VENTILATION SYSTEM OVERVIEW

This template has been developed to support school districts in sharing information on ventilation systems at the school level. This includes information on how systems meet requirements for regular inspection and maintenance, and additional mitigations that have been put in place to promote student and staff safety throughout the pandemic.

School District:	71 - Comox Valley
School Name:	Highland Secondary
REQUIREMENT: Regular inspection and maintenance of HVAC systems	Yes/No: Yes
	Date of last inspection: 2022-02-22
	Date of next inspection: 2022-06-27
	Date and type of most recent maintenance: Regular semi-annual HVAC system maintenance.
RECOMMENDATION: Increase supply of outside air	Yes/No: Yes
	Detail: Reprogrammed building controls to double the volume of outside air brought into the building.
RECOMMENDATION: Upgrade filtration, including installing MERV-13 filters, where possible	Yes/No: Yes
	Detail (Including filter grade): The majority of HVAC filters are MERV-10. Where the HVAC unit is engineered to accept MERV-13 filters they are installed. Approximately five percent of HVAC units in schools can accept this size and grade of filter.
RECOMMENDATION: Use other air cleaning or treatment technologies	Yes/No: No
	Detail: SD 71 is following the ventilation recommendations from the Public Health Agency of Canada and the American Society of Heating and Refrigeration Engineers for Schools.
RECOMMENDATION: Manage energy use and air distribution through building automation control systems	Yes/No: Yes
	1. Detail: the HVAC systems were reprogrammed to comply with the American Society of Heating and Refrigeration Engineers (ASHRAE) best practices and recommendations for the prevention of COVID-19 transmission in schools. The changes include: a. Ventilation system programmed to run a building flush for two hours prior to occupancy; b. to significantly increase the volume (doubled) of fresh air being brought into the buildings;

	c. lowered the CO2 setpoint to 800 PPM which significantly increases fresh air volumes in the school; d. Increase the duration of all systems with occupancy sensors to run systems for a minimum of 2 hours. Thus, when you leave the classroom at a break time the system keeps exchanging the air in the classroom; and All large air-handling systems such as the gymnasiums, and other large single zones, run the systems at 100% rather than a reduced fan speed which is the normal mode
Other Relevant Information:	Here is a checklist of items that are completed during a typical HVAC semi-annual site maintenance: • All filters changed • Mechanical intakes / exhausts inspected and cleaned if required • Unit operation verified and devices (internal and external) function tested via DDC control • Air Damper operations confirmed and linkage hardware tensioned where required (ensures fresh air is being brought into each space) • Motor rotation, operation and belt conditions confirmed. Belts inspected and changed as required, bearings and motor shafts lubricated • Exhaust fans inspected, operation confirmed, belts inspected and changed as required, pulley shafts lubricated as required
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