



FUTURE OF WORK

Data Brings Clarity to Cleanliness

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CBRE



The COVID-19 pandemic forced businesses to clear many unexpected hurdles before resuming normal operations. The highest hurdle appeared right at the start of the race: to get facilities open and running again, companies had to develop and implement new cleanliness and hygiene practices to prevent the spread of COVID-19.

After a year spent dealing with the pandemic, companies now keenly recognize that workspace cleanliness has never been more important, or more expensive, than it currently is—and authoritative, best-practice guidance continues to evolve with challenging frequency as more is learned about the transmission of COVID-19. As an example, fresh-air exchange, higher levels of filtration, and general air quality remain high priorities, as opposed to extreme methods of cleaning such as frequent disinfection programming, electrostatic spraying, and “barrier” product protection.

Employees, occupants, clients, and customers won’t return to work or retail and entertainment spaces without assurance of protection from surface and air transmission of the virus. However, the cost of frequent deep cleaning and disinfection, and modified cleaning programs designed to clean at a more comprehensive level, weighs heavily on employers and building owners. In one [survey](#), the Federal Reserve Bank of New York discovered that five out of ten manufacturers and a nearly equal proportion of retailers and service firms were “moderately to significantly” burdened by the costs of deep cleaning. Estimates show that the related cost of a post-pandemic cleaning program will be 27% higher than pre-pandemic service levels.

However, by using data to drive an on-demand cleaning program with an element of service validation, organizations can mitigate these high costs. These data-driven strategies create a digital trail, documenting the most time- and cost-effective deployment of cleaners even as they provide companies with evidence of completion. Such strategies demonstrate a commitment to creating a safe and healthy environment, while also mitigating expenses and curtailing unnecessarily duplicative cleaning work.



Robust Cleanliness

By focusing on cleanliness and encouraging safe practices, CBRE can deliver global solutions that help clients manage the effects of the current pandemic while crafting frameworks for addressing future pandemics or other destabilizing events. In short, our current and future programs necessitate a design that avoids the high cost of idling buildings, as well as the damaging effects on employee morale, employer workplace culture, and overall productivity.

As we respond to the current crisis, we have gained a great deal of insight into practical and effective cleaning solutions that help prevent the spread of contagious illnesses and build occupier confidence. For instance, we have found that visual referencing (seeing cleaning crews during the workday completing their duties) and product placement of comfort brands create a conscious or subconscious awareness that building management is paying attention to the needs of occupants.

Our own improved understanding of cleaning processes, backed by authoritative research, has confirmed that while potential for surface transmission of COVID-19 is low, air quality remains consequential. And while there is no panacea that leads to a perfect cleaning program, a variety of best practices, training, and powerful products can constitute a robust program that delivers measurable success.



Leveraging Data

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We can use data to focus attention on areas where cleaning will have the greatest return on investment. For instance, heatmaps and sensing devices reveal workspace occupancy and the highest traffic areas or load/impact levels of a space. They show us which workstations have received heavy use, enabling our cleaning suppliers to attend to areas most in need of disinfection. Innovative technologies like robotics and autonomous machinery, where practically applicable, help us automate repetitive tasks. This lets cleaning teams devote more time to areas that require specific processes for effective cleaning, while also supporting on-demand cleaning models to manage programming and costs.

In alignment with our supplier partners, CBRE tracks and documents all cleaning processes, so that our clients can assure colleagues and associates that all necessary cleaning, and equally as applicable disinfection processes, have been completed. We presently monitor badge-in rates and are enabling best practices to also monitor heatmaps, workstation sensors, pathogen-killing

equipment, and other similar technology to provide real-time reporting on key metrics. While effectively aggregating and then utilizing this data constitutes challenging work, it will give us an edge when it comes to developing programming that delivers measurable results. Clients may also wish to take advantage of surface testing that clearly identifies the outcomes that provide the information needed to establish baselines for workplace cleaning methodologies, avoidance of cross-contamination, and other best practices, along with a timeline for follow-up testing. All these measures enable CBRE to establish the frequency of cleaning that best promotes a healthy environment for anyone entering the space.

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Collaborative Cleaning Across Client Portfolios

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CBRE has collaborated with multiple companies to provide surface testing and create data-driven plans for cleaning. In pilots of this expanded service, teams utilize data from workplace reservations, workspace sensing as well as heat/motion sensors to track facility use and identify areas that require a specific element of disinfection as a result of occupation. These projects enabled building occupants to feel comfortable and healthy, while managing costs by focusing on true occupancies and redirecting services to areas receiving regular use.

Through careful interpretation of the qualitative and quantitative insights derived from CBRE's sponsorship of these pilot programs, we can effectively mitigate cleaning costs while keeping workers safe and workplaces hygienic—a learning process that began in the earliest days of the pandemic and continues to inform the ongoing return-to-work phase globally. The velocity of change relevant to the use of data will prove to be an effective weapon against the invariable increase in cleaning expense as we exit the COVID-19 pandemic and prepare comprehensively for the next business interruption.



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All of CBRE's COVID-19 related materials have been developed with information from the World Health Organization, the Centers for Disease Control & Prevention (and similar global organizations), public health experts, industrial hygienists, and global subject matter experts across CBRE and our strategic suppliers. Guidance and requirements from public health and governmental organizations vary by geography and should inform decisions in specific locations. Our materials may not be suitable for application to all facilities or situations.

Ultimately, occupiers and landlords must make and implement their own reopening decisions for their individual stakeholders and facilities. CBRE's guidance is intended to help facilitate those discussions and expedite the implementation of those decisions once made by the client. We make no representations or warranties regarding the accuracy or completeness of these materials. CBRE cannot ensure safety and disclaims all liability arising from use of these materials.