

REPORT TITLE:	<b>HEATING, VENTILATION &amp; AIR CONDITIONING - Update</b>
REPORT NUMBER:	7.1) BD-04-2021
DESTINATION:	Board Meeting #04
DATE:	Wednesday, February 3, 2021
AUTHOR OF REPORT:	ALLEN MORRISON, CONTROLLER – PLANNING & FACILITIES
TYPE OF REPORT:	<b>INFORMATION</b>

---

### **Background:**

1. Since March 2020 school boards in Ontario have been challenged with the impacts of the COVID19 pandemic.
2. COVID19 has not been confirmed to be airborne, but can travel through aerosol droplets. HVAC is considered an important part of managing conditions influencing the spread of viruses and is a focus area for the board. Scientific evidence does not indicate that transmission of COVID-19 occurs via HVAC systems at this time; and actions taken by the board are precautionary measures.
3. Operations activities have been implemented to support level of service assurance for school facilities ventilation:
  - a. Standard HVAC system configurations were evaluated by the Facilities Services team to confirm system capability and to confirm impact of changes (air changes per hour and airflow) – refer to September 16, 2020 Report: HVAC During COVID Pandemic.
  - b. Building Automation System (BAS) alarming/alerts immediately notify Facilities Services when systems are not operating, allowing for prompt and proactive response.
  - c. As part of the daily building startup procedure, operating inspections are conducted by Custodial Services to confirm operation of system units and verification of alarms and anomalies. These provide an additional means of proactive response.
4. In August 2020 the Province of Ontario announced available funding for School Board HVAC retro-commissioning, equipment/upgrades, and filters. SMCD SB has access to approximately \$500k.

### **Comment:**

5. The board has consumed \$150k of available Provincial funding and completed the following activities:
  - a. Upgrading all filters to MERV13 (from MERV11) to enhance the filtration capabilities of the HVAC systems and improve air quality;
  - b. Purchase of 30 Portable Air Filtration Units to add resiliency to the board's HVAC level of service and to respond to potential HVAC failures;
  - c. Engineering review of HVAC system types to roadmap changes in configuration and operation requirements in support of optimal performance and safety during COVID19.

6. Major findings from the Engineering Review of HVAC equipment with statuses and roadmap are summarized as follows:
  - a. Systems reviewed have the appropriate capability to meet ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) guidelines.
  - b. Install MERV13 filters for improving the treatment of air supplied to spaces. This recommendation has already been actioned with MERV 13 filters installed for SMCDSB HVAC equipment.
  - c. Perform retro commissioning of damper systems to confirm proper function and response to controls and automation. This activity is in progress to acquire services for the retro-commissioning of all HVAC damper systems with BAS (Building Automation System) verification.

**Conclusion:**

This report is provided to the Board for information.