CAVINS
DISASTER RESPONSE GROUP
WATER | FIRE | MOLD | STORM DAMAGE | CRIME SCENE

Monday, April 29, 2024

Norman Public Library Central
103 West Acres Street
Norman, OK 73069

Water Intrusion/Loss Investigation Report for April 28, 2024

A thorough visual and thermal investigation was conducted at Norman Public Library Central on Sunday, April 28, 2024, following severe storms. The assessment revealed numerous points of water penetration within the facility. All accessible areas of potential water intrusion found through thermal imaging were verified with a penetrative moisture meter. Structural drying equipment was set placed to expedite the drying process, prevent further deterioration, and mitigate reemerging or new microbial growth. Areas of identified water intrusion are as follows:

1. First Floor - North:

Staff Office 115:

- Thermal Imaging did not reveal signs of water intrusion from the roof; however, there was an indication of water intrusion on the east side of staff office 115. Thermal imaging showed the base of the wall to be cooler and there was a small amount of water found in the base plate on the southeast wall of SO 115. DensGlass in this area had slightly elevated moisture levels. No drying equipment was warranted.

2. First Floor – South (Children's Area):

Entrance/North Side:

- Thermal Imaging revealed a line of wet ceiling tiles that appear to be aligned with a large I-beam running the length room. Water staining could also be seen on the heavily impacted ceiling tiles. One area of wet carpet was found under one of the saturated ceiling tiles. Roof leaks/penetrations are the suspected source of water intrusion. Wet ceiling tiles were removed.

Northeast Corner:

- A highly saturated furred out wall near the northeast door was located via thermal imaging and moisture content was confirmed to be 95% when tested with a penetrative moisture meter. The carpet below this wall was affected. Source of water intrusion unknown at this time and selective demo would be necessary to determine the cause. One dehumidifier and four axial fans were placed to expedite the drying process.

Southeast Bay Window Area:

- A section of backer board was found to have elevated moisture content in one bay window where remediation was performed. An axial fan was placed to expedite the drying process.

South Side:

- Wet ceiling tiles and carpet near south side windows and a support column were located using thermal imaging and confirmed with a penetrative moisture meter. The source of water penetration is undetermined currently. One dehumidifier and two axial fans were placed.

Room 149:

- Thermal imaging and penetrative moisture meter confirmed water intrusion in the southwest corner of room 149. Water intrusion appears to be groundwater and from roof leaks where mold remediation was previously performed. Two axial fans and one dehumidifier were placed to help expedite the drying process.

3. <u>First Floor – South:</u>

Southwest Vestibule:

- Water puddles were found on the floor and thermal imaging indicated water is likely from roof leaks in this area. One dehumidifier and two axial fans were set in this area.

4. <u>Second Floor:</u>

South Side, Below Patio:

- Thermal imaging revealed a wet spot on the carpet below a roof drain on the balcony above this area. Drain shows significant signs of rust. One axial fan was placed to dry the carpet in this area.

Staff Breakroom:

- A waste bin set up by a window on the north side of the breakroom had collected a significant amount of water. Water intrusion may be from a roof leak. The waste bin was emptied and reset. No drying equipment was necessary.

Room 226 – Maker Lab:

- Thermal imaging detected moisture that had collected near an outlet on the south exterior wall and a moisture meter confirmed that the drywall was wet. Two axial fans and one dehumidifier were placed to expedite the drying process. Selective demo would need to be performed to determine the source of the water penetration in this area.

Southwest Corner:

- Thermal imaging and penetrative moisture meter both showed elevated moisture content in the ceiling just above the corner of the window. Water penetration could be from the window, wall penetration, or roof leak. Two axial fans and one dehumidifier were placed in this corner.

Southwest Corner – Support Column:

- Thermal imaging showed signs of water intrusion at the top of a support column and wet carpet at the base of the column. The moisture meter confirmed high moisture content in the carpet. Two water damaged ceiling tiles were removed and there were visible water trails on the column above the ceiling grid line. Water intrusion is expected to be from a roof leak. One dehumidifier and one axial fan were placed in this area.

Windows South of Stairwell: Thermal imaging showed a wet ceiling tile and carpet in this area. There are water trails on the window casing. Water intrusion may be occurring at exterior ledge penetration and the window. Two axial fans and one dehumidifier were placed in this area to expedite the drying process.

5. <u>Third Floor:</u>

Room 305 – Pioneer Room:

- Water was visible on tables and thermal imaging showed moisture present above ceiling tiles and on the carpet. Water intrusion is likely from roof leaks and traveling down the HVAC ductwork. Additional ceiling tiles were pulled, and another water diversion system was set up in this area.

Hallway Outside of Offices 313 and 311:

- The thermal imaging camera picked up on a small area of potential water above a ceiling tile in the hallway. The penetrative moisture meter confirmed an elevated moisture content, and the water damaged ceiling tile was removed. Water intrusion appears to be from roof leaks from an electrical penetration or screw punctures.

Room 314 – Research Area:

- Multiple windowsills around this area had standing water on them. It appears that the exterior sills are pitched toward the building. The City of Norman may consider having the envelope consultant verify this.

Room 301 – Oklahoma Room:

- Multiple areas of exterior water penetration were found in this room. The leaks appear to be from exterior wall penetrations and window leaks. No drying equipment was set as there is pre-existing microbial growth in these areas that the client elected not to remediate at this time.

Room 325 – Study Room:

- Water trails were found on the inside of the exterior glass panels.

East of Balcony:

- Thermal imaging indicated a small area in the corner with a potential leak from the roof or siding. The moisture content did not warrant drying equipment being placed.

Stairwell Landing:

- Upon opening the door from the balcony leading to the southwest stairwell, water puddles were visible on the concrete landing. These puddles are likely from the ongoing rooftop access door water leaks.

Water Intrusion Investigation Conclusion:

Cavins Group is under contract with the City of Norman to monitor the interior of the facility after weather events and mitigate additional damage due to unresolved exterior water intrusion issues. Cavins Group's responsibilities do not extend to making any exterior repairs, whether temporary or permanent. These repairs will be handled by different entities. During the inspection on Sunday, April 28, 2024, several points of water entry were discovered. While many of these points had been noted in the past, the intense storms from April 27 to April 28, 2024, revealed additional, previously undetected areas of water intrusion.

Notably, the temperature and humidity were elevated in numerous areas of the library. Given the history of mold presence in the facility and recent remediation efforts, it is critical that the environment be more effectively regulated (lower temperature and humidity levels); otherwise, new or worsening microbial growth is inevitable.

Recommendations:
Complete structural drying process, address high temperatures and humidity throughout the facility, and treat facility with an antimicrobial product to help deter additional microbial growth and spread.

Kindly be aware that the findings in this report are contingent upon the inspections carried out on the specified date. The potential causes for water ingress outlined herein are conjectural, derived from the most reliable data at hand, and should not be interpreted as conclusive determinants. Given that the factors leading to water intrusion can evolve, regular evaluations and inspections are recommended. Should you have any additional inquiries or require further support, please feel free to reach out to us.

Respectfully,

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