



## #ReopenStrong: HVAC Enhancement Report

### School Name

MacFarland Middle School  
4400 Iowa Ave NW  
Washington, DC 20011

### Date of Form Completed

12-29-2020

### Contractor

Kadcon

### MEP Engineer

Setty & Associates

### Background & Introduction

DC Public Schools (DCPS) is committed to reopening safely. Part of our reopening plan is ensuring school facilities are properly suited to welcome back students and staff based on a set of operational metrics that need to be addressed to ensure readiness. Stakeholders can view an overview of these metrics at: [dcpsreopenstrong.com/health/buildings/](https://dcpsreopenstrong.com/health/buildings/).

HVAC and all other operational metrics will be reviewed by a site-based walkthrough team using a detailed Building Readiness Checklist prior to school opening. Each school's principal will receive written verification of planned HVAC enhancements in accordance with criteria outlined in the Checklist. In addition, DCPS is completing site-specific operational plans for each school in accordance with guidelines from DC Health, the Centers for Disease Control (CDC), and the Office of the State Superintendent of Education (OSSE). Each school's operational plan will be posted online.

In partnership with the Department of General Services (DGS), all DCPS facilities are undergoing a comprehensive HVAC assessment which will inform subsequent system modifications and enhancements. The work is being carried out by numerous HVAC contractors under the guidance and direction of a licensed professional engineer (PE) and in accordance with recommendations provided by the American Society of Heating and Air-Conditioning Engineers (ASHRAE). The lead engineer that developed the school-specific scope of work for the HVAC enhancements for DCPS is a nationally recognized expert and a member of Epidemic Task Force School Team at ASHRAE.

Healthy air quality is critical for the health of those who occupy a school building, and we are committed to making improvements across all DCPS facilities. DCPS will improve the air change rates and filtration provided by HVAC systems to reduce any airborne concentrations of COVID 19 and related transmission risks in our learning environments.

The actions we will take vary by system type to ensure their effectiveness. For all schools, we plan to increase the air change rates and filtration. The work will vary by system but will include modifications like increasing fresh air distribution through an existing Dedicated Outside Air System (DOAS) and installation of MERV-13/MERV-14 filters or placement High-Efficiency Particulate Air (HEPA) filters in high traffic areas and instructional spaces. In addition, no matter the system, all classrooms across the DCPS portfolio will receive a portable HEPA filter.

The primary focus of this effort is to analyze specific building systems to identify what systems can be addressed to improve indoor air quality in alignment with national recommendations. We are committed to performing enhancements and instituting best practices for indoor air quality improvement.

The HVAC enhancements are an important component of our plan to create safe and healthy learning environments for our students and staff, but it is not the only thing in place. In addition to the HVAC work, DCPS will be instituting PPE, social distancing, school routine, and cleaning protocols to help mitigate the risk of COVID-19 transmission.

## HVAC System and Equipment Specifics

### 1. System/ Equipment:

- The spaces in the building like classrooms, conference, office, break room etc., are being served by Dedicated Outside Air Systems (DOAS-1, DOAS-2, DOAS-3 and DOAS-4) for building ventilation/outside air requirements and Variable Refrigerant System (VRV units) for building cooling and heating requirements. Stage, Auditorium, Gym and Library spaces are being served by air handling units AHU-1, AHU-2 & AHU-3, AHU-4, AHU-5 respectively for space cooling, heating and ventilation requirements.

## Work Completed

### 1. Initial Verification (10-15-2020):

- System start-up (10-16-2020)
- Change filters in kind (10-20-2020)
- Disinfect and clean HVAC equipment (10-20-2020)

### 2. Enhancements:

- Dedicated Outdoor Air System (DOAS) with MERV-13 filters installed (11-06-2020)  
AND
- High-Efficiency Particulate Air (HEPA) filters placed in the building (11-06-2020)
- Install air quality sensors (partial install 12-09-2020, complete install by January 15<sup>th</sup>)
- Demand Control Ventilation System Disabled (Will be disabled as part of Sequence of Operations. Additional documentation to be provide upon completion.)

### 3. Defects or Issues Repaired

- Defects completed. 10-19-2020.

## Plumbing System and Equipment

### 1. Work Completed

- Plumbing System Start-up & Tested (11-02-2020)
- Plumbing System Flushing & Sanitization (11-04-2020)

### 2. Defects or Issues Repaired

- No major repairs needed.

## **Disclaimer**

*While the above-referenced contractor has completed the described HVAC work in accordance with its contractual requirements, the contractor does not warrant or represent in any way that such HVAC work will prevent the spread of the COVID-19 virus or that such HVAC work will guarantee a person will not contract the COVID-19 virus.*