

Recommendation: Indoor air quality can be improved by addressing the moisture issues. Based on previous experiences, carpet on slab on grade floors is subject to absorbing moisture from the underlying concrete and holding it in place. This presents a breeding ground for mildew growth as well as mold spore propagation. Where odors and/or moisture are detected in the carpeted areas in this building, it is recommended that carpet be removed and replaced with floor tile.

Response: All carpet has been replaced with VCT tile flooring. We will continue to investigate all areas where reported concerns about odor/moisture are reported.

Recommendation: To further reduce moisture migration toward the building slab, it is recommended that a French drain be installed between the school and the high ground of the playground area to drain groundwater toward the streets in order to keep it away from the building. Surface water drainage toward the building also keeps the slab wet. Swales should be constructed around the building on the playground side to keep surface drainage away from the building, draining the water toward the street in the same manner as the French drains. The slopes of the courtyard surface areas would be improved to better drain water away from the buildings toward the existing drop inlets. These drop inlets may have to be lowered to achieve these results.

Response: We are working with an engineer to review these potential drainage related improvements.

Recommendation: RHs within classrooms should range ideally between 30 and 60 percent. In those classrooms where the HVAC system cannot maintain RH at 60 percent or below, install room dehumidifiers. To help teachers and students understand the relationship of these units to their comfort, make the operation and maintenance a part of an ongoing science project where they record temperatures and RHs and the amount of water removed daily from the dehumidifiers.

Maintaining RH above 30 percent in cold weather months will be difficult in that when the interior of a building is heated, the RH will decrease because a volume of warm air can contain more moisture than an equal volume of cool air. Therefore, teachers and students will have to adjust to the dry conditions, which bring on the dry nostril and skin/scratchy throat symptoms.

Response: Staff has tested all areas and on average, relative humidity readings were at or below 60 percent RH. A de-humidification system was recently installed, which has also helped this situation.

Recommendation: Classroom areas crowded with materials need to be reorganized to allow access to staff and custodians for cleaning purposes.

Response: We will work with the school to help address this issue.

Recommendation: There appears to be a tendency to replace ceiling tiles stained by overhead leaks before the leaks themselves are repaired, to present a good appearance. This tends to cover the leak problem and delay its repair. It may be better to delay replacing the tile, which serves as a reminder and indicator of the problem, until the leak is fixed.

Response: Ceiling tiles are replaced to not have wet ceiling tiles for any extended period of time. We make every effort to repair reported roof leaks as soon as possible.

Recommendation: Concerns were expressed in the meeting regarding the removal of the leaking fuel tanks, asbestos from the older building before construction, and the quality of the drinking water. It was apparent from the discussions that the asbestos and contaminated soils were properly removed and did not then, or now, present health problems. Reviews of the water laboratory tests indicated the water quality was good.

Response: We appreciate the independent verification that any work involving contaminated soils and asbestos removal was properly done. We also appreciate the independent evaluation noting no issues with the quality of the water in the school.

Recommendation: CO2 presence at the levels reported is not a health issue, but an indication of the need for more fresh air once these levels rise above the 1400 ppm level. Ambient air conditions within the school will normally be about 500-700 ppm at the time of the start of the school day. These values will rise about 100 ppm per hour during the school day. In the later afternoon hours, the higher values will have a lethargic effect on students but not a health threat. Increasing fresh airflow will mitigate those situations.

Response: We appreciate an independent verification that CO2 levels as reported in the school do not present a health issue. In response to trying to get additional fresh air in the school, the district recently installed a variable frequency drive in an area of the school for this reason.

Recommendation: On the roof, the metal cap flashing on the north side must be extended down to cover the gaps between the existing flashing and the brick wall. In areas under the foam roof sections, any increase in the number of leaks will signal the need for those roof sections to be replaced.

Response: All reported roof leaks/concerns were reviewed and corrected. This is not to say that there will not be any future roof leaks, but those that have been reported were investigated and corrected.