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Subject: **Ventilation Screening**
Rochester Early Childhood Education Center
107 N Clinton Ave, Rochester, NY 14604

On Thursday, January 28, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at the Rochester Early Childhood Education Center at 107 N Clinton Avenue, 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. All occupiable rooms in the Early Childhood Center are provided ventilation, heating and cooling via several packaged rooftop units (RTUs). There are also windows (rescue windows) in the center that can be opened for natural ventilation, though they generally are not due to how wide they can swing open.
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 filters and heated and cooled in either a hot or cool deck duct. At the time of the inspection MERV 8 filters were being utilized in the air handlers.
 - a. During the SARS-CoV-2 pandemic, filters with MERV-13 or higher ratings are recommended for HVAC systems due to their ability to filter smaller particles, including viruses. The air handler units were adjusted at the time of the inspection to provide 100% outside air without any return air (recirculated air). As the system is operating to provide the maximum amount of outside air with no recirculated air, the need for high efficiency filters is offset. Outside air is generally free of SARS-CoV2. If the system was recirculating return air, air returned from occupied spaces, filtration should be utilized.
3. From these air handler units, that tempered and filtered air is distributed via a system of ductwork. The ductwork terminates in an occupiable space at square diffusers located on the ceiling. In addition, the space above the drop ceiling serves as a return air plenum.
4. Not all rooms could be inspected but a representative number was included in the inspection. These rooms included Rooms 112, 114, 205, 205C, 205D, 209, 210, 211 and 213. The supply outlets were screened with a thermal anemometer to determine whether supply air was discharging from the outlet. All of the visited rooms were found to have a good flow of ventilation air.

CONCLUSIONS

Overall, the school's ventilation can help reduce the risk of exposure to SARS-CoV-2 and meets the published guidelines. The mechanical ventilation system is capable of ventilating the building. Replacing the existing MERV 8 filters and installing MERV 13 filters may also reduce the risk of exposure to SARS-CoV-2. Until the MERV 13 filters have been installed and for the building to be safely occupied, RCSD Facilities should continue to adjust and operate the building's ventilation system so that it minimized or as closely as possible eliminate the amount of recirculated air mixed with the outside air.

In addition, most classrooms also operable windows that can be used to provide natural ventilation. Where possible and if necessary, teachers can open two windows in each room to an opening of two inches. This will provide natural ventilation without causing the room to become cold. Lastly, 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.