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Subject: **Ventilation Screening**
John Walton Spencer School No. 16 Rochester, NY
321 Post Ave, Rochester, NY 14619

On Wednesday, January 27, 2021, Ed Olmsted and Margaret Sergent, representing the Rochester, NY Teachers Association (RTA) inspected representative classrooms at John Walton Spencer School No. 16 at 321 Post Ave, 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 have temperature screening upon entry 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 School No. 16 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. 16 has a central heating and air conditioning ventilation system that serves all classrooms. In addition, there are operable windows for natural ventilation.
2. The central air handler units are located in mechanical rooms throughout the building. They appear modern and well-maintained. The 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 8 pre-filters and then 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 that has variable air volume dampers (VAV) with re-heat coils. VAVs modulate the supply of air to a zone based on the temperature requirements. The ductwork terminates in an occupiable space at square diffusers located on the ceiling. In addition, passive return grilles were also observed in classrooms usually in between student storage cubbies.
4. All the above-mentioned components of the school's central mechanical ventilation systems were examined and found to be working.
5. Not all rooms could be inspected but a representative number was included in the inspection. These rooms included Rooms 108, 123, 131, 133, 202, 209, 304 and 301. The supply outlets were screened with a thermal anemometer to determine whether supply air was discharging from the outlet. All rooms visited were found to have a good flow of ventilation air from the supply diffusers.

CONCLUSIONS

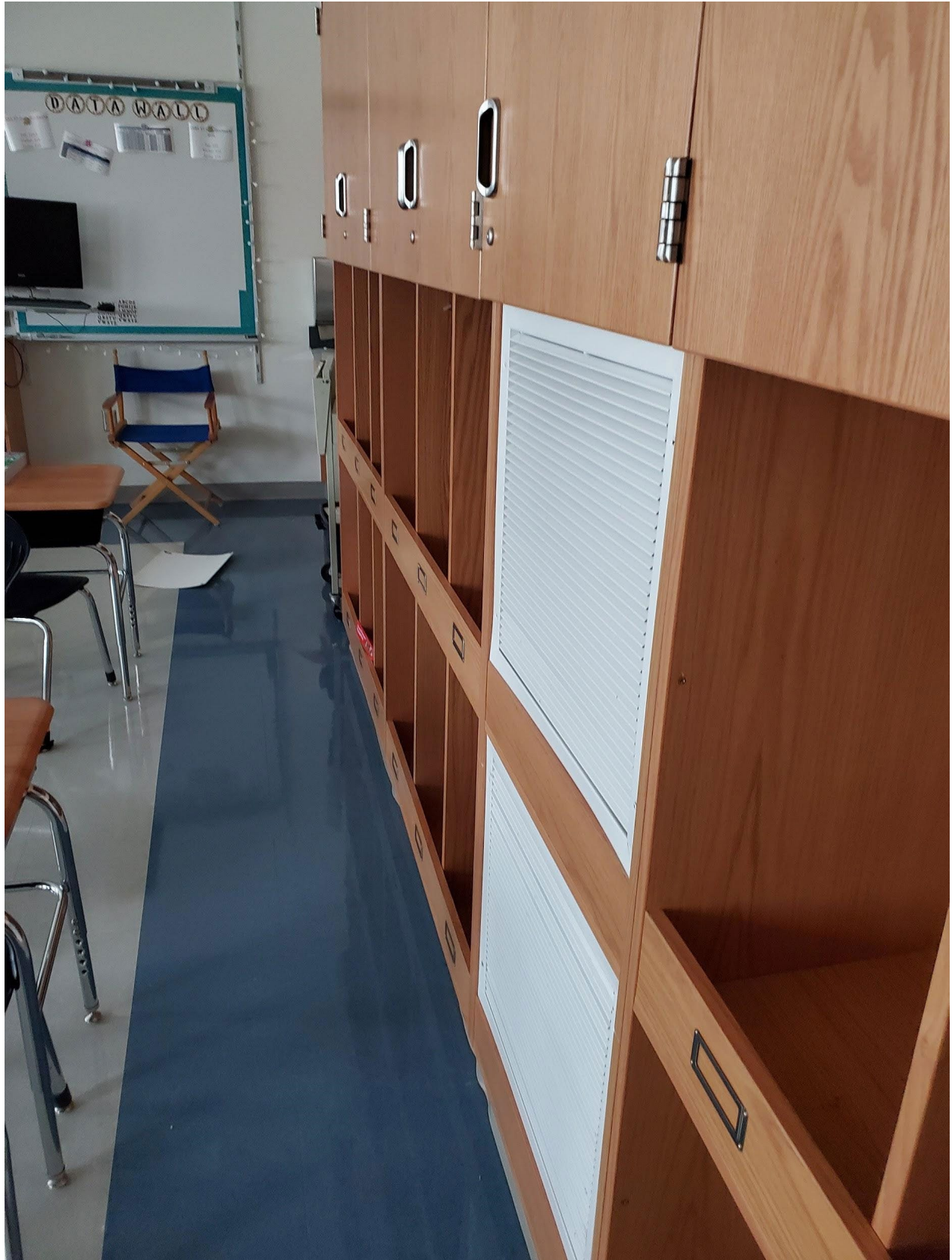
Overall, the school's ventilation can help reduce the risk of exposure to SARs-CoV-2 and meets the published guidelines. The mechanical ventilation system is capable of providing a MERV 13 filtered mixture of outside air and return air. Most classrooms also have operable windows that can be used to provide 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.



MERV 8 pre-filters with MERV 13 box filter in air handler unit



Typical ventilation supply diffuser in classrooms located on the ceiling



Typical return grille in classrooms among the student cubbies