



CITY OF NEWTON, MASSACHUSETTS
PUBLIC BUILDINGS DEPARTMENT
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 Building Commissioner

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Re: School HVAC Project Update

As previously reported, Newton Public Schools spent the summer making sure the HVAC systems in the school buildings were all operable, clean, and functional. At the request of the superintendent in September, at the direction of Mayor Fuller, the City of Newton Public Buildings Department was directed to help Newton Public Schools perform a targeted and aggressive initiative to service, adjust, test and report out on all ventilation equipment throughout the district with a focus on maximizing air flow and fresh air introduction capacity. In accordance with ASHRAE’s Epidemic Task Force, we have retroactively applied the ventilation requirements of ASHRAE 62.1 throughout the 23 school facilities. ASHRAE 62.1 factors in and adjusts for the impact of various mechanical ventilation system designs, and the mechanical ventilation discharge air temperature, and the impact that both of these have on the distribution of fresh air throughout a classroom or other occupied space.

The Following is the status of the overall efforts to date as well as the steps needed to close this project out:

	Service and Maintenance	Engineering	Initial Test and Balancing	Remedial Work	Final Test and Balancing
Angier	Complete	Complete	Complete	Complete	Complete
Bowen	Complete	Complete	Complete	Complete	Complete
Burr	Complete	Complete	Complete	Complete	Complete
Cabot	Complete	Complete	Complete	N/A	Complete
Horace Mann	Complete	Complete	Complete	Complete	Complete
Countryside	Complete	Complete	Complete	Complete	Complete
Franklin	Complete	Complete	Complete	Complete	Complete
Lincoln-Eliot	Complete	Complete	Complete	Complete	Complete
Newton Early Education	Complete	Complete	Complete	Complete	Complete
Peirce	Complete	Complete	Complete	Complete	Complete
Memorial Spaulding	Complete	Complete	Complete	Complete	Complete
Mason Rice	Complete	Complete	Complete	Complete	Complete
Underwood	Complete	Complete	Complete	Complete	Complete
Ward	Complete	Complete	Complete	Complete	Complete
Williams	Complete	Complete	Complete	Complete	Complete
Zervas	Complete	Complete	Complete	Complete	Complete
Bigelow	Complete	Complete	Complete	Complete	Complete
Brown	Complete	Complete	Complete	Complete	Complete

Day	Complete	Complete	In Process	Complete	95% Complete
Oak Hill	Complete	Complete	Complete	Complete	Complete
Ed Center	Complete	Complete	Complete	Complete	Complete
NNHS	Complete	Complete	In process	In process	80% Complete
NSHS	Complete	Complete	In process	In process	99% Complete

The final air flow test and balancing is complete throughout the majority of the district. The air flow test and balancing companies are working to finalize their reports which will in turn be sent to Crowley Engineering who will review them and generate the final dashboards. I have personally witnessed the vast majority of the final air flow readings throughout the district. The information below represents my observations and recordings of the actual air flow readings for every space with mechanical ventilation in the 23 school facilities as they compare to the fresh air flow requirements set forth by Crowley Engineering in accordance with ASHRAE 62.1. For the few instances where I was not present during testing, the below information is based on the preliminary verbal reports from the air balancers assigned to those facilities. Formal results will be provided by the air flow test and balancing companies, and certified by Crowley Engineering.

- Angier** – Final air flow testing observed to be 100% green for 100% occupancy
- Bowen** - Final air flow testing observed to be 100% green for 100% occupancy
- Burr** - Final air flow testing observed to be 100% green for 100% occupancy
- Cabot** - Final air flow testing observed to be 100% green for 100% occupancy
- Horace Mann** – Final air flow testing observed to be 100% green for 100% occupancy
- Countryside** – Final air flow testing observed to be 100% green for 100% occupancy
- Franklin** – Final air flow testing observed to be 100% green for 100% occupancy
- Lincoln-Eliot** – Final air flow testing observed to be 100% green for 100% occupancy
- Newton Early Education** – Final air flow testing observed to be 100% green for 100% occupancy
- Peirce** – Final air flow testing observed to be 99% green for 100% occupancy (Cafe needs a mechanical ventilation system)
- Memorial Spaulding** – Final air flow testing observed to be 100% green for 100% occupancy
- Mason Rice** – Final air flow testing observed to be 99% green for 100% occupancy (Art, Music, and Afterschool need new larger mechanical ventilation systems)
- Underwood** – Final air flow testing observed to be 100% green for 100% occupancy
- Ward** – Final air flow testing observed to be 99% green for 100% occupancy (Cafe needs a larger mechanical vent system)
- Williams** – Final air flow testing observed to be 100% green for 100% occupancy
- Zervas** - Final air flow testing observed to be 100% green for 100% occupancy
- Bigelow** – Final air flow testing observed to be 100% green for 100% occupancy
- Brown** – Final air flow testing observed to be 100% green for 100% occupancy
- FA Day** – Final Air Flow Testing is Substantially Complete
- Oak Hill** - Final air flow testing observed to be 100% green for 100% occupancy
- Ed Center** – Final air flow testing observed to be 100% green for 100% occupancy
- North High** – Final air flow testing observed to be 80% complete, but 100% green for 100% occupancy so far.
- South High** – Final air flow testing observed to be ~99% complete and green for 100% occupancy (Small punch-list being wrapped up now as remedial work has been completed concurrent with testing)

In addition to the handful of punch list items identified above, we will be working with Crowley Engineering and Newton Public Schools on how best to address some offices and small support rooms in some schools where mechanical ventilation was not included in those spaces when the building was built. In these cases, if the space is currently in use, NPS is deploying air purifiers and has directed staff to keep windows cracked open while we work on permanent solutions. The final air flow test and balancing reports for Newton North and Newton South are both in the process of being written. Final air flow test and balancing reports and dashboards will be received almost daily this week, so final official results will be posted by the district very soon.

As part of the closeout of this project, I have directed Crowley Engineering to perform an audit of every calculation, for every air flow requirement, for every space, in every school facility. I will be performing the same audit, and should it be necessary, we will make further adjustments, retest, and make those actions and results available.

The above efforts have been a coordinated effort of over a thousand City, School, and contractual employees. In addition to the efforts of Crowley Engineering, the following contractors have been working Sunday – Saturday, 12-16 hours a day in some cases, for the past 12 weeks to complete this initiative:

HVAC Contractors

- Associated Mechanical Services
- Cox Engineering Service Co.
- Fraser Engineering
- General Air Conditioning & Heating, Inc.
- Harold Brothers
- Mighty Duct
- NB Kenney Company
- Boston Mechanical Services
- Patrick J. Kennedy & Sons Inc
- Bay State Air
- Corporate Mechanical
- Enterprise Equipment
- R.P. O’Connell, Inc

Air Flow Testing and Balancing Firms

E.L. Barret
ATAB
Thomas Young
THB Company
JF Coffey
Precision Testing and Air Balancing
Balancing Technologies

Additional information can be found at <https://www.newton.k12.ma.us/Page/3731> where we have posted thousands of pages of service, testing, and maintenance data showing our work to date throughout the district.

Again, we would like to thank the principals, teachers, and custodians as they have all been extremely supportive and accommodating of our efforts.

Sincerely,



Josh Morse
Public Buildings Commissioner

