



December 1, 2021

We are writing to share COVID-19 mitigation strategies that are outlined in ASHRAE's official COVID-19 guidance documents which apply to a variety of building types, including schools. The guidance documents are available on the ASHRAE website at <https://www.ashrae.org/technical-resources/resources>

Potential mitigation strategies and the accompanying sources (in brackets) are as follows:

- Upgrade air system filters to filters with higher minimum efficiency reporting value (MERV) ratings. MERV 13 or better is suggested as a minimum target to remove airborne viral particles in recirculating systems, MERV 14 is preferred [1,2].
- Install in room air cleaners with high-efficiency particulate air (HEPA) filters [1,2,3,4]. HEPA filtration units within the space are recommended if MERV 13 filters cannot be installed due to HVAC system constraints [3].
- Provide and maintain at least the required minimum outdoor airflow rates for ventilation as specified by applicable codes and standards [5]. HVAC system operation should be verified by commissioning. [5]

Use of supplemental, in room HEPA air cleaners to remove airborne viral particles are supported by ASHRAE guidance if the primary ventilation system does not provide the suggested MERV 13 level of filtration or if the ventilation system's ability to mitigate viral particles has not been verified and measured through engineering analysis (such as commissioning).

ASHRAE, ASHRAE Northern Alberta Chapter, and ASHRAE Southern Alberta Chapter do not provide engineering advice. These mitigation strategies should be reviewed with a practicing professional engineer with expertise in HVAC systems before considering implementation.

Please feel free to contact us with any questions.

Regards,

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[1] Page 2, https://www.ashrae.org/file%20library/technical%20resources/covid-19/preparation-in-the-pandemic-iaq-in-schools_final2.pdf
[2] Page 19, <https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-reopening-schools-and-universities-c19-guidance.pdf>
[3] Page 33, <https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-reopening-schools-and-universities-c19-guidance.pdf>
[4] Page 10, https://www.ashrae.org/file%20library/about/position%20documents/pd_infectiousaerosols_2020.pdf
[5] <https://www.ashrae.org/file%20library/technical%20resources/covid-19/core-recommendations-for-reducing-airborne-infectious-aerosol-exposure.pdf>