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Report for: Margaret Sergent
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Subject: **School Inspection**
School 33 Rochester, NY
500 Webster Ave., Rochester, NY 14609

On Tuesday, December 22, 2020, Ed Olmsted and Jennifer Long as well as Margaret Sergent, representing the Rochester NY Teachers Association inspected representative classrooms at School 33 located at 500 Webster Ave., Rochester, NY. The survey team included representatives of the Rochester City School District (RCSD) including Stacie Darby, Environmental Health and Safety, Matthew Seeger, Schools Facilities Management, and Tom Keysa of Schools Facilities Management. The survey was done as part of the exposure control program for pandemic SARS-CoV-2. The Rochester City Schools District instituted many exposure control measures for the coming year including mandatory wearing of masks, distancing of occupants (reduced occupancy), enhanced cleaning, operating the ventilation systems with a maximum fraction of outside air, and 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.

The building will be utilized this January for in-school classes starting with special education students and phasing in elementary and middle school students. The building includes School 33, a city rec center and a public library. The school inspection was requested prior to the students' return. The survey was done on December 22, 2020, and included the following:

1. A visual inspection of a number of representative classrooms, nurse's office, and isolation room as well as the mechanical room(s) serving the school;
2. Taking airflow measurement at supply outlets, return/exhaust grilles, univents, and open windows using a TSI 9515 VelociCalc Air Velocity Meter (anemometer); and,
3. A visual inspection of the building ventilation system(s).

The findings include:

1. School 33 has a central ventilation system that serves the large public assembly spaces, and each classroom/office has a univent system. Briefly, the building's ventilation system consists of the following.
 - a. The air handler units that serve the public assembly spaces, such as the gym, auditorium, and atrium, are in good condition. The air handlers provide outside air that is preheated using a heat wheel. Each supply fan has an associated return/exhaust fan. Supply air is filtered through MERV 13 filters and heated or cooled in fan coils in the unit. Filters with MERV-13 or higher ratings can trap smaller particles, including viruses.
 - b. The stand-alone univents found in most classrooms have a heating coil and outside air inlet and are located under the windows in each classroom. These univents are direct cooled and have a heating coil that is provided hot water by the boiler. In addition to the univents, each classroom has a bank of windows on the exterior walls that can be opened for outside air.
 - c. There are also exhaust fans that serve the bathrooms located in each classroom as well as the bathrooms in the common hallway.
2. The nurse's workspaces and the isolation room are located in the health clinic suite, Room H100. The room is serviced by an air handler unit. The unit pulls in outside air and mixes it with a percentage of return air, filters it through MERV 13 filters, and heats or cools it before it is delivered via ductwork. The ductwork terminates at ceiling supply diffusers that can be found on the ceiling of this room. Also located on the ceiling are return grilles where room air passively returns to the air handler units. All ceiling supply diffusers had good airflow in this suite.
3. Room 309 is a classroom to be used in early January. This room is served by operable windows, a functioning univent, and 2 ducted exhaust. The adjoining bathroom also has a working exhaust. With the window open 2 inches the flow of outside air into the room through the window was measured at 1,000 feet per minute. This provides good air exchange and ventilation.
4. Room A305 has a working ducted exhaust and the ceiling supply diffuser has good airflow.

CONCLUSIONS

The school has operable windows in the classrooms, and this is sufficient to provide natural ventilation. The classrooms also have univents that provide outside air. The classrooms have sufficient ventilation capacity to be occupied. 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. Opening the window at the top is adequate to provide sufficient ventilation to the room. The air moves through the open windows with the classroom door either open or closed.



MERV-13 Filter bank in air handler unit.



Univent in Room 309



Exhaust and relief exhaust located in Room 309.