

OLMSTED ENVIRONMENTAL SERVICES, INC.

1992 Route 9, Garrison NY 10524

phone 845 424 4077 • fax 845 424 3482 • email Olmsted.mac@me.com

Date: February 2, 2021

Report for: Margaret Sergent
Second Vice-President
Health and Safety Chairperson
30 North Union Street, Suite 301
Rochester, New York 14607

Email: mmsergent@rochesterteachers.com

Prepared by: Ed Olmsted, CIH, CSP

Subject: **Ventilation Screening**
Dr. Charles T. Lunsford School No. 19 Rochester, NY
465 Seward Street, Rochester, NY 14608

On Wednesday, January 27, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at Dr. Charles T. Lunsford School No. 19 at 465 Seward Street, Rochester. The survey team also included a representative of the Rochester City School District (RCSD), Matthew Seeger, Schools Facilities Management.

The survey was done as part of the exposure control program for pandemic SARS-CoV-2. RCSD instituted many exposure control measures for the coming year including mandatory wearing of masks, distancing of occupants (reduced occupancy), enhanced cleaning, in-school COVID-19 testing, operating the ventilation systems with a maximum fraction of outside air, installation of ASHRAE MERV 13 filters, where the HVAC units can accommodate them, and the provision of air purifiers to all occupied spaces. Each school will temperature screen entrants and have a nurse's office. Students with symptoms or suspected of having COVID-19 will be isolated in an isolation room. More information on the RCSD reopening plans can be found on the [RCSD website](#).

The building is intended to be utilized in the Phase 2 February reopening for blended and in-school classes. This inspection was requested prior to the staff and students' return. The survey included the following:

1. A visual inspection of a number of representative classrooms;
2. A visual inspection of the building ventilation system(s); and
3. Taking airflow measurement at supply outlets, and return/exhaust grilles using a TSI 9515 VelociCalc Air Velocity Meter (anemometer).

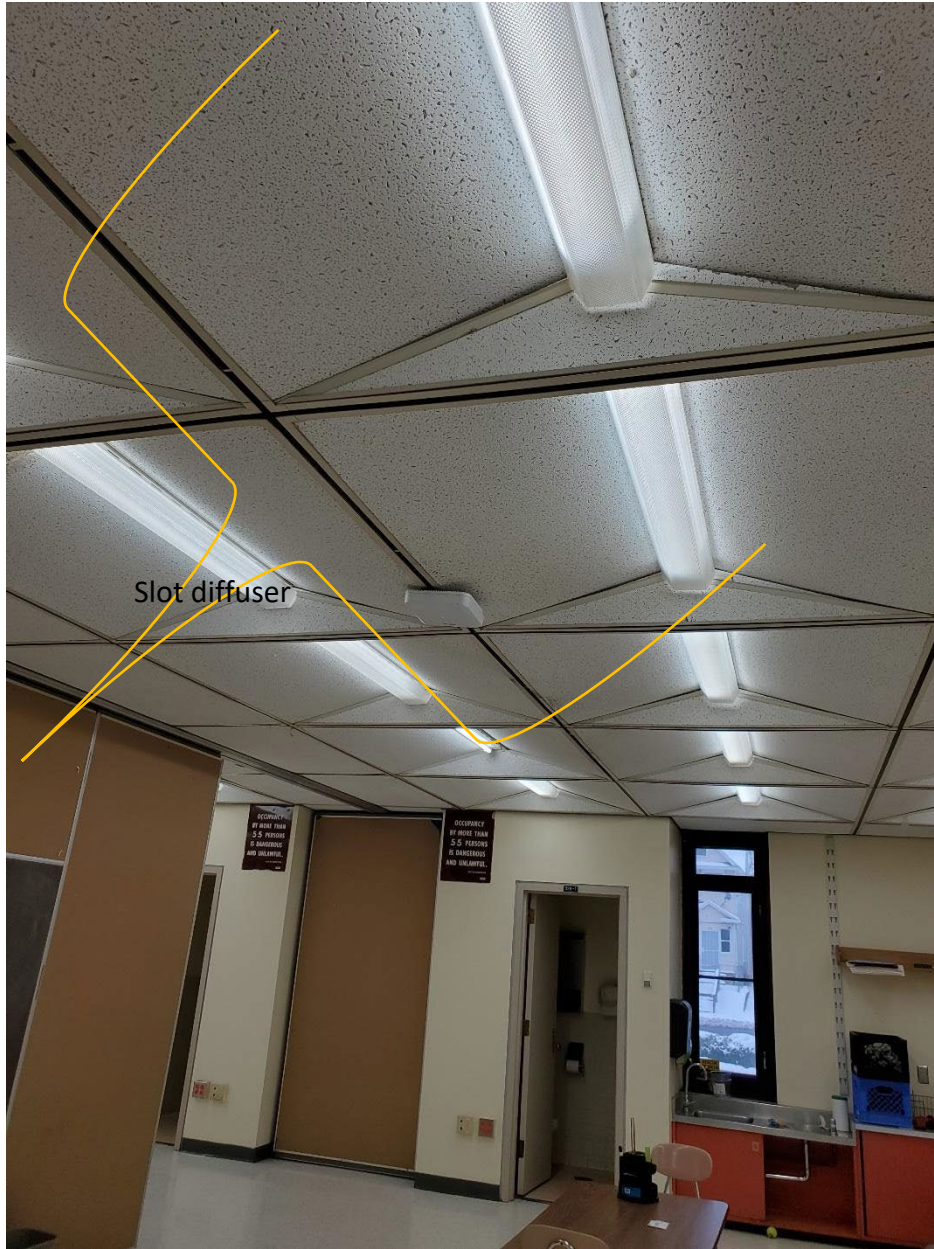
The findings include:

1. School No. 19 has a central heating and air conditioning ventilation system that serves all classrooms. Each floor is served by an air handler unit located in a mechanical room on each corresponding floor. The building has no operable window and relies solely on mechanical ventilation.
2. The central air handler units are designed to provide a mixture of outside air and return air modulated by dampers. Each supply fan has an associated return fan. Mixed air is filtered through MERV 13 filters and heated or cooled in fan coils in the unit. Filters with MERV-13 or higher ratings are recommended for HVAC systems due to their ability to filter smaller particles, including viruses.
3. From these air handler units, that tempered and filtered air is distributed via a system of ductwork and variable volume damper units (VAVs). The ductwork terminates in an occupiable space at slot diffusers located on the ceiling around ceiling tiles or square diffusers. In addition, the space above the drop ceiling serves as a return air plenum.
4. All the above-mentioned components of the school's central mechanical ventilation systems were examined and found to be working.
5. Exhaust ventilation was also found to be working.
6. The windows are not operable and the mechanical ventilation is the sole source of outside air.
7. Not all rooms could be inspected but a representative number was included in the inspection. These rooms included Rooms 106, 116, 117, 228, 306, 307, 328, and the main office. The supply outlets were screened with a thermal anemometer to determine whether supply air was discharging from the outlet. The style of outlets varies between square ceiling mounted diffusers and linear slot diffusers around ceiling tiles.
 - a. Minimal air flow was noted in Rooms 106, 117, and 118. Further assessment will be needed to determine the cause and remedy.
 - b. It was found that there was a good flow of ventilation air in all other rooms visited.

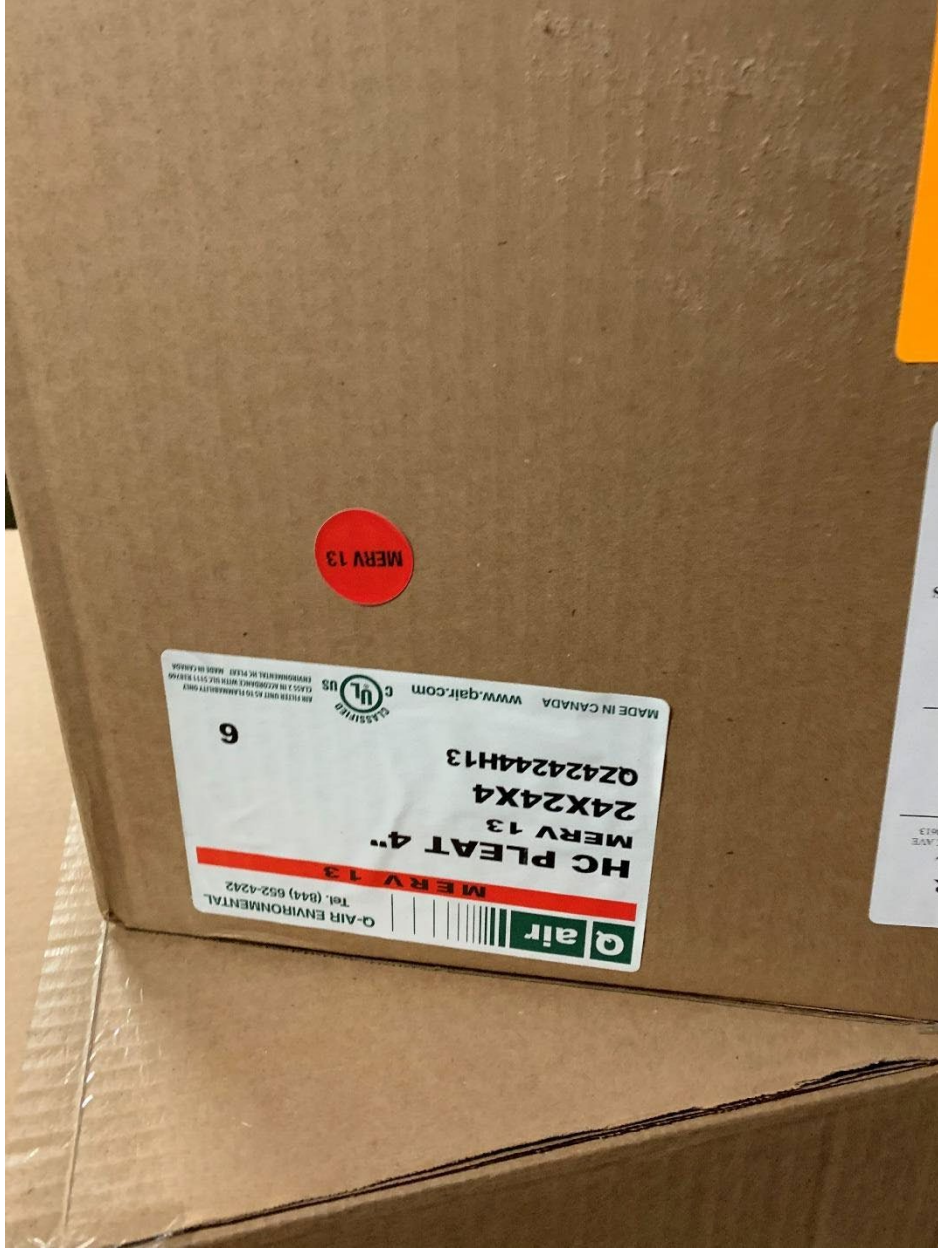
CONCLUSIONS

Overall, the school's ventilation can help reduce the risk of exposure to SARs-CoV-2 and meets the published guidelines. Though classrooms in School No. 19 do not have operable windows, the mechanical ventilation system is capable of providing a MERV-13 filtered mixture of outside air and return air. Ensure other safety and health precautions, such as mask-wearing, social distancing, cleaning/sanitization, and routine handwashing, are also practiced to prevent the transmission of SARS-COV-2. Lastly, there are routine maintenance concerns that should be rectified prior to returning these spaces back for instruction. They include:

- 1) Troubleshoot the lack of supply air distribution noted in Room 106, 117, and 118.
- 2) Inspect all supply air dampers and ensure that the dampers controlling the rate of supply air through diffusers are operational.



Linear slot diffuser located in Cluster Room 328. Typical of many classrooms visited.



New shipment of MERV-13 filters installed in air handler units



Outside air plenum in an air handler unit. The outside air dampers is minimally open due to temperature constraints.