CASE STUDY

OMEGA ENVIRONMENTAL

Environmental Expertise and Out-of-the-Box Solutions for Safe and Cost-Effective Commercial Renovation

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INTRODUCTION

Ensuring acceptable indoor air quality (IAQ) throughout a large-scale commercial renovation project is a necessary and often complex undertaking, especially when the building remains in use throughout.

The Omega Environmental team includes a core group of industrial hygienists with deep expertise in indoor air quality assessment, monitoring for a variety of IAQ parameters and resolving issues with poor indoor air quality. Proper indoor air quality monitoring and control of airborne pollutants are an important safeguard for the health of employees, visitors and construction crews as airborne debris can include concrete and tile dust, airborne asbestos fibers, silica dust, VOCs from paints, coatings or concrete waterproofing and other hazardous materials.

When the project manager for a downtown Los Angeles mixed-use building renovation project reached out to Omega, he was facing a more than routine level of difficulty: an onsite day care center would remain open throughout the renovation, which included the demolition and removal of a central atrium and adjoining food court. Here's an overview of how the right processes—and the right environmental partner—got the job done safely and effectively.

THE PROJECT

Design of a ventilation solution and continuous monitoring and sampling of indoor air quality to ensure the safety of nearby occupants throughout a building interior demolition and renovation and asbestos removal project centered on a glass atrium, food court and entryway connecting two high-rise buildings. In addition to monitoring for asbestos fibers, lead, silica, cement and construction dust and odors, the project included steps to monitor and insulate against sound intrusion into occupied areas.

THE CHALLENGES

The buildings were full of people and businesses that would remain in operation throughout the duration of the project—including a restaurant and a second-floor day care center with a glass wall that overlooked the atrium. Maintaining healthy air quality in the day care center and other occupied spaces required continuous monitoring for threats like construction dust and other airborne debris including oil mist generated from the restaurant's cooking activities.

THE SOLUTION

Certified Industrial Hygienist David Martinez has decades of experience that includes collaboration with the Omega team on as many as 200 indoor air quality and mold and moisture assessments, as well as serving as an industrial hygienist in the federal government.

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As part of the Omega team charged with overseeing IAQ throughout the building renovations, Martinez implemented strategic engineering controls and designed a thorough sampling plan to ensure that the air inside the day care center would be completely sealed off from the construction zone, using the building's HVAC system to positively pressurize the interior of the day care center. "The trick," he said, was "to turn the day care center into a balloon."

Martinez said he opted to use the HVAC system instead of bringing in outdoor air to achieve the pressurization because it was simpler and more cost-effective. Outside air would have required additional filtering and tempering, he said. It was an out-of-the-box bit of thinking that worked, even under the unique challenges posed by the project.

"I've done over 300 different studies and each one I learn a little more," Martinez said. "This type of project is much more complex and you need someone who can think outside the box,".

The project also included around-the-clock air quality monitoring and testing for respirable particulate matter.

COMMUNICATION AND TRANSPARENCY

Projects like this require more than scientific expertise and innovation, however; ongoing communication with the tenants was key to the project's success, Martinez said. That was especially true of the tenants whose children attended the onsite day care center.

Keeping the children safe was the highest priority, but addressing parents' ongoing questions and concerns was a big part of the job. "We made sure everything was communicated to the parents...and addressed concerns immediately," setting up a hotline, a suggestion box, weekly meetings with tenant representatives and positioning video cameras for added security, said Martinez.

THE RESULT

Reassured parents, happy employees, a happy project manager and a beautifully modernized downtown mixed use building.

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ENVIRONMENTAL EXPERTISE FOR CONSTRUCTION SAFETY, COMPLIANCE AND DEADLINE MANAGEMENT

The Omega Environmental team has decades of experience in the assessment, remediation and mitigation of environmental hazards and a deep commitment to ensuring that our clients can move forward with their construction, demolition and renovation projects confidently, safely, cost effectively and without deadline-wrecking obstacles.

Give us a call or click on the link below to learn more about how we can help keep your next project on track. www.omegaenv.com