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Date: December 27, 2020

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Subject: **Ventilation System Screening**
Wilson Foundation School
200 Genesee St, Rochester, NY

On Monday December 21, 2020, Ed Olmsted and Jennifer Long as well as Margaret Sergent, representing the Rochester NY Teachers Association inspected representative classrooms and the ventilation systems at Wilson Foundation School located at 200 Genesee Street in 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 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.

Wilson Foundation School is located at 200 Genesee St, Rochester, NY and is of modern construction. The school building serves K through 8th grade and has a glass and masonry exterior and is of concrete and steel construction. The building is served by a central ventilation system that consists of four large supply air fans in a mechanical room. There are also a return fans associated with each of the supply fans. Return air is drawn through a ceiling plenum. The supply fans provide a mixture of outside air and return air modulated by dampers. Mixed air is filtered through MERV 13 filters and heated or cooled in fan coils in the unit. The ventilation supply system is ducted and has variable air volume dampers (VAV) with re-heat coils. VAVs modulate

the supply of air to a zone based on the temperature requirements. Air is delivered through ceiling mounted supply diffusers. The space above the drop ceiling serves as a return air plenum. The fan units are all fairly new and are in generally good condition. Classrooms have windows, one of which can be opened for outside air. The other windows cannot be opened. Opening windows is not necessary since the mechanical ventilation system delivers outside air that is heated and filtered through MERV 13 filters. There are also exhaust fans that serve the bathrooms.

The building will be utilized this January for in-school classes starting with special education students and phasing in elementary and middle school students. This inspection was requested prior to the students return. The survey was done on December 21, 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;
2. Taking airflow measurement at supply outlets, return/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).

The findings include:

1. The four supply fans and the return / exhaust fan were inspected. The supply air units are operating and have MERV 13 filters. These are recommended by ASHRAE for infection prevention. The air handler units were delivering a large fraction of outside air and almost no recirculated air.
2. Air velocity measurements were taken in a number of classrooms and from supply diffusers. All diffusers were found to have good airflow.
3. The auditorium was inspected because it will be used for an isolation room area. The supply diffusers were all found to be moving air.
4. Classroom 024 was inspected and all diffusers were found to have good airflow. In addition, the room also has 5 kitchen exhaust hoods that maybe used to supplement the passive return serving this room.

CONCLUSIONS

The school has a central mechanical ventilation system with MERV 13 filters and that provides a mostly outside air. All air is filtered and heated. The return and supply fans were all working. The exhaust fans were also working. Temperature readings indicate the heating system is working in each classroom. The school is ready for occupancy. The ventilation system filters all supply air through MERV 13 filters and mixes outside air. The 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.



MERV 13 Filtration in air handlers