

Stantec

Health & Well-being in a Post COVID-19 World

WORKPLACE & OFFICE



Oil & Gas workplace
(confidential project)
Denver, Colorado





Fostering resilience and adapting to change

As communities emerge from quarantine and work-from-home, it's very likely that residual fear about workplace health and safety will linger. We'll all be more acutely aware of the hazards associated with surfaces we touch, and the people we interact with after this prolonged period of social distancing. This awareness will take a toll on our physical and, most notably, mental health.

In the wake of the COVID-19 pandemic the connection between the physical environment and wellness has never been so clear. We'll view the spaces and places in which we live, work and play through a different lens now. Is the air in this building filtered? Are there proper hand-washing facilities? Are there enough sanitizing stations? How many surfaces do I need to touch and how clean are they? Where can I go for a quiet break if the office crowd is too much after being away?

Employers, property owners, and facility managers must prepare for the new mindset.

Our wealth of experience in the healthcare sector combined with our deep understanding of wellness certifications like WELL and Fitwel have taught us how to leverage design, operations and policies to proactively address risks of pathogen transmission, and create restorative environments where building occupants feel safe, comfortable, and supported. We know what it means to design for a strong and resilient workforce.

These are unprecedented times, calling for creative and innovative responses founded in human empathy. Our goal is to help communities foster human resilience as we navigate a rapidly changing world.

Immediate Actions

How do we help our clients realize measurable value on investment into the health, well-being, and happiness of building occupants?

A focus on people has never been more important.

People are fundamental to design, construction, operations and development decisions. When we focus on the human experience of the buildings and spaces we design, we have the ability to add meaningful value to real estate assets, generate savings in personnel costs, enhance human health and well-being, and enrich the overall experience of spaces and places.

The WELL Building Standard™ is a comprehensive framework for the design strategies, operations protocols and organizational policies that aims to measurably improve the safety and health of people in indoor spaces. From our architects and interior designers, to our mechanical engineers and sustainability consultants, our WELL Building experience enables us to provide a facility assessment with respect to human health and wellbeing. In the context of the most pressing issues arising from COVID-19, we encourage all employers, property managers to consider the following strategies and measures: **Indoor Air Quality (IAQ); Hand-washing Infrastructure; Building Condition Assessment & Recommissioning; Industrial Hygiene; and Mental Health Design Support.**





Office Cafe of a Confidential Client
San Francisco, California

Hand-washing Infrastructure

Pandemic-Related Priorities

Increase adoption and cultural engagement in proper hand-washing practices to mitigate concerns in shared workspaces and reduce the risk of pathogen transmission among occupants.

Immediate Interventions

- Carry out water quality and hand-washing infrastructure assessment, testing, and building audits.
- Sanitizing stations using at least 60% IPA sanitizer.
- Develop and/or review of operational policies for

access, custodial services, and maintenance of hand-washing facilities.

- Provide situational cues, messaging, and branding to engage and educate all occupants in proper hand-washing practices.

WELL Building Reference Criteria

- Enhanced Water Quality
- Water Contaminants
- Hand-washing

Knotel Inc. →
San Francisco, California

Indoor Air Quality (IAQ)

Well designed, installed, and monitored mechanical and plumbing systems produce healthy indoor environments where pathogens are filtered, diluted and removed from the occupant breathing zone. Our mechanical engineers apply fundamental principles of thermodynamics and building physics (humidity, air flow, differential pressurization), smart controls and sequencing of operations, and innovative ventilation and filtration technologies to mitigate the presence and spread of potential pathogens and allergens.

Pandemic-Related Priorities

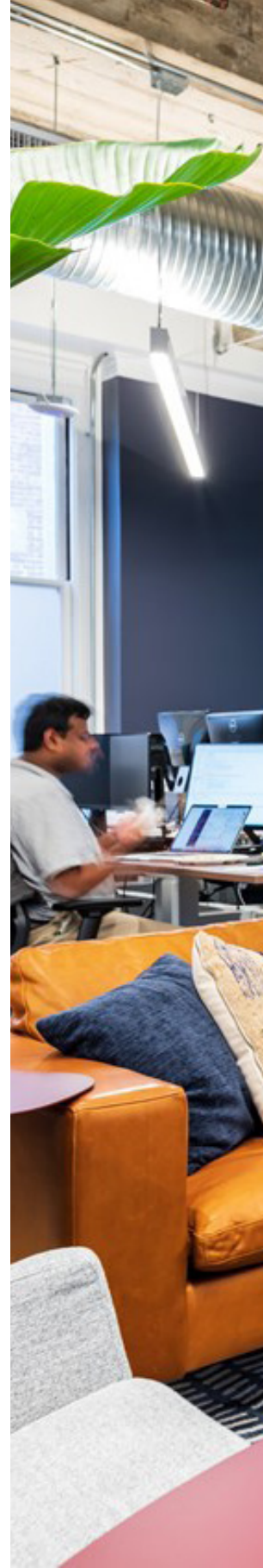
Rapidly address indoor air quality issues—perceived and actual—in existing buildings.

Immediate Interventions

- Conduct air quality assessments, testing, design and provide engineering guidance to improve ventilation effectiveness of existing HVAC systems, support long-term air-quality monitoring, and create air-quality awareness.
- Adapt controls and sequencing to accommodate and monitor additional filtration needs.
- Develop messaging and education for building occupants—dashboards, apps, situational cues—to reduce concerns regarding potential pathogen transmission.

WELL Building Reference Criteria

- Enhanced Air Quality.
- Ventilation Effectiveness & Enhanced Ventilation
- Air Quality Monitoring & Awareness
- Pollution Infiltration Management
- Air Filtration
- Microbe and Mold Control





EXIT

COMPOST & RECYCLE



Building Condition Assessments & Retro-commissioning

Pandemic-Related Priorities

Assess building systems and controls functionality, including air and water quality issues, in buildings that have been vacant for a period of time.

Immediate Interventions

- Building assessment, audits and retro-commissioning of HVAC, plumbing, lighting, IT, and fire protection systems to verify operational ability after a prolonged shutdown or reduction in occupancy-related loads.
- Controls testing.
- Building flush-out, if necessary (e.g. in event of damage or contamination).
- Full electrical system inspection - from outside transformers to each panel, breaker, circuit, switch, receptacle, low voltage, etc.
- Quality assurance procedures that focus on building enclosure components, including:
 - Implementation of materials that are durable and can easily be cleaned.
 - Installation of negative air pressure systems to prevent the spread of infection.
 - Inspection and removal of mold, asbestos, and lead.

WELL Building Reference Criteria

- Criteria noted above for air quality, ventilation effectiveness, water quality
- Thermal performance, zoning control, monitoring
- Electric light quality







117 Kendrick Street
Needham, Massachusetts



Industrial Hygiene

Our team of industrial safety specialists comprises electrical, mechanical, and structural engineers; certified industrial hygienists; certified safety specialists; microbiologists; toxicologists; and risk assessment specialists. We have experience in biological hazards, safe work practices, and infection control procedures (proper containment, personal protective equipment and disinfectant use). We collaborate with you to ensure safety requirements are satisfied with minimal impacts to production or maintenance activities. We work with

building owners and operators to identify the worksite hazards and evaluate the risk, and confirm that appropriate precautions and controls are being implemented. We know that mitigating harm to workers is key to bolstering human resilience in the face of disaster.

Pandemic Priorities:

Manage remediation and cleaning of contaminated workplaces and sites.

Immediate Actions:

- Site risk assessments
- Support during remediation and cleaning activities of contaminated sites, including training, emergency response planning, occupational exposure assessments, and indoor air quality assessments.
- Develop strategies for communicating complex and rapidly changing information on infection control to employees in a way that addresses their concern.

What is Industrial Hygiene?

Industrial Hygienists address the health and safety risks facing people in the built environment, from exposure to hazardous chemicals and contaminants, to emergency response planning and occupational injury or illness



Mental Health Design Support

Pandemic-Related Priorities

Mental health concerns arising from prolonged periods of physical and social distancing, fear of repeat infection and exposure to pathogens in public spaces and workplaces.

Immediate Interventions

- Building assessment to identify opportunities to enhance or implement evidence-based restorative design strategies and building features in existing buildings.
- Development and implementation of biophilic design principles proven to have an immediate, positive impact on mental health.
- Operational protocols and organizational policies that impact the mental health and wellbeing, safety

and security of occupants. Strategies are grounded in the principles of biophilic design principles.

- Consulting and facilitation of WELL Building Standard certification. WELL is the industry leading framework for addressing indoor environmental quality related to the prevention of contaminant sources and distribution, and mental health and organizational resiliency via design, operational preparedness, and policies.

WELL Building Reference Criteria

- Mental Health Promotion, Support, and Education.
- Access to Nature.
- Restorative Opportunities, Programming, and Spaces.

Project Spotlight

BCIT Health Science Centre

Burnaby, British Columbia

The Health Sciences Centre is the newest addition to the ever-developing BCIT campus. The building will be designed as a collaborative open space that brings together allied health programs together into a facility that allows them to learn and practice their skills together.

All educational facilities in British Columbia are required by the Ministry to meet LEED® Gold certification. But, BCIT wanted to challenge the status-quo and developed a more progressive approach to global sustainability. The HSC is pursuing WELL certification, a standard which seeks to support and advance human health and wellness—in direct support of the prime directive of the

program—as well as targeting a highly energy efficiency and low-carbon building footprint. Thermal comfort and indoor air quality are key design elements for the building, which focuses on the overall wellbeing of students, faculty, and staff. At every floor, building occupants can step outside – onto generous vegetated roof terraces - and gaze across campus. These opportunities to pause and step outdoors are central to the faculty's wellness philosophy and provide students with accessible moments of decompression in a learning environment which can often be stressful and overwhelming.





Lakehouse on 17th

Denver, Colorado

Lakehouse is a mixed use, for-sale residential building located prominently in Block One of the St. Anthony's Hospital redevelopment at the edge of Sloan's Lake in Denver. Currently in design, the 12-story condominium project will occupy a full city block with townhomes, retail and lobby spaces fully wrapping the at-grade and below-grade parking.

The project is pursuing a first-of-its-kind WELL Multifamily Building certification, and its focus on

health conscious design for residents and the community is expressed on the exterior façade in the form of large garden terraces and oversized balconies to allow for better views and connection back to the park and mountains. Along with Stantec's design for the St. Anthony's master plan and streetscape improvements, Lakehouse will be an example of Stantec's full service design capabilities – from urban design and landscape to architecture, interiors, and lighting.

Thought Leaders



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Rachel leads a team of professionals who are deeply committed to using design to help communities thrive now and in the future. Her team applies expertise in architecture, interior design and engineering to deliver high-performance buildings across six countries and three continents. Under her direction, we're working to redefine what it means to design spaces and places that not only improve building performance, but also drive health and wellbeing.



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Xero

Denver, Colorado



Design with
community in mind