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Date: February 6, 2021

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## Subject: Ventilation System Screening School 52 – Frank Fowler Dowd School, 100 Farmington Rd., Rochester, NY

On Friday, January 29<sup>th</sup>, 2021 Ed Olmsted and Margaret Sergent, representing the Rochester NY Teachers Association and Matthew Seeger, representing the Rochester City School District Facilities Management office, inspected representative classrooms, and the ventilation systems at the Frank Dowler Dowd School #52, located at 100 Farmington Rd. in Rochester, NY.

The ventilation 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. 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 for in-school classes for elementary school students. This inspection was requested prior to the students return in mid-February 2021. The survey included the following:

- 1. A visual inspection of a number of representative classrooms, nurses office and isolation room as well as the mechanical rooms;
- 2. Taking airflow measurement at exhaust grilles and open windows using a TSI 9515 VelociCalc Air Velocity Meter (anemometer); and
- 3. A visual inspection of the building ventilation system(s).

Rooms inspected include the principal's office, and rooms 101, B-1, 118, Art classroom, room 218,212, 221, 215, 211, 203, and 219. Observations and measurements are summarized below:

- 1. School 52 was renovated and the interior is of modern construction. The school building has a masonry exterior and is of concrete and steel construction. The building is served by univents in each classroom that provide a mixture of outside air and room air. The univents have a heating coil and filters are rated at MERV 13.
- 2. The rooms are also heated by perimeter steam radiators.
- 3. There are exhaust fans on the roof that pull air from the bathrooms, which are located in many of the classrooms. Each classroom has operable windows that can be opened for outside air. There are gravity (passive) vents in the coat closets in each classroom that allow for natural exhaust of air to the roof. Air flows to the roof from the classrooms by stack effect and thermal effects and also to relieve pressure from the uninvent mechanical supply of outside air.
- 4. Univents were inspected in rooms 101, 118, Art Classroom and they were found to be working, however they were turned off. These were turned on at the time of this survey. The other rooms all had working univents. It was indicated that the custodian will make sure all units are turned on prior to starting school.
- 5. Windows were opened in each classroom to verify they are working.
- 6. <u>Main Office (room 101)</u> The principal's office and main office have windows and are served by a central ventilation unit located above the ceiling. There are ceiling mounted supply diffusers at the ceiling. The ventilation unit was not operating at the time of this survey and facilities indicated that this would be rectified. The windows are operable in the office and the flow of outside air through an open window was checked with the flow meter. The measurements indicate that with the window open 1 inch the flow of outside air through the window is 175 cubic feet per minute. This calculates to 4 air changes per hour with outside air.
- 7. <u>Room 113</u>n- The uninvent was not running in this room. The exhaust ventilation is working. One window was opened 2 inches and found to provide 15 room air changes per hour with fresh air.
- 8. <u>Art Room</u> The uninvent is mounted at the ceiling and was not operating and could not be turned on. The unit has a pleated filter. Facilities management will investigate and operate the unit. The windows can be opened in this room. This room is planned for the isolation room.
- 9. <u>Room 218</u> This is a small room used by one person. There is no ventilation. This room should only be used as a single person occupancy office.
- 10. Rooms 212, 221, 215, 211, 203 and 219 all had operation univents and windows.

## CONCLUSIONS

The school has univents with MERV 13 filters and that provide a mixture of outside air taken from the roof and return air. All air is filtered and heated. The exhaust fans were all working. The school is ready for occupancy. Opening a window a few inches was found to provide sufficient air changes through natural ventilation The operable windows, ventilation system in combination with wearing of masks, screening students, social distancing and sanitizing of surfaces as well as other controls provide a sufficient level of infection prevention.



Cleaning materials, PPE and other COVID related supplies



School is heated and ventilated by univents that provide outside air The windows can be opened for natural ventilation



Vents in closet provide natural exhaust ventilation