



Occupational Health & Safety, Environmental Consultants

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Mr. Mark LaFleur
Director of Plant Operations
Town of Needham
1330 Highland Avenue
Needham, MA 02492

RE: Site Inspection Report
High Rock School

Dear Mr. LaFleur:

OccuHealth, Inc. (OHI) is submitting this report for the work recently completed at the High Rock School, Needham, Massachusetts. The purpose of the site inspection was to evaluate water intrusion and possible mold issues in the school.

Site Inspection and Recommendations

Classrooms and Offices

OHI inspected all of the classrooms and offices. In general these areas are in very good condition. Rooms 14 and 15 on the lower level have evidence of water damage. There is also evidence of water intrusion in the K-wing along the wall that faces the south and this includes the bathroom near the exit. There are stained ceiling tiles and stained walls that are evidence that water leaks have occurred in this area.

OHI has the following recommendations: In Rooms 14 and 15 the base cabinets containing the sinks should be removed and/or replaced. In the K-wing, re-evaluate the cause of the water staining and water damaged ceiling tiles in this area to make sure that these leaks have been fixed. The ceiling tiles should be replaced and the walls should be repainted.

Gymnasium

Only a few issues were found with the gym area. The exterior walls that face the east and west in the stage area show water damage. There is severe efflorescence on these walls with failing paint and salt deposits caused by water infiltration through the walls. Inspection of the exterior shows that there are places where the exterior has been compromised by missing mortar or long cracks caused by settling of the building. These problems allow water to infiltrate the wall and the result is the efflorescence.

OHI recommends that the exterior wall be repaired to eliminate the water infiltration issue. The interior walls should be cleaned and repainted.

Cafeteria

The cafeteria is at grade level and the slab floor is covered with vinyl tile. There is evidence of water migration through the slab in large areas of the floor. This is evidenced by the development of dissolved adhesive that is slowly migrating from below the tiles up through the cracks between the tiles and depositing as brown stains on the tiles. Although this is not a health hazard, it is an issue with aesthetics because the staining has the appearance of mold. There is no short term fix for this problem other than regular cleaning because the moisture is migrating through the slab. OHI has seen this problem in buildings and the best fix was to remove the tiles, seal the floor and then replace the tiles. Since this condition does not represent a health or safety issue, OHI does not have any recommendation at this time.

A second ongoing problem with moisture is that the cafeteria has had chronic water problems in the summer due to the ambient conditions that on occasion allow surfaces to stay below the dew point temperature. This results in condensation that can lead to mold growth. During the time that the library was in the school, dehumidifiers were operated to help control the relative humidity in the cafeteria. These dehumidifiers are still in the space and are available for use this summer.

OHI recommends that the dehumidifiers be operated for the entire time period when the indoor dew point temperature exceeds 62.5 °F or the indoor relative humidity exceeds 60% RH. Fans should be operated to move the air in the cafeteria. If any items are to be stored in the cafeteria, they should be wrapped in plastic. An alternative to storage in the cafeteria would be to put stored items in the gymnasium.

Crawl Spaces

There are three crawl spaces under the building. Two of these spaces have had water intrusion problems and are mechanically ventilated. The third crawl space is connected directly to the boiler room and does not have chronic water problems. OHI has inspected these crawl spaces on more than one occasion. The crawl space under the split level wing has had the most severe water issues and is currently vented by means of an exhaust fan. This fan was installed at the time that the library began using the building.

The crawl space under the administration section of the building is next to the boiler room but not connected to it. This crawl space is also mechanically vented and does not have any problems at this time.

The third crawl space is under the K-wing. The opening to this space is connected directly to the boiler room and, as a result, stays dry due to the elevation and warm air that enters the space from the boilers.

OHI recommends that the crawl spaces be inspected at the start of the heating season to make sure that steam leaks are identified and repaired immediately in order to keep the steam (moisture) from creating a mold problem in the crawl spaces.

Airborne Mold Monitoring Survey

OHI recommends that a comprehensive airborne mold evaluation survey be made after the recommendations for the classrooms, cafeteria and gymnasium have been completed. The timing of the survey should be coordinated with any plans for occupancy of the school beyond the current levels. If the work in the cafeteria and gymnasium are delayed, then the survey can be completed before the recommendations for these areas are completed.

Please call me at (508) 339-9119 with any questions regarding this report. Thank you for the opportunity to be of continued service.

Regards,
OCCUHEALTH, INC.



Thomas E. Hamilton, CIH