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COVID-19 Impact
on the Workplace
28 May 2020

What We Did
What We Are Doing
What We Will Do



Columbia | CBIPS AEC Industry Guidance from COVID-19



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OFFICE SPACE AFTER THE PAUSE

*“Do what you want / Do what you will /
Don’t tell me its not our time / ‘Cause I’m
Waiting here much too long....”*

(from After the Disco, Broken Bells)

The COVID-19 global pandemic has not yet ended. A resurgence is possible after this initial tragedy recedes. Perceptions of personal health and safety have changed. How will we return to our offices? The Centers for Disease Control and Prevention has offered guidance, as have many others in public agencies and private firms located throughout the Architecture, Engineering and Construction world. Here are some thoughts on key issues.



OFFICE SPACE AFTER THE PAUSE

About the coronavirus crisis, New York City Mayor Bill de Blasio stated, “I have to be honest about the fact that we do not expect this to go quickly, and I wish we did, but we don’t.”

He could have been addressing the specific complexities of returning to the 568 million square feet of office space in Manhattan located in 3,860 commercial buildings in Midtown and Lower Manhattan. The City of New York’s Office of Fiscal and Budget Studies reported that there was an estimated total number of 1,203,000 office workers in Manhattan alone. Citywide the number is even higher.



TEN ISSUES IN OFFICE DESIGN

The introductory pages which follow include ten areas of consideration including meetings, safety, occupancy, density, gathering, seating, HVAC, bathrooms, circulation, and materials.

Subsequent images reflect the analyses coming from the AEC community, followed by guidance from the US Centers for Disease Control and Prevention. These are organized in five sections:

- Framework
- Workspace Today
- Workspace Transformation
- Looking to the Future
- Appendix: Guidance from the CDC



MEETINGS

If working remotely is possible for a significant percentage of public and private sector office staff, offices may be primarily places for more intense discussion and collaboration, that is for meetings.

Key issues for meeting rooms are:

- Timing and phasing of return to work
- Integration of videoconferencing capability
- Surfaces that are easy to clean
- Removing seats to maintain social distancing



SAFETY

Issues of personal health and safety on the construction site have changed with the pandemic extending to new ways of collaborating and integrating components manufactured off-site.

Key issues for construction site safety include:

- Maintaining social distance during construction
- Phasing work in sequential shifts
- Adding masks and relevant PPE to the toolkit
- Using materials that don't require close contact



OCCUPANCY

One of the methods possible to reduce the density of office occupancy, apart from the encouragement of ongoing remote work, is to consider the use of 24/7 operations or other extended hours.

Key issues for extended use of office space are:

- Acceptance of late night shifts
- Coordinating cleaning of spaces in use 24/7
- Considering transit access after hours
- Appreciating benefits of vibrant neighborhoods



DENSITY

Office space can be imaginatively designed or reconfigured to significantly lower the population density of those working in both existing structures and new office buildings.

Key issues in regard to office density include:

- Setting new and lower occupancy limits
- Changing the culture of what is done together
- Considering how larger spaces are affordable
- Encouraging hybrid home and office scenarios



GATHERING

If offices become primarily places of convening and congregation the social spaces contained within the existing context need to be rethought in terms of social distancing, materials and surfaces.

Key issues in regard to office social spaces are:

- Movable seating
- Considerably reducing posted occupancy
- Enhancing acoustics so people can spread out
- Using media large enough to be seen from afar



SEATING

When face-to-face meetings are necessary, the selection of seating and even the table shape become paramount in reinforcing social distancing while maintaining connection and teamwork.

Key issues for conference rooms seating are:

- Keeping empty adjacent seats by signage
- Using arc-shaped tables when possible
- Adding cues to remind us of crowding dangers
- Avoiding or shortening unnecessary meetings



HVAC

Mechanical systems of existing office buildings and those being renovated need to be reconfigured so as to maximize fresh air intake and the filtration of the recirculated air.

Key mechanical systems issues include:

- Enhancing filtration
- Increasing number of air changes
- Considering greater spatial separation
- Encouraging the use of operable windows



BATHROOMS

Bathrooms can be reconfigured to both ease cleaning and to encourage frequent hand-washing by employees and visitors. Additional sinks outside of bathrooms can be near entrances.

Key issues in thinking about bathrooms include:

- Making it easier for office workers to wash up
- Increasing number of single stall bathrooms
- Considering materials that ease cleaning
- Enhancing ventilation of bathrooms



CIRCULATION

Elevators cabs and narrow corridors can become potential points of unwanted contact with others. Stairs are an alternative but need to be wide enough to allow for two people passing.

Key issues in thinking about vertical circulation are:

- Widening stairs and corridors when possible
- One-way direction to avoid passing on stairs
- Controlling elevators to maintain separation
- Encouraging stair use instead of elevators



MATERIALS

For existing and new office space care should be given to specify and select interior materials and surfaces that are easy to clean and maintain and thus help prevent disease transmission.

Key issues for interior materials and finishes are:

- Maintenance protocols
- Surfaces that are easily and regularly cleaned
- Materials that are perceived as being clean
- Use of materials that are produced healthfully

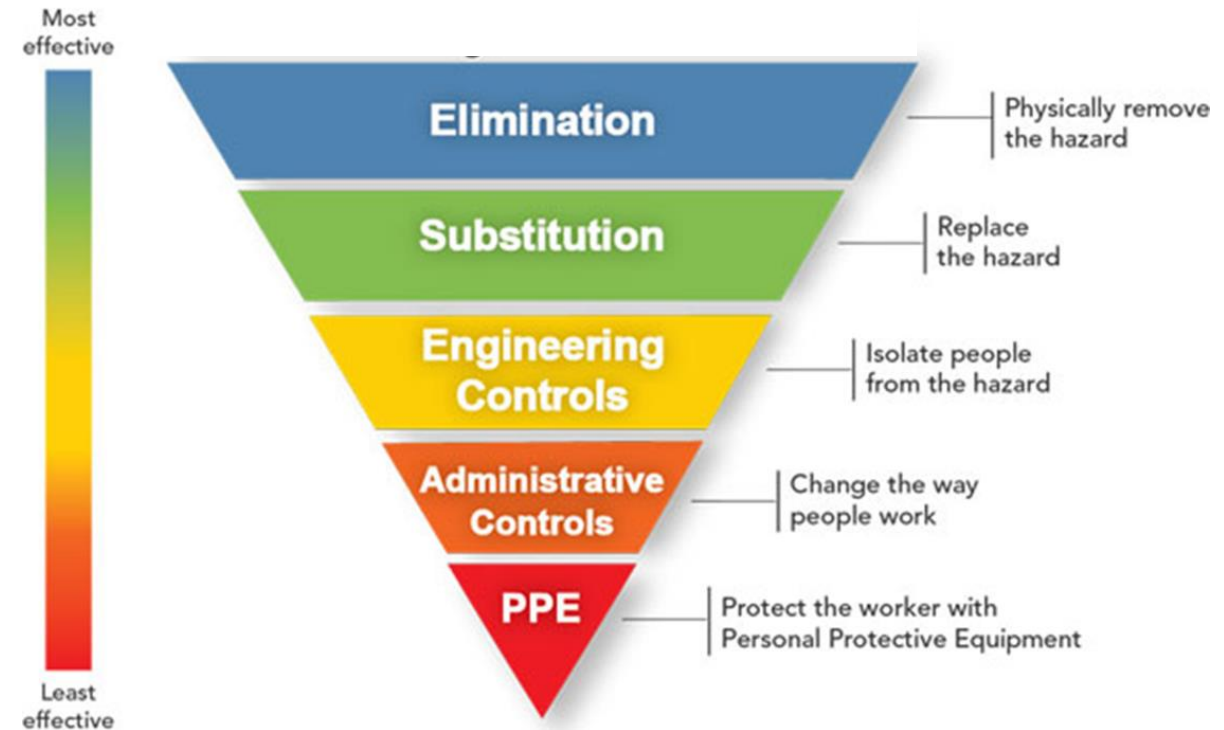


FRAMEWORK

NIOSH FRAMEWORK

The idea behind this hierarchy is that the control methods at the top of graphic are potentially more effective and protective than those at the bottom. Following this hierarchy normally leads to the implementation of inherently safer systems, where the risk of illness or injury has been substantially reduced.

HIERARCHY OF CONTROLS



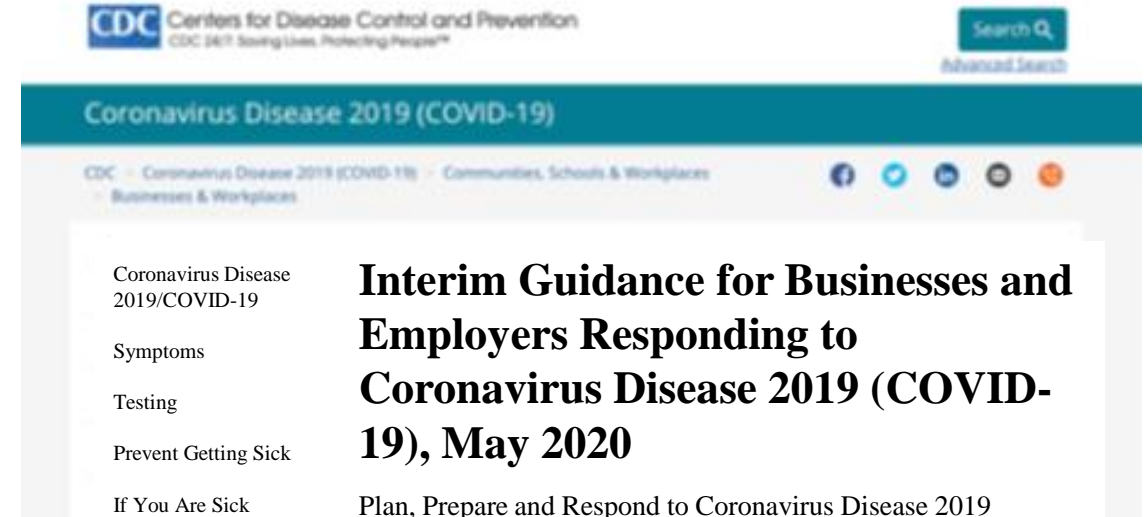
Source: <https://www.cdc.gov/niosh/topics/hierarchy/default.html>
Downloaded: 6.27.2020

CDC INTERIM GUIDANCE (SEE APPENDIX FOR CDC GUIDANCE DETAILS)

Below are changes as of May 6, 2020

Updated strategies and recommendations for employers responding to COVID-19, including those seeking to resume normal or phased business operations:

- Conducting daily health checks
- Conducting a hazard assessment of the workplace
- Encouraging employees to wear cloth face coverings in the workplace, if appropriate
- Implementing policies and practices for social distancing in the workplace
- Improving the building ventilation system



Source: <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html>
Downloaded: 6.27.20 | Updated 5.6.20

NEW BIOSENSOR DETECTS COVID-19 IN THE AIR

A team of researchers from Switzerland has succeeded in developing a novel sensor for detecting the new coronavirus that could be used to measure the concentration of the virus in the environment, such as in places where there are many people or in hospital ventilation systems. The sensor would not necessarily replace the established laboratory tests, but could be used as an alternative method for clinical diagnosis, and more prominently to measure the virus concentration in the air in real time, such as in busy places like train stations or hospitals.

Source: <https://www.hospimedica.cin.covid-19/articles/294781952/new-biosensor-detects-covid-19-virus-in-air.html> Downloaded: 6.27.20 | Generated 4.25.20

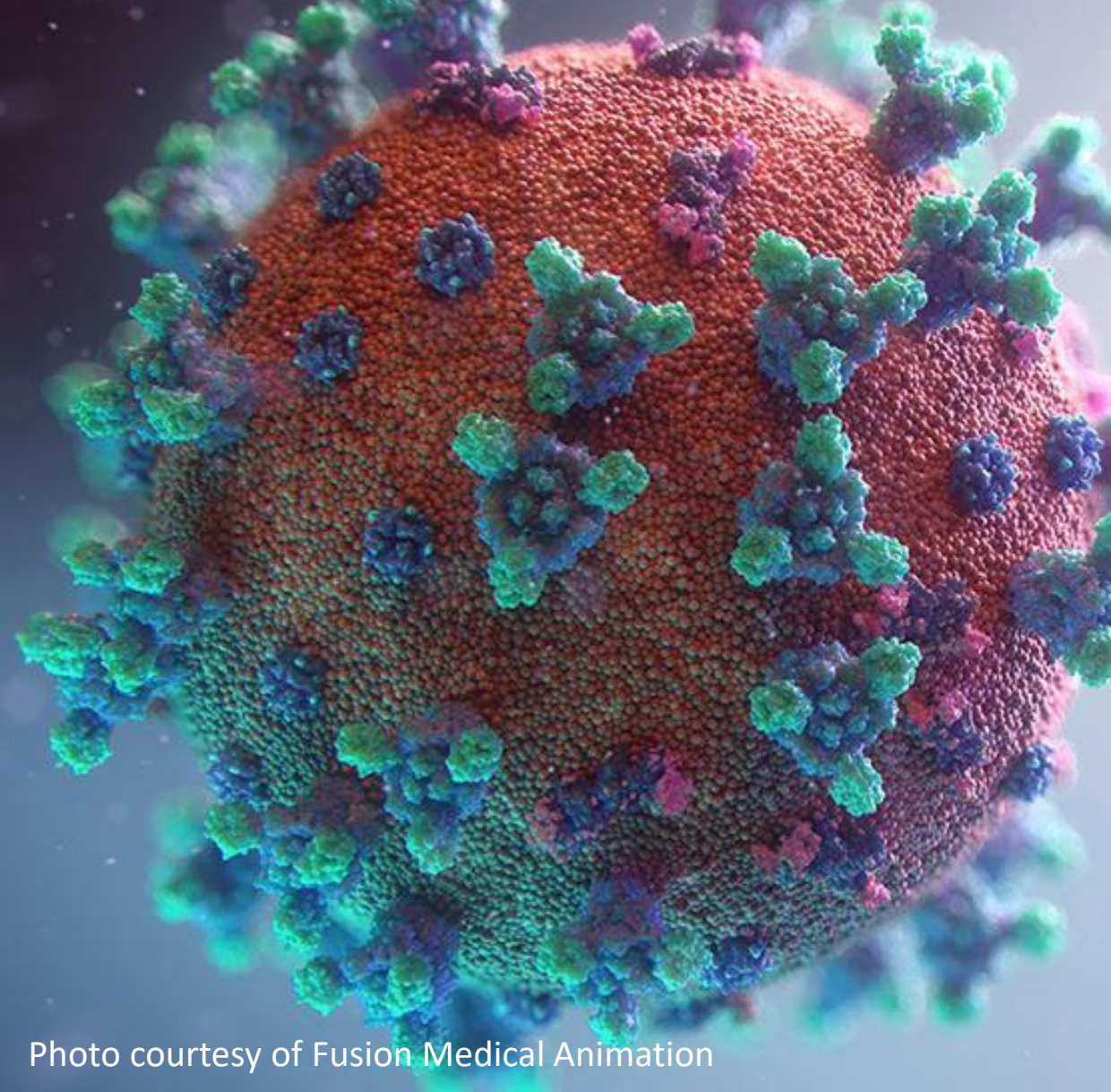


Photo courtesy of Fusion Medical Animation

PREVENTION

Boston-based company Biobot, which describes itself as “the first company in the world to commercialize data from sewage,” has joined forces with researchers at MIT, Harvard, and Brigham and Women's Hospital to launch a pro bono program that maps COVID-19 across the country. To date, Biobot is working with about 330 facilities in 40 states, which represents approximately 10% of the US population.

Source: <https://www.health.com/condition/infectious-diseases/coronavirus/coronavirus-sewage-testing>
Downloaded: 6.28.20 | Generated 5.8.20

Is Coronavirus Sewage Testing the Key to Slowing the Spread of COVID-19? Here's What Experts Say

How analyzing human poop could potentially help prevent the next COVID-19 outbreak.

By **Claire Gillespie** | May 08, 2020



PREDICTION

“There is no shortage of hot takes regarding the significant impact that artificial intelligence (AI) is going to have on business in the near future. Much less has been written about how, exactly, companies should get started with it. In our research and in our book, we begin by distilling AI down to its very simplest economics, and we offer one approach to taking that first step.”

Ajay Agrawal, Joshua Gans and Avi Goldfarb

Source: <https://www.predictionmachines.ai/>
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Prediction Machines



The Simple Economics of
Artificial Intelligence

REDUCING RISK

The current crisis is driven by a health problem: we don't yet have a treatment or a vaccine for the novel coronavirus. Managers have little control over that. But until the health problem is solved, places of work will be opportunities for infected people to infect others. This creates a management problem requiring management solutions, and managers do have control of those.

Source: <https://www.technologyreview.com/2020/05/28/1002326/business-workplace-reopening-safely-testing-covid-19/>
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Opinion

The CEO's guide to safely reopening the workplace

Until there's a treatment or vaccine for covid-19, public health will depend heavily on decisions by business leaders. Technology and systematic thinking can help.

by

Ajay Agrawal, Joshua Gans, Avi Goldfarb, and Mara Lederman

May 28, 2020

REDUCING RISK

Always-on solutions make must-have interactions less risky:

- Masks
- Hand-sanitizer stations
- Plexiglass screens at reception desks and store checkouts
- Body temperature sensors

Source: <https://www.technologyreview.com/2020/05/28/1002326/business-workplace-reopening-safely-testing-covid-19/>
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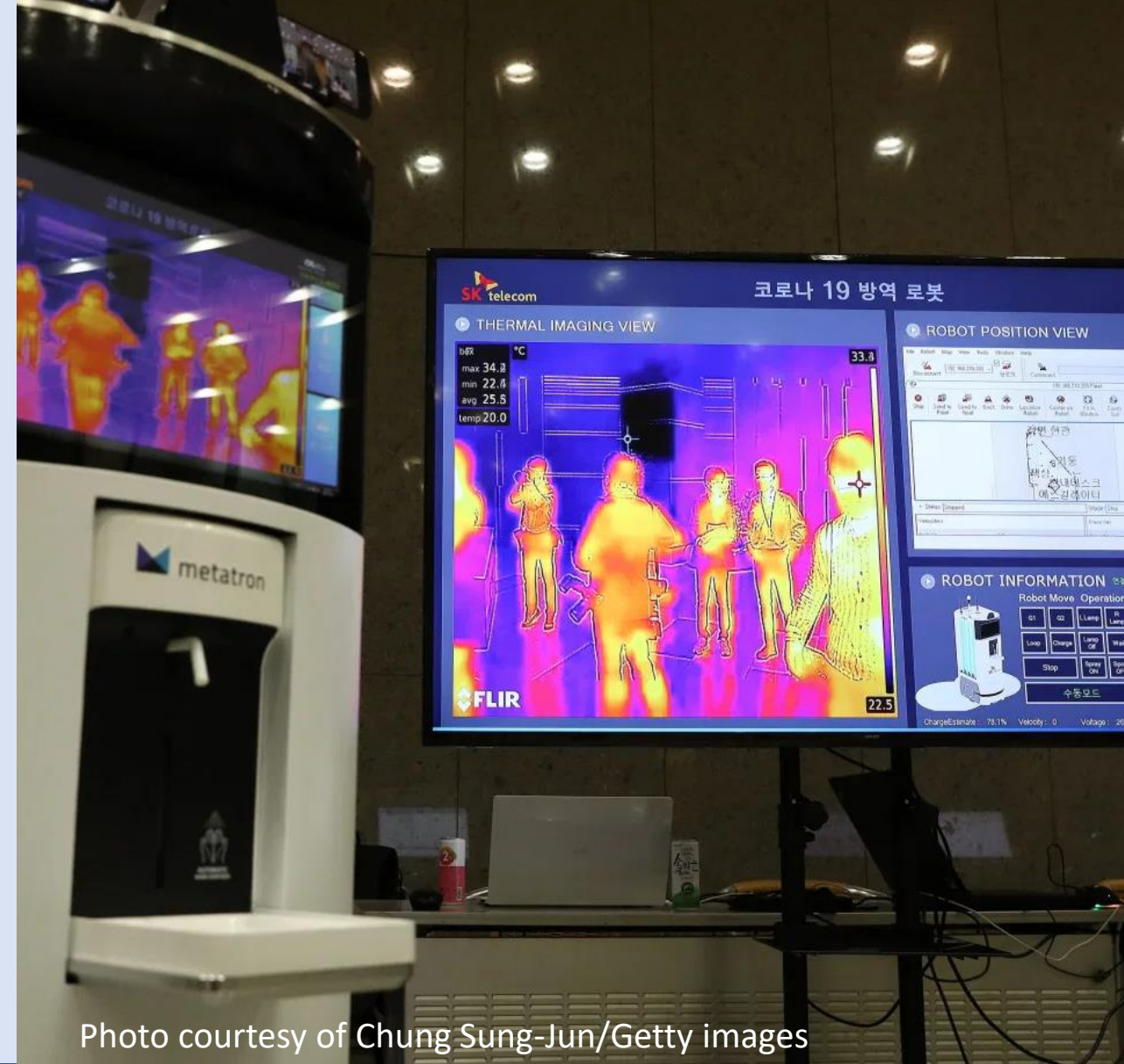


Photo courtesy of Chung Sung-Jun/Getty images

REDUCING RISK

Make it possible for people to interact less:

- Redesigned physical spaces (to minimize interactions or high-touch surfaces)
- Redesigned workflows (to enable work to be done in parallel or sequence rather than jointly)
- Redesigned people-management processes (to minimize interactions across groups or teams)
- Reductions in capacity – whether of employees (through layoffs or furloughs) or customers (through limits on occupancy)

Source: <https://www.technologyreview.com/2020/05/28/1002326/business-workplace-reopening-safely-testing-covid-19/>
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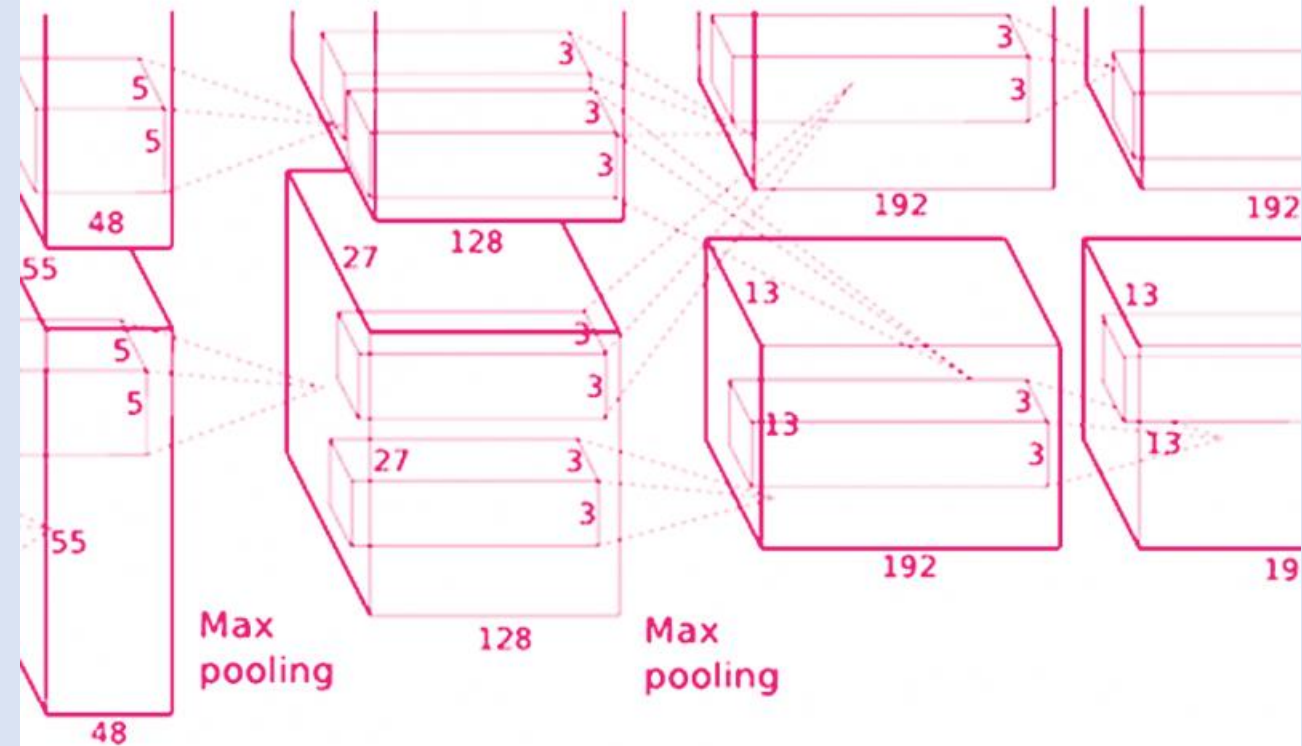


Image courtesy of Creative Destruction Lab (CDL)
<https://www.creativedestructionlab.com/streams/ai/>
Downloaded: 6.28.20

WORKSPACE TODAY

WORKPLACE BEFORE COVID-19

The photo shows the density – before the pandemic - of workers at a factory located in Addis Ababa, Ethiopia, before the pandemic.

The degree of workers' trust in the measures taken by employers to make workplaces safe, will no doubt have an impact on the return to work. Engagement with trade union representatives, where these exist, is a must. Everything from protocols for social distancing, monitoring and testing, and the availability of personal protective equipment (PPE) need to be discussed to make this work.

Source: <https://news.un.org/en/story/2020/05/1064802>

Downloaded: 6.28.20 | Generated 5.8.20



Image: Lin Qi

WORKPLACE BEFORE COVID-19

The rendering shows the density – before the pandemic - of the open environment office space planned for the Seneca One tower before the pandemic. The bank felt the modern design with its communal spaces would inspire conversation, innovation, and collaboration. M&T recently announced: “Regarding the Tech Hub, we temporarily paused construction back in late March. We have a task force working to determine the best approach to ensure the safety of our employees, suppliers and customers.”

Source: <https://www.wkbw.com/rebound/will-covid-19-change-the-design-of-your-workspace>

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Photo courtesy M&T Bank

WORKPLACE BEFORE COVID-19

The photo shows desks lined up side-by-side, or “benching,” in the Seattle, Washington, office of B+H Architects on April 1, 2020. The coronavirus pandemic is exacerbating workers’ worries about returning to jobs in open environment floor plans. Coronavirus won’t kill the open office, but we should expect to see significant change. The corporate office will change, but it won’t disappear. The office we once thought of as the future, is the office of the past.

Source: <https://www.workdesign.com/2020/5/industry-news-how-covid-19-will-change-your-open-office/>

Downloaded: 6.28.20 | Generated 5.4.20



Photo courtesy Ruth Fremson, the New York Times via Redux

WORKPLACE BEFORE COVID-19

In one office building in Seoul, South Korea, 43.5 percent of workers on one floor of a call center tested positive for COVID-19. An investigation recently published by South Korea's Centers for Disease Control shows how easily the coronavirus can spread in a crowded office space. On one floor of a call center where 216 employees worked, 94 people tested positive for the virus. Investigators believe the outbreak happened over the course of 16 days beginning on February 21."

Source: <https://www.nationalgeographic.com/science/2020/04/will-coronavirus-end-the-open-office-floor-plan/>

Downloaded: 6.28.20 | Generated 4.30.20



Image from Jason Treat; source: Emerging Infectious Diseases, 2020

WORKSPACE TRANSFORMATION

SHORT-TERM WORKSPACE CHANGE: MRA NET

- Adding sanitation stations and key signage
- Taping off social distancing lines
- Turning around facing workstations
- Installing dividers between workstations
- Increasing the height of workstation dividers, especially with the growing number of standing desks
- Decreasing shared spaces as well as conference room capacity
- Reducing the number of chairs and spacing out tables in common areas such as break rooms

Source: <https://www.mranet.org/resource/transformation-workspaces-post-covid-19>

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Photo courtesy MRA Net

LONG-TERM WORKSPACE CHANGE: MRA NET

- Replacing upholstery with hygienic/wipeable materials and adopt hard surfaces
- Reconfiguring wider hallways, larger bathroom and kitchen space
- Improving air circulation systems with an emphasis on fresh air intake and filtration
- Focusing on modular office designs for flexibility
- Installing automatic doors, faucets & hand dryers
- Implementing electronic storage options
- Investing in UV lighting for nighttime disinfection
- Utilizing voice command technology
- Review overall office footprint consolidation

Source: <https://www.mranet.org/resource/transformation-workspaces-post-covid-19>

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Photo courtesy MRA Net

THERMAL SCANNERS

Will thermal scanners or similar technology used in airports be deployed in workplaces? Will it spark privacy concerns? There's also the idea that companies could more aggressively monitor for sick employees. One possibility is embedding sensors underneath desks to monitor body temperatures, with a facilities manager alerted when someone has a fever. "This kind of technology already exists and wouldn't be tough to integrate," says Albert De Plazaola of Unispace. "But it raises huge privacy issues. HR and legal departments would need to weigh in..."

Source: <https://www.bbc.com/worklife/article/20200514-how-the-post-pandemic-office-will-change>

Downloaded: 5.28.20 | Generated 5.14.20



Photo courtesy Getty

© Getty

CLEAR CUBICLE PARTITIONS

Plexiglass is sold out from many suppliers. Why is that? Because architects and interior designers are securing the transparent material to build clear barriers between people. Primo Orpilla of Studio O&A says you should expect to see Plexiglass, and other dividers, rise up, creating walls around desks. “One of my clients said the other day, ‘I shouldn’t have gotten rid of all those 65-inch-tall panels,’” says Orpilla. “Whether it’s safe or not, people feel safe with a barrier around them.”

Source: <https://www.fastcompany.com/90498002/from-offices-to-giant-sneeze-guards-how-covid19-will-change-your-open-office>

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Image courtesy Getty

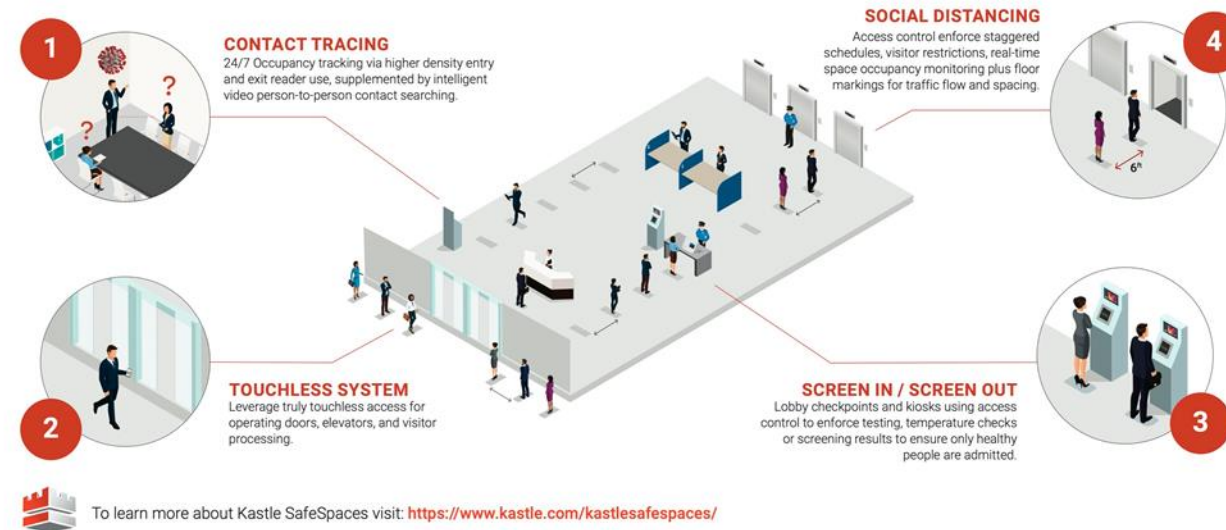
GETTING BACK TO THE OFFICE SAFELY

The KastleSafeSystems plan uses existing technology to enforce social distancing and other safety measures in workplaces.

The four essential pillars to reopen:

1. Contact tracing
2. Touchless system
3. Screen in / Screen out
4. Social distancing

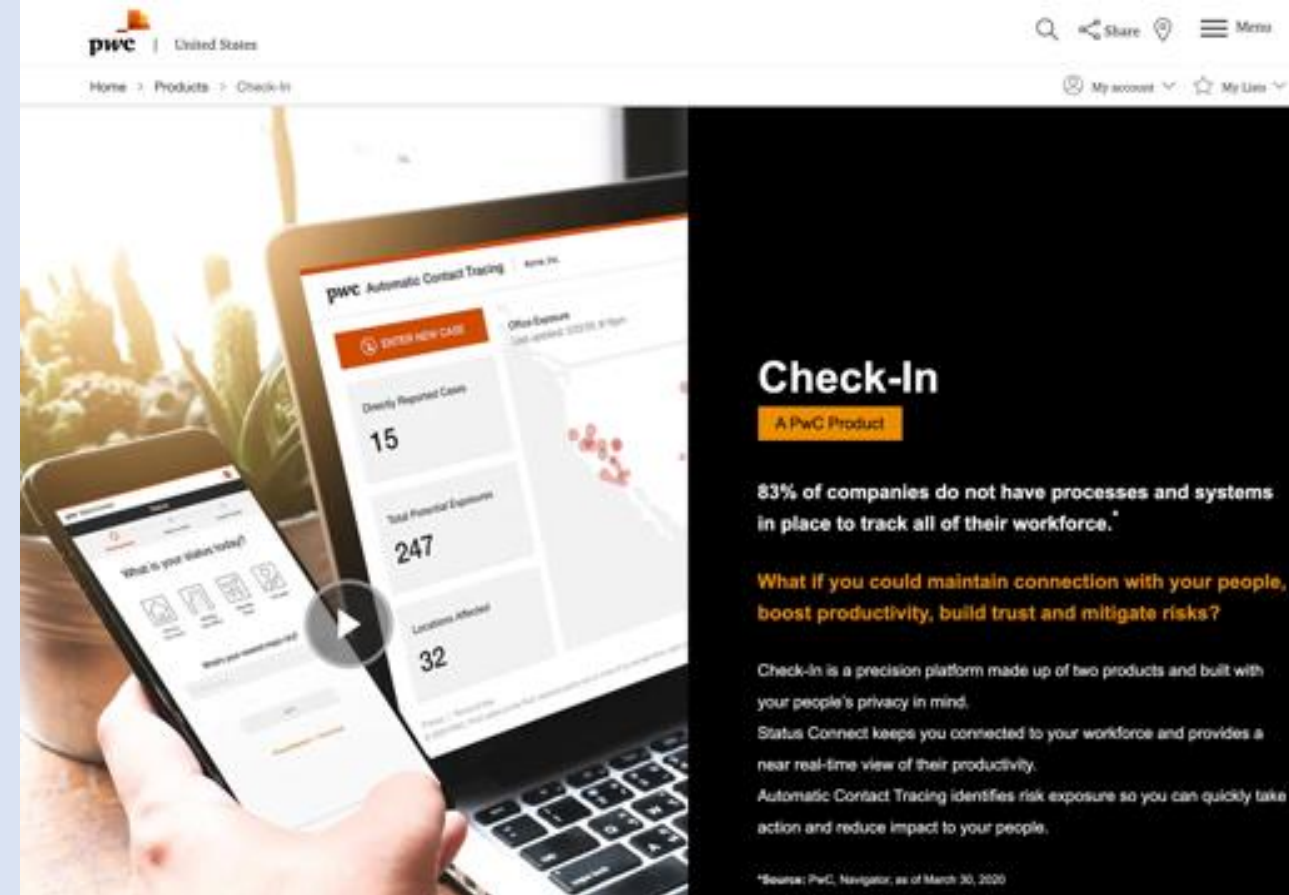
FOUR ESSENTIAL PILLARS TO REOPEN



Source: <https://dcist.com/story/20/05/19/covid19-dc-work-reopen-changes-health-safety-welfare/>
Downloaded: 5.28.20 | Generated 5.19.20

CONTACT TRACING

The consulting firm PwC has developed a contact-tracing tool for office buildings, which it's testing in its offices in Shanghai.

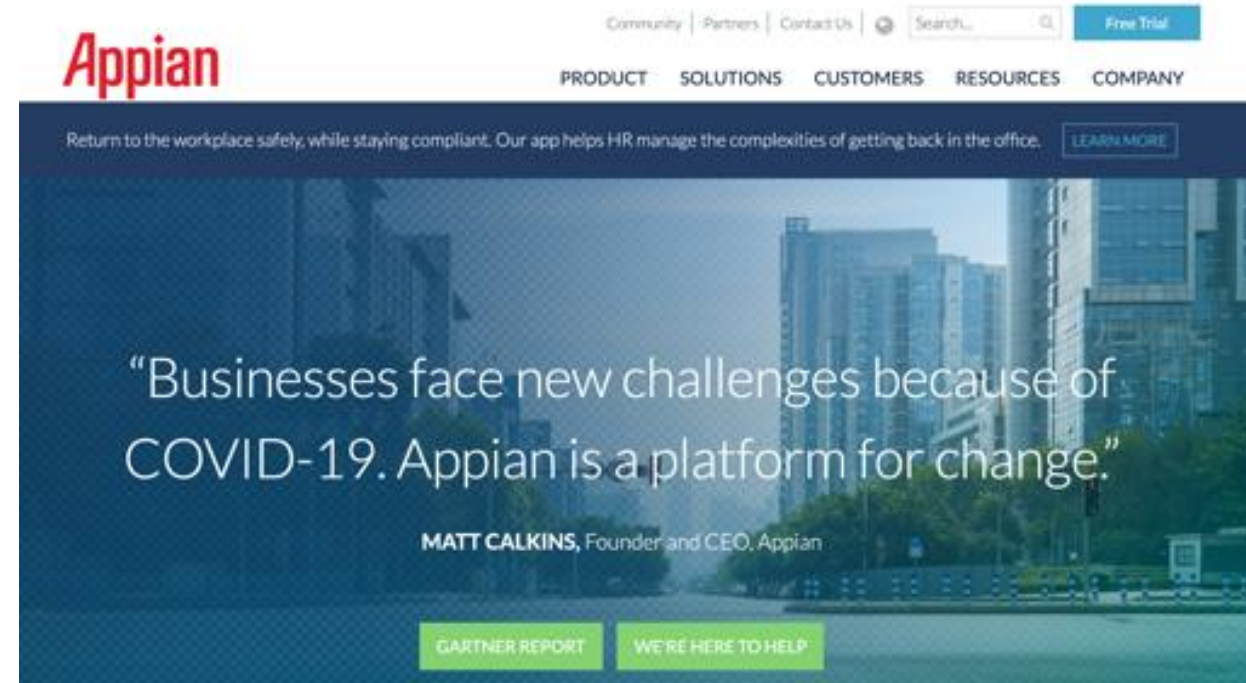


Source: <https://www.wired.com/story/cubicle-is-back-blame-thank-coronavirus/>

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EMPLOYEE QUESTIONNAIRES

Appian, which makes apps for workforce management, recently developed one that monitors workers' health and risk through questionnaires, then determines who should come into an office.



Source: <https://www.wired.com/story/cubicle-is-back-blame-thank-coronavirus/>

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SURVEILLANCE SYSTEMS

SmartVid.io, which makes AI surveillance systems for identifying unsafe situations at construction sites without identifying individuals, developed software to warn managers when workers fail to maintain safe distances from each other.



The image shows a screenshot of the SmartVid.io website. At the top, the logo 'SMARTVID.IO' is visible on the left, and navigation links 'Products', 'Solutions', 'Customers', 'Resources', 'About', 'Sign In', 'Demo', 'Try It', and a search icon are on the right. The main banner features a background image of a construction site with a worker in a red safety vest. Overlaid text reads: 'Reduce jobsite risk with the power of Artificial Intelligence' and 'Observe, monitor, and predict risk in areas of project safety, productivity, and quality'. Below the banner are three white icons on a black background: a construction crane, a modern building, and a multi-story office building. Further down, the text 'SMARTVID.IO FOR COVID-19 SAFETY' and '4 EASY STEPS TO HELP YOU WORK SAFELY' is displayed. At the bottom, the source is cited as 'Source: <https://www.smartvi.op/covid-19-safety>' with the date '6.27.20'.

Source: <https://www.wired.com/story/cubicle-is-back-blame-thank-coronavirus/>

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SIX FEET OFFICE CONCEPT

Cushman & Wakefield introduced the Six Feet Office concept.

Source: <https://www.cnbc.com/2020/04/21/how-your-company-office-could-change-in-the-post-coronavirus-era.html>
Downloaded: 5.28.20 | Generated 4.21.20



Image courtesy Cushman & Wakefield

RECOVERY READINESS

“Recovery Readiness: a How-to Guide for Reopening your Workplace” from Cushman & Wakefield. The “Recovery Readiness: A How-to Guide for Reopening your Workplace,” outlines some of the best thinking and practices that our more than 53,000 professionals have compiled across the globe and also includes insights from key partners. The recommended practices and protocols already have been implemented at locations across the globe with tremendous success.

THE SAFE SIX



**PREPARE THE
BUILDING**



**PREPARE THE
WORKFORCE**



**CONTROL
ACCESS**



**SOCIAL DISTANCING
PLAN**



**REDUCE TOUCH
POINTS**



**COMMUNICATE
FOR CONFIDENCE**

Source: <https://www.cushmanwakefield.com/en/insights/covid-19/recovery-readiness-a-how-to-guide-for-reopening-your-workplace> Downloaded 5.28.20 | Generated 4.22.20

RECOVERY READINESS

- **Prepare the Building**

Implement cleaning plans, pre-return inspections, and HVAC and mechanicals check

- **Prepare the Workforce**

Create policies for deciding who returns, shift management and employee communications

- **Control Access**

Enforce protocols for safety and health checks, building reception, shipping/receiving, elevators and visitor policies

- **Create a Social Distancing Plan**

Follow guidelines for decreasing density, schedule management and office traffic patterns

- **Reduce Touch Points and Increase Cleaning**

Implement open doors, clean-desk policy, food plans and regular cleaning of common areas

- **Communicate for Confidence**

Recognize the fears employees may feel in returning, communicate transparently and listen/survey regularly

Source: <https://www.cushmanwakefield.com/en/insights/covid-19/recovery-readiness-a-how-to-guide-for-reopening-your-workplace> Downloaded 5.28.20 | Generated 4.22.20

SIX FEET OFFICE CONCEPT

The core premise is to ensure that six feet, the recommended measurement for safe social distancing, stays between people at all times.

This behavior is encouraged through properly spaced desks, but also visual signals such as a circle embedded in the carpeting around each desk to ensure people don't get too close.

Source: <https://www.fastcompany.com/90488060/our-offices-will-never-be-the-same-after-covid-19-heres-what-they-could-look-like> Downloaded: 5.28.20 | Generated 4.21.20



photo courtesy of Cushman & Wakefield

SIX FEET OFFICE CONCEPT

The core premise is to ensure that six feet, the recommended measurement for safe social distancing, stays between people at all times.

Installing beacons into its office, which track the movement of employees through the space via their phones

Source: <https://www.fastcompany.com/90488060/our-offices-will-never-be-the-same-after-covid-19-heres-what-they-could-look-like> Downloaded: 5.28.20 | Generated 4.21.20



PAPER PLACEMATS

In Cushman & Wakefield's office, employees are asked to grab a paper placemat for their desk.

At the end of the day, the paper is thrown away, which could help mitigate COVID-19 spreading on surfaces.

Source: <https://www.fastcompany.com/90498002/from-offices-to-giant-sneeze-guards-how-covid19-will-change-your-open-office> Downloaded: 5.28.20 | Generated 4.30.20



Image: <https://www.swoozies.com/product/301553>

SIGNS

Simple yet powerful solutions: more signs.

Source: <https://www.fastcompany.com/90498002/from-offices-to-giant-sneeze-guards-how-covid19-will-change-your-open-office>
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SHORT-TERM FIXES

Workplaces will use short-term fixes to boost employee confidence before looking at long-term solutions. Perhaps unsurprisingly, many are heralding the end of the open-plan workplace and the return of small, private offices. Huddle rooms, for example, could be used as offices until social distancing protocols are relaxed. However, Amanda Stanaway, Sydney-based principal architect of architectural and consulting practice Woods Bagot, says the cellular office plan has “limited benefits for workplace culture and communication”.

Source: <https://www.bbc.com/worklife/article/20200514-how-the-post-pandemic-office-will-change>

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COMPANY IMPLEMENTATIONS: WEWORK

WeWork is reducing the amount of seating in lounges and conference rooms and creating one-way hallways, and it plans to issue new distancing guidelines to its 600,000 clients.

Source: <https://www.nationalgeographic.com/science/2020/4/will-coronavirus-end-the-open-office-plan/>
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Image courtesy Shutterstock.com

ELEVATORS AND HALLWAYS ARE BOTTLENECKS

Some elevator cabs are too small to allow more than one person to use them and maintain a six-foot social distance. Designers are looking at adding plastic screen dividers in elevators cabs

Hallways are a similarly difficult proposition because most corridors are not wide enough to maintain a six-foot social distance. Designers are looking to instruct employees to treating hallways as one-way streets rather than two-way streets.

Source: <https://www.fastcompany.com/90498002/from-offices-to-giant-sneeze-guards-how-covid19-will-change-your-open-office> Downloaded: 5.28.20 | Generated 4.30.20



Image courtesy of Veriforce

ELEVATOR LANDING PADS

Landing pads in the elevator keep workers separated on the ride up to the office.

Source: <https://www.dallasnews.com/business/real-estate/2020/05/15/keeping-your-distance-working-in-a-covid-19-world-will-change-offices/>

Downloaded: 5.28.20 | Generated 5.15.20



Photo courtesy Cushman & Wakefield

AIR FLOW AND VENTILATION

Improved air filtration is probably the single most important lesson learned from China,” says Despina Katsikakis of Cushman & Wakefield. One reason that the labor force has returned to work so quickly is that China’s office buildings have been installing high-end air filtration systems for several years now, and the country even introduced its own indoor air certification standard, in response to rising pollution.

Source: <https://www.fastcompany.com/90488060/our-offices-will-never-be-the-same-after-covid-19-heres-what-they-could-look-like> Downloaded: 5.28.20 | Generated 4.21.20



Image courtesy trade.china.cn

LOOKING TO THE FUTURE

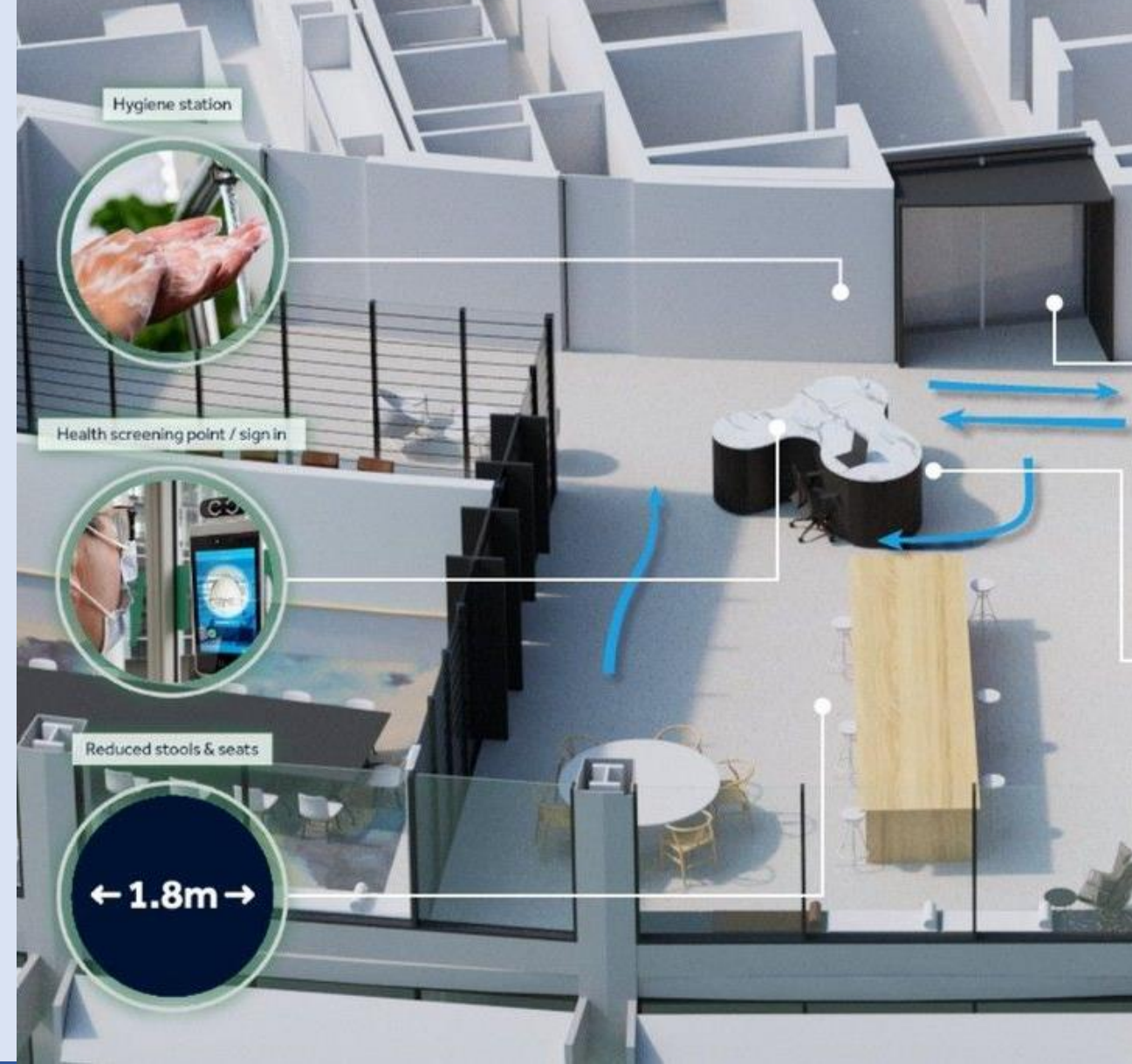
POST-PANDEMIC OFFICES

Among other features, new and redesigned office space may include:

- Hygiene stations
- Health screening points
- Reduced seating at waiting areas
- Standing only meeting rooms
- Enhanced signage and wayfinding
- Door hold-open device
- Destination elevator controls

Source: <https://www.bbc.com/worklife/article/20200514-how-the-post-pandemic-office-will-change>

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REDESIGNED OFFICE SPACE

This concept image for a redesigned office space after the pandemic has reduced density, larger workstations, defined circulation paths, limited areas for gathering, and increase in outdoor air, touchless technology, and antimicrobial surfaces.

Source: <https://www.cnbc.com/2020/04/27/after-coronavirus-the-office-of-the-future-is-the-office-of-the-past.html>

Downloaded: 5.28.20 | Generated 4.27.20



Image: SGA

ANTI-MICROBIAL SURFACES

Nelson Worldwide's Philadelphia office. The interior design and space-planning foresees anti-microbial surfaces, "like in a health-care system or laboratory." This could become a new norm for workstation surfaces.

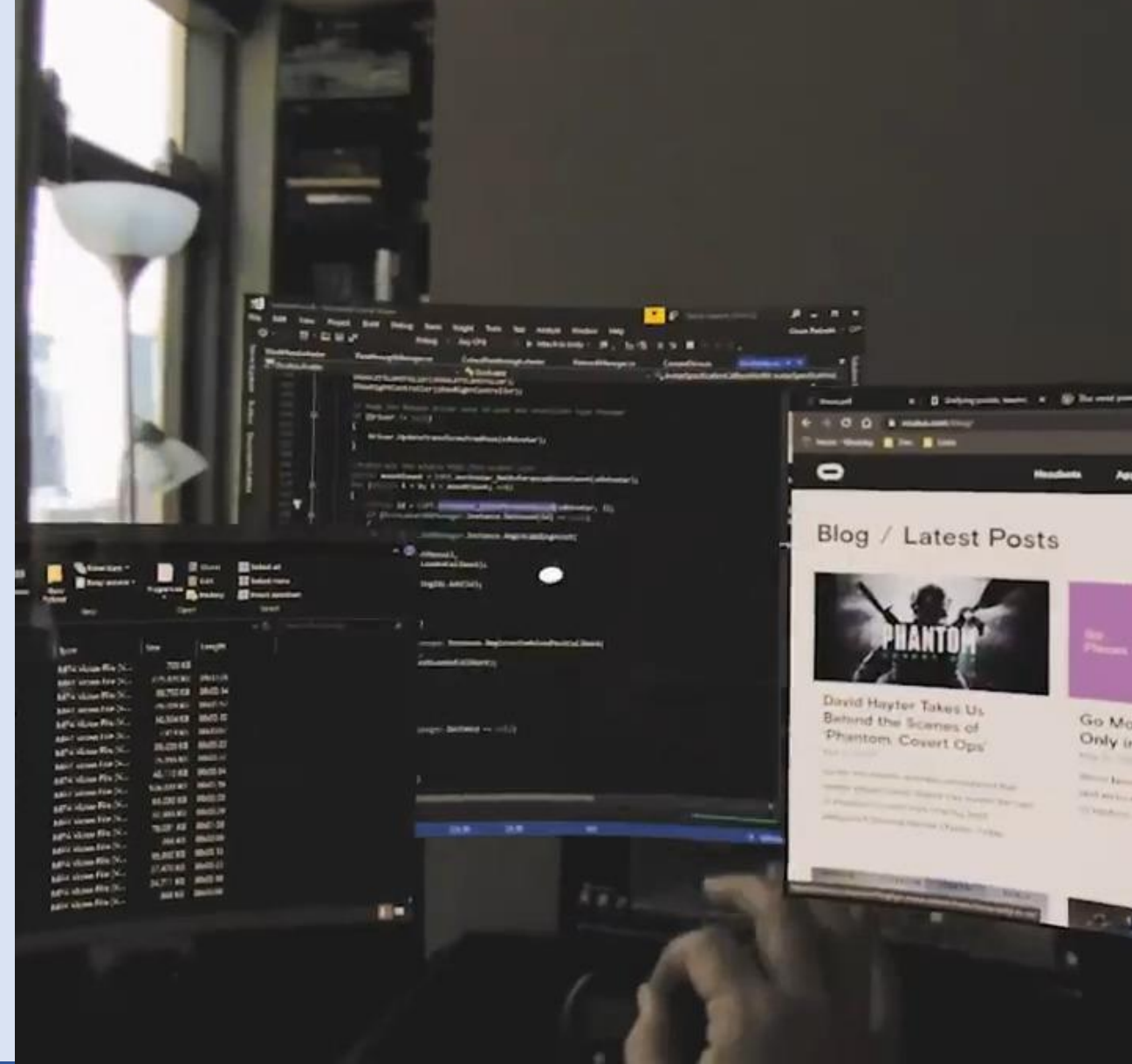
Source: <https://www.cnn.com/2020/04/21/how-your-company-office-could-change-in-the-post-coronavirus-era.html>
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Image courtesy Farm Kid Studios

MIXED REALITY WORKSPACE CONCEPT

Facebook has been experimenting with futuristic desk set-ups, where virtual screens float in the air and people can resize them.



Source: <https://www.weforum.org/agenda/2020/04/covid19-coronavirus-change-office-work-homeworking-remote-design/>
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CONTACTLESS TECHNOLOGY

The new headquarters building by Zaha Hadid Architects (ZHA) for the Bee'ah waste management company in Sharjah, UAE is packed with what ZHA calls “contactless pathways.”

Employees rarely need to touch the building with their hands. Office doors open automatically using motion sensors and facial recognition, while elevators - and even a coffee - can be ordered from a smartphone

Source: <https://www.fastcompany.com/90498002/from-offices-to-giant-sneeze-guards-how-covid-19-will-change-your-open-office> Downloaded: 6.27.2020 | Image: ZHA



APPENDIX: GUIDANCE FROM THE CENTERS FOR DISEASE CONTROL AND PREVENTION

PREVENT AND REDUCE TRANSMISSION AMONG EMPLOYEES

Resuming Business TOOLKIT

Coronavirus Disease 2019 (COVID-19)



Source: <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html>
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ACTIVELY ENCOURAGE SICK EMPLOYEES TO STAY HOME

- Employees who have symptoms should notify their supervisor and stay home.
- Sick employees should follow CDC-recommended steps. Employees should not return to work until the criteria to discontinue home isolation are met, in consultation with healthcare providers.
- Employees who are well but who have a sick family member at home with COVID-19 should notify their supervisor and follow CDC recommended precautions

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CONSIDER CONDUCTING DAILY IN-PERSON OR VIRTUAL HEALTH CHECKS

- Check symptom and/or temperature screening of employees before they enter the facility, in accordance with state and local public health authorities.
- If implementing in-person health checks, conduct them safely and respectfully.
- Complete the health checks in a way that helps maintain social distancing guidelines.
- Follow guidance from the Equal Employment Opportunity Commission regarding confidentiality of medical records.
- To prevent stigma and discrimination in the workplace, make employee health screening as private as possible.

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Coronavirus Disease 2019 (COVID-19)



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Office Space After The Pause

Impact | Response | Recovery | Preparedness

IDENTIFY WHERE AND HOW WORKERS MIGHT BE EXPOSED TO COVID-19 AT WORK

- Conduct a thorough hazard assessment to determine if workplace hazards are present, or are likely to be present, and determine what type of controls or PPE are needed for specific job duties.
- Implement engineering and administrative controls for protection or select and provide appropriate PPE to the workers at no cost, and train their workers on its correct use.
- Encourage workers to wear a cloth face covering at work if the hazard assessment has determined that they do not require PPE.
- Remind employees and customers that CDC recommends wearing cloth face coverings...

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Office Space After The Pause

Impact | Response | Recovery | Preparedness

SEPARATE SICK EMPLOYEES

- Employees who appear to have symptoms upon arrival at work or who become sick during the day should immediately be separated from other employees, customers, and visitors, and sent home.
- Have a procedure in place for the safe transport of an employee who becomes sick while at work.

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TAKE ACTION IF AN EMPLOYEE IS SUSPECTED OR CONFIRMED TO HAVE COVID-19 INFECTION

- In most cases, you do not need to shut down your facility.
- If it has been less than 7 days since the sick employee has been in the facility, close off any areas used for prolonged periods of time by the sick person, open outside doors and windows, wait 24 hours or as long as possible before cleaning and disinfecting to minimize potential for other employees being exposed to respiratory droplets.
- If it has been 7 days or more since the sick employee used the facility, additional cleaning and disinfection is not necessary. Continue routinely cleaning and disinfecting surfaces...

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Office Space After The Pause

Impact | Response | Recovery | Preparedness

EDUCATE EMPLOYEES ABOUT STEPS THEY CAN TAKE TO PROTECT THEMSELVES AT WORK

- Encourage employees to follow any new policies or procedures related to illness, cleaning and disinfecting, and work meetings and travel.
- Advise employees to stay at home if they are sick, except to get medical care...
- Wash their hands often with soap and water for at least 20 seconds or to use hand sanitizer...
- Avoid touching their eyes, nose, and mouth with unwashed hands.
- Cover their mouth and nose when coughing or sneezing, or use the inside of their elbow....
- Practice social distancing by avoiding large gatherings and maintaining distance (at least 6 feet) from others when possible.

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SUPPORT FOR EMPLOYEES WHO COMMUTE TO WORK USING PUBLIC TRANSPORTATION

- Offer employees incentives to use forms of transportation that minimize close contact with others, such as offering reimbursement for parking or single-occupancy ride shares.
- Allow employees to shift their hours so they can commute during less busy times.
- Ask employees to clean their hands as soon as possible after their trip.

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MAINTAIN A HEALTHY WORK ENVIRONMENT

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CONSIDER IMPROVING THE ENGINEERING CONTROLS USING THE BUILDING VENTILATION SYSTEM

- Increase ventilation rates.
- Ensure ventilation systems operate properly and provide acceptable indoor air quality for the current occupancy level for each space.
- Disable demand-controlled ventilation (DCV).
- Further open minimum outdoor air dampers (as high as 100%) to reduce or eliminate recirculation.
- Improve central air filtration to the MERV-13 or the highest compatible with the filter rack, and seal edges of the filter to limit bypass.
- Check filters to ensure they are within service life and appropriately installed.
- Keep systems running longer hours, 24/7 if possible, to enhance air exchanges in the space.

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ENSURE THE SAFETY OF YOUR BUILDING WATER SYSTEM AND DEVICES AFTER A PROLONGED SHUTDOWN

- Follow the 8-step CDC Guidance for Building Water Systems
 1. Develop a comprehensive water management program.
 2. Ensure water heaters are properly maintained and the temperature is correctly set.
 3. Flush your water system
 4. Clean all decorative water features
 5. Ensure hot tubs/spas are safe for use
 6. Ensure cooling towers are clean & maintained.
 7. Ensure safety equipment including fire sprinkler systems, eye wash stations, and safety showers are clean and well-maintained.
 8. Maintain your water system

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LIMIT TRAVEL AND ADVISE EMPLOYEES IF THEY MUST TRAVEL TO TAKE ADDITIONAL PRECAUTIONS

- Minimize non-essential travel and consider resuming non-essential travel in accordance with state and local regulations and guidance.
- Check the CDC's Traveler's Health Notices for the latest guidance and recommendations for each country where you will travel.
- Advise employees to check themselves for symptoms of COVID-19 before starting travel and to notify their supervisor and stay home if sick.
- Ensure employees who become sick while traveling or on temporary assignment understand that they should notify their supervisor and promptly call a healthcare provider for advice if needed...

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MINIMIZE RISK TO EMPLOYEES WHEN PLANNING MEETINGS AND GATHERINGS

- Use videoconferencing or teleconferencing when possible for work-related meetings and gatherings.
- Cancel, adjust, or postpone large work-related meetings or gatherings that can only occur in-person in accordance with state and local regulations and guidance.
- When videoconferencing or teleconferencing is not possible, hold meetings in open, well-ventilated spaces continuing to maintain a distance of 6 feet apart and wear cloth face coverings.

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CDC-LISTED EXAMPLES OF WORKSPACE CONTROL FOR COVID-19

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ENGINEERING CONTROL: FACILITIES AND EQUIPMENT

- Assess job hazards for feasibility of engineering controls
- Ensure ventilation and water systems operate properly
- Alter workspaces to maintain social distancing such as:
 - > Configure partitions as a barrier shield
 - > Move electronic payment reader away from caller
 - > Use verbal announcements, signage, and visual cues to promote social distancing
 - > Remove/rearrange furniture
 - > Provide remote shopping alternatives (e.g., delivery, pick-up)

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ADMINISTRATIVE CONTROL: MANAGEMENT AND COMMUNICATIONS

- Monitor state and local public health communications about COVID-19
- Encourage sick workers to report symptoms, stay home, and follow CDC guidance
- Develop strategies to manage worker concerns and communicate with workers
- Remind workers of available support services
- Communicate to partners, suppliers, other contractors on policies and practices
- Encourage social distancing and the use of cloth face coverings in the workplace
- Use technology to promote social distancing
- Cancel group events
- Close/limit use of shared spaces...

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ADMINISTRATIVE CONTROL: CLEANING AND DISINFECTION

- Clean and disinfect frequently touched surfaces (e.g., counters, shelving, displays)
- Provide employees with disposable disinfectant wipes, cleaner, or sprays that are effective against the virus that causes COVID-19

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ADMINISTRATIVE CONTROL: TRAINING EMPLOYEES

- Policies to reduce the spread of COVID-19
- General hygiene
- Symptoms, what to do if sick
- Cleaning and disinfection
- Cloth face covers
- Social distancing
- Use of PPE
- Safe work practices
- Stress management

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PERSONNEL PROTECTIVE EQUIPMENT (PPE) CONTROL

- Conduct workplace hazard assessment
- Determine what PPE is needed for their workers' specific job duties based on hazards and other controls present
- Select and provide appropriate PPE to the workers at no cost

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THE MANAGEMENT PROBLEM

- Re-opening national economies implies that responsibility and thus liability for dealing with the COVID-19 pandemic will shift from the public to the private sector
- The management problem is whether and how to reopen businesses, given that workplace spread of the virus remains a real threat.
- The management problem is caused by an information gap
 - > We don't know who has the virus (infectious), who had it (immune), and who has never had it (susceptible).
 - > If we had that information, there would be no economic crisis
- Two Solutions: information-based and always-on

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INFORMATION-BASED SOLUTION

- Most obvious way to collect infection information is by conducting tests. Widespread, frequent employee testing for COVID-19 is anticipated.
- Monitoring systems are another way for information collection, such as temperature check at the entrance of offices, restaurants, airports and public transportation
- Monitoring environment directly and application of AI

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COVID-19 Impact
on the Workplace
28 May 2020

What We Did
What We Are Doing
What We Will Do