OCS Indoor Air Quality Report – Fall 2025

December 9th, 2025

Orange County Schools
NORTH CAROLINA

What is Indoor Air Quality (IAQ)?

Indoor Air Quality testing is the process of measuring and analyzing the air in a building to identify the presence of harmful substances.

The goal is to ensure a clean, healthy, and safe environment for all the building's occupants.

IAQ tests measure air for impurities such as allergens, mold, and others.

These tests show whether the quality of your indoor air meets standards.

IAQ Testing

Mold

- Wide range of species & types; some expected to be in indoor areas and others not ideal for indoor areas.
- Exact number and type can be ascertained through laboratory analyzed tests.
- Ideal testing method to gauge air quality is air testing.
- It is recommended that visible mold be remediated, no matter the type.

IAQ Testing

CO2

- Carbon Dioxide is a byproduct of the air we breath.
- Ideal indoor levels are below 1,000 PPM.
- Levels over 1,000 PPM can contribute to drowsiness, lethargy, and poor concentration.
- Ideal CO2 levels can be maintained through proper ventilation.

IAQ Inspection

Bi-annual inspection of all OCS schools:

- Measuring temperature & humidity.
  - Humidity normal range (per EPA) is 40% to 60%
  - Higher levels occur due to open windows, ineffective or underutilized HVAC systems, leaks.
  - Normal temperature (per OSHA, Occupational Health & Safety Administration) is 68 to 76 degrees Fahrenheit.

IAQ Inspection

Bi-annual inspection of all OCS schools:

- Inspecting for potential water damage, water intrusion, elevated humidity
  - Water damage can be detrimental to indoor air quality.
  - Water damage can be caused by leaks (from plumbing or the exterior), condensation, and elevated humidity.
  - Finding and fixing conditions conducive to water damage will limit damage, poor air quality, and potentially more costly repairs/remediation.

IAQ Ratings

- The report IAQ ratings range from poor to very good.

Poor: Inadequate air quality due to microbial growth, contamination, and environmental conditions outside of ideal ranges.

Fair: Air quality affected or potentially affected by environmental conditions outside of ideal ranges.

Good: Adequate air quality and environmental conditions.

Very Good: Optimal or excellent air quality and environmental conditions.

IAQ Recap

- Recap of the air quality assessment Spring of 2025

Poor	Fair	Good	Very Good
	Central Elementary	A.L. Stanback Middle	Cedar Ridge High
	Hillsborough Elementary	Efland Cheeks Elementary	Grady A Brown Elem.
	Orange Middle	New Hope Elementary	Gravelly Hill Middle
		Orange High	
		Partnership Academy	
		Pathways Elementary	
		River Park Elementary	

IAQ Summary

- In Fall of 2025, all schools rated from Fair to Very Good

Poor	Fair	Good	Very Good
	A.L. Stanback Middle	Central Elementary	Grady A Brown Elem.
	Gravelly Hill Middle	Cedar Ridge High	
	Hillsborough Elementary	Efland Cheeks Elementary	
		New Hope Elementary	
		Orange High	
		Partnership Academy	
		Pathways Elementary	
		River Park Elementary	

IAQ Comparison

- Schools that had a change in IAQ ratings from Spring 2025 to Fall 2025:

School	Fall 2025	Spring 2025
A.L. Stanback Middle	Good	Fair
Cedar Ridge High	Very Good	Good
Central Elementary	Fair	Good
Gravelly Hill Middle	Fair	Good

- Changes are based on interpretation of observations and air sample results.

Potential Factors for IAQ Summary Change

IAQ rating is based on:

- The sample size of air samples taken
- CO2 readings
- Relative humidity readings

Potential Factors for IAQ Summary Change

Sample size of air samples taken can affect the overall rating when:

- Air samples are specifically taken in areas of concern. These may be areas found during the inspection and/or areas to be tested requested by the school's administration and custodial teams. Areas of concern may be a small percentage of actual school square footage, but a larger percentage of air samples taken.

Potential Factors for IAQ Summary Change

Relative humidity and CO2 readings:

- Relative humidity can be affected by floor cleaning (mopping), open windows/doors and/or occupation of students and faculty.

- CO2 readings could be higher when the HVAC system is at its target temperature (when outdoor temperatures are moderate) and air exchanges cease or slow.

Action Plan for Schools Rate “Fair”

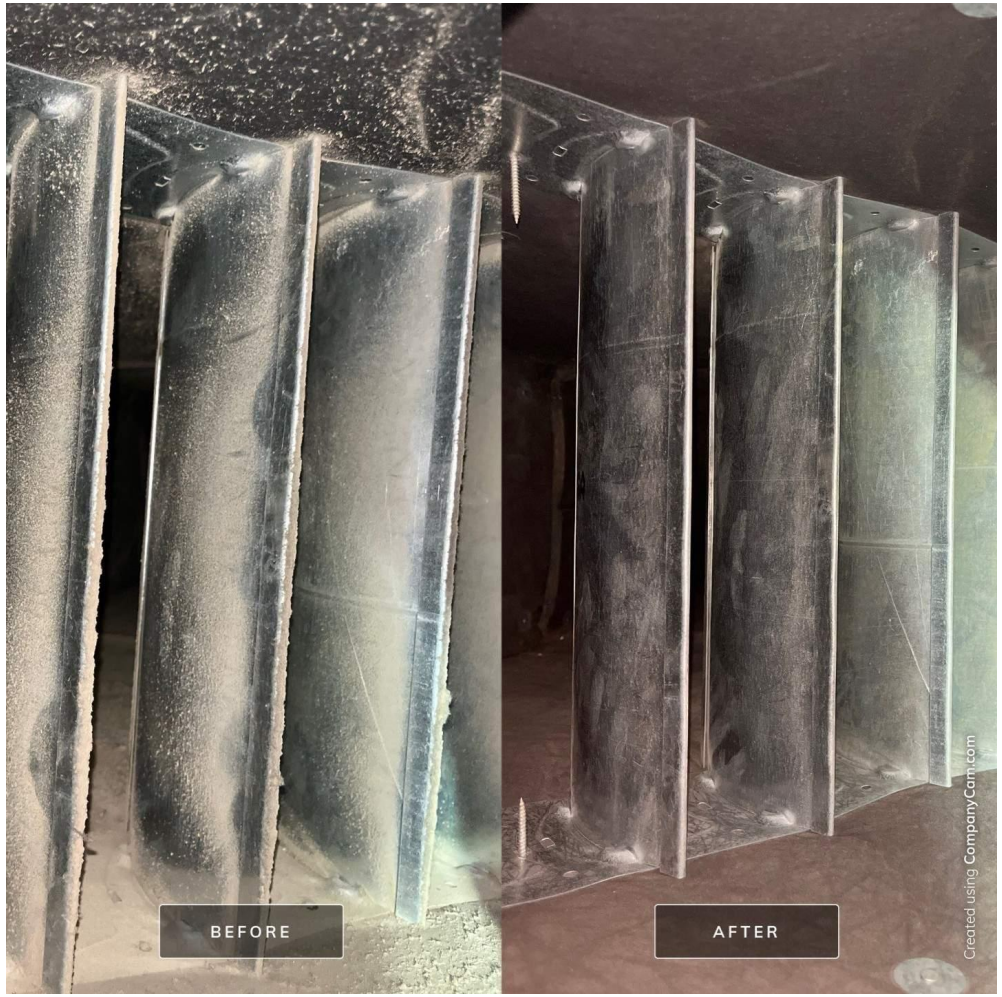
- Investigation & Inspection of HVAC units.
  - Ensure proper humidity, temperature, and CO2 levels through proper maintenance and utilization of HVAC systems.
- Identify source/cause of damaged ceiling tiles and replace.
- Continue to monitor CO2 and humidity readings.

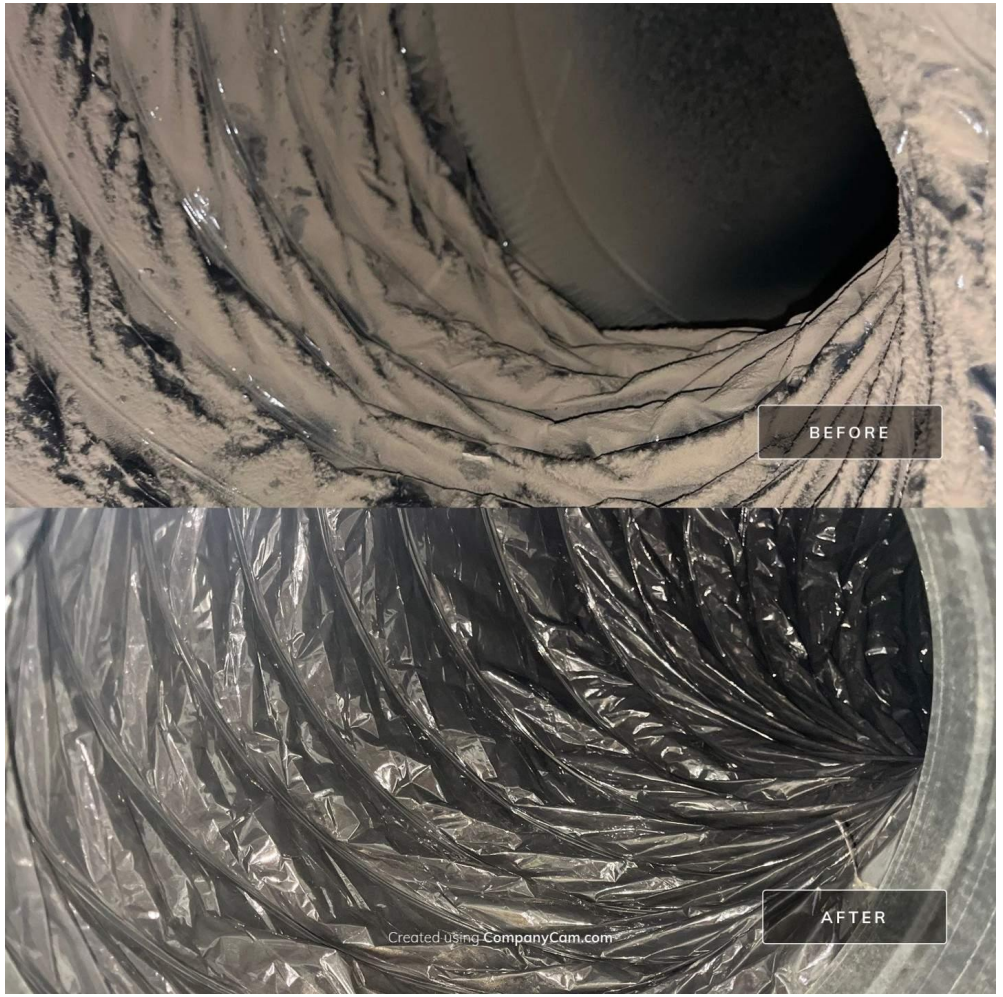
Service and Maintenance Recommendations

- Maintaining optimal air humidity levels.
  - Elevated humidity can lead to mold growth and cause secondary damages from condensation.
- Regular vent and air return cleanings.
- Identifying and fixing potential exterior leaks and sources of water intrusions.
- Ensure proper ventilation to reduce CO2 levels.
- Identify source/cause of damaged ceiling tiles and replace.

Gravelly Hill Duct Cleaning

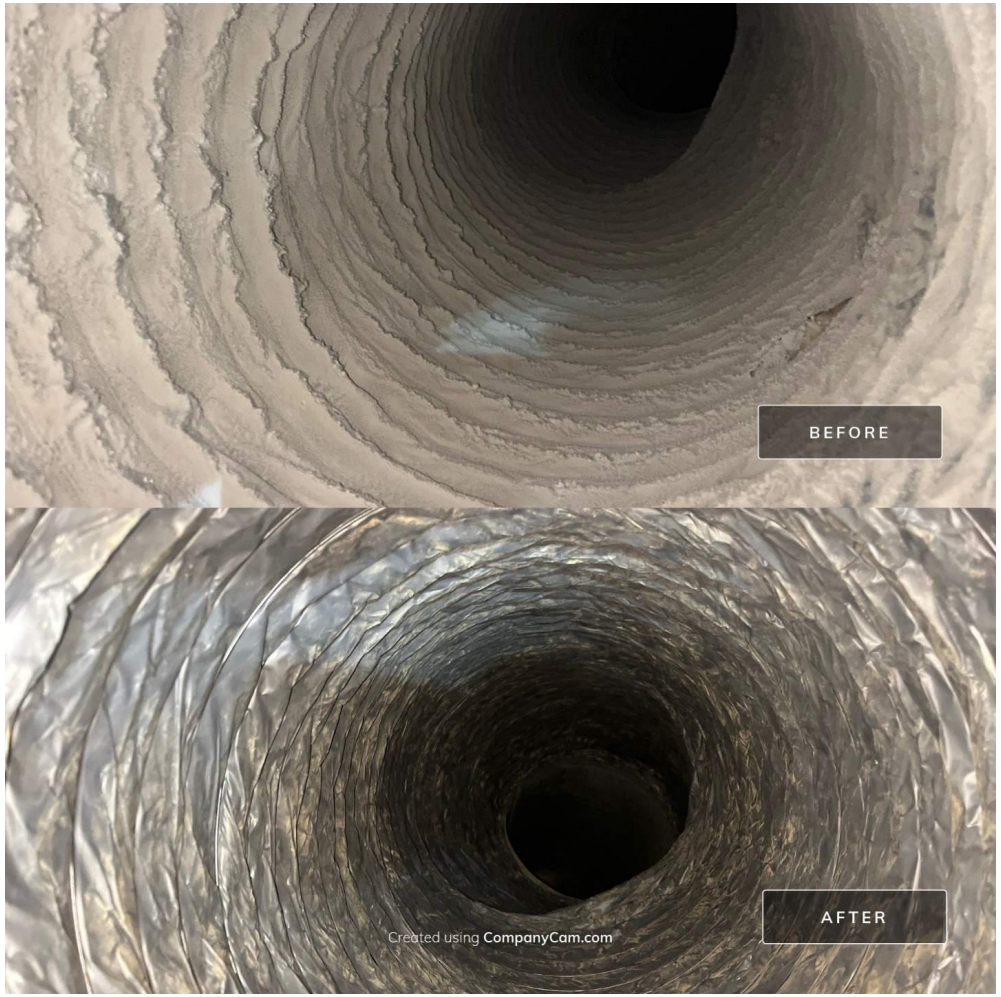
- May 2025

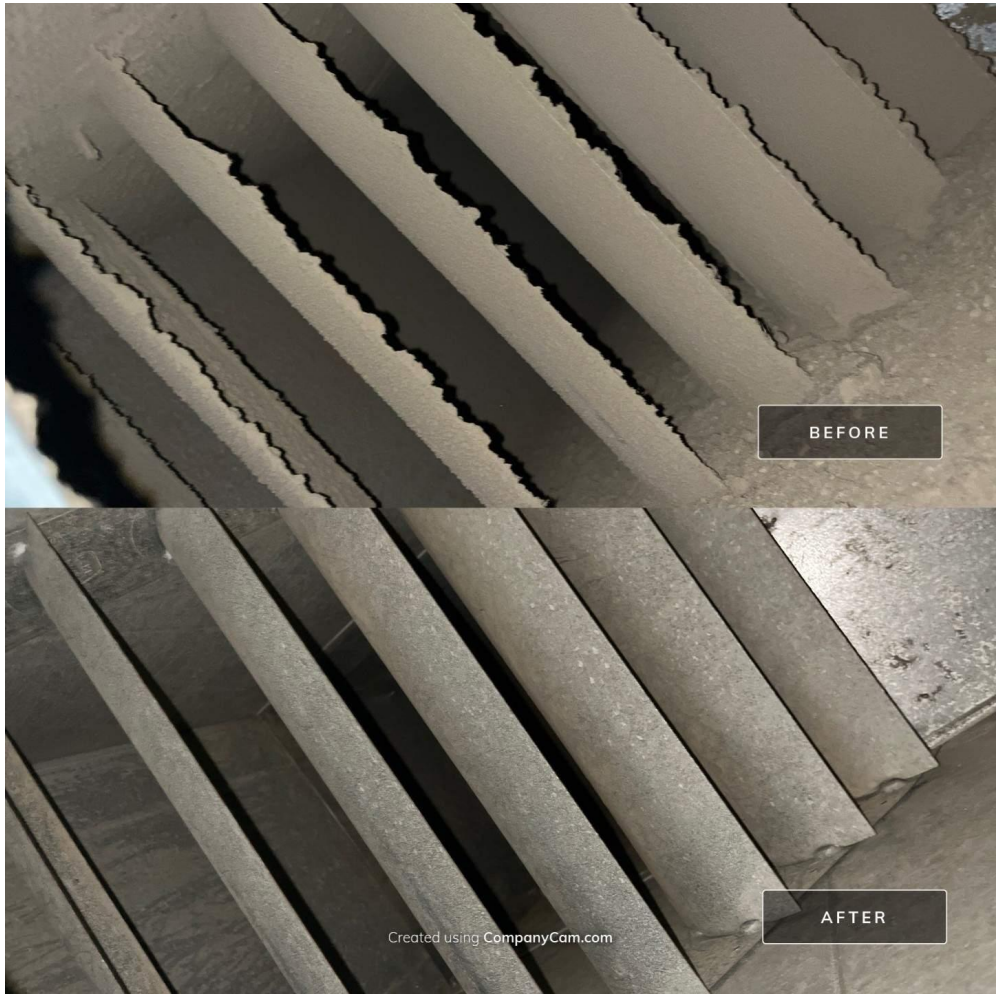




New Hope Duct Cleaning

- July 2025





New Hope Roof Replacement

- **Stopping water infiltration**

RFQ for Building Envelope

Summary

➢ **OCS Schools meet or exceed IAQ Testing Standards.**

➢ **OCS schools have committed to preventative maintenance to avoid degradation of indoor air quality and more costly repairs:**

- Every 90 days, air filter exchange.
- Quarterly vent cleanings.
- Every 2 years, coil cleanings or as the need arises.
- Every 5 years, ductwork cleaning.
- Remediation plans for roof leaks and other water-related issues.

Questions?

Orange County Schools

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