



Getting back to business

A WORKPLACE
TRANSFORMATION
GUIDEBOOK

May 2020



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NOTE

Each organization's and workplace's needs and limitations are different and Stantec does not guarantee that the suggestions herein will eliminate the risk of transmission of COVID19 in the workplace. [Contact Stantec](#) for advice and consultation specific to your workplace



WHAT WILL IT LOOK LIKE?

A WORKPLACE TRANSFORMATION

WHAT DO WE DO AFTER THE WORLD PAUSED?

This pandemic has caused us all to stop, reflect, and plan for a new world. One that we did not anticipate, and few had a game plan for. Safety, health, wellbeing, mitigating risk, and choice have become key initiatives to move forward. But how are they implemented? What are the most important things to do now? What do the long-term implications look like?

These questions have been asked of us, and we expect you are asking yourselves these same questions as you begin to plan for re-entry into the office.

RESEARCH & BENCHMARKING TO MAKE INFORMED DECISIONS

We believe in research and benchmarking to guide decision-making. Our Workplace Transformation Survey was sent to clients to look at current conditions, gather pain points and identify critical issues to support making informed decisions on how to move forward. We asked about working from home, re-entry into the workplace, and the long-term changes many are evaluating. The data we've gathered have allowed us to identify opportunities and possible solutions as we re-enter the workplace.

STRATEGIES FOR YOUR UNIQUE NEEDS

We know many of our clients have complex real estate portfolios and unique needs specific to their organizations and industries. In this guidebook, we are offering strategies to prioritize health and wellbeing in both owned and leased spaces, wherever your workplace is physically located. Our focus is on guidelines for action for the next six to twelve months.

LEVERAGING CROSS-SECTOR EXPERTISE TO SUPPORT YOU

Our multi-discipline and cross-sector expertise allow us to bring you insights from many different points of view. Architects, interior designers, engineers, technology experts, hygienists, transportation and urban planners, as well as experts in sustainability, wellbeing, and resilience have all come together to look holistically at how we move forward. Strategies to prioritize safety, mitigate risk, and put people first are clearly outlined, and more long-term implications are defined to help you make balanced decisions for your people, your business, and your communities. This has been a difficult time in many complex ways, but we will get through it. People will come together again, and we are here to support you as you navigate this transformed world of work.

STAY SAFE, STAY WELL, AND THANK YOU FOR MAKING US A PART OF YOUR COMMUNITY.

STANTEC WORKPLACE TEAM



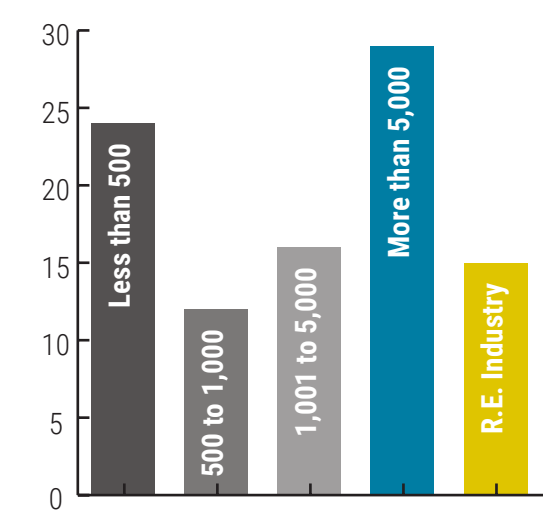
SURVEY RESULTS

THE GOAL

The goal of the Stantec Workplace Transformation survey is to gain insights into what the future workplace may look like across a spectrum of industries in a post-pandemic world. Armed with this information, companies can design, build, and implement forward-thinking solutions as the workforce is re-introduced to the communal workplace.

The Workplace Transformation Survey went out to over 130 selected Stantec clients across a diverse cross section of industries. The responses came from all regions in North America, with 48% of the companies represented having over 1,000 employees. Survey respondents' roles ranged from Executive/C-Suite to Managers in Sales, Marketing and Communications, Facilities and Project Management, and other administrative functions. Industries represented included banking, legal services, retail, real estate services, the technology sector, healthcare, energy industries, and government entities.

TOTAL OFFICE EMPLOYEE POPULATION



TOP INDUSTRY PARTICIPANTS

30.2%
Project Management/Broker/Real Estate Services

13.5%
Construction/Building Services/Infrastructure

TOP TWO REASONS FOR WANTING TO GET BACK TO THE WORKPLACE

1

ABILITY TO COLLABORATE FACE TO FACE

2

SOCIAL INTERACTIONS WITH COWORKERS

Based on anecdotal input from across the country and the globe and within our individual communities, we expected to validate that people are anxious to get back to the workplace. And indeed, when survey participants were asked if employees in their organizations were looking forward to getting back to the office 88% said "yes". But that "yes" comes with many caveats as we discovered diving deeper into what "getting back to the office or workplace" really means to people.

Getting out of the house or having access to better technology fell well below the top two drivers for returning the office. This alone challenges the widely accepted notion that a workplace's purpose is for being productive or focusing. The massive, simultaneous exodus from the workplace in response to the Covid-19 Pandemic forced organizations to both test and validate the fact that many more people can work from home effectively than previously assumed, and that employees can be productive, focused, and managed while working remotely. However, when asked "what are the greatest challenges of having a remote

workforce" the number one cited challenge by far is dealing with disruptions within employee households. This response is heavily influenced by the fact that not only are employees working from home, but so are their school-aged children, spouses and partners – an unprecedented situation.

ONLY 15% OF RESPONDENTS SELECTED "ABILITY TO FOCUS" AS A CHALLENGE. THIS INDICATES WORKING FROM HOME DOES NOT INHERENTLY NEGATIVELY AFFECT SUCCESSFUL COMPLETION OF INDIVIDUAL WORK.

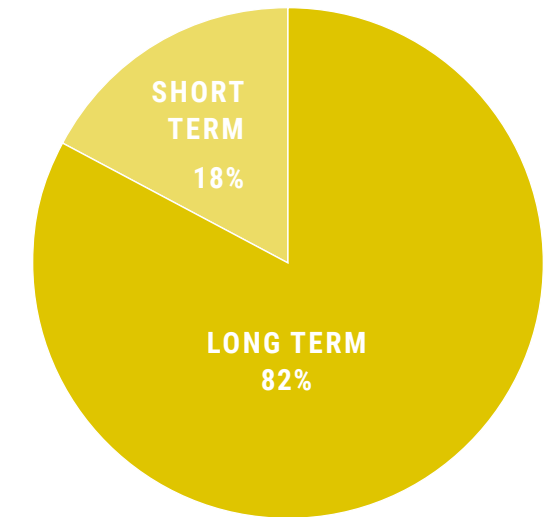
73% of the respondents indicated that there was some form of remote working occurring in their organization pre-pandemic but for over half of those organizations, it was only 25% of the time or less.

86% of the respondents said remote working will continue after the pandemic, with a 82% saying this trend will have a long-lasting impact.



"We now know we can operate without anyone in the office. Very few people believed that was possible."

LONG-TERM VS SHORT-TERM IMPACTS OF WORKING FROM HOME ON THE WORKPLACE IN THE FUTURE?

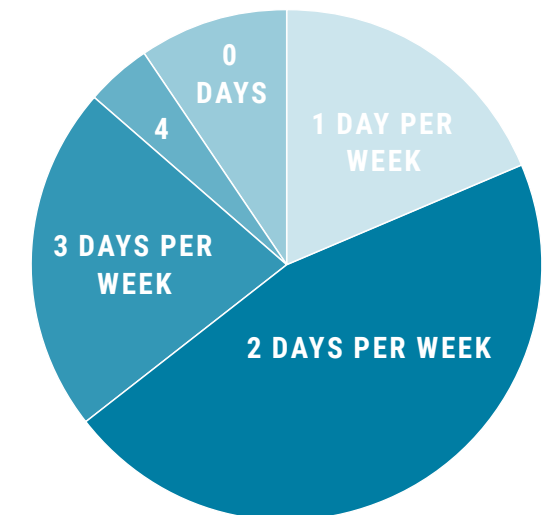


And 86% said that remote work would be between one and three days per week for their employees.

No one said that remote work would be full time for employees. This is in part due to the desire to collaborate face to face and to some extent to manage face to face. Frequent communication was noted again and again as critical to remote management.

When asked if given the option to continue virtual management of staff, 54% said they would continue with virtual management. For the other 46%, the main reasons for not wanting to continue with virtual management centered around the value of connecting in person to more effectively manage. Body language, eye contacts, and other facial expressions are vital aspects of effective communication making some in-person management more effective.

AVERAGE EXPECTED FREQUENCY OF DAYS WORKING FROM HOME PER WEEK:



TOP CONCERNS — GOING BACK TO WORK

1

PROXIMITY TO OTHER PEOPLE

2

SANITATION

3

SAFETY & SECURITY

OVER 50% OF RESPONDENTS SAID THIS EXPERIENCE HAS CHANGED THEIR VIEW OF REMOTE WORK IN A GENERALLY POSITIVE WAY.

These considerations have significant implications for the design of the post-pandemic workplace.

The transformation of the workplace we left two months ago to the workplace we will be inhabiting months from now must go through a transitional period.

67% OF RESPONDENTS SHARE THE TOP CONCERN — PROXIMITY TO OTHERS.

In the short term, this and related issues will be a top priority. In the longer term, some workplace features considered to be important include unlimited work from home policies, limited travel for work, policies limiting outside guests, and readily accessible sanitation stations. These “long term” view responses indicate strongly that organizations believe short term concerns about health and safety will continue for some time.

The need for in-person collaboration and meetings were top priorities when considering office “perks.”

Focus Work → Collaborative Hub = Change on Culture & Design Solutions

This suggests the main purpose of the office environment is changing from a center for individual focus work to a collaborative hub.

There is a desire to come together simply to have a sense of connection and belonging to one’s organization. Perhaps the workplace will become not only a collaboration center but also a space that fosters organizational community and communicates the brand and purpose of that community to the public and employees much as showroom might for a furniture vendor or real estate office.

This shift from a focus to collaborative centered ideal would mean substantial changes in workplace design immediately and in the distant future.

REGARDING REMOTE MANAGEMENT OF STAFF:

“Frequent touchpoints is a must... over-communicating is never enough. Include everyone to eliminate duplication. Take better electronic notes/less paper for sure.”

“Face to Face achieves so much more. It is easier to keep people engaged. It is really hard to know if people are distracted when they are virtual. Seeing a teammate for only an hour or two a week is just not enough to fully engage.”

REGARDING LEVELS OF REMOTE WORK:

“We knew it was possible and we were close to solving the last puzzles to make it (teleworking) happen. Having actually accomplished that now, we are confident it will remain a part of our culture and our strategy going forward.”

63% OF RESPONDENTS FELT THEIR ORGANIZATION IS NOT EXPLORING IMPLEMENTING SMART WORKPLACE UPDATES

There were a number of Smart Workplace features that were considered most critical to implement should that be an initiative in their organization. These included: security check-in, conference room reservations/setup, AV/technology capabilities, and concierge for unassigned desk and office reservations.

The concept of workplace is changing and so is the idea of “choice” within. When asked about how “choice” will manifest in workplace strategy moving forward, responses centered heavily around the increased possibility and acceptance of working remotely part of the time. Responses confirmed that many organizations will need to update their workplace from being mostly dedicated workstations to allow for more choice and activity-based work at the office. From the responses, we can deduce that new choices will be available to staff, but these choices will be curated options by leadership indicating that despite the radical changes we are currently experiencing, the effect on workplaces strategies moving forward will be incremental. There is the current challenge of choice and sanitation. In the short term, free addressing will be limited to control sharing of workspace, but in the long term may become more popular as people become more comfortable and familiar with sanitation practices.

Leading indicators of future design solution & cultural shifts:

- More choice & activity-based work
- Choice & sanitation
- Control sharing of workspace



“Many of our clients do have the ability to work remotely for a short term situation. This has taught many managers how to manage their teams remotely. We will see the use of office space change as occupants will have fear around personal space and cleanliness.”

Much of this data supports the prediction that there will be many more part- or full-time remote work in the long term.

This may or may not have an impact on the amount of real estate organizations will maintain depending upon continued social distancing and/or occupancy levels at any given time.

EXPECTED IMPACTS TO REAL ESTATE

53%

needs to remain the same

42%

some level of real estate contraction

5%

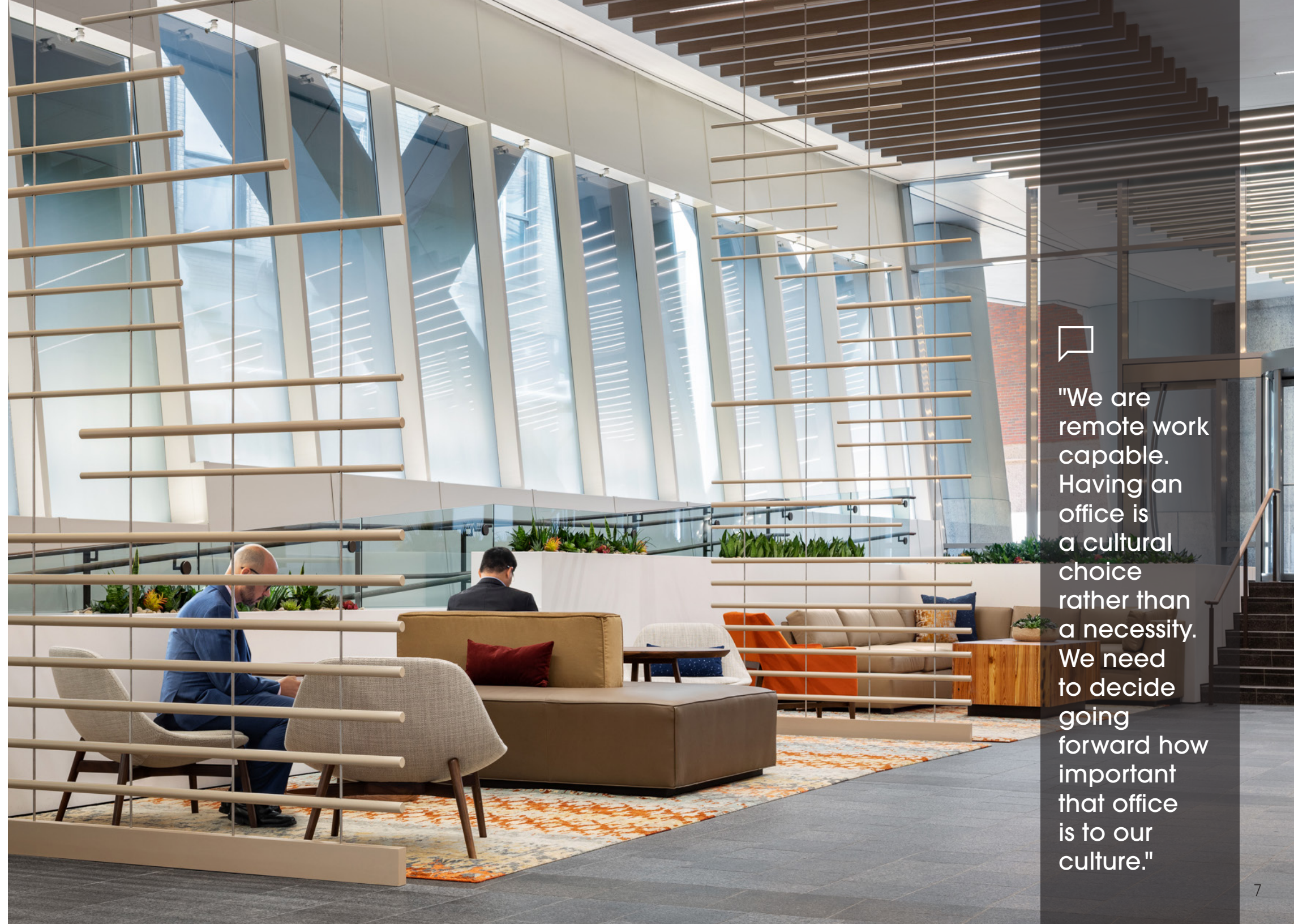
some level of real estate expansion

This pandemic experience has opened the door to redefine what the new normal will be. Organizations have learned and experienced the feasibility of working remotely and now have to opportunity to shape the future workplace. Respondents shared surprise in how adaptable and resilient their teams have been during this crisis. As we move forward, newfound trust and capabilities will be important factors as organizations respond to a more mobile workforce and cultivate a supportive, healthy workplace. The office itself may become a company perk in the future and organizations that have adapted and prioritize health and safety concerns will end up thriving in the long term.



"Previously, real estate expansion needs were being driven by head count exceeding building capacity. With new hiring limited or on hold, the need for future real estate expansion will not be as needed in the short term."

"I believe staff will be empowered to work from home when they need to. This environment is breeding trust and success and I hope it continues to grow."



"We are remote work capable. Having an office is a cultural choice rather than a necessity. We need to decide going forward how important that office is to our culture."

GUIDELINES TO SAFELY RETURN TO WORK



COVID-19 RELATED RECOMMENDATIONS

How do we re-enter the workplace safely? What are the most critical factors to consider? We took a deep dive into the changes, policy updates, building infrastructure modifications, and communication protocols to compile a comprehensive list of guidelines to consider upon re-entering the workplace.

These guidelines include items that building owners can modify and improve upon themselves, and questions workplace tenants can ask their landlords upon coming back to the office.

HIGHEST PRIORITY CHANGES IN THE WORKPLACE

1

NUMBER OF PEOPLE IN OFFICE
FULL TIME

2

SAFETY & WELLNESS
(PROTOCOLS & AMENITIES)

3

NIGHTLY DEEP SANITATION &
IMPROVED CLEANING
SCHEDULES

Landlords, property managers and tenants are needing to work together now more than ever, as companies prepare for returning to their workplace. The following are facility protocol recommendations on Safe at Work Plan, Occupant Safety and Health, Cleaning and Disinfecting and Indoor Air Quality for how to best approach re-entry so that everyone involved feels empowered and safe.

SAFE AT WORK PLAN

- Develop a plan for each facility that considers the level of risk associated with the facility and the region.
- Stay updated on federal, state, provincial and local recommendations and incorporate into the workplace in real time.
- Conduct a staff/ occupant assessment to address remote working and in-office comfort and needs.
- Create policies and procedures for staff and/or occupants to follow and management to enforce.
- Consider the exposure risk of the staff, general public, customers and/or clients when developing a plan.

PLAN SHOULD ADDRESS THE FOLLOWING:

- Increased worker absenteeism, especially essential operations.
- Downsizing operations, staggered schedules, social distancing and remote service delivery.
- Interrupted supply chains and delivery delays.
- Steps the building management and employers are taking to reduce occupant exposure in their workplace environments.
- Emergency communications strategy that identifies building and office contacts and a platform to share information to building tenants and office staff.
- Revisit the plan weekly to assess what is working and what is not working.
- Be nimble with making changes and react quickly



↑ Guidelines put into Practice

- This diagram indicates short-term guidelines put into practice.
1. Identify occupied seats. Seats are planned to be occupied on off-shifts meaning teams will only be in the office a few days per week to maintain social distancing.
 2. Indicate seating to be removed to maintain social distancing
 3. Indicate hand sanitizer and wellness stations

Humans were designed to work together, however, we need to keep our number one asset safe upon returning to work and while at work so that working together is safe.

OCCUPANT SAFETY AND HEALTH

- Provide resources and a work environment that promotes good personal hygiene
 - Tissues
 - No-touch trash cans
 - Hand's free soap dispensers
 - Alcohol-based hand wipes (60% alcohol)
 - Disposable towels for cleaning personal work surfaces
 - Hand's Free Faucets
 - Hand's Free sanitization dispenser
 - Face masks
- Install easy to follow, helpful signage
 - Mindful hand washing – 20 seconds immediately upon arrival, after touching public surfaces and after using the restroom and supplemental throughout the day.
 - Avoid touching eyes, nose, mouth.
 - When sneezing, cover your nose and mouth with a tissue, dispose of it into an appropriate (preferably closed) container, and wash or sanitize hands.
- In shared areas, clean after your use.
- Consider staggered staff schedule by day or by remote working.
- Maintain 6' distance between employees when circulating and desk distance. Work with your design

TOP 3 CONCERNS ORGANIZATIONS HAVE FOR RETURN:



professional to help in this assessment.

- One-way circulation paths when 6' distances can't be maintained. (conform with code requirements for travel distance)
- Encourage virtual meetings whenever possible.
- If any international travel has occurred, this must be reported and work remotely for (14) days upon return.
- For in-person meetings maximum of (10) people while maintaining 6' distance.
- Occupants/ staff that have fever and/or symptoms report to management and stay home.
- Individuals that have a positive diagnosis should not report to the office and should follow quarantine guidelines from CDC.

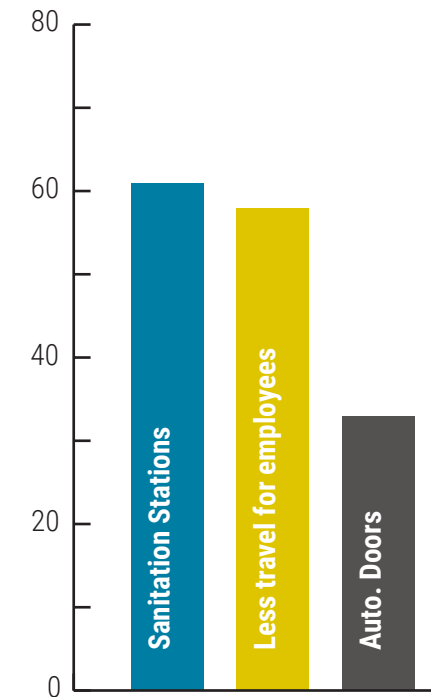
Proper and regular cleaning will help to diminish concern while at work.

CLEANING & DISINFECTING

- Prior to occupants re-entering building, consider a deep cleaning service, for biohazard remediation that follows OSHA and CDC Pathogen Standards for a science-based, safe approach to ensure potential contaminations are properly disinfected.
- Follow EPA recommendations for all cleaners and disinfectants.
- Increase frequency of daily cleaning throughout the day
 - Maintain restrooms, break room and common area facilities by cleaning hard surfaces with disinfectant throughout the day.
- Request and receive photos and documentation ensuring that all surfaces and areas have been properly disinfected from deep cleaning contractor and/or regular cleaning crews
 - Clean carpet soft surfaces
 - According to the EPA there is not a disinfectant that can claim to disinfect soft surfaces or carpet.
 - Regular vacuuming is best. Use vacuum and equipment with high-efficiency particulate air (HEPA) filters that trap 99.97% of airborne particles.
 - Ensure that equipment has been properly maintained and filters are free of particulates prior to cleaning.
 - Wipe down equipment with an approved disinfectant wipe or spray.

- Furnishings
 - Consider removing some furnishings or re-purpose them in areas less populated to accomplish improved social - distancing
 - Have individuals maintain / clean their own areas (and don't share with others).

ORGANIZATIONS ARE CONSIDERING THESE LONG TERM SOLUTIONS TO HELP ACCOMMODATE THE BENEFITS OF WORKING IN THE OFFICE:



Remember when evaluating short-term changes, egress codes, fixture counts, and accessibility guidelines still need to be met.

RESPONSE TO COVID-19: INDOOR AIR QUALITY

Stantec has contacted industry leading equipment manufacturers to discuss the various mechanical HVAC design strategies as it relates to airborne type pathogen due to the ongoing pandemic.

During discussions with equipment manufacturers, it has been stressed that testing for the current virus, COVID-19, is extremely limited, as the ability to obtain the specimens are not readily available. As a result, the testing is conducted on similar specimens that are slightly larger than the current virus but also much more difficult to eliminate. In addition, the design strategies presented are able to reduce and eliminate the various pathogens that are potentially introduced via the ventilation system. This does not mitigate pathogens that are introduced into the space by other means.

ADDITIONAL POTENTIAL OPTIONS:

1 INCREASE VENTILATION

FLUSH PATHOGEN

Increase the volume of air turn-over, increase frequency of air duct cleaning and air filtration replacement. Increasing the ventilation rate and outside air delivered to the space will enhance the indoor air quality of the workplace floors.

BENEFITS:

- Increase air quality within the building.
- Can be easily implemented.
- Least costly design strategy.
- Increased outside air can be directed towards LEED accreditation points.

CONSIDERATIONS:

- Increased physical size of energy recovery unit at roof level
- Increased physical size of outside air ductwork to serve each MER.
- Increased operational cost to condition additional outside air (electrical fan power, chilled water consumption and hot water consumption).

2 HIGH-EFFICIENCY PARTICULATE AIR (HEPA) FILTRATION

TRAP PATHOGEN

HEPA filtration has been shown to have the most effectiveness in capturing airborne pathogens prior to entering an occupied space. HEPA filters are required to capture 99.97% of particulates in passing air. HEPA filtration can be added to the supply air distribution systems to protect against pathogens entering the system from ambient. Note that HEPA filtration is expensive to maintain and has high pressure drops so retrofit of these systems may not be practical or cost effective.

BENEFITS:

- Maximum air filtration of air prior to delivery into the space. Lowest rated HEPA filter traps particulates as small as 0.3 microns.
- Can be implemented either at the unit or at the air outlet.

CONSIDERATIONS:

- HEPA filters are significantly more expensive than standard MERV 8 and MERV 13 filters due to their strict guidelines.
- Filters are designed to be a one-time use.
- Filters require special procedure to remove/replace, may require 3rd party contractor to perform maintenance.
- Increased fan electrical operating cost and requires motor to be upsized to overcome air pressure of filters.
- Cannot treat source of containments.

3 ELECTROSTATIC FILTERS

KILL PATHOGEN

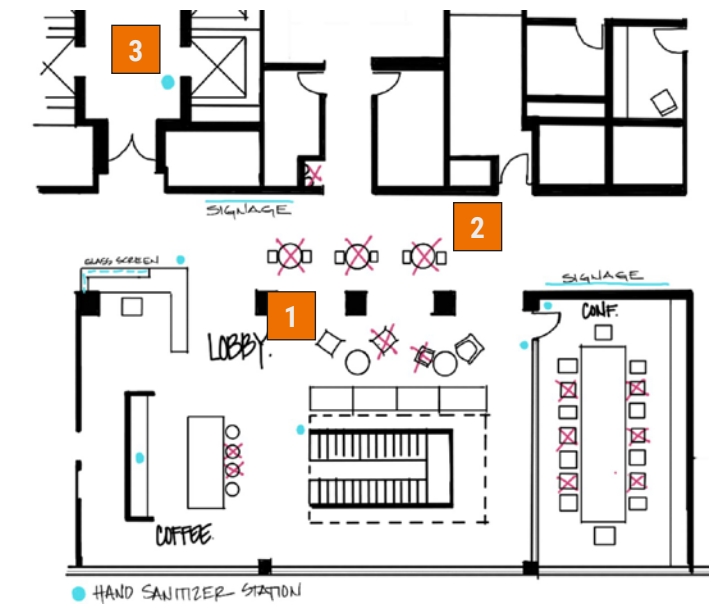
Electrostatic filters help interact with airborne particles, germs and gaseous contaminants to reduce airborne mold, bacteria, VOCs and odors. While this option may work in certain geographic areas better than others, it doesn't address 100% virus removal/eradication.

BENEFITS:

- They are an easy retrofit into an existing system with minimal added pressure drop.
- Significantly assists with pathogen removal.
- Improves filter life

CONSIDERATIONS:

- System Intent is for removal of odors, typical use is for casinos, cigar lounges, etc. where there is a strong concentration of indoor odors produced.



- ↑ 1. Identify occupied seats
- 2. Indicate seating to be removed to maintain social distancing
- 3. Indicate hand sanitizer and wellness stations

IMMEDIATE ACTIONS

1

CHANGE ALL FILTERS IN AHU EQUIPMENT

2

PERFORM AN AIR QUALITY ASSESSMENT

3

INCREASE CONCENTRATION OF OUTDOOR AND RELIEF AIR

4 ULTRAVIOLET GERMICIDAL IRRADIATION

KILL PATHOGEN

Ultraviolet Germicidal Irradiation (UVGI) can be employed to help eradicate the virus when it aerosolizes. There are a number of industry and research documents showing demonstrated effectiveness for these systems. UVGI systems come stand alone, as a supplement to air supply systems, integrated with lighting fixtures, etc. Typical applications for UVGI is for areas that require high process dehumidification such as an indoor growing room or food production facility.

BENEFITS:

- Low electrical cost to operate.
- Can be implemented in air handling unit or in duct mounted solutions.
- Minimal air pressure drop for mechanical fan.

CONSIDERATIONS:

- Ultraviolet light cleans only surface contaminants that are on physical surfaces.
- Ultraviolet light is destructive to materials within light stream. Retrofit will require instrumentation and wiring to be rerouted around UV section.
- Requires the existing unit footprint to be increased by approximately 18-24", resulting in an increase in size to the MER on each floor.
- Requires a minimum airflow rate to be effective. Inability to maintain minimum airflow rate results in the production of ozone.
- Annual maintenance to replaced UV bulbs

5 BIPOLAR IONIZATION

KILL PATHOGEN

An ionizer produces positive and negative charged oxygen ions and these travel through the duct systems and supplied into the room where they interact with airborne particles, germs, and gaseous contaminants. These charged ions trigger cell oxidation reducing airborne mold, bacteria and they help eliminate volatile organic compounds and odors.

BENEFITS:

- Increased Indoor Air Quality
- Inexpensive operational cost.
- Controls mold growth / eliminate odors
- Can be retrofitted into either main air handler or duct mounted solutions.

CONSIDERATIONS:

- Requires a minimum airflow rate to be effective. Inability to maintain minimum airflow rate results in the production of ozone.
- System Intent is for removal of odors, typical use is for casinos, cigar lounges, sports locker rooms, etc. where there is a strong concentration of indoor odors produced.

6 PHOTOCATALYTIC OXIDATION (PCO)

KILL PATHOGEN

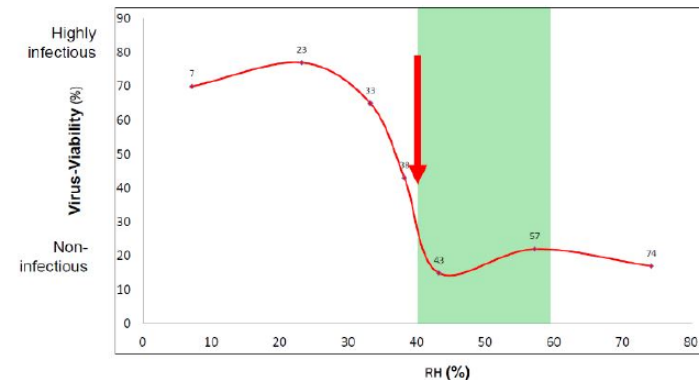
Photocatalytic oxidation is a combination of ultraviolet technologies with the use of a catalyst material. Industry standard for the catalyst material is titanium oxide. Particulates are directed through the ultraviolet light and the catalyst. The particulates are then rapidly decomposed into carbon dioxide and water.

BENEFITS:

- Combines the benefits and effectiveness of UVIG with PCO.
- Can filter particulates as small as 0.001 microns.
- Effective against bacteria and viruses.

CONSIDERATIONS:

- Requires a minimum airflow rate to be effective. Inability to maintain minimum airflow rate results in the production of ozone.
- Requires a minimum airflow rate to be effective. Inability to maintain minimum airflow rate results in the production of ozone.



7 INDOOR HUMIDITY MANAGEMENT

MAINTAIN 40 – 60% RH

Pathogen infectivity is high when relative humidity within spaces is <40%, see chart below indicating virus viability (%) vs space RH. Increased humidification within certain levels has proven successful to help suppress aerosolization and virus spread. Typical HVAC designs provide dehumidification to maintain spaces with max RH of 50–60% but do not typically provide humidification unless specifically requested by client or as required by specific space requirements. Humidification can be provided through space or air handler installed equipment.

BENEFITS:

- Reduces typical virus viability (%).
- Decreases number of airborne infectious aerosols in our breathing zone.
- Limits spread of virus airborne droplets.
- Optimizes hand and surface cleaning by decreasing resuspension and resettling.
- Can be implemented in air handling unit or in space mounted solutions.
- Provides immediate reduction in virus transmission vs filtration which requires pass through air handling equipment first.

CONSIDERATIONS:

- Raising humidity levels of perimeter spaces can cause condensation and mold to form if envelope construction is poor. Careful analysis would be required to determine raising humidity levels within new or existing buildings will not be detrimental to building envelope.
- Requires the existing unit footprint to be increased, resulting in an increase in size to the MER on each floor. (If humidification is provided through air handling equipment).
- Requires wall space or additional closet if humidification is provided through space equipment.



HUMAN FOCUSED IDEAS FOR A NEW WORKPLACE

Complex implications due to this current pandemic will not be solved by implementing virus mitigation strategies and safety protocols alone. This pandemic has shifted the how, when, and where of work.

Remote work was thought by many to never be practical or productive, and now the world's largest experiment is happening. Teams will be apprehensive to give back this fundamental idea of choice. Where do they work, when, and who gets to choose?

Additionally, health and wellbeing continue to be a paramount issue. What are the expectations employees will have of the workplace? We also heard that commuting and arriving at the office is of big concern, especially in urban areas. What strategies could you adopt to implement people safely arriving to work? Can technology be used as a tool to solve for these interesting tensions and problems. If so, what technology is available and how will it be relevant?

Finally, if we benchmarked how we responded to this pandemic what if anything would we do differently. How can building resiliency into your workflow and design set your organization up for success moving forward?

We will explore how these ideas will impact the way we design places for work in a transformed world.

So, what should employers be focused on as it relates to workplace policy and the physical workspace as we enter the "next normal?" **CHOICE**. If we've learned anything from the greatest work-from-home experiment, it is that many workers not only can achieve effectiveness with their individual work, it is also that they desire to have the option to work remotely.

Leading up to the pandemic, research indicates that remote work had increased by 173% over the last 15 years, and while only 43% of employees were working remotely with some regularity, 80% of employees wanted to work from home at least some of the time ([Global Workplace Analytics Telecommuting statistics](#)).

In the same study, 35% of employees said they would change jobs for the opportunity to work remotely full time (47% of Millennials and 31% of boomers); and 37% would do so to work remotely some of the time.

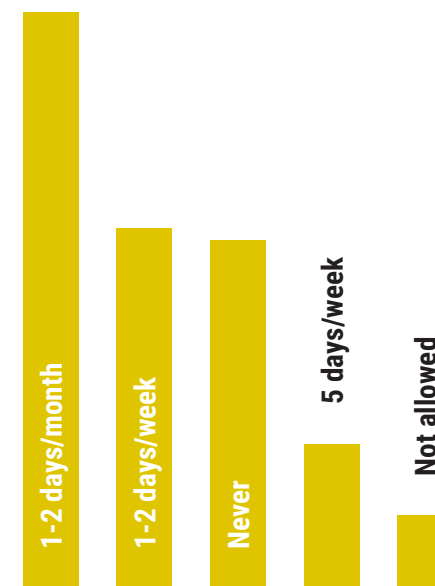
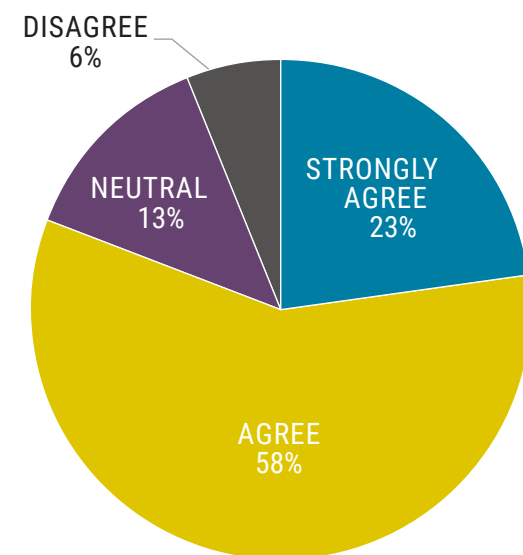
The concept of choice extends into the broader employee experience including workplace policy and company culture, as well as leadership and management philosophies.

From a real estate perspective, employers should integrate remote work into their workplace planning strategy, providing another space that employees can choose from when deciding where and how they want to work effectively. From a policy perspective, managers and leadership will need to embrace allowing employees more options, flexibility and decision-making power about how to best get their work done. Rather than promoting remote work as a "perk", it should be integral to workflows and accessed equitably. Having choice enables employees to fulfill key psychological needs that support emotional and physical wellbeing and in turn can promote greater job performance and satisfaction.

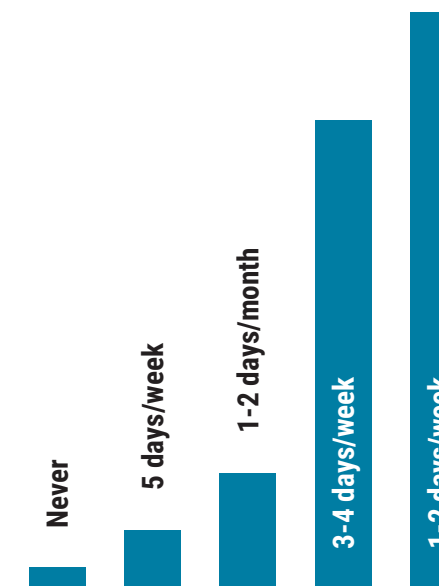
Engaging stakeholders in the process of defining their workplace in the next normal is also a key consideration employers should make. This can take many forms: company-wide surveying, focus groups and interviews but the point is, companies should empower workers to co-create their environment. If remote work creates less demand for personal assigned real estate, then how do workers want to use the office when we are there? Our research with Workflow has indicated the office will be critical for collaborating, staying connected with co-workers and clients, and most importantly, fostering a healthy culture.

ORGANIZATIONS THAT MOBILIZE TOWARDS CHOICE AND PRIORITIZE "STAKEHOLDER- BASED" DECISION-MAKING WILL BE THE MOST SOUGHT AFTER AND SUCCESSFUL IN THE NEXT NORMAL.

I AM ABLE TO EFFECTIVELY COMPLETE MY INDIVIDUAL WORK AT HOME



PRE-PANDEMIC, ON AVERAGE HOW OFTEN DID YOU WORK FROM HOME?



POST-PANDEMIC YOU WOULD BE MOST EFFECTIVE IN YOUR ROLE WORKING FROM HOME:

✓ As a follow up we did a live link survey with Workflow during a Choice presentation. At the end of the presentation, these were the results.

"A DAY IN THE LIFE"

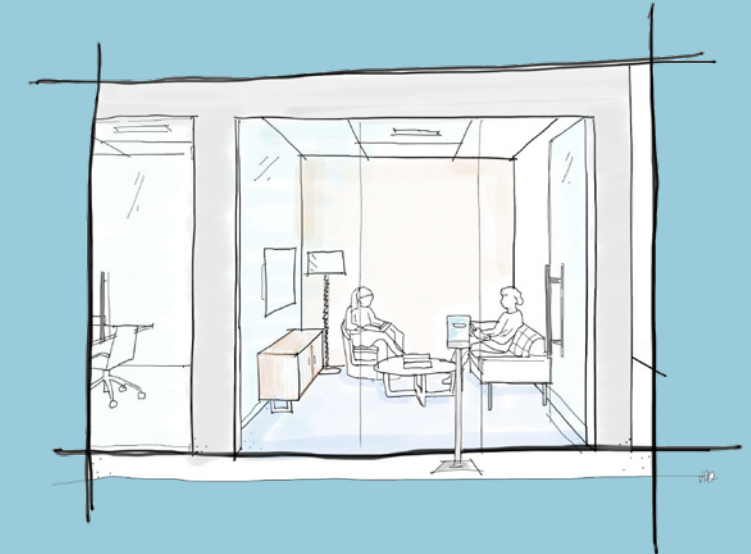
SO HOW DO WE PUT THE IDEA OF CHOICE INTO ACTION?



Imagine waking up in the morning, perhaps you work out in your home gym, make your coffee and the short commute to your home office. You put your head down and focus for a few hours, completing all of your independent tasks for the day. A quick check of your calendar alerts you that you have time to grab a scone and a cup of coffee from your favorite cafe before your first conference call.



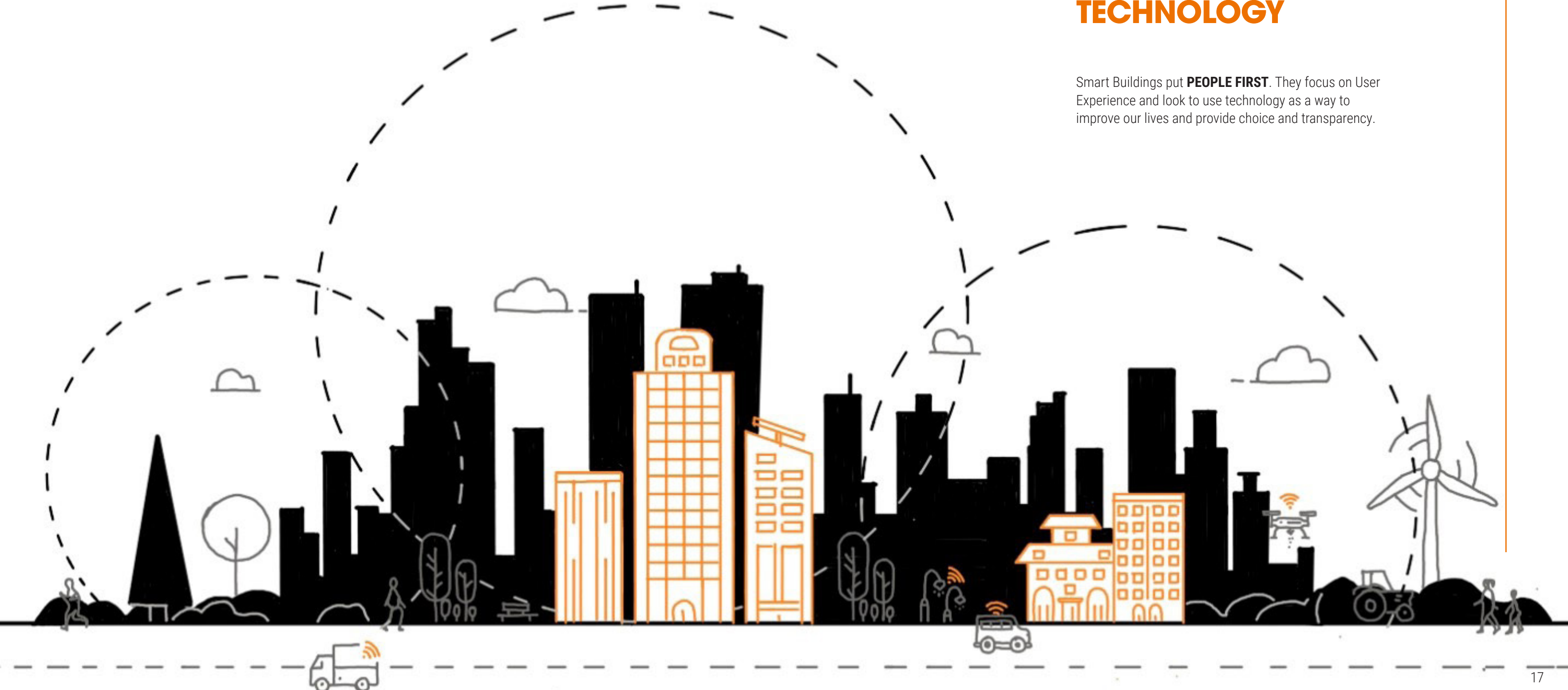
You arrive and see that your favorite table is available (six feet away from other customers). You grab a coffee and a snack and dial into your conference call before commuting to your company workplace.



You previously scheduled a meeting room on your company app, so you arrive seamlessly, check in through security and navigate to your reserved room. You and your teammates connect for an in-person brainstorming session taking up most of your afternoon. Prior to leaving you review your schedule for the next day and reserve the spaces you will need for your in office work.

SMART BUILDINGS & TECHNOLOGY

Smart Buildings put **PEOPLE FIRST**. They focus on User Experience and look to use technology as a way to improve our lives and provide choice and transparency.



As the workspace continues to shift in a post-COVID world, user experience and safety are paramount to the needs of our teams. Whether working remotely or in the physical workspace, demands for seamless and user intuitive technology solutions have never been greater. Buildings must provide robust connectivity and services that are supportive and individualized. Energy and building operation efficiencies are also expected by creating facilities that will harness the expanding IoT platforms.

WHAT IS IOT?

The Internet of Things (IoT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.”

– IoTforAll



WHAT SMART BUILDING AMENITIES SHOULD YOU EVALUATE IN THE TRANSFORMED WORKPLACE?

INTEGRATED ACCESS CONTROL









SSO (Single Sign On) Integration. Unique tenant identification access to drive traction and uptake. Provides advanced guest management. Integration-ready for support of QR, biometrics, RFID, and facial recognition

DISASTER & RESILIENCY TOOLS

Critical feature in managing: occupants in a disaster situation, offering escape guidance and critical alerts

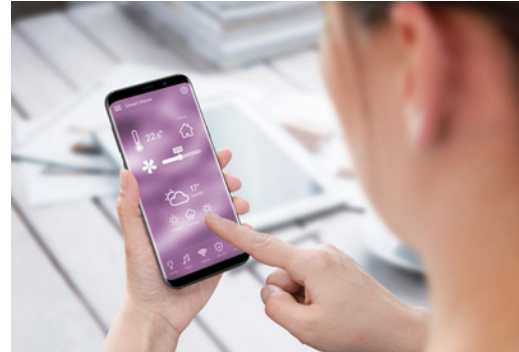
E-COMMERCE & CONTENT MANAGEMENT

Connected communication platform to enable better engagement between teams and users in the building. These systems enable teams to push out relevant news, updates, and invitations to events or initiatives.

ENERGY MANAGEMENT  Lighting Control		 HVAC Control		SPACE UTILIZATION  Real Estate Optimization		 Mtg. Room Scheduling	
 Smart Surveillance		 Emergency Response		 Equipment Tracking		 People Tracking	



People Counting – Workplace Intelligence



Thermal Comfort



Smart Access



Smart Lockers

ROOM RESERVATIONS

The ability to reserve variety of workspaces such as meeting rooms, huddle rooms, or space at the fitness center. Features include catering and liaising with concierge on special requirements, applications to end of trip services including reservations of a locker or bike service, and integration with existing booking services.

THERMAL COMFORT

Allows automated climate control based on user preference and choice. Typically is a location based service that can change temperature, as well as window coverings for natural lighting and AV preferences.

DIGITAL WALLET & RETAIL

Integration for existing POS systems to order food, shop, make special requests, and provide no-touch pay options.

HEALTH & WELLBEING

Used to measure KPI's that promote health & wellbeing including air quality, water intake, nourishment, light, fitness, comfort, and mindfulness.

UV DISINFECTING ROBOTS

UV Disinfecting robots and Liquid spray disinfecting robots can significantly improve sanitation in the workplace and show your team the investment you are making in their physical health.

AUTOMATIC DOOR SENSORS

Doors are one of the most touched surfaces in the workplace. Limiting contamination -spread within the physical space will be incredibly important moving forward.

SENSOR PLATFORMS

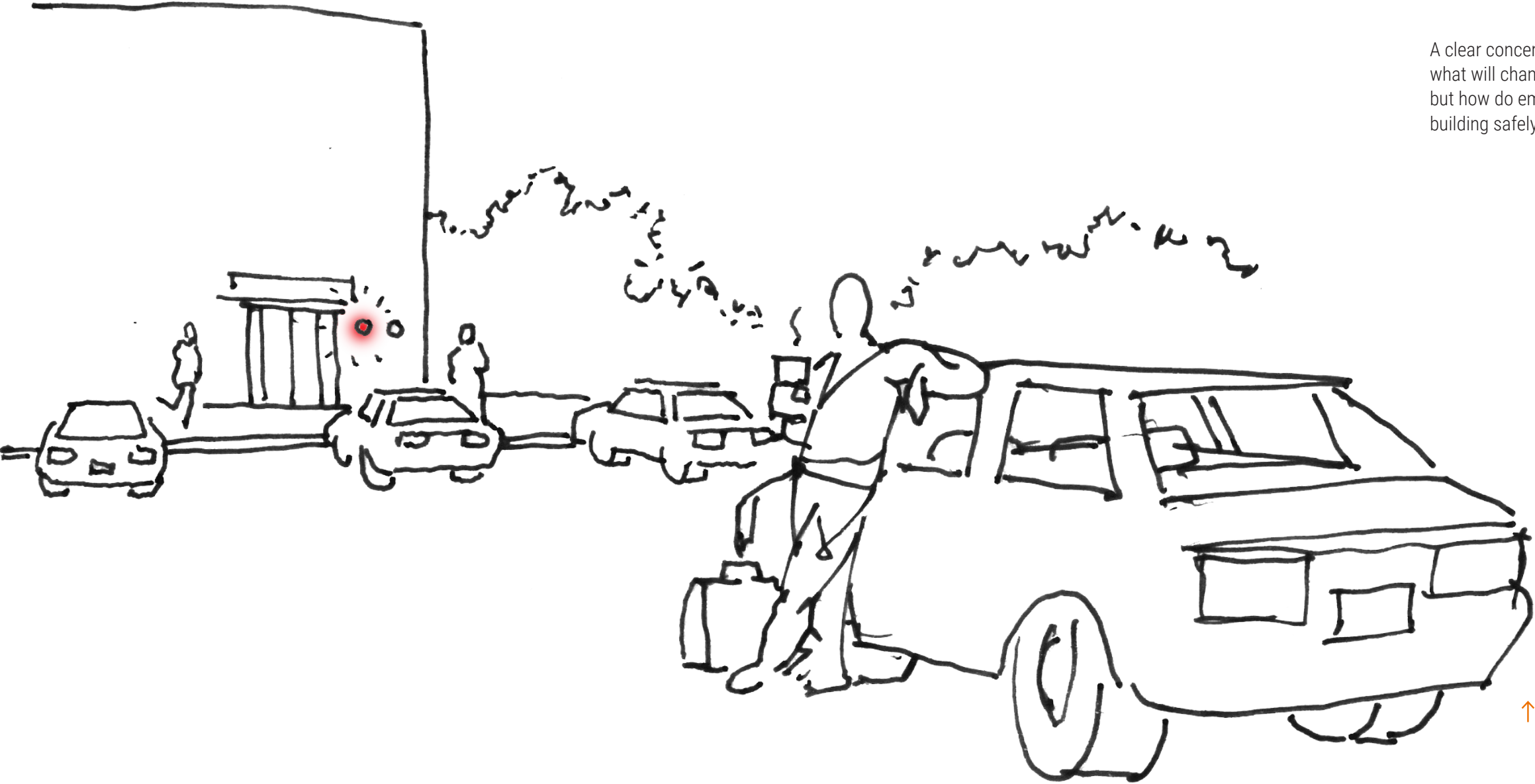
Sensor platforms can give you better information to manage for health, wellbeing, and sustainability. They can also give users more control over their environment and be integrated to account for personal preferences and different user needs.

Sensors provide a host of information including:

- Thermopile – Desk occupancy, people count, object temperature
- Sound Pressure – noise levels, noise location
- Temperature & Humidity – relative humidity, room temperature, occupancy detected
- Light Sensor – daylight measurement

HOW DO WE SAFELY GET PEOPLE TO THE OFFICE?

A clear concern of re-entry into the workplace is not only what will change within the physical office environment, but how do employees travel, arrive, and enter the building safely and adopt strategies that minimize risk.



↑ **Safe arrival starts before entering the building.**
A red light, green light signal alerts you to the density at the entrance prior to leaving your vehicle.



Secondary entrances in use to limit density at arrival and departure points.

Signage, site furnishings, heating and shading can all be utilized to improve the AM and PM experience for your teams.

Our transportation and urban places group's recent study found:

THERE IS A CLEAR DESIRE TO WORK FROM HOME MORE OFTEN

- This suggests there will be a reduction in peak-hour traffic volumes post COVID. Some companies are evaluating staggered and multi-shift policies that would further reduce density at arrival and departure points.
- It is also likely that business travel and offsite meetings will decrease, reducing the number of times occupants enter and leave a building.

SIGNS INDICATE THERE WILL BE FEWER CAR TRIPS

- Research shows more people will continue to work from home for part of the time. This data also aligns with responses from our Workplace Transformation Survey.
- The survey also showed strong support for more e-commerce and less business travel by car.
- The data suggests that some commuters will shift from public transit to single occupancy vehicles which may offset some of the traffic reductions.

If you own your building, you will obviously have more choice and control over changes to common areas, parking lots and procedures. For multi-tenant and leased spaces, it is important to discuss with your landlord what options are available to implement.

Identifying peak arrival and departure hours will be critical to maintaining social distancing requirements. Will alternate parking space instructions be applicable to maintain distancing? Safety strategies should be implemented before you even enter the building.

Entrances can install long distance-read red and green lights to stagger employee approaches, helping to maintain density levels at main points of entrance.

Another strategy is to have secondary entrances dedicated to full-time employees, leaving main building entrances exclusively for guests or visitors, if allowed. Specific entrances can also be assigned based on department location, employee name, or workday schedule to distribute density and help minimize congestion. Additional seating and informal shading devices or heaters in cold climates may be added if exterior wait times demand them to provide comfort and a more welcoming experience.

Once inside the building, areas of high traffic and high touch should be evaluated. Some key points to consider include:

SANITATION AND WELLNESS STATIONS

- Provide wellness stations at entrances, elevators, and social settings where employees and visitors can grab gloves, dispose of gloves, and replace a mask if needed.

- Provide hand sanitizing stations at entries, lobbies, high traffic and common areas, and other social settings.
- Convey clear signage to indicate what the new expectations, protocols, and procedures will be.

CONSIDER SEPARATE "IN" AND "OUT" DOORS

- Evaluation of your building's unique egress codes and floorplan will be required prior to implementing this to make sure all life safety codes are met.
- Consider touch free doors at entrances and restrooms.

ELEVATORS

- Long term, these could be voice or app controlled. In the short term provide hand sanitizer stations at each floor entrance and a trash receptacle to dispose of any paper towels.

OTHER

- Where density cannot be reduced, and social distancing cannot be maintained consider one-way corridors, supported with adequate signage to encourage compliance.
- Accessibility: Remember that facilities need to still be inclusive. If you have employees with visual, hearing, or mobility challenges consider how they will navigate the space and learn the new policies and procedures. Additional resources may need to be provided to support them.



WELLBEING

Providing environments to support health and wellbeing is more than just providing facilities that combat or are free from disease, but instead act in support of positive physical, mental, and social wellbeing. For years there has been a trend to support teams' wellbeing within the space, though most of these efforts have been focused on physical wellness. It has also been a challenge to fund and gather universal support for wellness initiatives as the payback in this investment has not always been tangibly proven. But in light of this pandemic we paused to question can health and wellbeing still be considered a luxury, or do we now need to see health and wellness as a necessity?

For the last two years **through an innovation fund at Stantec, we sponsored and supported a research project with Harvard's T.H. Chan School of Public Health** to understand whether workplace design focused on health and wellbeing would produce physical, emotional and cognitive performance improvements. This timely study focused on using Biophilic Design principles – principles which leverage human beings' innate connection with nature. Previously, these principals had only been studied in terms of introducing nature into the space, and mostly in healthcare settings to see whether natural elements would lead to improvements in healing patients.

Participants worked in Harvard's Virtual Reality lab in three biophilic environments, and one lean environment which acted as the control. Physiological and cognitive tests were performed to establish baseline measurements and record scores for each measure. Blood pressure, heart rate variability, and skin conductance levels (which measures the body's reaction to stress) all improved in biophilic environments, demonstrating that biophilic principles deployed in physical place have significant positive impacts on our physical and psychological health. Cognitive scores also improved demonstrating biophilic design's positive impact on computational, creative and innovative tasks.

Designing environments that support innovation has been a top priority for many years; these findings indicate biophilic design can contribute significantly to fostering innovation.

SO WHY IN A POST-COVID WORLD IS THIS OF CRITICAL IMPORTANCE?

WE MUST THINK ABOUT NOT ONLY MITIGATING THE SPREAD OF A VIRUS BUT CREATING ENVIRONMENTS THAT FOSTER HEALTH AND WELLBEING.

DEFINED HEALTH IS NOT SIMPLY THE ABSENCE OF ILLNESS BUT IS REALLY A MUCH BROADER CONCEPT OF HOLISTIC HEALTH (BODY, MIND, AND SPIRIT).

THIS PANDEMIC HAS SHIFTED OUR FOCUS AND PRIORITIZED HEALTH. AS WELL, AFTER WEEKS, OR IN SOME CASE MONTHS OF ISOLATION WE FACE A POTENTIALLY CRIPPLING MENTAL HEALTH CRISIS.

SETTING THE STAGE: 14 PATTERNS OF BIOPHILIC DESIGN

NATURE IN THE SPACE

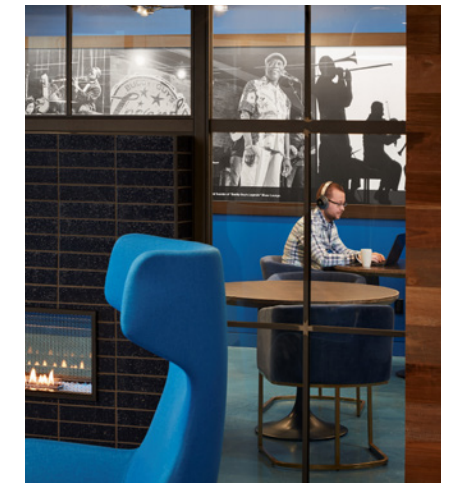
1. Visual Connection with Nature
2. Non-Visual Connection with Nature
3. Non-Rhythmic Sensory Stimuli
4. Thermal & Airflow Variability
5. Presence of Water
6. Dynamic & Diffuse Light
7. Connection with Natural Systems

NATURAL ANALOGUES

8. Biomorphic Forms & Patterns
9. Material Connection with Nature
10. Complexity & Order

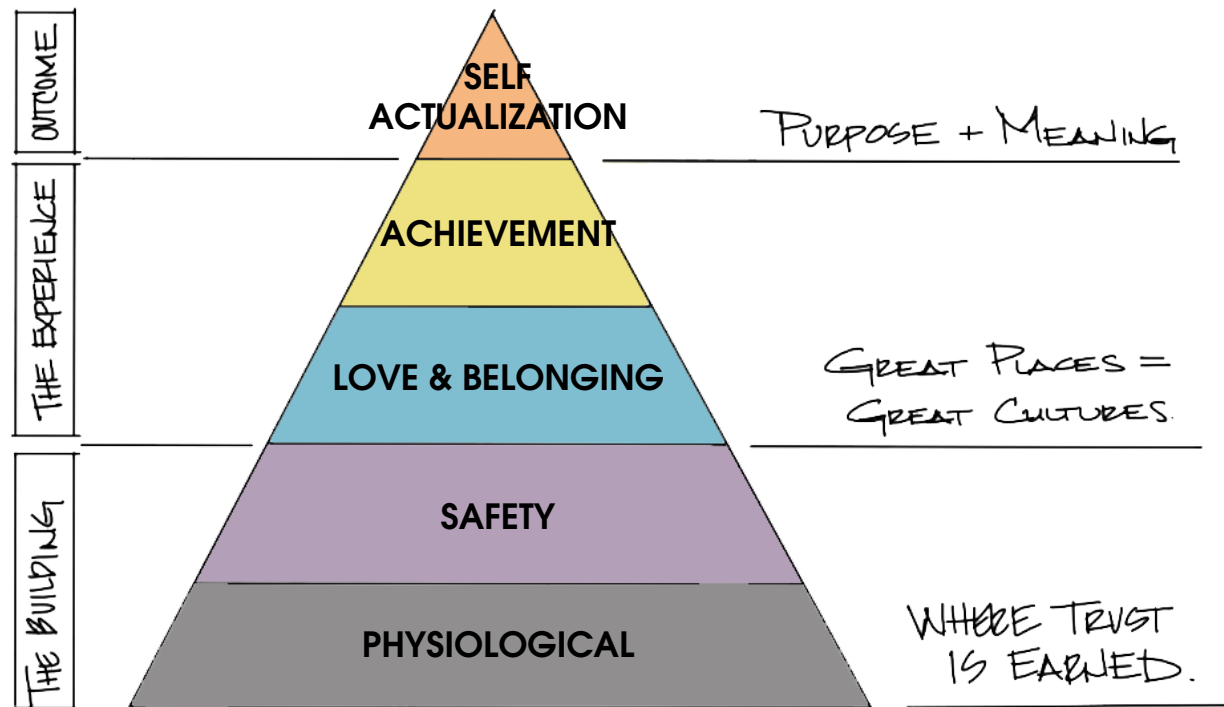
NATURE OF THE SPACE

11. Prospect
12. Refuge
13. Mystery
14. Risk/Peril



Good Design

TRANSFORMED WORKPLACE OPPORTUNITIES.



We anticipate, as do many of our survey respondents, that work from home will continue in some capacity moving forward. The health benefits of this practice are just now being studied and a holistic workplace of the future will balance the needs of the users both in their remote offices as well as the physical workplace. What will they need to thrive? How can we support them in multiple locations and work modes?



SOME IMPORTANT THINGS TO CONSIDER WILL BE:

Integrating Biophilic Design principles to support physical and cognitive health. Consider how small changes can make big impacts. In our study, Nature in the Space had the strongest positive impacts.

Create an environment that prioritizes safety and security to reduce fear of re-entry and build trust. Communicate clearly, and effectively what you are doing to support health across your organization.

Consider home office wellness programs that give employees ergonomic furniture and appropriate tools to support physical health.

Evaluate onsite wellness offerings – including wellness stations that offer masks and gloves, as well as access to mental health programs, nursing stations, online or social media resources, or a combination of an omni-channel wellness offering

Provide quiet and focus spaces that can be accessed by those who may find re-entry overwhelming at times.

Benchmark and look at indoor air quality in your facilities, refer to our guidelines section for what to do.

Access to daylight has been proven to have major health benefits, consider equity in blocking or partitioning workspaces to meet social distancing.

Be thoughtful in your lighting choices and consider a variety of lighting color temperatures, and lumens (brightness in the space) to create a variety of settings. Some for activation and others for respite.

Take your meetings outdoors! Investments in outdoor patios, terraces, and rooftops can be used for meetings, quiet work, and physical exercise. Consider a walking path, and furniture settings that support social distancing.



RESILIENCY & HOPE

Resilience is the ability to withstand, recover, and bounce back stronger, when faced with shocks and stresses. A resilient organization emerges from resilient teams, made up of individuals who see both their workplace and colleagues as a place of safety, support and trust. COVID-19 has proven to be a global test of resiliency, and while we may all be "in this together," each of us may have a very different experience ranging from low to high levels of stress and disruption, as well as new opportunities and ways of working that have brought unexpected benefits.

MOVING FORWARD

Deloitte has identified three critical phases of a crisis – **Respond, Recover and Thrive**. Many organizations are in the midst of responding and beginning to prepare for long-term recovery. The right framework of physical, organizational and social conditions will enable your workforce to thrive again. Planning and implementation must be grounded in science, up-to-date knowledge, and most of all, hopefulness and confidence about the future.

Here we propose strategies for returning to the workplace in a way that will strengthen the long-term resiliency of your workforce. We look at three main categories:

Expanding the Response Team

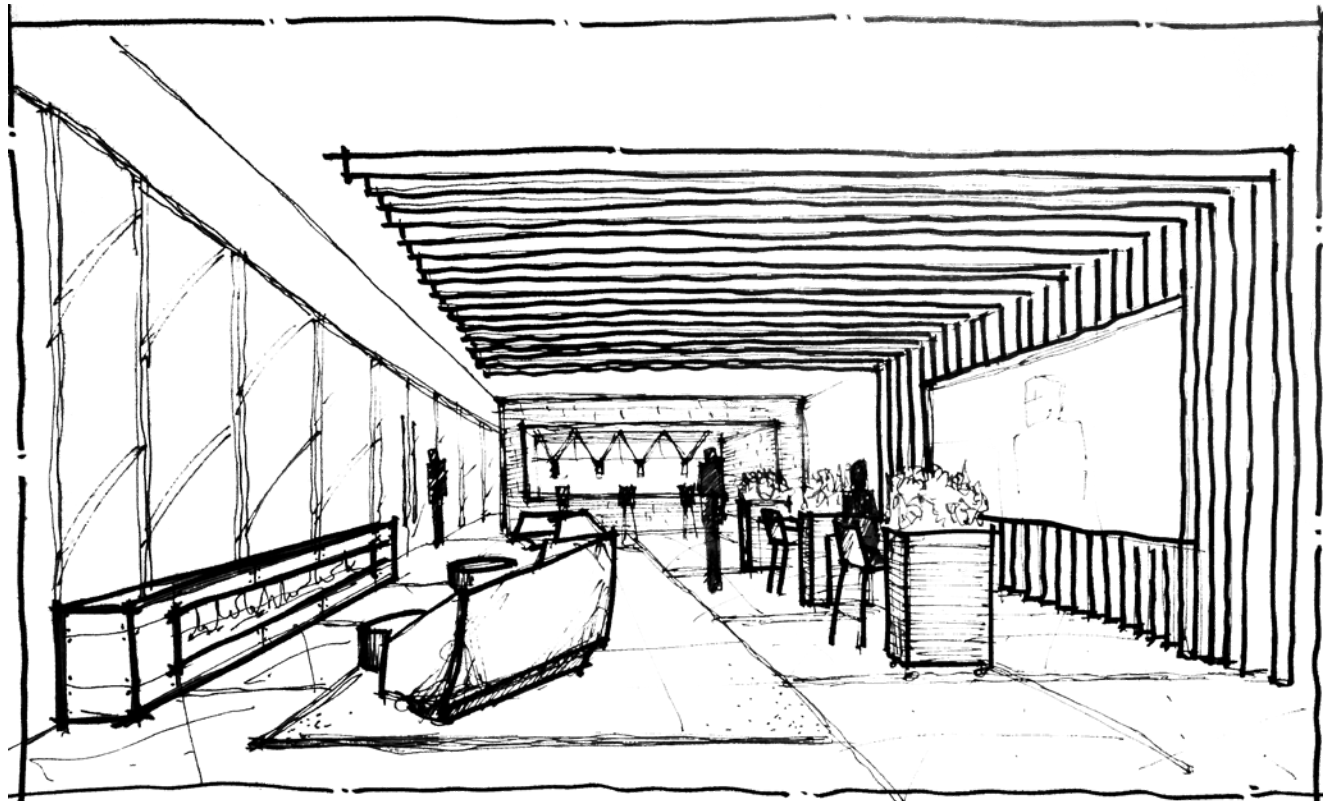
Engaging specialists to prepare and maintain a safe workplace

Communicating with Clarity

Providing clear information while alleviating concerns

Design for All

Leveraging the power of design to respond to employees' needs and concerns as well as organizational needs.



EXPANDING THE RESPONSE TEAM

Community disaster response requires a coordinated, multi-disciplinary team that understands both the physical and logistical response criteria but also has local knowledge of the specific needs, resources, and unique cultural context of the community. The same principle applies to the workplace. This guidebook compiles strategies from Workplace Strategists, Architects, Interior Designers, Engineers, Sustainability Consultants, Smart Building Technology engineers, Smart Mobility experts and Urban Planners. Every aspect of the return to work has been considered, from the safety of the commute to the impact of materials and patterns on mental health. To complement the guidance contained in this document, as you prepare for the phased or eventual return to the workplace, we recommend including the following professionals in your planning team:

- Industrial Hygienists or other professionals trained in workplace contamination assessment and response.
- Commissioning Agents to consult on air and water testing and retro-commissioning of buildings to ensure they are safe for occupancy after being dormant.
- Representatives from the different demographics in your organization to understand the range of obstacles that people may be facing, from working parents to entry-level staff to senior staff members.
- Graphic designers. Situational cues and signage will be critical in the transition back into buildings. Signage must be eye-catching and convey critical information in a way that is easily and universally understandable.



Social Spaces remain critical to what people want and need in the workplace

Adding agility and flexibility to your design will allow spaces to ebb and flow as changes continue to happen in place.

COMMUNICATING WITH CLARITY

Clear, concise and timely communication is critical. People will probably be anxious about returning back to the workplace. A resilient team is built on trust, and the organization must communicate that they have done everything possible to support the health and safety of their employees. This is not the time for black and white OSHA posters or yellow caution tape, nor is it a time for subtle, nuanced messaging that blends into the background or requires subjective interpretation; this is a time for universally understood signage that helps a person navigate every aspect of their daily activities with confidence. Take a page from the motivational signage in elementary schools, or even some gyms – bright eye-catching colors, easily understood graphics, instructions and directional signage. In addition to Smartphone Apps and other tools and technologies discussed in the Smart Building section of this guidebook, the physical signage in a workplace can significantly change a person's state of mind **from fearful and uncertain, to confident and calm**. In addition to taking away any confusion about what the rules are, clearly marked instructions will also help a person feel more confident that their co-workers will follow the rules too.

A building's threshold is a defining moment for both the physical and psychological safety of a person entering their office. From the entry through every space a person may occupy, consider signage on steroids until the new protocols become second nature. New desk arrangements, face-mask requirements, one-way corridors, and how often restrooms are cleaned will all require clearly visible signage to foster reassurance and adoption.

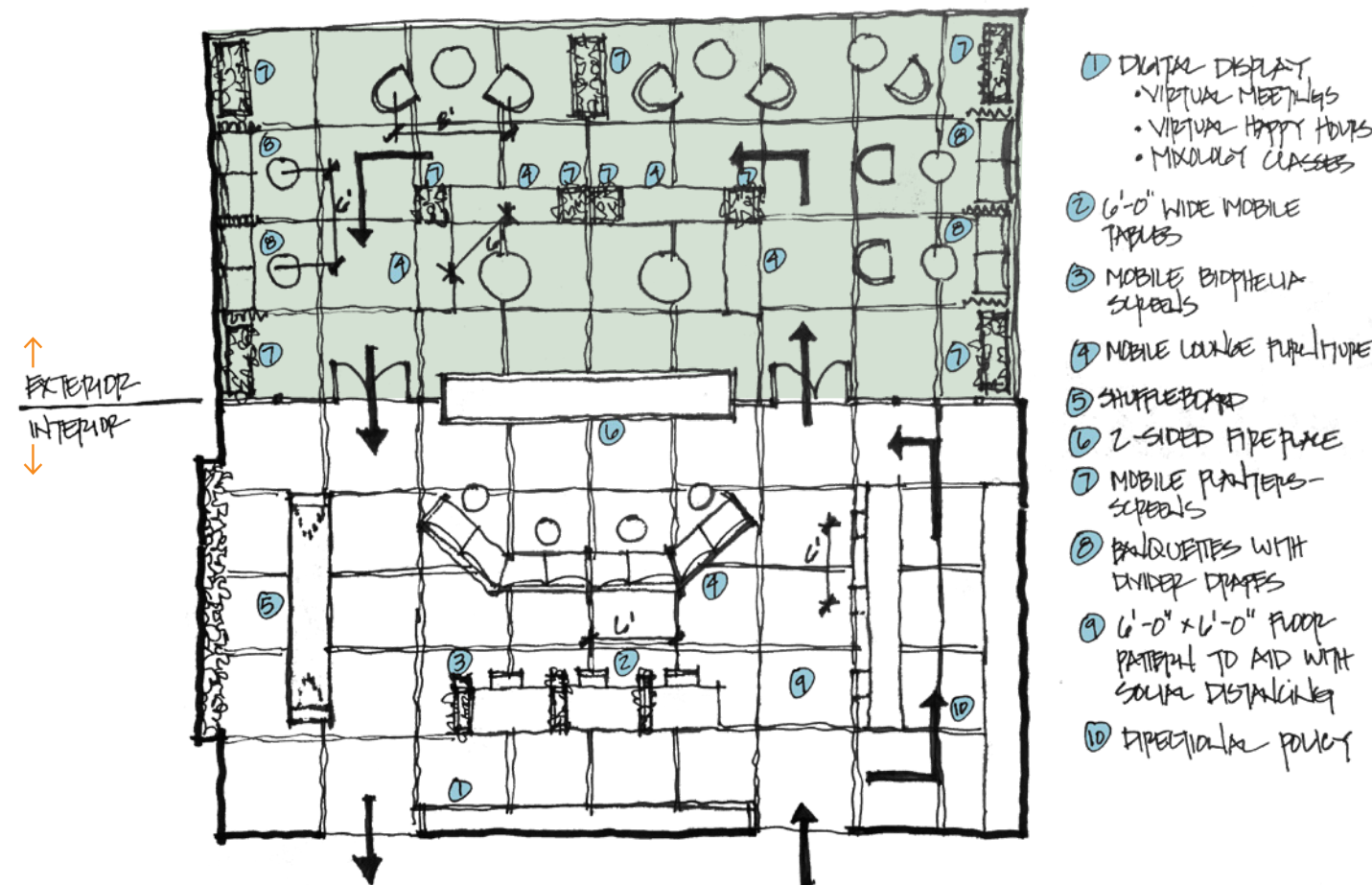
In addition to the design and physical logistics of situational cues, communicating updates on office protocols and short, medium and long-term plans is critical. Be transparent in the level of information that you have, don't underestimate a team's need for reassurance and details, and include resources for people who may need more support in adjusting to the new information and protocols. From universally understood graphics to a variety of spatial layouts to the level of information and support provided, a robust communication plan must be an integral part of any return-to-work strategy.

DESIGN FOR ALL

Personal resiliency is influenced by many factors, from biology to learned behavior and life experiences. Nature and nurture. Every member of a team will react differently to this current crisis, and a one-size-fits-all design approach to the 'new' workplace will not be successful. An organization must support the emotional rollercoaster of every member of their team, and it starts with providing choice. People are complex beings. Everyone is different. Some people may find returning to the hustle and bustle of the workplace difficult after months of social distancing and will need the ability to work in a quiet conference room for periods during the day. Others may be craving social

interaction and will need to be able to collaborate in groups in a setting that maintains the new health and safety protocols (social distancing, minimizing shared surfaces, for example). Each person's diversity dimensions, the dimensions that make teams stronger to start with, must also be supported particularly in shared spaces such as prayer rooms and nursing rooms and respite areas.

As discussed in detail in the section on Health and Wellbeing, development and implementation of biophilic design principles are proven to have an immediate, positive impact on both physical and mental health, from reduced blood pressure to improved cognitive functioning. Biophilic design principles bring elements found in nature into our built environment (both indoor and outdoor). This goes beyond plants and green walls. Biophilic design includes prospect and refuge – designing spaces that enable long-range views out of windows, and spaces that provide a sense of shelter and protection such as booth seating, phone rooms, or high-back chairs. Leveraging the full suite of strategies designers apply to address physical and mental health of all people can be a powerful tool in an organizations' ability to make sure they bounce back from this current crisis in a way that truly enables their teams to thrive in the long-term.



Take your meetings outdoors

Providing equitable, safe, and active outdoor spaces will be critical moving forward. Here are some ideas to put these concepts into practice.



HOPE

Through all these strategies of choice, wellbeing, technology, and resiliency we can build a transformed workplace that thoughtfully meets the needs of its users and the companies it houses. By putting in place a framework for the evolving workplace, centered around why people want to come back to work, we can meet their physical, emotional, and cognitive needs.

Instead of only mitigating risk, we can begin to think about what our teams need to thrive. We can integrate technology that helps us monitor, adjust, and adapt. Technology platforms can be tailored to the user, and seamlessly transition from workplace to home office. We can make design choices that promote healthy building practices and support user's physical health, stress levels, and cognitive performance. We can build a culture of empowerment and choice and create workplaces that authentically live our values. We can build workplaces that are safe and supportive.

Through this pandemic, perhaps the long-term shifts that happen foster more empathy, and build stronger communities. What has happened has had a significant effect on people, families, companies, and communities at all levels. Many of the daily activities we took for granted feel very far removed from our current day to day. But, if we pause for a

moment to reflect, there have also been many good things that have come through this. People who never thought that remote working could work for their teams or offices are seeing that in fact it has been successful. Companies are coming together to solve complex problems and support their local communities in big ways. We are checking in with our teams and colleagues more and asking meaningful questions about how we are coping and what tools we need to succeed. We are taking lunch breaks, having meals with our families, and walking outdoors. We are putting our health first by learning new things, embracing social media as a tool to try something new, prioritizing fitness, and recognizing the desire to go back to the places we miss, only when we have made educated decisions that make them safe.

While the task of preparing for the transformed workplace can seem daunting, through education, engagement, and evolution we can design a better place for teams to come together to do meaningful work and build communities we are proud to participate in. We will see the other side of this. We will overcome the challenges together and build a new normal that may look a bit different than before but will become no less important for people to come together to innovate, inspire, and create.



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Additional resources on "Getting Back to Business" written by these contributors and many of our Stantec colleagues available here:

[5 ways to achieve a healthier workspace now and after COVID-19](#)

[Getting Back to Social – Responding to COVID-19](#)

[Health & Well-Being in a Post Covid-19 World](#)

[Safe at Work](#)

[So, what happens when it's time to get back to the office?](#)

[Virtual meeting and presentations best practices](#)



**DESIGN WITH
COMMUNITY IN MIND**