COIT®
CLEANING & RESTORATION

COIT Transforms Indoor Air Quality and Reduces Energy Costs for a Leading Texas University

Key Success Factors

- Partnering with Hunton Group, a leading Texas-based HVAC solutions provider
- Strategic zoning and planning to accommodate the university's schedule and events
- Flexible scheduling and operating at night/after-hours
- Seasoned, certified technicians with experience performing large-scale commercial HVAC cleaning projects
- Utilization of advanced, state-of-the-art equipment to thoroughly and efficiently clean the air ducts
- Mold remediation capabilities

The Challenge—Cleaning the Air Ducts in 10 On-Campus Buildings

Over time, dust, dirt, mold spores, and other particulates can build up in HVAC units. Clogged air ducts have to work harder to circulate air, which increases energy usage and overall costs. Indoor air quality (IAQ) has a significant impact on health and productivity, which is why commercial spaces like schools and large universities need to perform routine professional cleanings of all air ducts to foster a safe and sanitary learning environment.

Our client, a well-known Texas university that's been around since 1947, was receiving a significant number of health complaints regarding poor indoor air quality in their facilities. Students and staff members were experiencing respiratory issues such as sneezing, allergies, and discomfort, all of which pointed to poor indoor air quality. These health symptoms were not only a liability for the university but were also not conducive to a productive learning environment.

COORDINATING WITH UNIVERSITY SCHEDULES AND EVENT

Of course, no job comes without challenges. In this case, that challenge came in the form of schedule coordination. Given that all the HVAC cleaning would be happening during the school year, this created an added obstacle in which the team had to factor in and work around student events, faculty, class schedules, and laboratories. To accommodate these needs, the COIT team had to be strategic and flexible with planning, working under the radar to ensure they did not disrupt the university's day-to-day operations.

After receiving government funds specifically allocated to improve the air quality, the university called on COIT to professionally clean and service the air ducts in 10 on-campus buildings. As a trusted name in commercial cleaning with an expert team of technicians, each with previous experience performing large-scale commercial HVAC cleanings, the COIT crew was well-equipped to handle the job with efficiency and professionalism.

To ensure project success, COIT partnered with Hunton Group, a leading Texas-based HVAC solutions provider known for high-performance air systems and energy solutions. This collaboration enabled COIT to seamlessly integrate cleaning and optimization, ensuring thorough air duct cleaning while enhancing the HVAC system's long-term efficiency. This allowed COIT to address immediate indoor air quality concerns while securing future cost savings for the university.

The Solution—Detailed Documentation, Seasoned Technicians, and Advanced Equipment

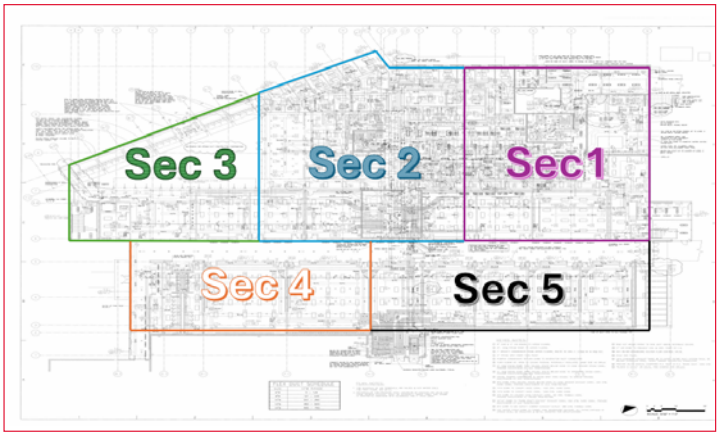
A cleaning job of this size had to be approached systematically to run smoothly. Given the size and complexity of the university, COIT worked closely with the school's staff to plan ahead. This proactive coordination gave the university ample time to adjust logistics, such as rescheduling classes, relocating activities, or decommissioning specific spaces for cleaning. This level of collaboration ensured the project was carried out efficiently with minimal disruption to the university's operations.

The COIT team was working around university schedules, so it meant some of the work would need to be completed after hours. Working at night benefitted both the school and the technicians who could work more efficiently given the reduced foot traffic and potential for interruption.

MAPPING OUT DESIGNATED WORK AREAS

Because this was a large-scale commercial cleaning project, it was important to map out the designated areas and establish zones for all 10 buildings.

Separating the buildings into sections made it easier for technicians to know which areas should be serviced first and allowed them to easily navigate around university schedules and avoid disruption. These plans were also shared with the building managers so they were kept in the loop and could plan accordingly. In addition to these established zones, daily progress reports, which included before and after images and outlined exactly what was completed or serviced that day, were administered to all leadership and building managers.

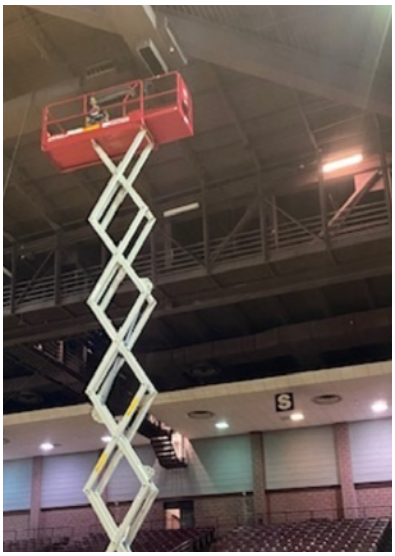


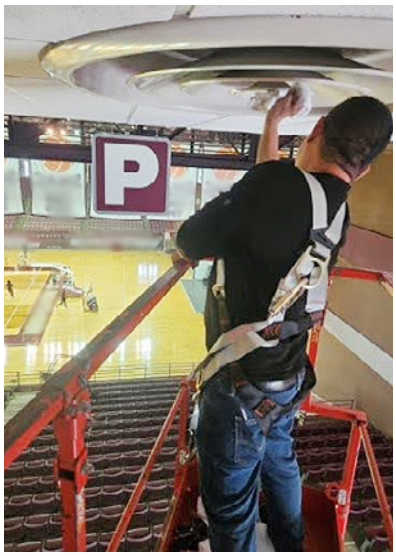
ADHERING TO SAFETY PROTOCOLS AND UTILIZING ADVANCED CLEANING EQUIPMENT

When cleaning commercial HVAC units, strict safety protocols must be followed. To ensure safety, each unit was shut down, and a lock-out tag was placed to prevent accidental re-contamination during cleaning. The area was often isolated using poly-plastic sheeting, and negative air pressure systems were used to prevent the spread of dust and contaminants. In areas where odor control was needed, such as the university laboratories, charcoal filters were employed.

To complete the job and meet National Air Duct Cleaning Association (NADCA) standards, portable HEPA units, negative-air machines, air-whips, brushes, and compressors were used, along with additional ancillary equipment. Air-whips were pushed through the system under negative pressure removing and extracting debris and airborne particulates back to the HEPA Units. The air duct system was then sanitized and disinfected with germicidal and sporicidin. The insulated ducts were treated with Microban after cleaning and before encapsulation.

In some areas where the coils on the units were heavily soiled, they were cleaned thoroughly with a coil cleaner to improve the static pressure and airflow throughout the system. Supply grilles were pressure washed, sanitized, and reinstalled. Trunk lines were cleaned, disinfected, sanitized, and covered in a protective coating. To mitigate oxidation, some blower wheels were cleaned and repainted. In the university gymnasium, COIT technicians used lift systems to clean along the third-level catwalk ductwork, concentrating on the perimeter trunk lines.





An Unforeseen Challenge: Mold in the Mechanical Room

Sometimes after a project starts, other areas of concern are discovered. In these situations, adaptability is crucial. To keep the ball rolling, it helps to work with a company that has the experience and capability to address a multitude of cleaning challenges.

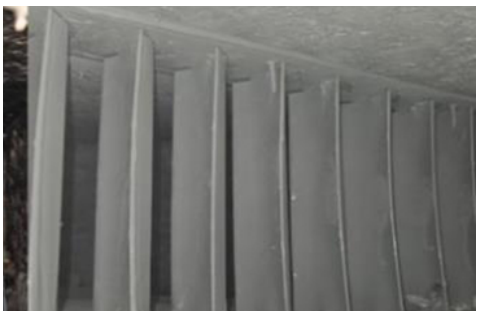
While servicing the university's air ducts, a significant amount of mold was discovered in one of the mechanical rooms. Mold is problematic for a few key reasons. Not only is it damaging to the structural integrity of the building, but it can also trigger allergic reactions and negatively impact health over time. Given that there were already existing health complaints surrounding poor indoor air quality, the newly discovered mold growth would be a cause for greater concern.

To promptly address the issue, COIT developed a protocol, and team leads generated plans and an estimate for work, which was submitted and approved by the customer. COIT was able to execute the work and passed all clearance inspections. While this new obstacle could have created a hiccup in operations, the team was equipped to respond quickly and kept operations moving without major delays.

The Results—Healthier Indoor Air Quality and Reduced Energy Costs

The project required six months of meticulous execution, with a dedicated crew of eight expert COIT technicians. Together, they ensured all 10 campus buildings were restored to optimal indoor air quality standards.

By combining meticulous planning, clear communication, and effective execution, the project successfully addressed the air quality concerns while minimizing disruptions to university operations. This systematic approach ensured both immediate results and a foundation for maintaining improved air quality in the long term.

BEFORE CLEANING BY COIT	AFTER CLEANING BY COIT
	
	
	
	

THROUGH THIS PROJECT, THE UNIVERSITY EXPERIENCED MEASURABLE IMPROVEMENTS SUCH AS:

- Indoor air quality improved by up to 40%, reducing airborne contaminants and allergens (Source: U.S. Environmental Protection Agency, EPA).
- HVAC system efficiency increased by 25-30%, reducing strain on the equipment and extending the system's lifespan (Source: U.S. Department of Energy).
- Energy consumption decreased by 10-20%, leading to significant cost savings on utility bills (Source: National Air Duct Cleaners Association, NADCA).
- Annual HVAC maintenance costs were lowered by an estimated 15-20% due to improved airflow and reduced system strain (Source: ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers).

This commercial HVAC cleaning project was completed by COIT's Houston location with expert direction from National Business Development Manager, Rafael Velasco. As the Project Manager for COIT's side of operations, Rafael played an instrumental role in the strategic planning, execution, and coordination of this job.

To schedule your free commercial duct cleaning consultation, contact COIT Cleaning and Restoration today.

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