybrid polymers and reinforcing polymers (Volume of solids = 50 % to 60 %
		V.	Colour: As per directions of engineer-in charge in required shades
		vi.	Favourable temperature of surface at the time of application 5 degree to 35 degree celsius
		vii.	Hard dry time: Within 6 to 8 hours of application on standard temperatures of 30 degrees Celsius
		viii.	Percentage thinner to be used as per instruction of engineer incharge based on method of application
		i.	Asian Paints Ultima Suprema or Equivalent
5	Final surface coating/painting	ii.	100 % acrylic smooth emulsion with silicon additives
		iii.	Water based with good anti algal resistance
		iv.	Colour: As per direction of engineer incharge in required shades
		No. o	f Coats: 2
6	Measurement		urement for work will be done for the actual ce area painted

For other details please see Bill of Quantities.

4. STRUCTURES

The works will have to be planned in such a manner that they do not obstruct or interfere with existing roads and other utilities. Where work is required to be carried out at locations adjacent to such roads, utilities, structures, monuments etc. suitable safety and protection arrangements will have to be ensured for which nothing extra will be payable. It should be ensured that no damage is caused to any such element and Bank shall be indemnified against such damage at no extra cost.

5. REFERENCE TO THE STANDARD CODES OF PRACTICE

All Standards, Technical Specifications and Codes of practice referred to shall be latest editions including all applicable official amendments and revisions. The Contractor shall make available at site all relevant Indian Standard Codes of practice and IRS&IRC Codes as applicable.

Wherever Indian Standards do not cover some particular aspects of maintenance, relevant British, German Standards will be referred to. The Contractor shall make available at site such standard codes of practice.

In case of discrepancy among Standard codes of practice, Technical specifications and provisions in sub clauses in this NIT, the order of precedence will be as below:

- i) Provision in NIT
- ii) Bank's Requirements
- iii) Technical Specifications,
- iv) CPWD specifications
- v) USSOR specifications Vol 1 and Vol 2
- vi) Indian Standard Codes of Practice.
- vii) ASTM

In case of discrepancy among Standard Codes of Practice, the order of precedence will be IRS, IRC, IS, BS, DIN

As regards errors, omissions and discrepancies in Specifications and Drawings, relevant clause of Special Conditions of Contract will apply.

5.1 The Contract shall utilise the SI system of units. Codes and Standards in imperial units shall not be used unless the Engineer has given his consent.

6 DIMENSIONS

- 6.1 Conversion between metric units and imperial units shall be in accordance with the relevant Indian Standards.
- The levels, measurements and other information concerning the existing site as shown on the conceptual/ layout drawings are believed to be correct, but the Contractor should verify them for himself and also examine the nature of the ground as no claim or allowance whatsoever will be entertained on account of any errors or omissions in the levels or strata turning out different from what is shown on the drawings.

7. STANDARDS

- **7.1** Equipment, materials and systems shall be designed, manufactured and tested in accordance with the latest issue of International and/or National codes and standards.
- 7.2 Reference to standards or to materials and equipment of a particular manufacturer shall be regarded as followed by the words "or equivalent". The Contractor may propose alternative standard materials, or equipment that shall be equal to or better than those specified. If the Contractor for any reason proposes alternatives to or deviations from the specified standards, or desires to use materials or equipment not covered by the specified standards, the Contractor shall apply for the consent of the Engineer. The Contractor shall state the exact nature of the change, the reason for making the change and relevant specifications of the materials and equipment in the English language. The decision of the Engineer in the matter of quality will be final
- 7.3 The Contractor shall establish and maintain a Quality Assurance System in accordance with these Bank's Requirements for design and maintenance procedures and the interfaces between them. This Quality Assurance system shall be applied without prejudice to, or without in any way limiting, any Quality Assurance Systems that the Contractor already maintains.

8. SITE INFORMATION

8.1 Work Site

- 8.1.1 The project site is located in the following CO-BANK Towers of Kerala Bank, Thiruvananthapuram
- 8.1.2 The Contractor shall plan his works keeping in view restriction of approach and availability of space and time.

8.2 Climatic Conditions

Thiruvananthapuram experiences extreme climatic conditions and tenderers must acquaint themselves about the same before submitting the tender. The Bank shall in no way be responsible onthis account.

9. CONTRACTOR'S SUPERINTENDENCE

- **9.1** The Contractor shall submit a Staff Organisation Plan showing the management structure and state clearly the duties, responsibilities and authority of each staff member.
- **9.2** The site agent and his associates/ supervisors shall have experience and qualification appropriate to the type and magnitude of the Works.

10. THE SITE

10.1 USE OF THE SITE

- 10.1.1 The Site or Contractor's Equipment shall not be used by the Contractor for any purpose other than for carrying out the Works in the scope of this contract, except that, with the consent in writing of the Bank.
- 10.1.2 Entry to and exit from the Site shall be controlled and shall be only available at the locations for which the Bank has given consent.

10.2 ACCESS TO THE SITE

- 10.2.1 The Contractor shall make its own arrangements, subject to the consent of the Bank, for any further access required to the Site.
- 10.2.2 In addition, the Contractor shall ensure that access to every portion of the Site is continually available to the Bank's officials.

10.3 ACCESS TO OUTSIDE THE SITE

The Contractor shall be responsible for ensuring that any access or egress through the Site boundaries are controlled such that no disturbance to visitors/employees or damage to public or private property occur as a result of the use of such access or egress by its employees and sub-contractors.

10.4 BARRICADES AND SIGNBOARDS

- 10.4.1 The Contractor shall erect temporary barricades **as per requirement & wherever necessary** around its areas of operations to prevent the disturbances to people movement.
- 10.4.2 Barricades shall be maintained in clean and good order by the Contractor until the completion of the Works.
- 10.4.3 All Barricades installed by the Contractor shall be removed by the Contractor upon the completion of the Works, unless otherwise directed by the Bank.
- 10.4.4 Barricades can be reused after removing from one place to other locations/ sites provided they are in good condition.
- 10.4.5 Damage/worn-out barricades shall be replaced by contractor.
- 10.4.6 The cost for Safety PPEs, Temporary signage boards, lightings etc. are included in the contract price and there is no separate item for payment.

10.5 CLEARANCE OF THE SITE

All Temporary Works which are not to remain on the Site after the completion of the Works shall be removed prior to completion of the Works or at other times instructed by the Bank. The Site shall be cleared and reinstated to the lines and levels and to the same condition as existed before the Works started except as otherwise stated in the Contract.

11. CARE OF THE WORKS

- (a) Unless otherwise permitted by the Bank all work shall be carried out in dry conditions.
- (b) The works, including materials for use in the works, shall be protected from damage due to water.

12. PROTECTION OF THE WORKS FROM WEATHER

- 13.0 Work shall not be carried out in weather conditions that may adversely affect the Works unless proper protection is provided to the satisfaction of the Bank.
- 13.1 Permanent Works, including materials for such Works, shall be protected from exposures of weather conditions that may adversely affect such Permanent Works or materials.
- 13.2 During maintenance of the Works storm restraint systems shall be provided where appropriate. These systems shall ensure the security of the partially completed and ongoing stages of maintenance and in all weather conditions. Such storm restraint systems shall be installed as soon as practicable and shall be compatible with the right of way, or other access around or through- out the Site.
- 13.3 The Contractor shall at all times, make programme and order progress of the work and make all protective arrangements such that the Works can be made safe in the event of storms.
- 13.4 The finished works shall be protected from any damage that could arise from any activities on the adjacent site/ works.

13. DAMAGE AND INTERFERENCE

(a) Work shall be carried out in such a manner that there is no damage to or interference with:

- (i) watercourses or drainage systems; (ii) utilities; (iii) structures (including foundations), roads, including street furniture, or other properties; (iv) public or private vehicular or pedestrian access; (v) monuments, trees, graves or burial grounds other than to the extent that is necessary for them to be removed or diverted to permit the execution of the Works. Heritage structures shall not be damaged or disfigured on any account. The Contractor shall inform the Bank as soon as practicable of any items which are not stated in the Contractor be removed or diverted but which the Contractor considers need to be removed or diverted to enable the Works to be carried out. Such items shall not be removed or diverted until the consent of the Bank to such removal or diversion has been obtained.
- (b) Items which are damaged or interfered with as a result of the Works and items which are removed to enable work to be carried out shall be reinstated to the satisfaction of the Bank and to at least the same condition as existed before the work started.
- (c) The Contractor shall immediately inform the Bank of any damage to structures, roads or other properties.
- (d) The Contractor shall take all necessary precautions to protect the structures or works being carried out by others adjacent to and, for the time being, within the Site from the effects of vibrations, undermining and any other earth movements or the diversion of water flow arising from its work.

14. QUALITY ASSAURANCE

The Contractor shall establish and maintain a Quality Assurance. This Quality Assurance system shall be applied without prejudice to, or without in any way limiting, any Quality Assurance Systems that the Contractor already maintains.

15. RECORDS

15.1 DRAWINGS PRODUCED BY THE CONTRACTOR

Drawings produced by the Contractor including drawings of site layouts, Temporary Works, etc. for submission to the Bank shall generally be to ISO A4/A3 size. The number of copies to be submitted to the Bank shall be as stated in the Contract, or as required by Bank.

16. MATERIALS

- **16.1** Materials and goods for inclusion in the Permanent Works shall be new unless the Bank has consented otherwise.
- **16.2** Materials shall be accepted, subjected to the approval of the Bank and decision of the Bank shall be final and unconditional binding on the contractor.. Any test stipulated by the Bank for the approval of material shall be done at the cost of the contractor.

MAKES OF MATERIALS/PRODUCTS

All materials and products used in the work will conform to the relevant standards/specifications and will be of approved make and design. A list of manufacturers/ vendors is given in Table herein below for guidance.

The approval of a manufacturer/vendor will be given only after review of the sample specimen by the Engineer. The complete system and installation will also be in conformity with the "Applicable Codes, Standards and Publications".

S. No.	Details of Materials / Products	Manufacturer's Name
1.	Acrylic Textured Coatings	Spectrum,Renova,Wallz,Surfa Nova,Jotun,Asian paints
2.	Adhesives, Adhesives for tiles and Mosaics, Stone Adhesive, Glass mosaicadhesive	Pidilite, Araldite, Toyo Ferrous Crete (P) Ltd
3.	Admixtures	FOSROC,MBT,MC Baucheme ,Sika ,Apex,Pidlite ,Polygon,SWC,Chokshey, Chembond,STP,MYK,Schomburg,BASF,MAPEI,KunalConch em ,Durabuild,Conproof,CAC ,H&R,Johnson,Asian Lab,TAM,Adoadditives,STP,CICO,Fairmate,Padmaja specialities.
4.	Asphalt Emulsion	Karnak Chemical Corporation /STP
5.	Bonding Coat	CICO,FOSROC,Sunanda speciality coating Pvt.LTD,BASF,SWC,TAM
6.	Cement	ACC,Ultra tech,Gujarat,Ambuja,Grasim,JK Lakshmi,RAMCOCement(Madras Cement ltd),Zuari Cement, India Cements Limited, Bharathi, Dalmia
7.	Construction & water proofing chemicals, Integral Waterproofing compounds, chloride free plasticider cum waterproofing compound, polymer admixture for waterproofing, flexible polymer modified cementious waterproofing coating, normal and super plasticizer to reduce water/cement ratio tile adhesive, floorhardeners, Silicon impregnantion	Acro paints Ltd, FOSROC
8.	Curing Compound	Clean tech concure, SINAK, FOSROC, Adoadditives, TAM ,STP,SWC,CICO, Padmaja Specialities.
9.	Emulsion Paints	ICI Dulux Velvev Luxol silk, Modi Industries Ltd. (paint section),Acro Paints Ltd, Asian, Berger, Nerolac, Jenson &Nicholson, Luxture surface coatings pvt Itd,Kamdhenu Paints,Shamilar Paints,Sherwin Williams Paints.
10.	Ероху	FOSROC,SIKA QUALCRETE,Araldite ,BASF,KunalConchem,SWC,Don chemicals,STP,CleantechSA,TAM,CICO,Padmaja specialities.
11.	Epoxy Grouts	Laticrete, Toyo Ferrous Crete (P) Ltd, FOSROC, SIKAQUALCRETE, Araldite Acro Paints Ltd
12.	Epoxy paint, Epoxy clear primer,	H.C Assosiates, Acro paints Ltd, FOSROC,SIKA

13.	Epoxy Polyurethane floor coating, Epoxy Screed, Epoxy Seal coat, Self levelling compound (Epoxy, PU, EPU), Patch repair compound, chemical resistant cement mortar, Silicate cements, Resin cement mortars, Epoxy tar compound & Epoxycollar coating	
14.	Epoxy Putty	"Techoxy" By Choksey Chemicals Pvt. Ltd., Toyo FerrousCrete (P) Ltd, H.C Assosiates
15.	Expansion Joints	Pre qualified Manufactures as per RDSO's latest approvedlist or as approved by DMRC.
16.	External Acryllic Emulsion	Berger,Apex,Johnson&Nicholson,Nerolac,Asian,Akzo Nobel,PPG,Jotun
17.	Fire resistant paints	Akzo Noble,PPG or equivalent,Jotun
18.	High perfomance coatings,Exteriorheat insulation wall paints ,Intumescent fire retardent paint,Hygeniene coating for a clean environment	Acro paints Ltd
19.	Integral Crystalline Water proofingMethod	KrytonBuildmat Co.(pvt.) ltd.,Penetron ,Vandex InternationalLtd.,BASF,Chryso,XYPEX, KEMCO,Penetron,Mapei.
20.	Liquid Polymer membrane waterproofing	INTEGRITANK,BASF,MAPEI,PIDILITE,DAVCO,CICO
21.	Non shring Grout	Fosroc Chemical(India),SIKA BASF,ELCHEM,MBT,Sika SWC,Don,Choksey,Cleantech IR,Adoadditives,TAM,STP,CICO
22.	Paints	Berger, Johnson & Nicholson, Nerolac, Asian, Akzo Nobel, PPG, Jotun
23.	Polycarbonate sheets	M/s GallinaAcroplus,Coxewell,Poly U,Fabic,SABIC,DANAPALON
24.	Polysulphide Sealants	Pidilite Industries Ltd. ISTP CICO, BASF,FOSROC,SWC,STP,SIKA,Fairmate
25.	Polyurethane Paint	MRFI NEROLAC, TEXFIN products (M/s NIKO) H.C Assosiates, Modi Industries Limited (Paint Section) , TheChemicals of India
26.	Sealant Joints	"Silpray" of G.E Bayer Siliconel Watson Bowman Acme Corporation

27.	Silicon Water Repellant Solution	GE Bayer Silicon Pvt Ltd / Metro ark Private Limited or " Silicon Waterpeller" by STP Limited " Nisiwa- SH" of MC-Bauchemnic (india) Pvt. Ltd/"Techrepel" of Choksy Chemicals Pvt. Ltd, The Chemicals of India"
28.	Silicone Sealants	G.E Bayer Siliconel, Dow Corining Waclear,Sika,MC CoySoudal
29.	Stoving Enamel paint, Synthetic Modilndustries Itd (paint section)FurnitureEnamel paints, Road marking paint, Aluminum Paints, Red oxide Zinc Chromate Primers, Cement primer, Epoxy paints,Acrlyic Distmper, Cement primer, Glowlite putty, varnishes	Modi Industries Ltd(paint section)
30.	Structural Steel	TATA,SAIL,ESSAR,Maharashra Pipes,jindal Steel & powderLtd.,JSW
31.	Synthetic Enamel	ICI Dulux , Giossl Berger, Modi Industries Ltd. (paintsection), Acro Paints Ltd, Asian, Nerolac, Jenson & Nicholson, Grasim, Kamdhenu Paints, Shamilar Paints, Sherwin Williams Paints.
32.	Textured Paints	Spectrum/Unitilel Heritage, TEXFIN Products (M/s NIKO) Acro Paints Ltd, Birla, ICI, Dulux, Luxture Surface CoatingsPrivate Ltd,Bakelite Hylam (Surface Texture Division)- "Heritage "Paints,Kamadhenu Paints,Bizzar,Sherwin Williams Paints,NCI-ALTEK
33.	Textured Plaster	LUXTURE SURFACE COATINGS PVT. LTD, TEXFIN products (NIKO)
34.	Wall Putty	J.K White Cement Works,Modi Industries Ltd(paint section), Toyo Ferrous Crete (P) Ltd.Acro paints Ltd, Luxture surface coatings pvt.Ltd,Uniwhite,Birla(Adithya Birla Group),ShalimarPaints,Gyproc Wall Putty (Saint Gobain)