

## Supplemental Information

The safety of our buildings is paramount, and we've taken major steps to ensure that we can maintain a high standard of health and safety. We will work diligently to ensure the cleanliness of our school buildings, disinfecting them regularly but even more thoroughly on Wednesdays and weekends.

We have put in place aggressive ventilation protocols that will circulate air in each classroom multiple times an hour; this procedure will begin two hours before the school day starts and continue until two hours after school. We are limiting the number of students in our buildings and on our buses so that we can better maintain distance and safety. The information below aims to provide further detail on health and safety related topics, including ventilation and HVAC, cleaning protocols, personal protective equipment and disinfecting items for our school buildings and way-finding to maintain safe distances.

### **Ventilation and HVAC:**

In preparation for the opening of the school year, highly qualified HVAC experts employed by the Town of Andover Facilities Department have evaluated the ventilation systems in each school building. Among these experts is a mechanical engineer with over eight years of prior experience as a private HVAC designer in healthcare facilities, with expertise in the design of negative pressure isolation rooms for infectious patients. Her experience has been particularly helpful in evaluation of school HVAC during COVID-19.

These experts produced information that was [posted to the Return to School webpage](#). In summary, their analysis concluded that HVAC systems within Andover schools follow current ASHRAE 62 standards or local ventilation standards for minimum outside air requirements.

Additionally, at the request of the Andover Education Association, the district recently entered into a contract with an outside HVAC contractor, NV5, to conduct an independent inspection of the ventilation systems in each school building. A report will be provided reflecting the independent contractor's findings for each individual building. The contractor was expected to finish its evaluation and report on or before September 4, 2020. As of September 8, 2020, NV5 has not yet completed its evaluation of all of our school buildings, with two buildings left to evaluate. They will then prepare a comprehensive report, which will be made available to the public.

The Andover Education Association requested specific information regarding ventilation and HVAC. The district provided a response to their inquiry on August 24, 2020 which is available for the public to [review](#).

### **Additional Information Regarding HVAC and Ventilation Protocols for School Reopening:**

HVAC systems are designed to meet the ASHRAE (American Society of Heating, Refrigerating, Air Conditioning Engineers) Standards. Classrooms have individual unit ventilators, which bring outdoor air into the space. The quantity of outdoor air is controlled by the measure of CO2 in the space and is monitored by the Town of Andover Building Management System (BMS). Common areas, offices, and the classrooms in new buildings have centralized systems which provide HVAC to a group of spaces. These units are also controlled by our BMS.

- Andover custodial staff will operate the systems for a minimum of 2 hours prior to occupancy and run 2 hours post occupancy. For more information on ventilation see the description of [existing conditions and procedures](#) developed by the engineer for the Town of Andover.
- Each nurse’s office has an air supply designed to provide fresh air. Nursing isolation rooms designated to provide an isolated environment for students who become ill with coronavirus-like symptoms have exhaust systems that create a negative pressure environment in which the exhaust exits to the outside and is not recirculated.
- The district will set HVAC systems fans to “On” or “Circulate” at the thermostat if the HVAC system does not provide a constant airflow when operating the system prior to occupancy and at all times during the school day.
- Air is provided to all bathrooms, is exhausted to the outside, and is not recirculated.
- The district will keep all supply and return grilles and registers open to the maximum extent possible so fresh air flows through them when the HVAC system’s fan is on.
- The district will set outdoor air intakes or controls to the maximum level of fresh outdoor air the system is capable of handling or providing.
- The district will use filters rated at the highest efficiency the system is capable of handling. Filters will be changed every three months.
- The DESE Guidance states to “open windows or doors (when appropriate and safe).” This guidance is intended for facilities or spaces that are not equipped with an HVAC system that is functioning as designed. Opening windows is not intended to be a first course of action and can be a detriment to the proper function of the HVAC system due to pressurization issues.
- For Variable Air Volume (VAV) systems, the district will set the minimum airflow to the highest possible setting.
- The HVAC system in each school building is compliant with and will be maintained to remain in compliance with local and state laws, regulations, and codes.

**Cleaning Protocols:**

Cleaning and disinfecting are important parts of the district’s return-to-school plan. The School Committee has authorized three additional custodians and a custodial supervisor to assist with

cleaning, disinfecting and oversight. In addition, substitute custodians will be utilized as needed, and overtime will be permitted to provide for enhanced cleaning.

Enhanced cleaning is disinfecting and cleaning beyond the daily cleansing performed throughout the regular school year. In the evening, enhanced cleaning will consist of disinfecting classrooms, bathrooms, touch surfaces and high traffic common areas with electrostatic disinfecting sprayers. During the day, bathrooms will be periodically disinfected along with water bubbler refill stations. In addition, building custodians will be disinfecting touch points throughout the day.

Due to the high number of student desks and computer keyboards requiring disinfecting throughout the day, teachers and students will be asked to wipe down their areas upon arrival and departure. Some schools are planning to use the cafeteria to serve lunch while other schools will serve lunches in the classroom. For schools that serve lunch in the classroom, students will be asked to wipe down surfaces after eating. Cleaning and disinfecting are the responsibility of custodial staff and the responsibility of all staff and students. Therefore, sanitation rituals will include the cleaning and wiping down of desk and computer surfaces. Cleaning materials will be provided to students and staff.

In the evening, all instructional staff should be out of the building by 4:00 pm so the custodial staff may clean and disinfect without the risk of staff entering already disinfected areas. On Wednesdays, no staff will be allowed in the buildings so the custodial teams may disinfect the building. The same entry restrictions will be true for weekends, as the custodial staff will be cleaning and disinfecting for Monday's cohort.

### **Personal Protective Equipment (PPE) & Disinfecting Items**

To date, the following PPE and disinfecting items have been ordered and/or received to ensure our custodians have the proper materials to disinfect and clean our buildings and for the safety of our students and staff.

- 86,000 disposable face masks
- 250 clear face shields
- 440 N95 respirators
- 225 cloth masks
- 2,000 gowns
- 50 pairs of goggles
- 60,000 disposable gloves
- 1,000 gallons of hand sanitizer
- 3,000 20oz bottles of hand sanitizer
- 125,000 sanitizing wipes
- Over 2,500 spray bottles of disinfectant
- Over 3,000 rolls of paper towels
- Over 200 gallons of Clorox disinfectant
- 24 electrostatic disinfecting sprayers
- Building signage to reinforce social distancing and create safer traffic patterns
- Acrylic barriers to reduce droplet transmission when distancing is not feasible or closely working with students

- Outdoor tents
- Portable sinks for additional hand washing locations

### **Exposure/Infection Protocol and Closure Metrics**

In the event an employee or student develops symptoms of, tests positive for, or has had close contact with someone who tested positive for COVID-19, the district will follow the protocol established by the Department of Public Health in conjunction with the Department of Elementary and Secondary Education (DESE). The district's exposure protocols can be found on our Return to School [website](#).

[DESE has announced metrics](#) to assist districts in their decision-making about when school buildings should be open or closed. The district expects it will follow these metrics but may choose to take a more conservative approach.

### **Way Finding**

Each school has ordered a package of way finding signs and decals that indicate one way, stand here, room capacity, wait here, social distance, face mask required and various other directional signage.

Signage will be placed throughout the building to reinforce mask wearing and social distancing, remind students of room and bathroom capacities and aid in creating social distancing traffic patterns.

The signs are specific to the school and are designed to convey information in a friendly way. Below is an example of the signage:



The High School has the most complex schedule and the most students passing between periods. To create distancing, High School administration has increased and staggered passing times and established one-way hallways and staircases. All these plans are aided by appropriate signage.