RAJSHREE CONSOLIDATED
CONSULTING PRIVATE LIMITED

No.101, Shakun Elegance, MBS Highway, Kota - 324005
Rajasthan, India

+91 9351715093 | +91 9116634040

rcc.1ho@gmail.com | info@rccpl.org

PROJECT : ICICI BANK ICMC, JABALPUR (MP)

CLIENT : ICICI BANK LTD.

AUDIT REPORT

PART 1

REF. RCCPL - ICICI BANK ICMC, JABALPUR (MP) / ICICI BANK LTD. / AR - 042

DATE - 2024-09-25

PROJECT: ICICI BANK ICMC, JABALPUR (MP)

CLIENT: ICICI BANK LTD.

While visiting the site 'ICMC JABALPUR' we observed a lot of points on various aspects as listed in the attached observation sheet in detail and submitted herewith our views/opinion in brief & in elaborated form with visual aids (wherever, necessary) to M/S ICICI Bank Ltd, for their needful. We feel that this report will help ICICI BANK to take necessary Corrective/Preventive measures in time & wherever required to take appropriate decisions on the relocation / remodeling, or necessary rectification works, etc.

Most of the observation points are on seepages, cracks, bad workmanship & ignorance in construction sequences & procedures. Basic construction norms are ignored.

This is although a newly constructed RCC frame structure building with configuration of ground floor + first floor & situated at the outskirt of city, constructed in 2019 & occupied by the ICICI Bank recently around 4 years back as per bank records (details given by ICMC).

BUILDING TITLE: **RENTED***

ESSENCE OF THE AUDIT REPORT:

1. Construction work is executed without technical supervision at the time of construction by land lord and hence basic construction norms, practises, sequences & quality norms could not be followed/ignored, which is causing huge recurring expenses to bank in terms of maintainance cost.
2. The terrace condition is very bad & hence the entire terrace treatment shall be carried out ensuring correct technical supervision.
3. RHS plot has got water logging near boundary wall causing settlement inside ICMC premises, so the water logging to be stopped/removed/prevented with immediate effect.
4. The entire outer plaster on RHS wall shall be scrapped out/removed completely then after proper RCC & masonry joint treatment + other cracks treatment, outer plaster shall be carried out/redone with RMP water proof material.
5. All inlets of elcetrical cables, net working cables, CCTV cables, AC drain pipes & AC copper pipes need to be improved & corrected as suggested in the respective therapy.
6. Other recommendations as enlisted shall be taken up.

MAJOR OBSERVATIONS & ANALYSIS:

1. ICMC premises functional floor level inside of the building at entrance is around 2.5'-3' height from driveway level (outer development level), which is in slope towards the road side down. While the driveway level at main entry is almost at road level. So incase of flooding situation the water may enter into campus but a small ramp can be made of height 1'-1.5' to prevent water entry time.

2. Vertical & Horizontal cracks are observed at lot of places in the processong room wall & on outer wall surfaces. These cracks can be due to different reasons : (1) Joint between RCC memebers & masonry have not been provided/treated properly as per the procedure, (2) Brick work joints mortar thickness is perhaps not maintained/provided correctly, (3) Concrete band might have missed while wall construction work.

3. Diagonal cracks are observed at lot of places in the the building. These crcaks can be due to different reasons : (1) Masonry joints might have not provided properly in terms of thickness, (2) In masonry brick work joints are not broken properly, (3) Concrete band might have not been provided in the wall, (4) At corner bricks of both sides wall are perhaps not inserted in each other side's walls.

4. As built drawings are not available for the buildings at almost all the locations of audit conducted & because of this bank is spending lot of money on the different tests & analysis work.

5. Parapet walls & columns at terrace were observed damamged/cracked. Rain water enters through these cracks into parapet wall/columns and may cause - (1) Seepages inside, (2) Rusting of steel, (3) Further increases the cracks.

6. Paver block installation in the RHS corridor at ground floor outer area is not done properly/correctly. Normally these are installed in a procedure - First compaction of the earth, then stone soling, then PCC & on PCC pavers are fixed, but here it seems the procedure is not followed, which is causing settlement of the paver flooring & adjacent logged water is supporting the settlement.

7. The rainwater down take & other plumbing piping systems on the RHS & rear side of building outer side was observed not executed correctly. Pipes are almost touching the wall surfaces, broken pipes are not repaired/changed. Rain water at ground floor not channelised properly no open saucer drain is planned near boundary wall, which is causing lot of problems. The AC drains pipes are also directly flowing on the wall surface continiously and cause the seepages on the inside surface of wall.

8. Proper plinth protection was not observed at the periphery of the building premises, which is causing vegetation growth & different types of water (bathroom waste, soil waste, rain, AC drain etc.) stagnation near building wall & ground junction. This spoils the external surface plaster & may cause seepages on inside wall surface. And finally may result in increase of the recurring maintenance cost to bank.

9. The entire terrace was observed damaged, cracked, vegetation growth & non treated surface without proper slope planned towards the rain water down take piping points. This is resulting stagnation of water at terrace and causes entry of rain water into slab through cracks & vegetation growth/roots.

10. Septic tank/soak pit/chamber work was not planned or executed as per the information given by ICMC or not executed properly/technically correct and hence causing undesired overflow of soiled water getting satgnated/flowing in the adjacent plot open area and creating a unhealthy enviornment at the main entry itself.

11. In the walls & ceilings at some placaes huge seepages were observed due to water leakages/seepages from outer surface damaged/cracked external plaster. And in result the inside surface is also getting damaged. Some part of interior work was also observed getting affected. Guard room near vault room was observed badly affected with seepage on toilet side walls making the inside living enviornment unhealthy. In side the toilet tiles jointing is was not done properly (epoxy grouting) and hence the water seepages are causing in other areas.

12. **'NDT Hammer'** Tests & **'USPV'** Tests were conducted on the vault room walls, columns in total at 9 locations & on flooring for 2 locations. Normally these tests are conducted to know the quality of concrete and on new/base/fresh concrete surfaces. But here the vault room concrete walls are cement plastered from both side and the concrete surface had to be exposed/prepared removing the cement plaster.

13. Test Results of **'NDT Rebound Hammer'** test are poor at two locations & not uniform. The variation is observed from **'27 N/sq mm to 35 N/sq mm'**.This indicates the **'QUALITY OF CONCRETE IS VARYING IN CONSISTENCE'**. The concrete is **'OK EXCEPT TWO LOCATIONS'**. The less values are may be due to presence of **'CRACKS, VOIDS & IMPERFECTIONS'** in the concrete and this is most likely due to poor workmenship at the time of casting this concrete. It may be due to improper & inadequate compaction of concrete, improper/inadequate proportion of constituents of concrete. All these **flaws or lackings** are normally observed caused due to **inadequate technical supervision** and when correct construction procedures are not followed at the time of construction.

14. Test results of **'Ultrasonic Pulse Velocity Test'** are also poor/diubtful at 3 locations & not uniform & variation is observed from **'1.4 KM/S to 5.8 KM/S'**. This indicates concrete is **'POOR' & 'DOUBTFULL'** at poor results locations as per report & may be haveing few **internal flaws** or **segregation** at the location caused by poor workmenship at the time of casting of this concrete. It may be due to improper & inadequate compaction of concrete, improper/inadequate proportion of constituents of concrete. All these **flaws or lackings** are normally observed caused due to **inadequate technical supervision** and when

correct construction procedures are not followed at the time of construction. At three locations ultrasonic pulse velocity could not be traced out and at three locations the concrete quality grading observed **'DOUBTFUL'**. However at 5 locations the grading has come good & excellent.

15. Test results of rebound hammer & USPV are poor at few locations & indicates towards the poor strength of concrete, while at other locations results are OK. and therefore strengthening can be thought of for the affected areas.

16. In all the toilet areas the tile flooring joints are not provided with '**EPOXY GROUTING**' with the spacer joints so the water seepages through the tiling joints are suspected travelling below the floor & likely to cause seepages at above skirting areas in other areas due to capillary action in coming time.

17. At some locations as per observation points the kota stone flooring is settling down near toilet block corridor at first floor. This is happening due to inadequate compaction of bedding material & water seepage from toilet block flooring 0-0 tilining joints.

18. Method of taking the electrical cables, netwroking cables, CCTV cables, AC copper piping, AC drain piping was observed '**NOT CORRECT**' & due to this defective workmenship/procedure the rainwater, seepages, rats, lizards, termites etc. may enter inside the building easily through the holes made for these services & affect respectively the inside portion accordingly.

19. It is observed that most of the problems are quality related issues, construction work was not done as correctly as required at the time of construction by land lords, there was no proper technical supervision, so the quality, construction sequences and the basic construction norms are seems ignored at the time of construction. And this is being confirmed by the NDT rebound hammer & USPV test results also. This is likely to cause the bank recurring maintenance exepenses.

LIMITATIONS OF THE TESTS (NDT REBOUND HAMMER & USPV):

1. Observations & analysis on ICICI Bank desired NDT Hammer & USPV tests are limited to the test locations ONLY. Because the consistency of the quality of concreting may vary from location to location in the entire pour of concrete due to various reasons (like inadequate compaction, inadequate proportion, bad quality of construction material (raw material), bad workmenship etc.). But here it is assumed that the test results will hold good for other areas also and interpretations & recommendations are made based on the test result's assumed applicability on entire surface areas.

2. The suggested test results (NDT Rebound Hammer & USPV) normally are advised to be conducted on new concrete surface/mother concrete surface for better results. When the cement plastered concrete surface is exposed as a part of surface preparation using the mechanical means (grinder/cutter, hammer, chiseling etc.) then the original concrete surface is likely to damage and hence some times the surface is not achieved as good & smooth as it is desired for the test. And in this way the conducted tests may give unrealistic results/vaules also some times.

RECOMMENDATION:

1. IT IS ADVISED FOR ALL ICMCs, WHERE THE VAULT ROOM IS LOCATED IN THE BASEMENT OR AT GROUND FLOOR, A 1.5'/2'/2.5' HEIGHT LONGITUDINAL RCC PEDESTALS CAN BE COSTRUCTED FOR UP LIFTING THE ENTIRE ROW OF LOCKERS, AS PER NEED OF THE BANK & BASED ON THE AVAILABILITY OF SPACE/HEIGHT.
2. MOST OF THE PROBLEMS ARE OBSERVED DUE TO THE LACKING IN TECHNICAL SUPERVISION WHILE EXECUTION/CONSTRUCTION WAS DONE. IT IS ADVISED TO TAKE UP ALL THE RECTIFICATIONS AS SUGGESTED, IF RELOCATION IS NOT PLANNED/OPTED BY THE BANK. THE PROPER TECHNICAL SUPERVISION IS ADVISED TO BE ENSURED IN FUTURE WHILE CONSTRUCTION ITSELF & FOR RECTIFICATION ALSO. THE EXECUTION OF WORK DURING THE NEW CONSTRUCTION & IN RECTIFICATION WORK AS WELL SHOULD NOT BE LEFT ON THE DISCRETION OF VENDORS OR LABOURS OF VENDORS. IF THE QUALITY IS MAINTAINED THEN IT WILL HELP REDUCING THE MAINTENANCE COST DRASTICALLY.

3. IT IS ADVISED TO CONSULT THE INDUSTRY EXPERTS BEFORE CONCLUDING UPON THE TYPE OF TESTS REQUIRED FOR A BUILDING EVALUATION/STRUCTURE AUDIT. EXACTLY FOR WHAT PURPOSE/OUTCOME (AS RESULTS) THE TESTS ARE BEING PROPOSED. THIS WILL HELP MORE IN APPROPRIATION OF APPLICABLE TESTS OR DECIDING THE APROPRIATE TESTS FOR THE BUILDING.
4. RECTIFICATION WORK IS NEEDED IN THE BUILDING AS MENTIONED IN THE OBSERVATION SHEET POINTS. SO THE BANK IS ADVISED TO TAKE THE RECTIFICATION WORK AS EARLY AS POSSIBLE.
5. IT IS ADVISED TO GENERATE/CREAT A RECORD OF AS BUILT DRAWINGS FOR ALL BRANCHES/ROs/ICMCs etc. FOR FUTURE REFERENCE.
6. RANDOM POOR TEST RESULTS INDICATES THAT CONCRETE QUALITY IS NOT CONSISTENT. ON THE POOR RESULTS LOCATION AREAS INJECTION GROUTING CAN BE PLANNED AS PER NECESSITY.
7. IN RHS ADJACENT PLOT CONTINUOUS WATER LOGGING NEED TO BE STOPPED WITH IMMEDIATE EFFECT. A PROPER WALL WATER PROOFING IS ADVISED ON THE BOUNDARY WALL OUTRE SURFACE BELOW PLINTH LEVEL UP TO 1 M & THEN THE GROUND LEVEL OF ALONG THE BOUNDARY WALL FOR ENTIRE LENGTH IS ADVISED TO BE RAISED TILL PLINTH LEVEL. THIS CAN BE DONE DUMPING EARTH TO PREVENT WATER STAGNATION NEAR THE BOUNDARY WALL.
8. PAVER BLOCK FLOORING IN RHS OF THE BUILDING BETWEEN BUILDING WALL & BOUNDARY WALL NEED TO BE INSTALLED FOLLOWING A CORRECT PROCEDURE & WITH PROVISION OF OPEN SAUCER DRAIN NEAR THE BOUNDARY WALL.
9. IT IS ADVISED TO SCRAPOUT THE ENTIRE SEEPAGE AFFECTED INNER PLASTER AND REDONE WITH THE RMP (READY MIX PLASTER) MATERIAL, WHEREVER NEEDED AFTER SEEPAGE ROOT CAUSES ARE REMOVED. THE ENTIRE EXTERNAL PLASTER ON RHS WALL IS ADVISED TO SCRAPPED OUT & REDONE WITH RMP MATERIAL AFTER NECESSARY JOINT TREATMENTS ARE DONE.
10. SEPTIC TANK/SOAK PIT DID NOT PLANNED BY THE BANK (AS PER INFORMATION GIVEN BY ICMC), SO IT IS ADVISED TO PROVIDE SEPTIC TANK/SOAK PIT CORRECTLY DESIGNED & STOP THE FREE FLOW OF SOIL WATER INTO ADJACENT PLOT.
11. IT IS ADVISED TO GO FOR PROPER PLINTH PROTECTION ALL AROUND THE BUILDING PREMISES & REMOVAL OF VEGETATION GROWTH/TREES/PLANTS.
12. AC VENDORS ARE ADVISED TO BE TIGHTENED UP FOR LACKING IN THEIR WORK OR IMPROVING THEIR WORK QUALITY & IF POSSIBLE A DOCUMENTED GUARANTEE BOND CAN BE TAKEN FROM THEM FOR NO LEAKAGES FROM DRAIN PIPES, RATHER THE AC DRAIN PIPES ARE ADVISED TO BE SET RIGHT IN A SYSTEMATIC PATTERN TO COLLECT THE WATER IN A HORIZONTALLY PLANNED PIPE & THEN CHANELISE TO DRAIN AWAY FROM BUILDING.
13. FOR ALL ELECTRICAL CABLES, NETWORKING CABLES, CCTV CABLES, AC DRAIN PIPING, AC COOPER PIPING IS ADVISED TO BE TAKEN INSIDE THE BUILDING USING A PVC PIPE SLEEVE FIXED IN THE WALL (GROUTED PROPERLY AFTER FIXING THE SLEEVE) WITH A BEND FIXED DOWNWARDS ON OUTER SIDE & ENTRY POINT BLOCKED WITH THERMOCOL OR ANY SUCH MATERIAL AFTER THESE ITEMS ARE INSTALLED THROUGH PIPE SLEEVE. DIFFERENT SLEEVES CAN BE TAKEN FOR DIFFERENT PURPOSES.
14. RAINWATER DOWNTAKE & OTHER PLUMBING PIPING SYSTEM IS ADVISED TO BE SET RIGHT. PIPIES TO BE KEPT 2" AWAY FROM WALL SURFACE & SHALL BE TAKEN DOWN TILL BOTTOM & CHANNELISED IN THE DRAIN AWAY FROM BUILDING WALL.
15. VERTICAL/HORIZONTAL/DIAGONAL CRACKS ARE ADVISED TO BE TREATED/APPLIED WITH APPROPRIATE CRACK THERAPY AS PER METHODOLOGY SUGGESTED & AS EARLY AS POSSIBLE.
16. PARAPET WALLS & COLUMNS ARE ADVISED TO BE TREATED/APPLIED WITH KOTA STONE THERAPY AS PER THE METHODOLOGY SUGGESTED.
17. THE ENTIRE TERRACE TREATMENT IS ADVISED AS PER THE METHODOLGY SUGGESTED FOR THIS WITH SCREED CONCRETE LAID DOWN IN PROPER SLOPE TOWARDS RAINWATER DOWNTAKE PIPING POINTS.

18. IN THE TOILET AREAS TILING JOINTS IN THE FLOORS AND IN WALLS SHALL BE PROVIDED WITH 3 MM SPACER WITH EPOXY GROUTING.
19. A PROTECTIVE LAYER (MAY BE CEMENT SHEET OR SOME OTHER SUITABLE ACID FUMES RESISTIVE MATERIAL) IS ADVISED TO PUT AS A BARRIER BETWEEN BATTERIES & PLASTERED WALL SURFACE.

PREVENTIVE MEASURES:

Following preventive measures are recommended generally to reduce the threat to structural stability and save the cost of maintenance & improve the quality of work in any proposed new or old building, where relocation is not planned.

1. A proper building audit shall be conducted by the industry expert before buying or taking any premises on lease. The building shall be evaluated on all necessary parameters related to structural stability, plumbing work, seepages, water leakages, cracks, settlement etc. & shall be ensured of required safety from the end use/business point of view.
2. Standardizing the Type of Maintenance Related Problems & Solutions for a better & quick understanding of IFMs & Vendors.
3. Making an Operation Manual with the help of Industry Expert Designed Methodologies, Guide Lines & Check Lists, etc. so that IFMs will get ready solutions & procedures for different type of problems.
4. A strict quality control in technical supervision while construction/rectification work to ensure the correct construction & construction sequence to minimise the recurring maintanance cost to bank.
5. Clear Guide Lines on UGWT & OHWT Connections & Other Plumbing Works including Rain Water Down Take Piping System.
6. Maintenance Check List & Monitoring of House Keeping Staff's Work more attentively & on a daily basis.
7. Annually one Lecture on Maintenance Related Problems & Solutions by Industry Experts for IFMs & Vendors.
8. Inclusion of some important clauses in the agreement document between land lord & ICICI Bank to ensure the scope of work of landlord in terms of maintanance due to poor quality works executed by landlord.
9. Generating a Record of "As Built Building & Services Drawings" for all Branches, ICMCs, ROs, etc. for future reference.
10. Once in a 3 years building audit is advised to reassure the building condition is good & safe to work there.
11. Strict technical supervision on construction or rectification work as and when taken up, since most of the problems are due to lacking in technical supervision.

A set of "AS BUILT DRAWINGS" of the building premise shall be maintained/asked in easy traceability mode for the following streams.

- Architectural Drgs.
- Structural Drgs.
- MEP Services Drgs.
- Networking related Drgs.

***CORRECTIVE MEASURES*:**

Following corrective measures are recommended to reduce the risk & in the view of safety of staffs working there along with customers & ease of working without or less problems, if this premises is opted to take on/continue on lease.

1. ALL mentioned checkpoints (in the checklist) and observation points (in the observation sheets) need to be read & well understood for taking the rectification execution work. The execution shall be carried out as per the methodologies suggested & under strict technical supervision. In civil work most of the issues occur at later stages because of lacking of technical supervision at the time of construction, therefore at least the rectification work should be carried out under strict technical supervision ONLY.
2. Scrapping out of the entire internal/external plaster of affected wall/ceiling areas for redone using the RMP material after the seepage/water source is closed/crack or joint therapy is applied.
3. Other rectifications as advised in respective areas of the building and shown with photographs in the observation sheets pointwise, shall be taken up.
4. Plumbing/Piping System - vertical pipes to be kept away from wall surface by 2". And leakage points of plumbing work + septic tank/soak pit/chambers immediate rectification.
5. Water accumulation & continious moist enviornment at plinth protection needs to be totally stopped.
6. As per recommendation longitudinal RCC pedestals may be cast to up lift the lockers by 2-2.5' & accordingly the functional floor level between the two rows of lockers can also be planned accordingly keeping in to the emergency situation in mind.
7. All toilet tile flooring & wall is to be done with epoxy grouting using 3 mm spacer.
8. All AC drains shall be planned properly deciding the designed route & destination + copper piping thermal insulation material quality improvement & frequent checking for thermal insulation thickness.
9. Paver block flooring need to be corrected.
10. All points as mentioned in the recommendations, shall be attended as per need of the bank.
11. PVC Pipe sleeves shall be used for different cables, AC drain pipes, AC copper pipes while running from outside to inside or vise versa.

***SPECIALIZED MATERIALS SUGGESTED*:**

1. RMP (Ready Mix Plaster) Materials.
2. Crack seallants/seallers.
3. Fibermesh/chickenmesh.
4. Epoxy Grouting Material.
5. Cement
6. Sand
7. Bricks for chambers
8. Septic tank/soak pits ready material.
9. Kota Stone.

10. Acid fumes resistant barrier sheets.
11. Structural Mortars & Water Proofing Materials.
12. Plumbing Pipes & Fittings.
13. TMT Steel bars
14. Concrete M
15. Stone Boulders for Soling
16. Paver Blocks
17. PVC Pipe Sleeves
18. Grouting Material

NOTE:- If any help is needed in getting these materials, we may be contacted. The above materials are prescribed for reference only, however, other companies' similar results-giving materials can also be used.

***METHODOLOGY*:**

ENTIRE TERRACE TREATMENT | RMP PLASTER THERAPY | PARAPET KOTA STONE THERAPY | RAIN WATER DOWN TAKE PIPING SYSTEM IMROVEMENT | EPOXY GROUTING | BRICK WORK JOINTING SYSTEM | CRCAK THERAPY | RCC PEDESTAL | PAVER BLOCK INSTALLATION SYSTEM | PLINTH PROTECTION | WATER PROOFING | OHWT OVERFLOW | AC DRAIN PLANNING | PVC PIPE SLEEVE THERAPY

Note:-

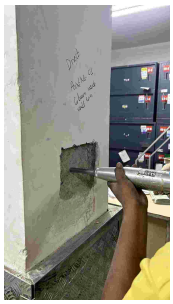
1. The test report for different tests conducted at the site, if not found merged with this report then can be asked as and when needed but with in one month of the report submission.
2. If ICICI Bank needs any help in interpretation of recommendations, observation, analysis, corrective - preventive actions, may kindly contact us and we will be happy to help.
3. This audit report have three parts in total - (1) Part 1 is as above, (2) Part is in the form of observation sheets, which gives the analysis & corrective/preventive measures point wise/location wise, so that bank can take up the rectifications accordingly, (3) Part 3 is in the form of check list, which shows the parameters on which the building is evaluated in the audit process.
4. Please ask us the different therapy methodologies when you plan to take up the rectification work, we will release step by step as per necessity.
5. We are trying to give you the list of some important materials also you will need while taking up the rectification work as suggested.

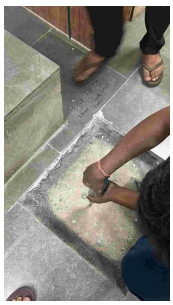
PART 2

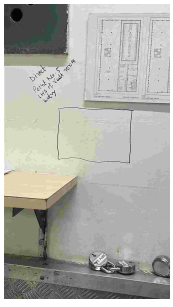
PROJECT OBSERVATION SHEETS

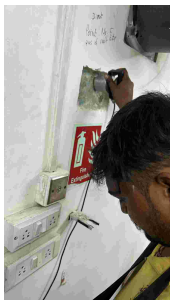
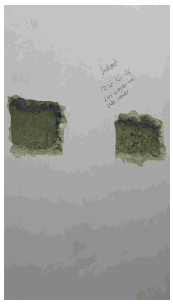
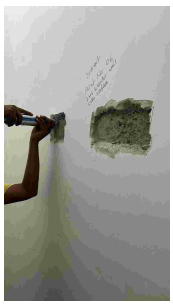
PROJECT: ICICI BANK ICMC, JABALPUR (MP) CLIENT: ICICI BANK LTD.

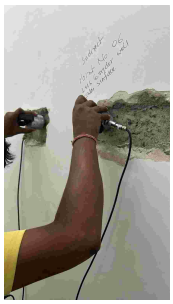
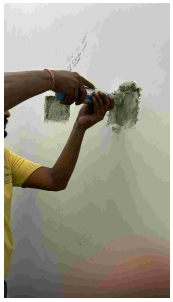
AUDIT OBSERVATION SHEET

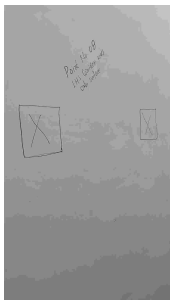
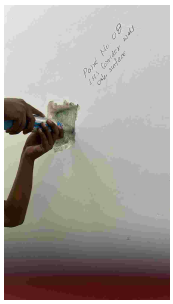
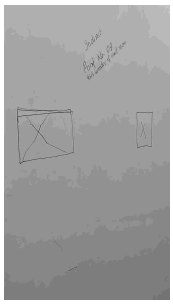
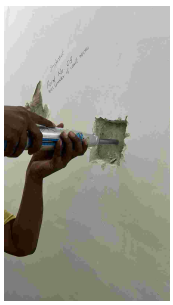
Reference / Rev. No			OBS / 84 (ICICI BANK ICMC, JABALPUR (MP)) / September 25, 2024	DATED	2024-09-25
S.No.	OBSERVATION POINTS	DATE	CORRECTIVE / PREVENTIVE MEASURES SUGGESTED	PHOTOGRAPHS	STATUS (For Client Only)
1	This is point number one on the column inside the vault room, where the surface preparation is in process.	2024-09-25	Tests will be conducted shortly.		
2	This is also point number one inside the vault room on the column from other side surface preparation is in process.	2024-09-25	Tests will be conducted shortly.		
3	This is point number one inside the vault room on the column, rebound hammer test is in process.	2024-09-25	Results are as per report submitted.		
4	Reading for record for rebound hammer test on point number 1 inside the vault room on column.	2024-09-25	Results are as per report submitted.		
5	Point number one inside the vault room on column surface using the direct method, ultrasonic pulse velocity test is in process + reading for record.	2024-09-25	Results are as per report submitted.		

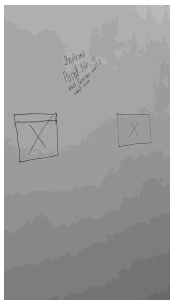
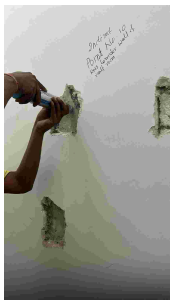
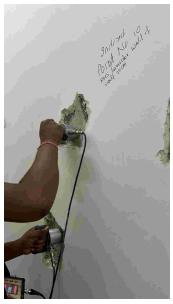
6	This is point number two on the floor inside the vault room where rebound hammer testing is in process.	2024-09-25	Results are as per report submitted.		
7	Point number two on the floor, where rebound hammer test is being done & this is reading for record.	2024-09-25	Results are as per report submitted.		
8	Ultrasonic pulse velocity test reading for record for point number two on the floor inside the vault room.	2024-09-25	Results are as per report submitted.		
9	This is point number three on the floor inside the wall room. Surface preparation will be done shortly.	2024-09-25	Tests will be conducted shortly.		
10	Surface preparation for above point.	2024-09-25			
11	Point number three on the floor inside the vault room rebound hammer test reading for record.	2024-09-25	Results are as per report submitted.		

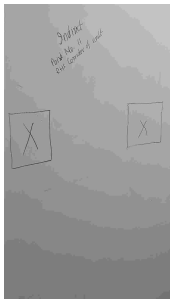
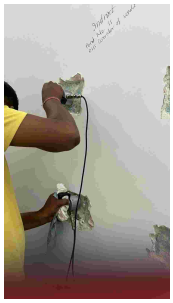
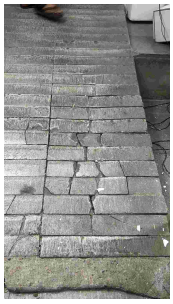
12	For point number three on the floor inside the vault room ultrasonic pulse velocity test is in process.	2024-09-25	Results are as per report submitted.		
13	This is point number three on the floor, where ultrasonic pulse velocity test reading for record.	2024-09-25	Results are as per report submitted.		
14	This is point number four near emergency window on the rear side wall of the vault room inside for direct method of ultrasonic pulse velocity test and rebound hammer test. Test surface preparation will be done shortly and test will be conducted.	2024-09-25	Surface preparation will follow.		
15	This is point number four rebound hammer testing in process near the emergency window inside the vault room.	2024-09-25	Results are as per report submitted.		
16	This is point number four rebound hammer testing near the emergency window inside the vault room reading for record.	2024-09-25	Results are as per report submitted.		
17	This is point number five at the left hand side wall of vault room main entry surface preparation will be done and test will be conducted shortly.	2024-09-25	Tests will be conducted shortly.		

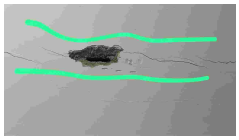
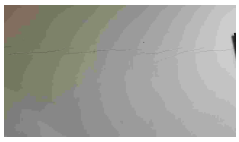
18	This is point number five inside the vault room on the right hand side wall of vault room for direct method of ultrasonic pulse velocity and rebound hammer tests. The surface preparation will be done shortly and test will be conducted.	2024-09-25	Tests will be conducted shortly.		
19	This is point number five RHS of vault room on entry wall rebound hammer is in process.	2024-09-25	Test results are as per report submitted.		
20	Point number five RHS of vault room entry ultrasonic pulse velocity test is in process.	2024-09-25	Test results are as per report submitted.		
21	Point number five ultrasonic pulse velocity test using direct method inside the vault room left hand side test reading for record.	2024-09-25	Test results are as per report submitted.		
22	This is point numbers six towards the LHS in corridor outer wall surface for indirect method for ultrasonic pulse velocity test and rebound hammer. Test surface preparation is almost done and test will be conducted shortly.	2024-09-25	Tests will be conducted shortly.		
23	Rebound hammer test on point number six on theLHS corridor wall of the vault room is in process.	2024-09-25	Test results are as per report submitted.		

24	Rebound hammer testing reading for record at point number six on LHS side corridor wall on vault room surface.	2024-09-25	Test results are as per report submitted.		
25	Point number six in the LHS corridor wall of vault room ultrasonic pulse velocity test is in process.	2024-09-25	Test results are as per report submitted.		
26	Point number six LHS corridor wall outer surface of vault room ultrasonic pulse velocity test reading for record.	2024-09-25	Test results are as per report submitted.		
27	This is point number seven on the LHS wall of vault room corridor ultrasonic pulse velocity test and rebound hammer test surface preparation is in process and tests will be conducted shortly.	2024-09-25	Tests will be conducted shortly.		
28	This is point number seven in LHS corridor wall of vault room rebound hammer testing is in process.	2024-09-25	Test results are as per report submitted.		
29	Point number seven in LHS side corridor wall of vault room rebound hammer test reading for record.	2024-09-25	Test results are as per report submitted.		

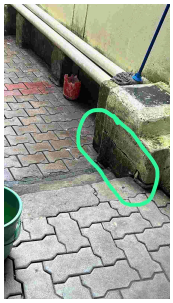
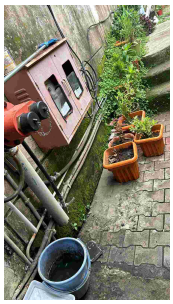
30	Point number seven in LHS corridor wall ultrasonic pulse velocity test is in process.	2024-09-25	Test results are as per report submitted.		
31	This is point number eight in the LHS corridor wall of vault room markings for USPV & rebound hammer tests. The surface preparation will be done shortly.	2024-09-25	Tests will be conducted shortly.		
32	Point number eight in the LHS corridor wall of the rebound hammer is in process.	2024-09-25	Test results are as per report submitted.		
33	Point number eight in the LHS corridor wall rebound hammer testing reading for record.	2024-09-25	Test results are as per report submitted.		
34	This is point number nine in the RHS corridor wall of vault room markings for rebound hammer & USPV tests. The surface preparation will be done shortly.	2024-09-25	Tests will be conducted shortly.		
35	Point number nine RHS corridor wall of vault room rebound hammer testing is in process.	2024-09-25	Test results are as per report submitted.		

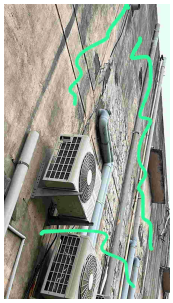
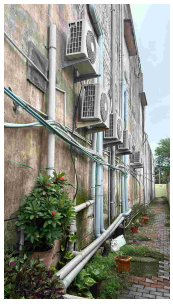
36	Point number nine RHS corridor wall of the vault room rebound hammer test reading for record.	2024-09-25	Test results are as per report submitted.		
37	This is point number 10 marking in the RHS corridor wall of the vault room for rebound hammer & USPV tests. The surface preparation will be done shortly.	2024-09-25	Tests will be conducted shortly.		
38	Point number 10 in the RHS corridor wall of the vault room rebound hammer testing is in process.	2024-09-25	Test results are as per report submitted.		
39	Point number 10 in the RHS corridor wall of vault room rebound hammer testing reading for record.	2024-09-25	Test results are as per report submitted.		
40	Point number 10 in the RHS corridor wall of the vault room ultrasonic pulse velocity test being conducted.	2024-09-25	Test results are as per report submitted.		
41	Point number 10 in the RHS corridor wall of vault room ultrasonic pulse velocity test reading for record.	2024-09-25	Test results are as per report submitted.		

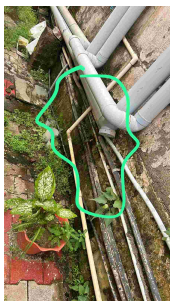
42	This is point number 11 in the RHS corridor of vault room marking for ultrasonic pulse velocity test and rebound hammer rest.	2024-09-25	Tests will be conducted shortly after surface preparation.		
43	Point number 11 in the RHS corridor wall of the vault room ultrasonic pulse velocity test is in process.	2024-09-25	Test results are as per report submitted.		
44	Point number 11 in the RHS corridor of vault room wall the ultrasonic pulse velocity test reading for record.	2024-09-25	Test results are as per report submitted.		
45	This is ramp at the entry of vault room, the ramp flooring is badly damaged/cracked.	2024-09-25	It is advised to remove this broken strips of Kota stone and refix the new Kota stone strips freshly. Or even ironite flooring can be opted for this heavy duty ramp.		
46	This is frontside corridor outer wall of a severe horizontal crack is developed in the wall, which is through and through the wall appearing both side of the wall and hence very serious. Proable Reasons: (1) It seems the concrete band is not provided in this wall of 12'-13' height. (2) Brick work joints are not properly provided with cement mortar.	2024-09-25	(1) Scrapping out the plaster from the crack portion 4"-4" width bothside of the crack & a fresh cement mortart of CM 1:4 is advised to be filled in the gap of join properly. (2) A proper crack therapy is advised as a corrective measure for this location from both side of the wall.		

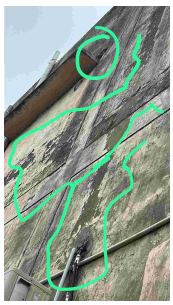
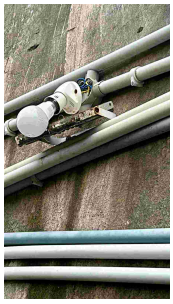
47	This hollow portion between the brickwork is showing that there is no cement motor provided between between the two brick layers. This also causes the horizontal cracks in walls.	2024-09-25	Same as above. A normal crack therapy is advised for this horizontal crack, and need to be observed for few months.		
48	This is payment area from where this horizontal crack on the other side.	2024-09-25	Same as above.		
49	This is payment area ceiling portion where seepage impressions are visible on the grid ceiling, that means water is coming from ceiling of this room. Most likely this seepage is from first floor toilet areas, where epoxy grouting is not done in the tiling & might be due to some other plumbing connections related leakages.	2024-09-25	Seepage source from first floor shall be closed. (1) Toilet Areas tiling joints to be convereted into epoxy grouting joints using 3 mm spacers. (2) Plumbing related leakages shall be closed.		
50	This is Security room, where AC copper piping and AC drain pipes are not planned & executed properly rather these are simply taken through the wall, making a hole so outside water seepage of rainwater from the wall surface is coming inside. It may also cause termites and rats entry.	2024-09-25	These AC drain pipes & copper piping need to be planned properly as per the therapy advised for this with suggested methodology.		

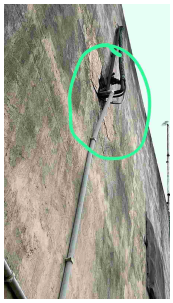
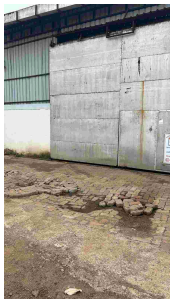
51	This is a staircase entry room area where fire installations are done. The outer wall of the building is showing lot of seepages at top and bottom near skirting. Along with this it is also showing a horizontal crack. This may be due to improper jointing in the brick masonry.	2024-09-25	(1) The entire affected external wall plaster is advised to scrapped out first. (2) Then cracks to be packed with crack seallers. (3) Fibermesh/Chickenmesh shall be applied on the treated cracks for entire length. Then finally the external plaster shall be redone with RMP material or water plastering material.		

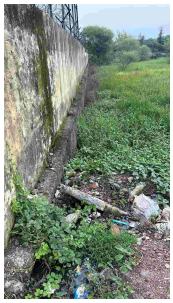
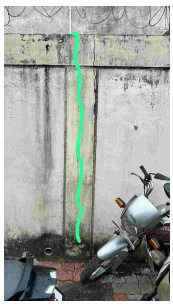
52	RHS of the building open area corridor between building & boundary wall around 6' wide. This crack or this gap is indicating that there is severe settlement has taken place due to continious water logging on the other side of boundary wall at ground level (this is raw farming land).	2024-09-25	(1) Now first thing being advised is to make such an arrangement that the other side of the boundary wall in the existing farming land plot, so that water stagnation does not take place near the boundary wall because this is causing severe harm to the building resulting in settlement cracks in the boundary wall and the open area corridor. (2) After applying a proper cementious coating on the boundary wall lower portion masory at least 5' down from the plinth level of boundary wall, it is advised to dump the raw earth near the boundary wall in the adjacent plot to make a slope away from boundary wall. (3) Corrective measures on the settlement cracks already ocurred as per the suggested methodology.		
53	This is the outer surface of the building main wall in RHS where this severe vegetation growth is observed. This is causing algae formation and a continious moist enviornment, which is spoiling the external plaster & may start seepages problems inside also in the long run although the building plinth level is around 2.5' - 3' higher than outer development area.	2024-09-25	It is advised to remove all these vegetations from the floor and building wall joint and a proper plinth protection is advised here at the same time. The slope of the plinth protection should be towards outer/boundary wall side so that there will be no water stagnation near the building wall.		

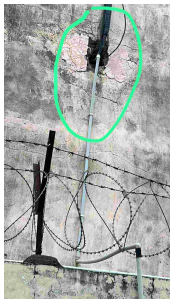
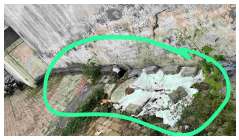
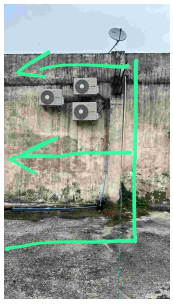
54	This is the outer wall surface of the building in RHS, showing huge cracks. Several cracks in the plaster uprooting the wall plaster, which further causes rain water entry into wall through these cracks. The outer wall surface also shows indications of use of set cement in the plastering work since the plaster is damaged badly. And this will cause seepages inside the building on wall surfaces. This may be due to the poor workmanship and probably proper curing was not done at the time of plastering or construction properly.	2024-09-25	We advise the entire external plaster of the building wall of RHS should be scrapped out completely and redone with the waterproof RMP plaster material, with proper fibre mesh therapy at the joints and all the cracks. Crack therapy shall be applied on the concrete and masonry joints properly before RMP application.		
55	Most of the rainwater down take pipes and soil waste & waste water pipes are fixed on the wall almost touching the wall surface, which is not correct. This causes seepages in the wall in case of damage/breakage.	2024-09-25	In fact, all these plumbing pipes should run 2 inch away from the wall surface. It is advised to replace the entire plumbing system with a properly designed and planned plumbing system as advised.		
56	RHS corridor outside the building between the boundary wall & main building wall, where the boundary wall portion flooring is taking settlement due to outside filled up water stagnated water for full time. Rain water drain is not provided, so there is no way for rain water to go out. This rain water gets absorbed in the paver flooring & gets stagnation near the building & boundary wall. It was informed that there was no PCC done below the paver block flooring, so this paver flooring is settling down.	2024-09-25	(1) After resolving the water stagnation problem the entire outer area paver block flooring shall be redone as per the methodology suggested for this. (2) A open saucer drain shall be provided along the boundary wall with proper drainage slope planned in the front or rear side.		

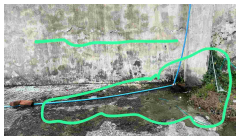
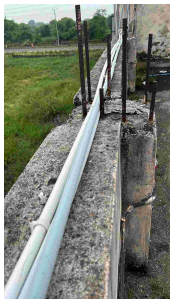
57	(1) AC drainage system is not properly planned, so the AC drainage water is being poured on the wall portion also openly and causing seepages on the building outer wall surface badly and gradually this moisture and seeage will start appearing inside also. (2) Electrical cables are loose hanging on the wall in the moist enviornment, which is not desirable situation.	2024-09-25	(1) It is advised to take all vertical AC drain pipes down and join them in a horizontally installed 2" dia pipe properly clamped on the wall in one side slope as per design and the end point can be planned in or near the drain point at a convenient location. (2) Electrical cables can be planned to run on a cable tray rather than runing directly on the wall.		
58	External plaster of the outer wall of the building is badly damaged due to various vertical horizontal cracks which are causing due to poor workmanship at the time of construction.	2024-09-25	Please follow the guide lines of observation point number 54.		
59	Corridor Flooring settlement crack between the paver block flooring and boundary wall.	2024-09-25	Please follow the guide lines of observation point number 52. Paver block flooring shall be done on 4"-5" PCC, which shall be laid down on compacted earth.		
60	External plaster deteriorated badly due to various horizontal & vertical cracks, which is causing water entry inside the wall.	2024-09-25	Please follow the guide lines as given in the observation point number 54.		

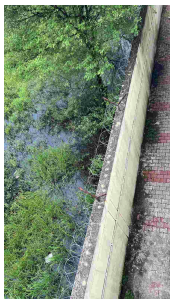
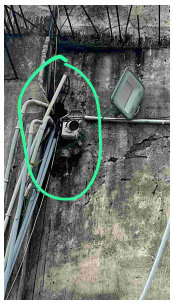
61	(1) Building external plaster surface has become almost ruined due to poor workmenship at the time of plastering was done. Also the quality of material used might be of inferior quality, like set or old cement might have been used or sand with silt contents more than permissible. (2) There are holes visible in the wall which might have been made for some purpose but not closed and hence causing rain water entry inside the wall. (3) Holes made for AC cables, copper piping & drain pipes are also not planned properly.	2024-09-25	(1) Please follow the guide lines as given in observation point number 54. (2) All holes shall be closed properly with water proof material in the cement mortar. (3) For AC copper piping, electrical cables & drain piping shall be treated as per the therapy suggested for this.		
62	Lose an open electrical wiring is risky. It may give currents in the entire wet area of this portion.	2024-09-25	Bulbs need to be provided properly with electrical safety in mind.		
63	These plumbing pipes should not be left like this as shown in pic. The rain water is spreading on the ground and some where getting dtagnated near building wall to cause seepages inside the building.	2024-09-25	There should be a proper channelisation of the rainwater at ground level through chambers and then shall be taken upto a longitudinal drain crossing the corridor area, which is normally planned near boumdary wall.		
64	This cutout is not closed properly, while doing masonry the joint should have been broken/provided all along the periphery of the cut out, so that plaster cracking would have not taken place. The entire edge of the cutout is showing severe crack. This allows the rainwater flowing on the wall surface to enter inside the building and showing seepage in the ground floor vault room corridor also.	2024-09-25	It is advised to remove the plaster, and then first break the masonry joints & therefater fibermesh/chicknemesh shall be applied on both sides of the joint 4"-5" means total around 8"-9" wide and then the plaster should be redone with RMP waterproof material.		

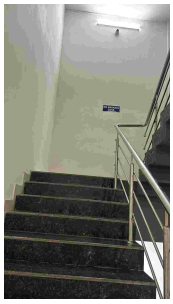
65	This type of situation results entry of rainwater flowing on the wall to inside of the building through these holes made in the wall for taking electrical cables, AC drain pipes, AC copper pipes, networking cables etc. This type of there are so many locations from where rainwater enters inside the building.	2024-09-25	These type of cases should be handled very properly, specially designed methodology shall be used in such a way that putting required pipe sleeves in the wall for inner to outer then bends shall be fixed on the outer side towards downward, so that rain water will never enter through these pipe sleeves. The sleeves shall be grouted properly using white cement from both inside & out side.		
66	This is main entry of ICMC JABALPUR from the public road here in front of the main entry trhe paver block flooring is observed badly damaged/indulated. This has happened because the earth below this flooring was not compacted using the Road Roller. Secondly, the stone soling & PCC was also not done below paver block flooring. In fact, as per the correct procedure first of all filled up soil shoud be well compacted, then stone soling should be done and then PCC sbould be done thereafter paver block flooring shall be installed/fixed.	2024-09-25	It is avdised to follow the methodology suggested for this type of work after removing the entire paver block flooring and for redoing the same.		
67	This is right hand side portion of the main entrance of ICMC JABALPUR from the public road. Here the toilet waste, soil waste pipes were observed directly allowed to discahrge the flow into adjacent plot. And a unhealthy enviornment is being created there. Actually, this is not correct. In this way the entire adjacent plot water filled up near the boundary wall is getting soiled.	2024-09-25	It is advisaved to have a septic tank or soak pit at the end of the soil waste piping of the building and only treated overflow of the septic tank should be allowed to the join in the public drain made aside the road. Specially the proper slopes need to be ensured, while doing the work.		

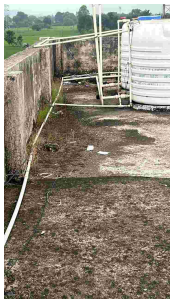
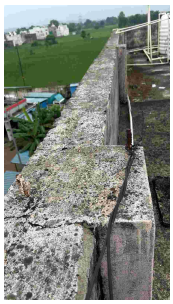
68	This is also RHS boundary wall of the building from main entry of ICMC JABALPUR. The outside situation is in a critical condition. A water logged area was observed here near the foundation of the bounding wall & this stagnated water is causing the settlement in the boundary wall and the the floorimg of the corridor between boundary wall and main building wall.	2024-09-25	It has already been advised in some other point to make such an arrangement that, water does not get stagnated at the boundary wall bottom level.		
69	This is also same area RHS corner of boundary walls. A huge crack is observed at the junction RHS boundary wall & front side boundary wall. This is due to improper joing of the brick work masonry & RCC columns without any fibermesh/chickenmesh application + due to settlement of boundary wall.	2024-09-25	It is advised to scrap out the laster and do firts the proper jointing of masonry & then proper crack therapy shall be applied.		
70	This is rear side portion of ICMC JABALPUR, where this vertical severe crack is developed on the boundary wall from top to bottom between the boundary wall RCC pillar and the masonry. The joint was not done/treated properly. Joint treatment was not done. The angle fixed is also not grouted properly. Which iscausing the rain water entry into boundary wall.	2024-09-25	(1) It is advised to do first the proper jointing in masonry & then the fiber mesh joint treatment for all such cracks, and then done with the RMP plastering material. (2) The angles fixed up for fencing shall be grouted properly.		
71	This is another one example of vertical crack in the boundary wall between the boundary wall masonry & RCC pillar.	2024-09-25	Same is advised as suggested in above point.		

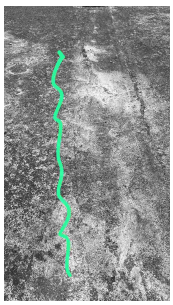
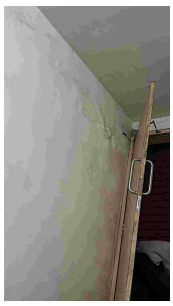
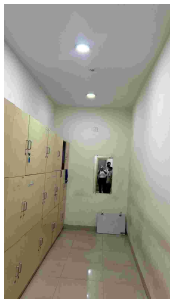
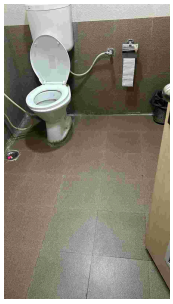
72	This type of situation causes seepages and rainwater entry through this type of holes inside the building and spoils inside plaster, painting, putty, etc. Even rats, lizards and other such creatures may enter from these unclosed holes.	2024-09-25	It is advised to follow a proper therapy here with providing the sleeves with a downward band, and then all copper pipes and cables should be taken through this sleeve and band so that there will be no water entry and those sleeves should be grouted properly so that there is no water entry takes place from the periphery of this sleeves.		
73	Toilet soil waste pipes and chambers are not made & closed properly. It was observed that the soil waste is allowed to flow in the pit near the main building wall at the junction of outside paver block flooring & building wall joint. This gives a continuously seepage inside the building.	2024-09-25	It is advised to make a proper chamber or septic tank to replace this arrangement.		
74	This is terrace of the vault room of ICMC JABALPUR. The arrow marks showing the building premises boundary at the terrace for ground floor. The ground floor terrace and wall of first floor junction is showing lot of vegetation growth and stagnated water due to improper terrace treatment & wrongly provided slope. This water stagnation is almost is almost for the full time which is causing seepage inside the building. Apart from this horizontal cracks are also observed in the wall which are due to poor workmanship and non-provision of the fibre mash therapy at the joint of RCC concrete and masonry. Rain water enters through these cracks also in the wall.	2024-09-25	It is advised to do a L shape waterproofing at this junction of terrace and wall. It is advised to do the joint therapy at these cracks and treat after scrapping out the entire external plaster and redone with the RMP waterproof material.		

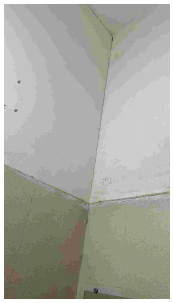
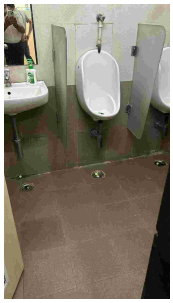
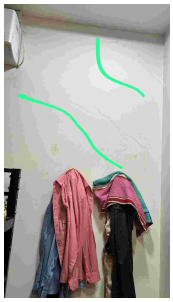
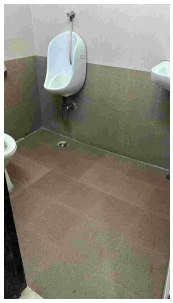
75	In the pics it is showing the stagnation of water at terrace floor & wall junction due to improper terrace slope.	2024-09-25	It is advised to do the L shaped waterproofing first at this wall and terrace junction, secondly, the gola can be made at this junction to prevent the water stagnation on the joint of this wall and terrace junction. Entire terrace treatment is also advised for getting rid of issues once for all.		
76	This is also one corner of the vault room terrace where the water stagnation is taking place that means no terrace treatment is done properly to channelise the rainwater till rainwater downtake points made.	2024-09-25	It is advise to do the the entire terrace treatment for ICMC portion with a screed concrete above the waterproofed surface with a proper slope to drain water through rainwater down take piping points.		
77	The parapet wall is showing lot of cracks, horizontal and vertical through which rainwater enters into the wall and further it deteriorate the situation.	2024-09-25	It is advised the kota stone therapy for all the parapet wall and parapet columns on the terrace.		
78	This is vault room above terrace portion. We observe that no terrace treatment is done properly. No slope is maintained and that's why a lot of seepages are causing inside. Rainwater enters in the slab and may cause steel of the slab.	2024-09-25	It is advised now to do the complete terrace treatment including waterproofing and screed concrete with proper slope to channelise the rainwater to rainwater down take piping points directly.		

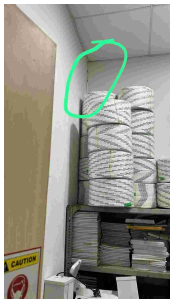
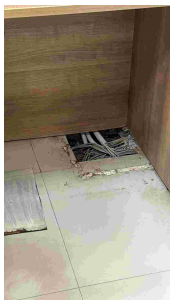
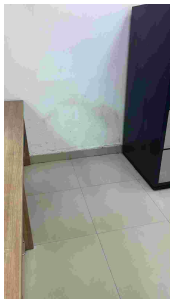
79	This whole made in the parapet wall for copper piping and electrical cables for AC out door units but left as it is not closed.	2024-09-25	Now, it is advised to provide the PVC pipe sleeves for AC copper piping, Electrical Cables etc. in the parapet wall saperately and shall be grouted properly with white cement. The sleeves grouted shall be provided with a pvc bend downward outside.		
80	This is water stagnated near the boundary wall on the RHS of the building, which was discussed in other observation points also. This water is causing settlement in the boundary wall corridor flooring between the boundary wall and building wall.	2024-09-25	It has already been advised in some other observation point that bank or landlord of adjacent plot should make such an arrangement that water does not stagnate near boundary wall.		
81	It is observed very poor workmanship in the cabling, drainage, CCTV wires. At this point in the terrace rainwater enters through this whole made in the wall and cracks inside the building. Situation has become worse showing the alge formation in this area.	2024-09-25	All cabling, AC drainage pipes should be provided with a proper therapy suggested for this type of problems. For this first inserting the sleeves grouting outside properly and then fixing of bend downwards (so that rain water will not enter) is advised for taking these cables, drainage pipes etc. separately.		
82	This is also first floor wall from the outside from terrace. Vault room terrace to above this horizontal crack is observed since there is no proper jointing treatment between RCC beam & masonry wall was provided.	2024-09-25	Now a proper joint therapy for this location is advised as per the methodology and redone of entire external plaster after scrapping out & proper joint treatment the new RMP waterproof material plaster shall be done.		

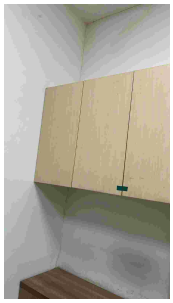
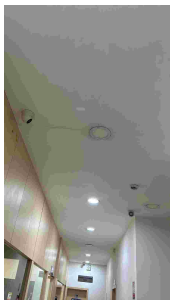
83	This is the demarcation line of terrace of ICMC JABALPUR vault room terrace and the adjacent DTDC office terrace. It is surprised to see a huge heap of vegetation as shown in the pic. First thing is terrace surface is not treated properly, secondly, the heap of debris/earth & vegetation on the damaged terrace. Which is not correct. This vegetation will cause seeage in the below areas due to entery of the roots of these plants through the slab and in this way steel rods of the slab beams also will start rusting.	2024-09-25	(1) Removal of this heap completely. (2) Enteire terrace treatment.		
84	This is main entry of ICMC JABALPUR around 3 feet level difference between the outer Development area and inside premises functional floor.	2024-09-25	As such no rectification is needed. Building seems to be on the safer side from flooding situation point of view.		
85	This is staircase area from 1st floor to terrace. It is observed that at terrace slab level lot of moisture/seepage is taking place and horizontal cracks are also developed. This is happening due to (1) Improper terrace treatment, (2) Im proper joint treatment of RCC and msonry inside the staircase area.	2024-09-25	It is advised to do the terrace treatment properly and L shaped waterproofing at the junction of terrace slab level and the vertical walls of staircase area. Proper joint therapy on inside portion after scrapping out of plaster near RCC & masonry wall is advised and then replastering using RMP material is advised.		
86	This is the first floor terrace area of ICMC JABALPUR. Terrace showing lot of vegetation, debris & damaged terrace surface near the parapet wall. We have observed a lot of cracks also on the damaged terrace. This is causing the rainwater entry through this damaged portion inside the slab and may rust the steel rods & further cause seepages inside the building in the long run.	2024-09-25	A proper terrace treatment is advised as per the methodology suggested for this as early as possible.		

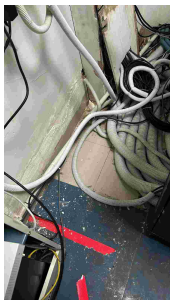
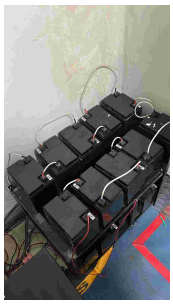
87	This is another one location of vegetation growth near overhead water tank on the terrace, which is not at all desirable. Problems related to terrace vegetation has already been discussed in other observation points.	2024-09-25	The entire terrace treatment is advised.		
88	Cracks on the parapet wall & columns allows rain water entry into the parapet walls and columns (rusts steel of columns).	2024-09-25	Kota stone therapy is advised for entire length of the parapet wall and all the parapet columns as well as suggested in some other observation points also.		
89	Same as above.	2024-09-25	Same as above.		
90	These vertical and horizontal diagonal cracks in the parapet wall allows the rainwater entry into the wall and it causes seepages in below areas.	2024-09-25	Same as above.		
91	This type of holes in the parapet wall and other walls are not desirable and causes seepage issues in the below areas.	2024-09-25	It is advised to provide the properly design PVC sleeve therapy here with a downward bend as explained in earlier observation points also.		
92	Terrace situation is horrible observed with undulation and damaged surface causing seepages inside the building in below areas. Lot of longitudinal cracks also are developed.	2024-09-25	The entire terrorist treatment is advised.		

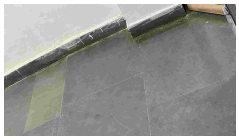
93	This type of longitudinal cracks are observed which allows the rainwater entry into the slab. Further, this water will start rusting the slab steel and further cracks will be developed.	2024-09-25	Entire terrace treatment is advised as per the methodology suggested.		
94	This is mumty room at terrace, where there is no terrace treatment is done nor proper parapet walls are made on the mumty terrace, so it is causing the water seepage from the mumty slab also inside the mumty room. RCC & masonry joints are also not treated properly and hence cracks are developing.	2024-09-25	After at least 1.5' parapet the entire mumty terrace area is advised to provide the terrace treatment as per methodology suggested for this. A proper rainwater downtake piping system is also advised.		
95	This is the terrace entry from staircase. The huge seepage is observed in the wall corner, which is due to improper terracec treatment on the muty slab at mumty terrace.	2024-09-25	We advise entire terrace treatment as per the methodology suggested for this. Inside affected plaster shall be scrapped out & redone with RMP plastering material.		
96	This is change room no problem as such observed.	2024-09-25	No corrective measure is required right now.		
97	This is female toilet block, where there is no epoxy grouting is observed in the tiling joints in floor and wall. These 0-0 joints allows water to enter in the below tiling portion gardually and this will further cause seepages in above skirting areas through capillary action in the other areas of the building.	2024-09-25	We recommend the epoxy grouting in the tiling joints with 2-3MM spacers.		

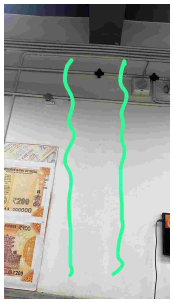
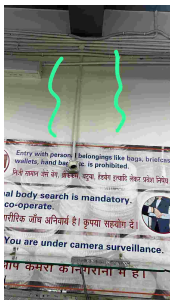
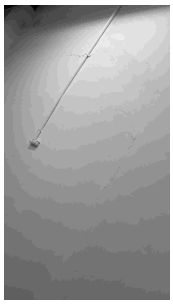
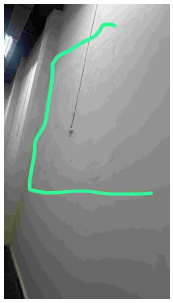
98	This this is male toilet block. A huge crack is observed at the junction of two walls and in the ceiling. This crack may be due to no inter locking of the bricks (no breaking of the brick work joints) at the corner and secondly due to non application of the fibermesh/chickenmesh at the joint.	2024-09-25	Scrapping out the plaster for checking of the brick work jointing is advised. If brick work joints are found properly broken/provided then crack grouting can be done and if not then brick joints will need to be broken properly and then replastering shall be done with RMP plastering material.		
99	Epoxy grouting is not observed in the tiling joints in wall and floor. The consequences have been discussed in other observation points.	2024-09-25	We recommend that 3MM space should be provided, and then epoxy grouting should be done in the flooring and wall tiling.		
100	This is staff toilet block here also there is no epoxy grouting is observed.	2024-09-25	We advised 3MM epoxy grouting in the tiling joints at floor and in walls.		
101	This is guard room at first floor, the outer wall of the building in this room is showing diagonal cracks. That means that wall settlement can be one reason or else the improper brickwork jointing also can be.	2024-09-25	Scrapping out of the plaster in the cracked areas to be done for checking the brick work status, if brick work is showing the cracks then crack therapy is advised as per the methodology suggested.		
102	This is guard room toilet block, here also epoxy grouting is not observed.	2024-09-25	We advise 3MM spacer and then epoxy grouting.		

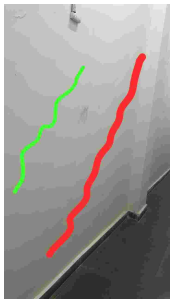
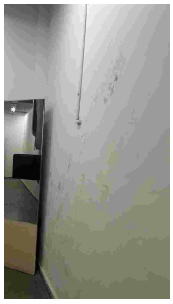
103	This is the store room at first floor. A crack was observed in the corner as highlighted.	2024-09-25	Crack therapy is advised.		
104	This is cabling chamber in the check shop room first floor, where rainwater and seepage moisture was observed by the people working here as per the information given by ICMC. This is most likely due to the conduits coming from outside without proper PVC pipe sleeves as per the therapy suggested.	2024-09-25	For this type of problems one PVC pipe sleeve therapy is advised as per the methodology suggested.		
105	This is also check shop room where above skirting seepage is observed. This can be due to the presence of rain water in the networking cables chamber. Water flows underneath the flooring and moves up through capillary action and show the seepages above skirting areas. Secondly, it can be also due to improper RCC & masonry joint treatment on the outer surface of the building, so rain water enters and causes seepage in side.	2024-09-25	(1) PVC Pipe sleeve therapy for networking cables is advised as per the methodology suggested. (2) On the outer surface of the wall at RCC & masonry joints fibermesh/chickenmesh therapy is advised after scrapping out of affected area plaster & then plastering should be redone with RMP plastering material. (3) There are lot of issues with this side building wall, so it is advised to scarp out the entire external plaster and redone with new RMP material for plaster. This will solve all the problems related to this wall.		

106	Another few cracks are observed at the corner in the same room as discussed in above point.	2024-09-25	Carck therapy is advised as per the methodolgy suggested.		
107	This is balcony corridor outside near the staircase lobby at first floor, showing a huge crack at corner from top to bottom.	2024-09-25	Crack therapy is advised.		
108	First floor corridor ceiling joint is showing crack in the in the gypsum board, fixed in the ceiling, perhaps proper pop net/jali was not used on the joints.	2024-09-25	Gypsum/POP net/jali is advised on the joints/cracks portion for through out the lemgth.		

109	This is server room at first floor lot of seepages and cracks were observed. This can be due to improper brick work, perhaps the brick joints are not provided/broken properly, mortar thickness also might have not been maintained. Thirdly, these can also be dur to non provision of concrete bands in te brick work. The cables for networking and server room are not planned properly taken directly making a hole in the walls from where the rainwater also enters.	2024-09-25	Scrapping out of the affected plastered area is advised to check whether crcaks are in the plaster only or these are in the brick work also. If problems are there in the brick work then we may have to scrap the brick work joints and refilled with new cement mortar of RMP. Then fibermesh/chickenmesh can be applied on the treated joints before plastering with RMP material. It is advised to use the PVC pipe sleeve therapy in the wall for taking the electrical cables, copper piping, network cables properly and systematically inside without allowing the rainwater entry along with them.		
110	Above cutting seepage is also observed on the server room. This problem is also likely to be from the shop area rainwater issue in the net working cables chambers.	2024-09-25	Same as suggested the measures for shop area problems.		
111	This is the battery location in server room. Acid fumes also affect the plaster.	2024-09-25	We advise a barrier between the battery and the wall plaster to prevent the acid fumes effect directly on the plaster. It can be cement or any acid resistant sheet.		

112	Huge diagonal cracks in the second wall of the server room. Analysis as per similar problem discussed in above points.	2024-09-25	As suggested for other walls of server room in other point above.		
113	A huge horizontal crack in the third wall of server room observed. It seems there is is issue in the masonry of server room.	2024-09-25	Same as suggested in above points for similar problem in the server room other side walls.		
114	Washroom corridor, where kota stone skirting showing gap between the skirting and flooring of kota stone. This means there is settlement has taken place due to improper/inadequate compaction of bedding material below the flooring.	2024-09-25	It can be grouted with cementious grout or this area flooring can be redone with proper compaction of bedding material.		
115	Processing room entry left side a huge diagonal crack was observed from top to window lintel edge. It can be due to (1) In masonry brick joints might have not broken properly. (2) Concrete band might have not been provided. (3) Inadequate jointing mortar might have caused the crack.	2024-09-25	Scrapping out of the affected area to check the above probabilities and then if problems are in brick work then brick work rectification shall be done as explained earlier then application of mesh shall be done then replastering with RMP plastering material.		
116	Inside the processing room, there is a huge crack observed at the junction of wall and ceiling. This is due to improper joint treatment in masonry and slab. Proper joint therapy is advised.	2024-09-25	Proper fibermesh/chickenmesh therapy is advised.		

117	Inside the processing room two vertical cracks, both side of the RCC column were observed from top to bottom. This is due to improper jointing treatment between the RCC component and brickwork masonry.	2024-09-25	A cracked therapy advised for this is suggested.		
118	Similar points as above	2024-09-25	Same as above.		
119	This is right hand side corridor of vault room on the outer wall inner surface. This diagonal cracks are developed right from top to bottom. This indicates settlement is taking place. Through the crack also seepages are visible. This is the outer wall of the building and the outer surface of the wall is badly damaged, which is causing huge seepages and cracks inside also.	2024-09-25	A proper crack therapy is advised for inner surfaces at all the locations where this type of cracks are developing. secondly, the external plaster of this wall is advised to be removed scrapped out completely & redone with RMP & water proof platering material after fibermesh/chickenmesh application is done.		
120	This is also right and side corridor of vroom outer wall of the corridor where a big cutout was there earlier and it was closed with brickwork without following the proper methodology of joint breaking in the brick work and in the plaster also. Hence it is causing cracks all around the opening. This point has been discussed/analysed in some other observation point of outer surface treatment.	2024-09-25	It is advised that fibre or chicken mash therapy shall be applied here inside also and brickwork at the joints shall be corrected properly so that this crack will not appear here after.		

121	These are also diagonal cracks right from top to bottom in the outer wall of RHS corridor of vault room. This is a serious matter and this states settlement of the wall. It seems the concrete band is not provided in this height of 12 to 13 feet, that's why these big cracks are developing.	2024-09-25	As suggested for similar problems in other observation points.		
122	This is also RHS corridor outer wall of vault room rear side and near the cross mirror diagonal cracks and huge seepages are observed. It indicates settlement of the outer wall.	2024-09-25	Same as discussed/analysed in similar other observation points.		

PART 3

CHECK LIST

VISIT DATE: 2024-09-25

PROJECT: ICICI BANK ICMC, JABALPUR (MP) CLIENT: ICICI BANK LTD.

S.NO	OBSERVATION POINTS FOR SITE INSPECTION	RATING SCALE	RATING	DETAILED DESCRIPTION	LOCATION	REMARK
1	SITE HISTORY					
2	Site History	5	2.5	It is a new building around four year back occupied by bank approximately 2019 constructed (As information furnished by ICMC Jabalpur). Building configuration is ground floor + first floor). Ground floor for currency related work (vault room, processing room etc.) & first floor is office, server room, store etc.	Outskirts of City.	

3	Visual Inspection of Over all Building from Structure Stability Point of View.	5	1.5	OK, Except diagonal cracks observed in the right hand side main wall & boundary wall as well. Boundary wall is taking settlement.	RHS	
4	External Side Observation, if any.	5	1.5	Front side at main entry to the campus the outer development area paver flooring was observed in undulation.	Front Side	
5	Frequency of Building Inspection - Check for Regular Visual Inspections (Annually or Biannually).	5	1	Building audit inspection was not done earlier.	Outskirts of City.	
6	Frequency of Building Inspection - Check for Structural Assessment - Once in 3 to 5 Years depending upon the age of the building.	7	1	Not Done.	Outskirts of City.	
7	N/A	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A	N/A
9	AVAILABILITY OF DOCUMENTS/DESIGN DRAWINGS					
10	Check for Building Plans/Drawings availbility.	5	2	Building functional plan found displayed near vault room, however, structural drawings were not available.	Near Vault Room	
11	Check for necessary Permits with latest renewal done (FIRE AUDIT (Functionality of Fire Equipment) etc.).	3	1.5	Fire NOC - NA Fire Audit Yes in last November, 23 (As per information given by ICMC Jabalpur).		
12	Check for regular maintanance records.	2	1	OK (As per information given by ICMC Jabalpur.		
13	GENERAL					

14	Building Functional Level	5	3	Building functional level inside is higher than outer development area by 2.5' - 3'.	Outer Development Area just outside the building and inside the campus.	
15	Check for Plaster Strength (Intact or not) - Lighting Hammering Action.	5	2	Bad quality with hollow sound was observed at few locations.		
16	Floor - Visible Up Rooting, If Any	5	2	Not Observed except vault room ramp inside.	Vault Room Main Entry.	
17	Plaster - Visible Up Rooting in Ceiling Areas, If Any	5	2	Yes, at few locations.		
18	Plaster - Visible Up Rooting in Walls Areas, If Any	5	1.5	Yes, at lot of places.	As per observation pics on the outer main wall of building in RHS.	
19	Any Vegetation Causing Moisture/Cracks.	3	0.5	(1) Yes, at GF outer area corridor between main building wall & boundary wall. (2) At terrace.	Outer Area Corridor RHS + At Terrace Area.	
20	Terrace Area Checking in General	5	1	Serious Concerns as per observation pics.	Ground Roof Terrace.	
21	Observation on Cold Joints in concrete structure, if Any.			NA	NA	
22	Observation on concrete honey combing, if Any.	5	2	Not Observed in vault room since concrete surface was plastered, but at few exposed locations it was observed.	Outside.	
23	Basement Observation from inside.			NA		
24	Basement Observation from outside.			NA		

25	Check for easy Access to all Areas.	3	1.5	OK		
26	Check for Clear Pathways for Inspection.	2	1	OK		
27	Check for Utilities (Electricity Functionality).	3	1.5	OK, Except few locations, where rearranging is required.		
28	Check for Electrical DB/MCB & cabling wiring.	2	1	OK		
29	Check for Utilities (Water Supply Functionality).	3	2	OK		
30	Check for Utilities (Cooking Gas Supply & Functionality).			NA		
31	Check for Safety Concerns - Loose Handrails, Broken Steps, Other Hazards, if any.	5	2	Inside the vault room entry ramp was observed badly damaged/broken.	Vault Room	
32	Check for Healthy Business Enviornment.	5	3	Yes, OK.		
33	STRUCTURAL STABILITY					
34	Observation of Foundation	5	2	OK, but boundary wall and outer area RHS corridor outside is settling down due to continuous water logged on the other side of boundary wall.		
35	Settlement Cracks in Walls	10	2	Huge cracks were observed at lot of places.	Outer Area RHS	
36	Settlement Cracks in Floors.	10	3.5	Only at few locations in corridor outside vault room.	Vault Room Corridor.	
37	Visible Concrete Deterioration in Slabs, If Any	5	2	Yes, after exposing the vault room concrete wall/base slab surfaces.	Vault Room	
38	Visible Concrete Deterioration in Beams, If Any	5	3	Not Observed.	Vault Room	

39	Visible Concrete Deterioration in Columns.	5	3	Not Observed.		
40	Any Refurbishment is needed in Columns/Beams/Slabs/Other RCC elements.	10	4	Not Observed.		
41	Visible Cracks / Deterioration in Stone Patti Roofs, If Any			NA		
42	Visual Stability Check for Parapet Walls, if any.	5	1.5	Parapet walls were observed with cracks allowing the rainwater entry into them.		
43	Visual Stability Check for Projections / Partitions if any (Horizontal)			NA		
44	Observation on sagging check for RCC beams, if any.	10	4.5	Not Observed.		
45	Observation on sagging check for RCC slabs, if any.	10	4.5	Not Observed.		
46	Observation on RCC columns buckling or crack, if any.	10	4.5	Not Observed.		
47	Observation on Hairline Cracks in Slabs and slab soffits, if Any.	5	3	Not Observed.		
48	Observation on exposed steel reinforcement due to insufficient concrete cover.	10	4	Not Observed.		
49	Observation on column misalignment due to bad formworks during casting.	5	3	Not Observed.		
50	Check for Unauthorised Modifications, if any done.	5		Not Observed as of now.		
51	SEEPAGE/LEAKAGE & PLUMBING, UGWT/OHWT RELATED					
52	Moisture / Dampness Visibility in Ceiling Areas	5	2	YES.		

53	Moisture / Dampness Visibility in Walls Areas	5	1	Yes, too much.	As per pics in observation sheet.	
54	Moisture / Dampness Visibility above Skirting Areas	5	1.5	Yes.	As per pics in observation sheet.	
55	Water Leakage through RCC Column / Beam / Slab, if any	10	4.5	Not Observed.		
56	Water leakage through Masonry Structure	7	2.5	Yes.	As per pics in observation sheet.	
57	Over head Water Storage Tanks & Plumbing Connection Status.	5	3	OK		
58	Plumbing Connection Status in Toilets/Pantry Area.	5	3	Seems OK.		
59	Rainwater Downtake Piping System Status.	5	1.5	Not Planned & Executed properly/correctly.	RHS Main Building Wall.	
60	Position of under ground water tank & observation on this.			NA		
61	Position of over head water tank & observation on this.	5	3	Seems OK.	Terrace.	
62	TESTS RELATED					
63	Observation on NDT Rebound Hammer Test.	10	4.5	Rebound Hammer Test Results are more or less OK, except one - two locations.		
64	Observation on NDT USPV Test.	10	3.5	USPV test results are doubtful on three locations & at two locations velocity could not be traced out. Other locations results are OK.		
65	Observation on NDT Concrete Half Cell Potential & Resistivity Test.			NA		

66	Observation on Concrete Scanning Test.			NA		

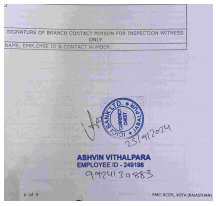
TOTAL RATING SCALE : 280

TOTAL RATING : 112.5

RATING INDEX: 0.40

RECOMMENDATION : As mentioned in the recommendations given in the part 1 of the audit report.

SIGNATURE OF AUDITOR



SIGNATURE OF BRANCH CONTACT PERSON FOR INSPECTION WITNESS ONLY

ASHVIN VITHAPARA

9924130883

TEST REPORT

Doc No.-QR/08, Issue Date- 01.01.2014
Rev. No.-02, Rev. date- 30.11.2022

ULR-TC807724000001424F **Issue Date: 28.09.2024**

LRL\2024\718

1. **Name of Customer & Address** : **Rajshree Consolidated Consulting Pvt. Ltd.**
   No. 101, Shakun Elegance, Karneshwar Housing Yojna,
   MBS Road, Kota (Raj.) - 324005
2. **Name of Client** : ICICI Bank Ltd., ICMC, Jabalpur (M.P.)
3. **Name of Work/Project** : -
4. **Material Identification** : Reinforced Concrete Structure
5. **Source/Location** : ICICI BANK LTD.
   Paton Road, Gram Rai Gawa, Near Janaki Fuel Sales, Jabalpur (M.P.)
6. **Sample Condition when Received** : -
7. **SRF/Letter Reference** : SRF Dated 25.09.2024
8. **Date of Sample Receipt** : -
9. **Date of Sample Tested** : 25.09.2024
10. **Environmental Conditions** : -
11. **Test Performed at** : Site

I. Non-Destructive

A. Building Materials-Reinforced Concrete Structures

TEST RESULTS

Non-Destructive Test by Ultrasonic Pulse Velocity & Rebound Hammer

S. No.	Location	Ultrasonic Pulse Velocity Analysis (IS-516 (Part-5/Section-1)- 2018			Rebound Hammer Analysis (IS-516 (Part-5/Section-4)- 2020		
		Direction of Transmission	Average Pulse Velocity (km/sec)	Concrete Quality Grading	Direction of Testing	Average Rebound Index Value	Compressive Strength (Mpa)
1	Column Inside Vault Room	Direct	3.8	Good	Horizontal	36	35
2	Floor Inside Vault Room-1	Indirect	5.1	Excellent	Vertical Downward	33	35
3	Floor Inside Vault Room-2	Indirect	5.8	Excellent	Vertical Downward	31	32

For Landmark Material Testing And Research Laboratory Pvt. Ltd.

Landmark Material Testing And Research Laboratory Pvt. Ltd. JAIPUR

(Dr. Anil Dixit)
Authorised Signatory

(Harsh Chittora)
Technical Manager

Regd Office : G-200, RIICO Industrial Area, Mansarovar, Jaipur (Raj)-302020
+91 141 4022067, 9414297329, 8412842116 md@lrllab.com, lrlptjpr@gmail.com, www.lrllab.com
CIN No. U73100RJ2011PTC034607, PAN No. AABCL9797K, GST No. 08AABCL9797K1ZN

S. No.	Location	Ultrasonic Pulse Velocity Analysis (IS-516 (Part-5/Section-1)- 2018			Rebound Hammer Analysis (IS-516 (Part-5/Section-4)- 2020		
		Direction of Transmission	Average Pulse Velocity (km/sec)	Concrete Quality Grading	Direction of Testing	Average Rebound Index Value	Compressive Strength (Mpa)
4	Near Emergency Window Inside Vault Room	-	-	-	Horizontal	31	27
5	RHS of Vault Entry Gate	Direct	3.8	Good	Horizontal	33	30
6	LHS Corridor Wall Outer Surface-1	Indirect	2.4	Doubtful	Horizontal	33	30
7	LHS Corridor Wall Outer Surface-2	-	-	-	Horizontal	32	29
8	LHS Corridor Wall Outer Surface-3	Indirect	4.3	Good	Horizontal	33	30
9	RHS Corridor Wall of Vault Room-1	Indirect	3.5	Good	Horizontal	31	27
10	RHS Corridor Wall of Vault Room-2	Indirect	2.5	Doubtful	Horizontal	35	34
11	RHS Corridor Wall of Vault Room-3	Indirect	1.4	Doubtful	Horizontal	33	30

Note: Based on the above results, the compressive strength of the R.C.C. wall varies from 27Mpa to 34Mpa.

For Landmark Material Testing And Research Laboratory Pvt. Ltd.

Landmark Material Testing And Research Laboratory Pvt. Ltd. JAIPUR

(Dr. Anil Dixit)
Authorised Signatory

(Harsh Chittora)
Technical Manager

End of Report

Note:

- This Test Report shall not be reproduced wholly or in part and cannot be used as an evidence in the court of law without written approval of **M/S Landmark Material Testing And Research Laboratory Pvt. Ltd.**
- The results listed refer only to the tested sample and applicable parameters. The results apply to the sample as received.
- The sample will be stored up to one month from the date of issue of test report unless otherwise specified.
- Total liability of this laboratory is limited to the invoiced amount.