

Breck School

COVID-19 Response Plan
Mechanical Systems

Summary Report
February 1, 2021

HVAC System – COVID-19 Response

- Following CDC and ASHRAE guidelines and recommendations
 - [ashrae.org/technical-resources/resources](https://www.ashrae.org/technical-resources/resources)
 - [cdc.gov/coronavirus/2019-ncov/index.html](https://www.cdc.gov/coronavirus/2019-ncov/index.html)
- Breck School HVAC review items:
 - System operation and capabilities analysis – **complete**
 - Ventilation and outdoor air analysis - **complete**
 - Filtration analysis – **complete**
 - Supplemental sterilization/neutralization system analysis - **complete**
 - Monitoring and tracking of system performance and operation – **ongoing**

HVAC System – COVID-19 Response

- Action plan and execution
 - HVAC System operation and capabilities
 - Evaluate options to maintain air exchange/turnover in each classroom every 15 – 20 minutes - **complete**
 - Maintain negative airflows for all bathroom facilities - **complete**
 - Operate ventilation systems 24/7 - **complete**
 - Clean the interior of primary ductwork main supplies – **complete**
 - Seal portions of existing ductwork to minimize air loss and improve air delivery to spaces - **complete**

HVAC System – COVID-19 Response

- Action plan and execution
 - Ventilation and outdoor air
 - Evaluate the utilization of outdoor open air environments whenever possible - **complete**
 - Maximize building outdoor air intakes to 100% whenever possible - **complete**
 - Over-ride any demand control ventilation controls to maximize outdoor air delivery – **complete**
 - Modify HVAC systems and ductwork for Nurse care/observation areas to provide non-recirculation air distribution – **complete**
 - Evaluate replacement of existing HVAC systems where necessary to provide additional capacity/operation
 - Foreign Language rooftop replacement and ductwork modifications – **complete**

HVAC System – COVID-19 Response

- Action plan and execution
 - Filtration
 - Review of existing HVAC delivery units for current filtration capability and upgrade opportunities – **complete**
 - Initiate upgrade to MERV 13 filter media where possible
 - MERV 13 filter media installation for HVAC units – **complete**
 - Provide active monitoring and filter replacement based on utilization - **ongoing**

HVAC System – COVID-19 Response

- Action plan and execution
 - Implement supplemental neutralization/sterilization for HVAC systems analysis – **complete**
 - Selection of AtmosAir Bipolar Ionization system for installation – **complete**
 - Current areas designated for installation
 - Pool - **complete**
 - Boy's Lockers - **complete**
 - Girl's Lockers - **complete**
 - AHU SB-1 - **complete**
 - Gym C – **complete**
 - Loading dock – **in process (completion by end of February, 2021)**

HVAC System – COVID-19 Response

- Action plan and execution
 - System performance and operation
 - Monitoring of overall system setpoints - ongoing
 - Filter media performance and replacement - ongoing
 - Monitoring of outdoor air temperature and ventilation rates – ongoing
 - Adaptation of damper settings and setpoints – ongoing
 - Continual adjustment to maximize outdoor air delivery to interior spaces, within the capacity of the existing systems and still maintain acceptable occupant comfort levels.
 - Review of operational usage or density changes for interior spaces - ongoing
 - Continual review and plan adaptations of CDC guideline updates and recommendations - ongoing