



California-based general contractor Webcor prioritizes employee health and safety with installation of WYND air quality monitoring and purification system



Who is our client?

Webcor is one of the largest commercial general contractors in California, employing over 1,000 construction professionals. Webcor builds structures of every type including office buildings, hotels, high-rise condos, university campuses, and hospitals.

We now spend 90% of our time indoors, which is especially concerning knowing that indoor air can actually be 2 to 5 times as polluted as outdoor air.

Webcor is always one step ahead when it comes to safety—their top priority on every project. This is why Webcor decided to partner with WYND to investigate air quality in their jobsite offices. This particular case study focuses on the modernized Newark Civic Center in California, which is rated LEED Silver and features a new administration building, library, and police station for the City of Newark.

The WYND team met with **Natalie Wheating**, former Sustainability Manager at Webcor, to discuss the impact of their use of WYND's air quality monitoring systems. In her role, Natalie was responsible for implementing innovative building strategies, ensuring compliance with sustainability certifications being pursued, and advocating for employee health and wellness.

Webcor leads the construction industry in sustainability and wellness



Reduces CO2 emissions in the built environment by optimizing energy efficiency



Achieves green building certifications including LEED and WELL



Encourages health and wellness for employees and building inhabitants



Integrates EPA, OSHA, and ASHRAE guidelines into construction practices

What problems were they facing?

Many jobsite trailers are not designed with proper ventilation and air quality in mind. Although jobsite trailers are meant to be temporary workstations, major construction projects can span multiple years, requiring key personnel to be on-site for that duration with minimal maintenance of the spaces.

As a top Bay Area employer, Webcor leadership takes their responsibility to ensure health and safety for all employees very seriously.

In recent years, especially in Northern California, air quality has become a top concern when it comes to human health and comfort. During

wildfire season, hazardous air quality can create unsafe conditions for construction workers both outside and inside jobsite trailers with poor filtration, costing project teams and their clients significant time and money in lost work days.

Webcor was already concerned about Indoor Air Quality (IAQ) before the COVID-19 pandemic hit, working with teams to set up consistent programs replacing air filters and incorporating air-purifying plants in jobsite offices. With the new pandemic circumstances, IAQ became an even more significant factor in ensuring employee wellness. Due to enhanced pandemic precautions, individual workspaces became isolated in efforts to prevent the spread of germs, severely impacting ventilation. Plexiglass and plastic partitions separated previously open workstations, so the jobsite trailers no longer had the airflow that their Air Handling Units (AHUs) were designed to create.

Natalie mentioned that as our region continued to experience prominent air quality events, Webcor wanted to make sure the measures they were implementing were actually effective.

Webcor's biggest challenge was knowing what actions to take when IAQ numbers became concerning; having data doesn't help if you don't know what it means or what to do with it.

After evaluating various products and services on the market, Webcor partnered with WYND because of their easy-to-use devices and accessible price point. Larger competitors didn't make sense for Webcor's budget, and short-term application and the devices would tell viewers in real-time what contaminants they should be concerned about in their space.



How did WYND help Webcor identify solutions?

After placing various WYND Halo IAQ monitors throughout the Newark Civic Center jobsite trailer, WYND provided Webcor with AI-powered recommendations based on the real-time data that was collected.

With WYND's help, Webcor's on-site staff was able to quickly identify and address any IAQ issues that arose. For those who weren't on site, team members could access a remote dashboard to view the historical data around air quality in the space and identify any patterns and trends throughout the days and weeks.

Based on accurate monitoring from the WYND Halos, WYND made the following personalized recommendations to the Webcor team:

- Pollutant levels found in the jobsite trailer varied depending on the time of day (in the morning when machinery and tools started up on the nearby construction site), time of year (during wildfire events and pollen season), and flow of trailer occupants throughout the day (in the morning, lunchtime, and evenings when people were coming and going). These were the most important times to run the WYND Max air purifiers in the space, at medium or high speeds.
- During the early morning, before equipment was turned on and workers arrived, WYND suggested opening all of the jobsite trailer windows and “flushing” the air in the space for 30 to 60 minutes.

- WYND suggested that the team install WYND Max purifiers in the desk areas without a dedicated supply vent to help offset the lack of ventilation, which was particularly affected by the partitions set up to combat COVID-19.
- Personal purifiers, such as the WYND Essential or WYND Plus, were also recommended for use in spaces where the WYND Max purifiers (designed to purify the air in a 1,200-square-foot space) weren't necessary.
- WYND also advised the Webcor team to put extra thought into arranging the trailer office layout and determining how many employees could safely work in a space to ensure everyone was receiving proper ventilation.

“Because Webcor is a general contractor, a lot of the spaces our employees work in are temporary. While the industry focuses primarily on the indoor conditions of our completed buildings, **our employees deserve the same care and consideration around wellness as the end-users of the spaces we build.**”

—NATALIE WHEATING
FORMER SUSTAINABILITY MANAGER AT WEBCOR

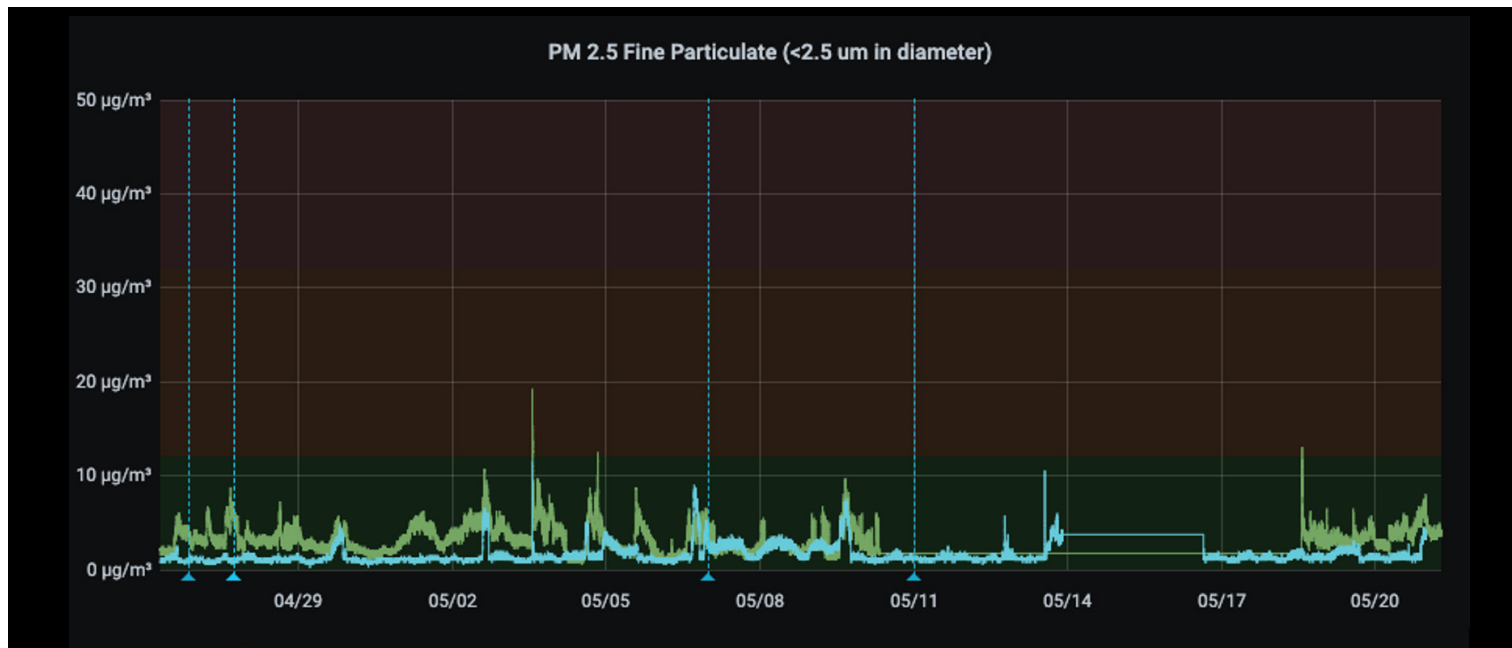
What were the results?

The Webcor team learned that the demolition phase, which was a large component of the Newark Civic Center project, negatively affected both outdoor air quality and IAQ within the jobsite trailer. Luckily, they were able to counter these effects with WYND Max air purifiers. During demolition, one of the WYND Halos showed fine particulate matter (PM2.5) levels in its area of the trailer increase up to 37%. This increase was enough to shift the IAQ from “Good” to “Moderate” based on EPA’s PM2.5 demolition levels. The other WYND Halos showed no concerning increase in PM2.5 in rooms where the WYND Max air purifiers were being used.

With the data collected by our WYND Halo sensors on Webcor’s Newark Civic Center jobsite, the team was happy to report that spaces with the **WYND Max air purifier installed had measurably better air quality than the spaces without.**



Webcor commented that WYND’s custom dashboard was helpful to visualize the thresholds of each pollutant that were cause for concern. They especially appreciated the color hierarchy that made levels very clear and intuitive.



The graph above compares PM2.5 levels in two different cubicles, both located in the middle of the trailer with no direct access to the AHUs, over the span of three weeks. The green line, which represents the cubicle that did not have a WYND Max air purifier, showed significantly higher PM2.5 levels throughout the study.

The Webcor team plans to expand its focus to the actual jobsite as well—tracking key construction activities and identifying potential point sources of particulate matter for enhanced filtration.

Webcor is continuing to investigate the relationship between construction activities and IAQ.

What does this mean for my business?

WYND is here to help. Our AI-powered suite of air quality monitors and smart air purifiers enables people to breathe healthier air wherever they go. Using WYND products will allow your business thrive during challenging circumstances, like our trusted client Webcor.

[Click here](#) to schedule your free air quality consultation!



WYND's mission is to elevate health and wellness through our passion for air quality.

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