

#ReopenStrong: School Building Readiness Checklist

DC Public Schools (DCPS) is committed to a safe and successful return to in-person learning for our students and staff. DCPS' work to prepare for a strong reopening is grounded in prioritizing the health and safety of our entire school community. Using guidance from DC Health, the Office of the State Superintendent of Ed

(OSSE), Centers for Disease Control and Prevention (CDC), and union partners, we developed a set of building readiness standards that meet public health requirements to mitigate the spread of COVID-19. This School Building Readiness Checklist is intended to ensure that DCPS facilities meet those stringent standards.
Each member of the walkthrough team shall be provided a copy of this checklist to individually complete during the walkthrough.
In order to safely reopen, a school building must have the following in place:
☐ 1. Personal Protective Equipment (PPE) & Hygiene Supplies
School has the necessary general and enhanced PPE and hygiene supplies to support the first two months of programming and has been oriented to the standardized inventory monitoring protocol established by central office for all schools to ensure timely supply replenishment. A review of the school's inventory indicates that the following items are onsite:
Adult face masks Face shields Child face masks Communicator masks, as applicable
Additionally, the following enhanced PPE supplies will be provided to staff whose roles increase the likelihood of being in closer or more frequent proximity to other staff and students:
Gloves Medical gowns
Regarding hygiene supplies, school has received:
Toilet paper, soap, and disposable towels for student and staff bathrooms that do not have hand dryers Hand sanitizer for placement in the arrival space, hallways, classrooms, offices, and other shared spaces Disposable towels, hand sanitizer and disinfectant wipes available in all classrooms

Notes:

2. Cleaning Supplies & Procedures

School has the necessary cleaning supplies to support the first two months of programming and has been oriented to the standardized inventory monitoring protocol established by central office for all schools to ensure timely supply replenishment. All cleaning supplies are from the EPA-registered list in the CDC guidance.

School custodial staff have been trained to implement enhanced and deep cleaning protocols.

School leadership, school operations staff, and custodial staff understand District-wide cleaning procedures prior to the start of in-person programming and ensure the following practices:

- Cleaning schedule is determined for custodial staff
- Custodial staff follow health guidelines when cleaning school buildings
- School receives deep cleaning prior to student return
- School receives daily enhanced cleaning
- Indoor and outdoor spaces (e.g. play structures) are cleaned at a regular cadence

Notes:			

3. Socially Distant Space Arrangement

3 Sect School building is set up to ensure social distancing among staff and students using resources provided by central office. These include, but are not limited to, setting up & feet social distancing demarcations throughout the school building (e.g. arrival and dismissal spaces, hallways, staircases, security and reception areas; arranging classrooms to ensure social distancing; arranging safe use of shared staff areas (e.g. copy room, lounge); and properly securing reception and security areas. All employees shall be trained in health and safety protocols related to social distancing requirements. The school building has a designated health isolation room set up to facilitate social distancing for symptomatic students to wait for pick up.

School has procedures in place to educate staff and students regarding distancing guidelines.

Additional training to be provided to teachers pegarding desk arrangement to maximize distance between students scheduled for 8/26/21.

☐ 4. Signage	
Senool has posted entry/exit protocol at all school entrances.	
School has COVID-19 health signage (in English, Spanish and other languages designated in the Languages access guidelines or languages spoken at the designated school) posted in arrival spaces, hallways, an classrooms. Signage posters in arrival areas shall measure at least 11 inches by 17 inches. Signage shall provide instructions and guidelines on the following public health practices:	
How to stop the spread of COVID-19	
Symptom identification	
Hand hygiene	
 Social distancing 	
 Wearing masks 	
Notes:	
	ID-19 health signage (in English, Spanish and other languages designated in the Languages or languages spoken at the designated school) posted in arrival spaces, hallways, and hage posters in arrival areas shall measure at least 11 inches by 17 inches. Signage shall ions and guidelines on the following public health practices: In the spread of COVID-19 dentification In enemicing assks Juntain spouts are turned off to prevent risk of virus transmission. Bottle fillers cing fountains will remain on for use. If a school does not have bottle fillers CPS shall provide water coolers and/or water bottles in the building to support
5. vvater Access	and nall
Shared hallway drinking fountain spouts are turned off to prevent risk of virus transmission. Bottle fillers connected to hallway drinking fountains will remain on for use. If a school does not have bottle fillers throughout the building, DCPS shall provide water coolers and/or water bottles in the building to support programming, with a schedule to regularly replenish water and/or replace filters.	
Notes:	

N

6. HVAC 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). A school-specific plan to meet the goals outlined by the assessments has been developed by the PE, a nationally recognized expert and team member of the Epidemic Task Force School Team at ASHRAE and is being implemented by the HVAC contractors. The licensed PE, a nationally recognized expert and team member of the Epidemic Task Force School Team at ASHRAE, is validating the work of the HVAC contractors.

DCPS has installed ten one indoor air quality monitors that are capable of monitoring carbon dioxide monitor in every HVAC zone (i.e., an area of the building with temperature controlled by a thermostat) of the building.

DCPS shall provide evidence that:
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o Testing has been completed before walkthroughs have been conducted
All demand control ventilation systems have been disabled. NAC as has a second at a second at a large deviction.
HVAC enhancements are completed, and school is ready with:
Direct Outside Air System (DOAS) with MERV-13 filters installed
OR /
High-Efficiency Particulate Air (HEPA) filters placed in the building
If school is served by a DOAS system:
ii school is served by a DOAS system.
Is evidence available to show that MERV-13 filters have been timely installed and replaced in line with ASHRAE guidelines?
If school is using High-Efficiency Particulate Air (HEPA) filters: N/A
Are they placed in appropriate locations in the building per the outcome of the evaluation?
Do they have the proper capacity for the size of the spaces in which they are placed?
Is evidence available that the filters are functional?
Principal beskowitz to communicate to 3rd grade pinents (2nd floor) that AC 15 not working and to send extra water and dress student appropriately until tixed. Also inquire about heat threshold as temps I. Plumbing Systems were high 70's unoccupied.
School has a prioritization process established with DCPS Strategic School Operations and Facilities teams, in partnership with DGS, to address plumbing work orders related to bathrooms.
Bathrooms
 Are all sinks operable in all bathrooms with running water? If no, has work order been submitted and operational plan been adjusted during the interim period to ensure continuity of operations? Are all toilets operable in all bathrooms? If no, has work order been submitted and operational plan been adjusted during the interim period to ensure continuity of operations?
Notes: Additional Soap dispenser to be added to 3rd floor bathroom.

8. Walkthrough

- The walkthrough has been conducted in all areas of the school site.
- School maintain a copy of the completed checklist on site and made available upon request.
- The Principal has provided a copy of the completed checklist, including signature form, to everyone on the walkthrough team.

Form to Confirm Completion of Items on School Readiness Checklist

(to be completed at the end of the walkthrough)

School: Watkins ES

Walkthrough Date: August 24, 2021

Walkthrough Team:			
Name	Signature	Title (scac, Lsat,	Comments
MScott		Custodian, Nurse, etc.)	
_	1120	Principal	
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#ReopenStrong: HVAC Enhancement Report

School Name
Watkins Elementary School
420 12th St SE
Washington, DC 20003

Date of Form Completed 08-23-2021

Contractor Thiha

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 on overview of these metrics at: 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 Split Systems Energy recovery Units (ERU-5, ERU-6) for building ventilation/outside air requirements and Variable Refrigerant System (VRV units) for building cooling and heating requirements. Basement, Media center, Gym and Cafeteria spaces are being served by Split Systems Energy recovery Units (ERU-1, ERU-2, ERU-3, ERU-4) respectively for space cooling, heating and ventilation requirements. Kitchen is being served by RTU-1 and MAU-1 for space cooling, heating and ventilation requirements.

Work Completed

- 1. Initial Verification (10-06-2020):
 - System start-up (10-06-2020)
 - Change filters in kind (10-06-2020)
 - Disinfect and clean HVAC equipment (10-07-2020)

2. Enhancements:

Dedicated Outdoor Air System (DOAS) with MERV-13/MERV-14 filters installed (10-30-2020, 12-21-2020, 04-04-2021, scheduled Oct 2021)

OR

- High-Efficiency Particulate Air (HEPA) filters placed in the building (Installed prior to SY20 term 3)
- Install air quality sensors (10 IAQ Sensors installed, see attached air quality report)
- Demand Control Ventilation System Disabled (Disabled, see attached.)

Plumbing System and Equipment

- 1. Work Completed
 - Plumbing System Start-up & Tested (10-06-2020)
 - Plumbing System Flushing & Sanitization (10-07-2020)

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.

DCPS COVID Ventilation Details

Review equipment control sequences to verify systems are operating in accordance with issued guidance and maintaining required ventilation, temperature, and humidity conditions to occupied areas. Integrate new sequences of operations into existing controls to run systems a minimum of two hours between occupancies at the maximum rates ventilation (outside air) rate that units were capable of. This allows the building air to be flushed with fresh air after occupancy. All demand control ventilation (DCV) was disabled allowing all central air handling units to operate at maximum ventilation rates based on equipment capacity. Expansion of central HVAC equipment monitoring for a system wide aggregation of the building management systems for centralized monitoring.

The specific methodology is determined by the different types of HVAC equipment that provides ventilation air. Below is a list of the major types of HVAC equipment and specific actions.

DOAS units [Dedicated outside air system]

- Verify the unit is fully operational / functioning
- Run 2 hours before & 2 hours after occupancy [pre & post purge]
- Maintain RH between 40-60% where dehumidification/humidification is possible
- Deactivate demand-controlled ventilation if applicable [methodology set CO2 threshold to 500ppm]
- Run fans at 100%

Large Mixed Air AHU or RTU

- Increase minimum OA damper position as much as possible until thermal comfort and/or humidity levels can no longer be met, (50%)
- Run 2 hours before & 2 hours after occupancy [pre & post purge]
- Disable demand-controlled ventilation where present

Classroom Unit Ventilators

 Verify OA/MA damper works (mechanicals) & increase the minimum OA damper position if applicable / possible

Exhaust Fans

 Make sure all general exhaust fans are operational. Most DOAS exhaust less than they supply the difference being the general exhaust

Notes

- Strategies have been implemented in a way that can be enabled / dissabled / adjusted with minimal programming changes
- Alarms have been enabled to validate / verify increased ventilation is being achieved

Terry Herr Principal therr@intellimation.net

www.intellimation.net

2465 Boulevard of the Generals, Norristown PA 19403

DGS School Indoor Air Quality Monthly Report

Month and Year Reporting: July 2021 Date Completed: 8/15/2021 DGS BUILD = MAINTAIN SUSTAIN S

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Overall School System Average (PPM)