



Friday, May 3, 2024

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

Water Intrusion/Loss Investigation Report for May 1, 2024

Thorough visual and thermal investigations were conducted at Norman Public Library Central on Wednesday night, May 1, 2024, and Thursday morning, May 2, 2024, following heavy rainstorms. The assessment revealed numerous points of water intrusion within the facility. All accessible areas of potential water intrusion found through thermal imaging were verified with a penetrative moisture meter. Structural drying equipment, water diversion systems and selective demo were 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 revealed signs of water intrusion on the west wall next to the book return station. There was also water in the bottom plate of the wall track system. Thermal imaging revealed signs of water intrusion in the plumbing chase area at the center of the West wall. The diversion systems that were put in place had water in them. The dense glass in both areas has slightly elevated moisture levels; however, no drying equipment is warranted in this room currently.

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

Entrance/North Side:

- Thermal Imaging revealed a line of wet splatter areas on the floor and on ceiling tiles that appear to be aligned with a large I-beam running the length of the room. The flooring had elevated moisture levels. We will structurally dry this area. The water intrusion in this area is potentially coming from the second-floor South window area. Water is intruding into the HVAC floor vent system and then dripping onto the structural beam below them, down to the kids’ area based on water trails and the floor plan layout. We will be adding a new diversion system in this area on Thursday, May 2, 2024, to prevent further damage. Structural drying equipment, including 4 dehumidifiers and 5 axial fans, has been set up. We also covered the bookshelves with 6 mil plastic to protect the books from water damage.

Northeast Corner:

- A highly saturated furred-out wall near the northeast door was located via thermal imaging, and moisture content was confirmed to be 92% when tested with a penetrative moisture meter. The carpet below this wall was affected. The source of water intrusion is unknown currently; however, it appears to be coming

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from the outside wall and/or the roof. Selective demolition is recommended to determine the cause of the water intrusion and prevent further damage and/or microbial growth in this area. While a third-party contractor is selected for exterior repair work, this area will be structurally dried. One dehumidifier and two axial fans were set in place.

South Side:

- Wet ceiling tiles and carpet near the south side windows and a support column were located using thermal imaging and confirmed with a penetrative moisture meter. The source of water intrusion is currently undetermined. We recommend selective demolition to further investigate and help prevent further microbial growth, as this area continues to be an issue with most rainstorms. Structural drying equipment was set up, including 1 dehumidifier and 2 axial fans.

3. Second Floor:

South Side, Below Patio:

Thermal imaging revealed a wet spot on the carpet beneath a roof drain located on the balcony above. Two roof drains are present in this area, and both exhibit signs of leakage. Water diversion systems will be installed to prevent secondary damage and microbial growth. Structural drying equipment, including one dehumidifier and two axial fans, has been deployed.

Staff Breakroom:

- A water diversion bin, set up by a window on the north side of the break room, collected a significant amount of water. This water intrusion may be due to a roof leak or siding issue. The bin was emptied and reset, and no drying equipment was necessary.

South Wall of Windows:

- Thermal imaging and visual inspections have detected moisture that has collected at the bottom of five windows in this area. All the windows are in different sections of this wall. Starting from the west side, the affected windows are #35, #34, #13, #39, and #40. In this area, the water may be coming from the awning above the windows. No structural drying equipment is needed in this area. We recommend removing the HVAC floor vent to help monitor water intrusions into the kids' area.

Room 226 – Maker Lab:

- Thermal imaging detected moisture in the outside south wall near an outlet. The moisture meter reading of 24% confirmed that the drywall was wet. Two axial fans and a dehumidifier were set up for structural drying. The source is unknown currently. We recommend selective demolition to determine the source of the water intrusion.

4. Third Floor:

Room 305 – Pioneer Room:

- Thermal imaging detected moisture in the water diversion system, and visible water was found in the water collectors. No structural drying is needed.

Room 301 – Oklahoma Room:

- The thermal imaging camera showed moisture present in the east wall, but no drying equipment was placed. There is pre-existing microbial growth in this area that the client elected not to remediate at this time. Selective demolition would have to be done to find the source of water intrusion on this wall.

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.


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 the structural drying process, address the high temperatures and humidity throughout the facility, and treat the facility with an antimicrobial product to help deter additional microbial growth and spread. Remove drywall that has been impacted by continued water intrusion. We also recommend installing more water diversion systems in common leak areas.

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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