

Project Delivery Method:

- Design-Build (D-B)
- Integrated Project Delivery (IPD)
- Construction Management @ Risk (CM) with Guaranteed Maximum Price (GMP)
- [Performance Contract \(PC\)](#)

Owner Team:

- [Conference Center Management \(CCM\) Administration](#)
- Capital Project Manager
- [Facility Manager](#)
- [Human Health and Environment \(HH&E\) Manager](#)

Project Delivery Team:

- Owner Representative Consultant
- [Outsourced O&M Manager](#)
- [PC's Project Manager](#)
- Third-Party IAQ Consultant

HVAC Project Team:

- BAS Technician (in-house staff)
- [Filter Representative](#)
- [Third-Party TAB Technician](#)
- Third-Party Commissioning Consultant (Cx/C)

Application:

- [Chapter 3, Commercial and Public Buildings](#)
- Chapter 5, Places of Assembly
- Chapter 9, Healthcare Facilities
- Chapter 19, Clean Spaces

Project Type:

- Renovation
- [Infrastructure Upgrade](#)
- Tenant Fit-Out
- Facility Audit and Capital Project Master Planning

References:

- 2018 ASHRAE Handbook – Refrigeration
- [2019 ASHRAE Handbook – HVAC Applications](#)
- 2020 ASHRAE Handbook – HVAC Systems and Equipment
- 2021 ASHRAE Handbook – Fundamentals

Other References:

- [Refer to the Codes and Standards Located in the Back of Each ASHRAE Handbook](#)
- Technical Committee 9.5, Commercial and Public Buildings
- [ASHRAE Standard 62.1-2022, Ventilation and Acceptable Indoor Air Quality](#)[X] [ASHRAE Standard 52.2-2012, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size \(MERV Ratings\)](#)
- [ASHRAE Design Guide for Dedicated Outdoor Air Systems](#)

DESIGN INTENT DOCUMENT (DID)

- [The CCM Administration and Owner's Team Members Signed a Contract with a Performance Contractor to Improve the Building Environment By Replacing Existing Air Filters with ASHRAE-suggested MERV-13 Filters for All Central Air Systems](#)
- [The PC Firm Shall Complete an IAQ Audit of the Existing Central Air Systems, Examining Multiple Space Temperatures, Humidity, and Particle Count Samples](#)
- [The PC Contract is a One-Year Agreement to Furnish, Install, Monitor, Measure, and Report on MERV-13 Filters that Are Renewable Annually for Five Years](#)
- [Air Filters Include Pre-Filters, Final Filters, and Charcoal Filters Based on the Manufacturer Rep's Recommendation for MERV Ratings Per the HVAC System Application](#)
- [Central Air Systems will Be Rebalanced and Recommissioned to Monitor, Measure, and Report on the Space's Indoor Environmental Conditions \(Temperature, Humidity, and Particle Count\)](#)
- [New Conditions: Central Air System\(s\) Supply Air and Return Air CFM](#)
- [The PC Firm Shall Contract the Air Filter Project to Include the BAS Computer with the Central Air System's Electronic Magnehelic Devices and Space IAQ Sensors Every 20,000 Square Feet](#)
- [The PC Firm, Working Closely with the Owner's Team and the Subcontractor HVAC Team, Will Update the O&M Policy and Procedure \(P&P\) Manual](#)
- [The PC Team Will Follow the Aforementioned References as Well as Existing Condition Data Collection](#)
- [Existing Conditions Include the Central Air System\(s\) Supply Air and Return Air CFM and General Exhaust](#)

DESIGN CRITERIA DOCUMENT

- [The HVAC Design Criteria Shall Be in Sync with the Project Delivery Method Requirements](#)
- [The Design Criteria Shall Be Based on a Building Operation and Proactive Filter Maintenance Management Program](#)
- [Contract a Five-Year Filter Replacement contract with the Filter Manufacturer Rep.](#)
- [Furnish and Install a Comprehensive IAQ Monitoring System with Remote Humidity Measuring, Data Analysis, and Reporting Process](#)
- [The Design Criteria Shall Be Based on ASHRAE 90.1 and State Energy Code Compliance for Outdoor Air Temperature Compliance](#)
- [ASHRAE Indoor-Air Quality Guide: Best Practice for Design, Construction, and Commissioning](#)
- [Enhance Existing Utilities \(Gas, Oil, and Electricity\)](#)
- [The PC Team will Refer to ASHRAE Documents Noted in the References, Including ASHRAE Indoor-Air Quality Guide: Best Practice for Design, Construction, and Commissioning](#)
- [Retrofit the Existing Central Air-Handling Systems with the Addition of and Air Economizer and Enhanced MERV Filter Rating to Exceed Minimum Filter Guidelines](#)
- [The PC Team will Produce Schematic Phase and Final Phase P&P Documents](#)
- [The PC Team Shall Furnish, Install, Monitor, Measure, and Issue Monthly Reports Regarding the Performance of the Entire IAQ System](#)
- [The Outsourced O&M Manager Shall Provide Proactive IAQ Maintenance Training to Continuously Improve and Continuously Achieve the Project's Goals](#)
- [The PC Firm's Team Shall Produce Complete Record Documents, Warranties, Training, and a Five-Year Reporting Contract](#)
- [Third-Party Cx/C and TAB Technician Shall Retro-Commission the Central Air-Handling Systems to Ensure P&P Compliance](#)

